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WORKING DOCUMENT

From:	General Secretariat of the Council
To:	Delegations
Subject:	Revised technical report on Member State results of the EUCO policy scenarios, by E3MLab & IIASA, December 2016

Delegations will find in Annex, for information and as received from the Commission services, the revised report related to national modelling results from PRIMES plus the macroeconomic modeling. The corrected report is also available on the DG ENER website.

Technical report on Member State results of the EUCO policy scenarios

By E3MLab & IIASA, December 2016

Please note that the version of this report available on the website before 27th January 2017 had reporting errors for EUCO+33, EUCO+35 and EUCO+40 scenarios.

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Introduction

In the context of the 2016 Impact Assessment work of the European Commission, two core policy scenarios, EUCO27 and EUCO30, were prepared by a consortium led by E3MLab¹, hosted at the National Technical University of Athens (NTUA), and including the International Institute for Applied System Analysis (IIASA). The two policy scenarios were built based on the EU Reference Scenario 2016² and designed to achieve the 2030 targets as agreed by the European Council³. The analysis of impacts of the two policy scenarios was the input⁴ to the Effort Sharing Regulation Impact Assessment⁵ and the Staff Working Document⁶ accompanying the Communication on low-emission mobility strategy published in July 2016, as well as the Impact Assessment accompanying

¹ <http://www.e3mlab.eu>

² https://ec.europa.eu/energy/sites/ener/files/documents/ref2016_report_final-web.pdf

³ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/145397.pdf

⁴ The scenario runs in this document are those used for the Effort Sharing Regulation Impact Assessment and the Impact Assessment accompanying the proposal for a revised Energy Efficiency Directive. Some minor technical changes were performed for sector-specific modelling in other analytical documents.

⁵ http://ec.europa.eu/clima/policies/effort/proposal/index_en.htm

⁶ http://ec.europa.eu/transport/themes/strategies/news/2016-07-20-decarbonisation_en

the proposal for recast of the Directive on the promotion of energy from renewable sources⁷ and the Impact Assessment accompanying the proposal for revised Energy Efficiency Directive⁸ published in November 2016⁹. Using two core scenarios ensures consistency of the proposals and increases the robustness of policy conclusions.

In addition, the EUCO+ scenarios and the EUCO3030 sensitivity were also prepared. The EUCO+ scenarios were presented only in the Impact Assessment accompanying the proposal for revised Energy Efficiency Directive. The EUCO3030 sensitivity was presented both in the Impact Assessment accompanying the proposal for revised Energy Efficiency Directive and the Impact Assessment accompanying the proposal for recast of the Directive on the promotion of energy from renewable sources.

Construction of scenarios

The two core policy scenarios used in all Impact Assessments reflect the 2030 targets agreed by the European Council:

- EUCO27: A scenario that achieves the at least 40% GHG emissions (compared to 1990) reduction target (with the split ETS/non-ETS reducing by 43%/30% in 2030 compared to 2005), a 27% share of renewables and a 27% energy efficiency target¹⁰.
- EUCO30: A scenario that achieves the at least 40% GHG emissions reduction target (with the split ETS/non-ETS reducing by 43%/30% in

⁷ <https://ec.europa.eu/energy/en/news/eu-leading-renewable-energy>

⁸ <https://ec.europa.eu/energy/en/news/commission-proposes-30-energy-efficiency-target>

⁹ The EUCO27 was also the starting point for the Impact Assessment accompanying the proposal for revised rules for the electricity market, risk preparedness and ACER.

¹⁰ Compared to 2007 baseline projections for the year 2030.

2030 compared to 2005), a 27% share of renewables and the energy efficiency target of 30%¹¹.

The EUCO+ scenarios (EUCO+33, EUCO+35 and EUCO+40) build on the EUCO30 scenario but as they explore more ambitious energy efficiency targets (33%, 35% and 40% respectively), they overshoot the European Council targets:

- for GHG emissions in ETS sectors, they achieve reductions above 44%;
- for GHG emissions in non-ETS sectors, they achieve reductions above 33%;
- for overall GHG emissions, they achieve reductions above 43%;
- for RES, they achieve a 28% share.

The EUCO3030 sensitivity builds on the EUCO30 scenario with 30% energy efficiency target but also achieves a 30% RES share. This scenario was built to analyse potential impacts of higher renewable deployment, in line with European Parliament positions. This sensitivity was simplified by assuming the same ETS carbon price as in the EUCO30 scenario. Overall, the GHG emissions reduction target in the ETS sector target is overshoot (48% reduction), the GHG emissions reduction in non-ETS sector target is overshoot (31% reduction) and the scenario achieves higher reduction in overall GHG emissions reduction (43%).

All scenarios also achieve the long term milestone to reduce GHG emissions domestically in the EU by 80%.

All scenarios reflect the current EU policy design when modelling the cost-effective achievement of 2030 targets. In doing so, they provide a basis for a coherent analysis of the impacts of energy efficiency and renewable targets, notably on non-ETS emissions at Member State level.

¹¹ Compared to 2007 baseline projections for the year 2030.

The approach followed for the modelling of all scenarios is to use a combination of policy instruments including carbon pricing to reduce emissions in the ETS and non-CO₂ emissions in the effort sharing sectors, standards, some specific transport policies, reduction of market barriers as well as broad incentives/obligations related to energy efficiency and renewables policies representing yet to be defined policies. All these policy instruments are applied in a coherent manner across all Member States, taking into account the current policy framework (as developed in the EU Reference scenario 2016). Most of these policies are varied in stringency/intensity between scenarios. While some policies are fully harmonised on the EU level (standards, carbon pricing) others take into account national conditions¹².

Overall, this reflects a cost-efficient achievement of GHG reductions in the context of different sets of EE and RES targets and existing policy mix.

Importantly, modelling is based on cost-effective achievement of targets and often simplified or aggregated representation of national and European policies and circumstances. National results should be read in this context and they do not prejudice the national plans to be developed in the governance process. It is also noted that distributional elements of proposals on the Effort Sharing Regulation or the EU ETS Revision are not taken into account in the scenarios.

Description of the modelling tools

The modelling suite used for quantification of all policy scenarios is the same one used for the elaboration of the EU Reference Scenario 2016, which is based on a series of interlinked models that combine technical and economic methodologies. The models have been peer-

reviewed and used for numerous publications in peer-reviewed journals.

The models produce detailed projections per sector and per country. They use detailed and updated databases. The calibration ensures continuity between historical data and projections.

The models used follow an approach which is based on micro-economics, they solve achieving a price-driven market equilibrium, and combine engineering with economic representations for all sectors. The energy system model PRIMES, central to the modelling suite, allows for mixed-complementarity to enable handling of multiple targets through dual variables (shadow prices) associated with targets constraints. This is for example useful for analysing simultaneously emissions reduction, energy efficiency and renewable energy targets. PRIMES is also able to incorporate technology dynamics (vintages) in order to represent in detail technology progress that influences emission formation and emission reduction.

The modelling suite is owned by a consortium led by E3MLab. While broad documentation, including model manuals is publicly available, the model codes are not available in the public domain.

Models outputs can only be claimed to represent the real world developments if respective, simplifying assumptions are held and all other conditions are unchanged. Consequently, each projection into the future is subject to significant uncertainties.

Description and role of each model

The PRIMES modelling suite was the core element of the modelling framework for transport, energy and CO₂ emission projections, whereas the GAINS model was used for non-CO₂ emission projections.

¹² For full description see EED Impact Assessment SWD (2016) 405 final.

A brief description of the models is provided below¹³.

PRIMES

The PRIMES model is an EU energy system model which simulates energy consumption and the energy supply system. It is a partial equilibrium modelling system that simulates an energy market equilibrium in the European Union and each of its Member States. This includes consistent EU carbon price trajectories.

Decision making behaviour is forward looking and grounded in micro economic theory. The model also represents in an explicit and detailed way energy demand, supply and emission abatement technologies, and includes technology vintages.

The core model is complemented by a set of sub-modules (i.e. the transport sector module and the biomass supply module). Industrial non-energy related CO₂ emissions are covered by a sub-module so that total CO₂ emissions can be projected. The model proceeds in five year steps and is for the years 2000 to 2010 calibrated to Eurostat data.

The PRIMES model is suitable for analysing the impacts of different sets of climate, energy and transport policies on the energy system as a whole, notably on the fuel mix, CO₂ emissions, investment needs and energy purchases as well as overall system costs. It is also suitable for analysing the interaction of policies on combating climate change, promotion of energy efficiency and renewables. Through the formalised linkages with GAINS non-CO₂ emission results and cost curves, it also covers total GHG emissions and total ESD sector emissions. It provides details on the Member State level, showing differential impacts across Member States.

PRIMES has been used for the analysis underpinning the Commission's proposal on the EU

¹³ Detailed model descriptions can be found at <http://ec.europa.eu/clima/policies/strategies/analysis/models>.

2020 targets (including energy efficiency), the Low Carbon Economy and Energy 2050 Roadmaps as well as the 2030 policy framework for climate and energy.

PRIMES is a private model and has been developed and is maintained by E3MLab/ICCS of National Technical University of Athens in the context of a series of research programmes co-financed by the European Commission.

The model has been successfully peer reviewed¹⁴, most recently in 2011¹⁵.

GAINS

The GAINS (Greenhouse gas and Air Pollution Information and Simulation) model is an integrated assessment model of air pollutant and greenhouse gas emissions and their interactions. GAINS brings together data on economic development, the structure, control potential and costs of emission sources and the formation and dispersion of pollutants in the atmosphere.

In addition to the projection and mitigation of greenhouse gas emissions at detailed sub-sectorial level, GAINS assesses air pollution impacts on human health from fine particulate matter and ground-level ozone, vegetation damage caused by ground-level ozone, the acidification of terrestrial and aquatic ecosystems and excess nitrogen deposition of soils.

Model uses include the projection of non-CO₂ GHG emissions and air pollutant emissions for EU Reference scenario and policy scenarios, calibrated to UNFCCC emission data as historical data source. This allows for an assessment, per Member State, of the (technical) options and emission potential for reducing non-CO₂ emissions. Health and environmental co-benefits of climate and energy

¹⁴ https://ec.europa.eu/clima/sites/clima/files/strategies/analysis/models/docs/primes_model_2013-2014_en.pdf

¹⁵ https://ec.europa.eu/energy/sites/ener/files/documents/sec_2011_1569_2.pdf

policies such as energy efficiency can also be assessed.

The GAINS model is accessible for expert users through a model interface¹⁶ and has been developed and is maintained by the International Institute of Applied Systems Analysis¹⁷. The underlying algorithms are described in publicly available literature. GAINS and its predecessor RAINS have been peer reviewed multiple times, in 2004, 2009 and 2011.

Detailed description of the policy scenarios

The EUCO and EUCO+ scenarios were developed by E3Mlab, with IIASA contributing non-CO₂ GHG mitigation cost curves, based on detailed guidance provided by the European Commission.

All scenarios start from the EU Reference scenario 2016 and add the targets and policies described in detail below. In addition, coordination policies are assumed, which enable long-term decarbonisation of the economy. Coordination policies are policies that ensure the necessary conditions materialise for decarbonisation in a 2050 perspective. They relate to infrastructure developments that will enable a larger exploitation of cost-effective options after 2020, such as grid developments as well as R&D and public acceptance that are expected to be needed to meet long term decarbonisation objectives. Coordination policies are fully costed in the scenarios.

In the EUCO27 scenario, energy efficiency delivers a large part of GHG emissions reduction in the effort-sharing sectors. This reduction is complemented by cost-effective reductions in non-CO₂ emissions across all sectors.

The EUCO30 scenario is constructed similarly to the EUCO27 scenario, but raises the ambition level of the specific energy efficiency policies, in a cost effective way. It implements the European Council guidance of having in mind 30% for the review of the Energy Efficiency target. A relevant implication is that more ambitious energy efficiency policies deliver all necessary reductions in the effort-sharing sectors, and no reductions in non-CO₂ sectors beyond Reference take place.

The tables below summarises the assumptions on climate, renewable energy and energy efficiency policies in the EUCO scenarios that have been modelled.

¹⁶ <http://gains.iiasa.ac.at/models/>

¹⁷ <http://www.iiasa.ac.at/>

Table 1. Specifications of the core policy scenarios EUCO27 and EUCO30

EUCO27	EUCO30
This scenarios is designed to meet all 2030 targets set by the European Council: • At least 40% GHG reduction (wrt 1990); • 43% GHG emissions reduction in ETS sectors (wrt 2005); • 30% GHG emissions reduction in effort sharing sectors (wrt 2005); • At least 27% share of RES in final energy consumption; • 27% primary energy consumption reduction (i.e. achieving 1369 Mtoe in 2030) compared to the PRIMES 2007 baseline (1887 Mtoe in 2030). This equals a reduction of primary energy consumption of 20% compared to historic 2005 primary energy consumption (1713 Mtoe in 2005).	This scenarios is designed to meet all 2030 targets set by the European Council: • At least 40% GHG reduction (wrt 1990); • 43% GHG emissions reduction in ETS sectors (wrt 2005); • 30% GHG emissions in effort sharing sectors (wrt 2005); • At least 27% share of RES in final energy consumption; • 30% primary energy consumption reduction (i.e. achieving 1321 Mtoe in 2030) compared to the PRIMES 2007 baseline (1887 Mtoe in 2030). This equals a reduction of primary energy consumption of 23% compared to historic 2005 primary energy consumption (1713 Mtoe in 2005).
Main policies and incentives additional to the EU Reference Scenario 2016:	
Revised EU ETS	
• Increase of ETS linear factor to 2.2% for 2021-30; • After 2030 cap trajectory to achieve 90% emission reduction in 2050 in line with Low Carbon Economy Roadmap.	• Increase of ETS linear factor to 2.2% for 2021-30; • After 2030 cap trajectory to achieve 90% emission reduction in 2050 in line with Low Carbon Economy Roadmap.
Renewables policies	
• Renewables policies necessary to achieve 27% target, reflected by RES values applied in the electricity, heating & cooling and transport sectors.	• Renewables policies necessary to achieve 27% target, reflected by RES values applied in the electricity, heating & cooling and transport sectors.
Energy efficiency policies: <i>Residential and services sector</i>	
• Increasing energy efficiency of buildings via increasing the rate of renovation and depth of renovation as well as behavioural change¹⁸. In this model, better implementation of EPBD and EED, continuation of Art 7 of EED and dedicated national policies are depicted by the application of energy efficiency values (EEVs); • Financial instruments and other financing measures on the European level facilitating	• Further increasing energy efficiency of buildings via increasing the rate and depth of renovation as well as behavioural change. In this model, better implementation of EPBD and EED, continuation of Art 7 of EED and dedicated national policies are depicted by the application of energy efficiency values (EEVs). EE values are increased compared to EUCO27; • Financial instruments and other financing measures on the European level facilitating

¹⁸ The behavioral indicator is calculated ex-post (after the model results) to indicate a rebound effect following refurbishment. The changes from Reference scenario are, however, negligible (for both EUCO27 and EUCO30).

access to capital for investment in thermal renovation of buildings. This, together with further labelling policies for heating equipment, is depicted by a reduction of behavioural discount rates for households from 12% to 11.5%; • More stringent (than in the Reference Scenario 2016) ecodesign standards banning the least efficient technologies.	access to capital for investment in thermal renovation of buildings. This, together with further labelling policies for heating equipment, is depicted by a reduction of behavioural discount rates for households from 12% to 11.5%; • More stringent (than in EUCO27) ecodesign standards banning the least efficient technologies; • Policies facilitating the uptake of heat pumps.
<i>Industry</i>	
• More stringent (than in Reference) ecodesign standards for motors.	• More stringent (compared to EUCO27) ecodesign standards for motors; • Application of energy efficiency values in industry (fraction of those applied in residential and services sector) leading to deeper energy efficiency effort and heat recovery
<i>Transport</i>	
• CO₂ standard for cars: 85g/km in 2025, 75g/km in 2030 and 25 gCO₂/km in 2050¹⁹; • CO₂ standards for vans: 135g/km in 2025; 120g/km in 2030; 60g/km in 2050²⁰; • 1.5% average annual energy efficiency improvements for new conventional and hybrid heavy duty vehicles (HGVs) between 2010-2030 and 0.7% between 2030-2050; • Measures on management of transport demand: - recently adopted measures for road freight, railways and inland navigation²¹; - gradual internalisation of transport local externalities²² as of 2025 and full internalisation by 2050 on the inter-urban network.	• CO₂ standard for cars: 80g/km in 2025, 70g/km in 2030 and 25 gCO₂/km in 2050; • CO₂ standards for vans: 130g/km in 2025; 110g/km in 2030; 60g/km in 2050; • 1.5% average annual energy efficiency improvement for new conventional and hybrid heavy goods vehicles (HGVs) between 2010-2030 and 0.7% between 2030-2050; • Measures on management of transport demand: - recently adopted measures for road freight, railways and inland navigation; - gradual internalisation of transport local externalities as of 2025 and full internalisation by 2050 on the inter-urban network; - modulation of infrastructure charges for HGVs according to CO₂ emissions leading to faster fleet renewal; - eco-driving; - deployment of Collaborative Intelligent Transport Systems.
<i>Non-CO₂ policies</i>	
• In 2030 carbon values of €0.05 applied to non-CO₂ GHG emissions in order to trigger	• No policy incentive until 2030.

¹⁹ On NEDC test-cycle.

²⁰ On NEDC test-cycle.

²¹ Directive on Weights & Dimensions, Fourth railway package, NAIADES II package, Ports Package.

²² Costs of infrastructure wear & tear, congestion, air pollution and noise.

cost-effective emissions reductions in these sectors; these measures correspond to all such measures available at zero costs. In 2025, a selection of such measures is assumed in order to gradually reduce emissions in the period up to 2030.	

The table below summarises the assumptions on specific energy efficiency policies in the EUCO+33, EUCO+35 and EUCO+40 scenarios that have been modelled. These scenarios build on the EUCO30 policy scenario and they are progressively scaled up in terms of ambition of energy efficiency policies. Consequently, only the differences that illustrate the increases level of ambition are listed²³.

Table 2. Specifications of the EUCO+33, EUCO+35, EUCO+40 and EUCO3030 policy scenarios

EUCO+33	As EUCO30 except: • 33% primary energy consumption reduction target is set (i.e. achieving 1260 Mtoe in 2030) compared to PRIMES 2007 baseline (1887 Mtoe in 2030). This equals a reduction of primary energy consumption of 26% compared to 2005 primary energy consumption (1713 Mtoe in 2005); • As a result some 2030 GHG targets set by the European Council are slightly overshoot: - 43% GHG reduction (wrt 1990); - 44% GHG reduction in ETS sectors (wrt 2005); - 34% GHG emissions reduction in Effort Sharing Decision sectors (wrt 2005); • Also, as a result of energy efficiency policies reducing demand, 28% RES share in final energy consumption is achieved. Main policies and incentives additional to EUCO30: <u>Energy efficiency policies:</u> <i>Residential and services sector</i> • Further increasing of energy efficiency values compared to EUCO30; • Financial instrument and other financing measures are made more widely available on the European level further facilitating access to capital for investment in thermal renovation of buildings and further labelling policies for heating equipment are pursued – depicted by reduction of the discount rates for households from 11.5% (in EUCO30) to 11%; • More ambitious policies (than in EUCO30) facilitating uptake of heat pumps. <i>Industry</i> • Increasing energy efficiency values in industry (fraction of those applied in residential and services sector) leading to deeper energy efficiency effort and heat recovery (compared to EUCO30); • Application of Best Available Techniques. <i>Transport</i> • Promotion of public procurement that provides effective incentives for purchasing cleaner vehicles (i.e. Revision of Clean Vehicles Directive); • Additional measures on management of transport demand:

²³ In EUCO+33, EUCO+35 and EUCO+40, the EU ETS is modelled with the linear factor and cap trajectory as in EUCO30

	- full internalisation of transport local externalities as of 2025 on the inter-urban network; - more ambitious deployment of Collaborative Intelligent Transport Systems and support for multimodal travel information; - promoting efficiency improvements and multimodality (e.g. review of Combined Transport Directive, review of Rail Freight Corridors Regulation, review of market access rules for road transport); - promotion of urban policies curbing pollutant emissions.
EUCO+35	As EUCO+33 except: • 35% primary energy consumption reduction target is set (i.e. achieving 1220 Mtoe in 2030) compared to PRIMES 2007 baseline (1887 Mtoe in 2030). This equals a reduction of primary energy consumption of 29% compared to 2005 primary energy consumption (1713 Mtoe in 2005); • As a result all 2030 GHG targets set by the European Council are slightly overshoot: - 44% GHG emissions reduction (wrt. 1990); - 44% GHG emissions reduction in ETS sectors (wrt 2005); - 36% GHG emissions reduction in Effort Sharing Decision sectors (wrt 2005); - also, as a result of energy efficiency policies reducing energy demand, 28% RES share in final energy consumption is achieved. Main policies and incentives additional to EUCO+33: <u>Energy efficiency policies:</u> <i>Residential and services sector</i> • Further increasing of energy efficiency values compared to EUCO+33; • More ambitious (than in EUCO+33) policies facilitating uptake of heat pumps. <i>Industry</i> • Increasing EEVs in industry (fraction of those applied in residential and services sector) leading to deeper energy efficiency effort and heat recovery (compared to EUCO+33); • Application of more advanced (compared to EUCO+33) Best Available Techniques. <i>Transport</i> • CO₂ standard for cars: 77g/km in 2025, 67g/km in 2030 and 25 gCO₂/km in 2050; • CO₂ standards for vans: 118g/km in 2025, 106g/km in 2030 and 60g/km in 2050; • Energy taxation aligning the minimum tax rates of petrol and gas oil used as motor fuel.
EUCO+40	As EUCO+35 except: • 40% primary energy consumption reduction target is set (i.e. achieving 1129 Mtoe in 2030) compared to PRIMES 2007 baseline (1887 Mtoe in 2030). This equals a reduction of primary energy consumption of 34% compared to 2005 primary energy consumption (1713 Mtoe in 2005); • As a result all 2030 GHG targets set by the European Council are significantly over - 47% GHG emissions reduction (wrt 1990) is achieved; - 48% GHG emissions reduction in ETS sectors (wrt 2005) is achieved; - 39% GHG emission reduction in Effort Sharing Decision sectors (wrt 2005) is achieved;

	- Also, as a result of energy efficiency policies reducing demand, 28% RES share in final energy consumption is achieved. Main policies and incentives additional to EUCO+35: <u>Energy efficiency policies:</u> <i>Residential and services sector</i> - Further increasing of energy efficiency values compared to EUCO+35; - Financial instrument and other financing measures are made more widely available on the European level lowering access to capital for investment in thermal renovation of buildings and further labelling policies for heating equipment are pursued – depicted by reduction of the discount rates for households from 11% (in EUCO35) to 10%; - More ambitious policies facilitating uptake of heat pumps. <i>Industry</i> - Further increasing EEVs in industry (fraction of those applied in residential and services sector) leading to deeper energy efficiency effort and heat recovery (compared to EUCO+35); - Application of more advanced (compared to EUCO+35) Best Available Techniques. <i>Transport</i> - CO₂ standard for cars: 74g/km in 2025, 64g/km in 2030 and 25 gCO₂/km in 2050²⁴; - CO₂ standards for vans: 106g/km in 2025, 97g/km in 2030; 60g/km in 2050²⁵; 1.6% average annual energy efficiency improvements for new conventional and hybrid heavy goods vehicles between 2010-2030 and 0.9% between 2030-2050.
EUCO3030	As EUCO30 except: 30% RES share in final energy consumption - This sensitivity used the same ETS carbon prices as the EUCO30 scenario. - As a result all 2030 GHG targets set by the European Council significantly overshoot: 43% GHG emissions reduction (wrt 1990) is achieved; 48% GHG emissions reduction in ETS sectors (wrt 2005) is achieved; 31% GHG emission reduction in Effort Sharing Decision sectors (wrt 2005) is achieved.

²⁴ The level of standards corresponds to the more ambitious edge of the range of standards for cars discussed for 2025 in recent trilogue discussions.

²⁵ The level of standards corresponds to the more ambitious edge of the range of standards for vans discussed for 2025 in recent trilogue discussions.

Appendix I.a: EUCO27 scenario - Summary energy balances, emissions and indicators

SUMMARY ENERGY BALANCE AND INDICATORS (A)								EU28: EUCO27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	484	492	500	505	510	513	516	0.3	0.2	0.1
GDP (in 000 M€13)	11231	12351	12895	13427	14550	15585	16682	1.4	1.2	1.4
Gross Inland Consumption (ktoe)	1726888	1824722	1760315	1666600	1642233	1566073	1486070	0.2	-0.7	-1.0
Solids	321292	318127	282994	277891	252240	214145	163830	-1.3	-1.1	-4.2
Oil	660025	677021	612954	579805	545441	507993	470396	-0.7	-1.2	-1.5
Natural gas	396144	445263	447394	387731	385744	372746	351086	1.2	-1.5	-0.9
Nuclear	243841	257516	236562	213043	188974	174739	186630	-0.3	-2.2	-0.1
Electricity	2030	1412	712	1761	1247	522	-42	-9.9	5.8	0.0
Renewable energy forms	103557	125383	179699	206370	268588	295928	314710	5.7	4.1	1.6
Energy Branch Consumption	86261	91922	86455	81622	75849	69019	63536	0.0	-1.3	-1.8
Non-Energy Uses	113106	116080	110230	106709	112514	115736	117001	-0.3	0.2	0.4
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	944996	903986	835772	758584	758712	727718	707183	-1.2	-1.0	-0.7
Solids	214596	196030	164837	148196	135633	118993	92518	-2.6	-1.9	-3.8
Oil	173901	135553	100408	78529	69713	57664	47563	-5.3	-3.6	-3.8
Natural gas	209436	190771	159948	118438	106369	92033	77796	-2.7	-4.0	-3.1
Nuclear	243841	257516	236562	213043	188974	174739	186630	-0.3	-2.2	-0.1
Renewable energy sources	103222	124116	174017	200378	258023	284289	302677	5.4	4.0	1.6
Hydro	30703	28859	32312	31167	32356	32376	32653	0.5	0.0	0.1
Biomass & Waste	65583	85060	119573	132613	164894	171283	170817	6.2	3.3	0.4
Wind	1913	6058	12836	23588	39823	48477	59490	21.0	12.0	4.1
Solar and others	436	827	3775	11001	17735	28372	34170	24.1	16.7	6.8
Geothermal	4587	5312	5521	2009	3214	3781	5547	1.9	-5.3	5.6
Net Imports (ktoe)	826349	979676	950004	962880	939723	896067	838816	1.5	-0.2	-1.1
Solids	98320	125363	111814	129695	116607	95152	71312	1.3	0.4	-4.8
Oil	532226	597491	558847	556140	531180	506052	477539	0.5	-0.5	-1.1
Crude oil and Feedstocks	514686	578712	537586	515210	493090	469609	445334	0.4	-0.9	-1.0
Oil products	17540	18779	21261	40930	38090	36443	32204	1.9	6.0	-1.7
Natural gas	193432	254054	278015	269292	280124	282703	278514	3.7	0.1	-0.1
Electricity	2030	1412	712	1761	1247	522	-42	-9.9	5.8	0.0
Import Dependency (%)	46.7	52.3	52.8	55.9	55.3	55.2	54.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3005548	3289991	3332773	3251285	3374657	3458653	3526071	1.0	0.1	0.4
Nuclear energy	944993	997699	916610	867402	772986	717746	775283	-0.3	-1.7	0.0
Solids	933855	965565	830393	846833	773114	646195	486822	-1.2	-0.7	-4.5
Oil (including refinery gas)	181296	142772	86899	34612	21898	17435	16081	-7.1	-12.9	-3.0
Gas (including derived gases)	514267	705961	798645	566060	589785	606844	565470	4.5	-3.0	-0.4
Biomass-waste	46401	87831	145814	188811	214402	264873	297633	12.1	3.9	3.3
Hydro (pumping excluded)	357072	312372	375785	362406	376231	376464	379683	0.5	0.0	0.1
Wind	22254	70455	149278	274278	463058	563687	691741	21.0	12.0	4.1
Solar	117	1458	22502	103798	154722	256492	303625	69.1	21.3	7.0
Geothermal and other renewables	5293	5878	6847	7086	8461	8916	9732	2.6	2.1	1.4
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	683507	739589	856628	965588	1031500	1076501	1131045	2.3	1.9	0.9
Nuclear energy	139595	136829	132606	120798	114204	105051	109905	-0.5	-1.5	-0.4
Renewable energy	128990	162194	238638	366738	475424	572686	652197	6.3	7.1	3.2
Hydro (pumping excluded)	115841	119177	122922	127470	131613	132231	133335	0.6	0.7	0.1
Wind	12730	40485	85701	141580	207326	237903	284013	21.0	9.2	3.2
Solar	178	2292	29774	97443	135999	201862	233813	66.9	16.4	5.6
Other renewables (tidal etc.)	241	240	241	244	486	690	1036	0.0	7.3	7.9
Thermal power	414922	440565	487384	478053	441873	398764	368943	1.6	-1.0	-1.8
of which cogeneration units	92439	107819	107430	109519	87949	92609	99202	1.5	-2.0	1.2
of which CCS units	0	0	0	0	833	1083	1883	0.0	0.0	8.5
Solids fired	194525	185353	180110	176559	146237	117717	99396	-0.8	-2.1	-3.8
Gas fired	123821	163333	215485	219628	211350	206670	200127	5.7	-0.2	-0.5
Oil fired	83315	74582	69295	53085	31445	20708	15304	-1.8	-7.6	-6.9
Biomass-waste fired	12657	16610	21719	27908	51798	52626	53073	5.5	9.1	0.2
Hydrogen plants	0	0	13	13	13	13	13	0.0	0.3	0.0
Geothermal heat	604	687	762	860	1030	1030	1030	2.4	3.1	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.5	48.1	42.1	36.5	35.6	35.2	34.3			
Efficiency of gross thermal power generation (%)	37.2	38.1	38.6	40.2	40.5	40.7	41.8			
% of gross electricity from CHP	11.3	12.5	12.6	12.2	11.4	11.3	11.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.2	0.2	0.4			
% of carbon free (RES, nuclear) gross electricity generation	45.8	44.9	48.5	55.5	59.0	63.3	69.7			
Fuel Inputs to Thermal Power Generation (ktoe)	388346	430899	416477	351894	340885	326195	282736	0.7	-2.0	-1.9
Solids	223608	229335	197694	200223	178394	148300	111129	-1.2	-1.0	-4.6
Oil (including refinery gas)	40868	32485	20566	7340	5031	4444	4024	-6.6	-13.1	-2.2
Gas (including derived gases)	105105	137667	151968	100069	99907	104271	95779	3.8	-4.1	-0.4
Biomass & Waste	14651	26766	41420	43077	55621	67248	69873	11.0	3.0	2.3
Geothermal heat	4114	4645	4828	1184	1932	1932	1932	1.6	-8.8	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1067893	1101207	997999	908897	859654	806983	778942	-0.7	-1.5	-1.0
Refineries	735106	756042	667606	609584	582987	550172	516355	-1.0	-1.3	-1.2
Biofuels and hydrogen production	709	3279	13086	16149	20796	19689	19657	33.8	4.7	-0.6
District heating	15899	17445	19101	16261	16212	15098	14989	1.9	-1.6	-0.8
Derived gases, cokeries etc.	316179	324441	298206	266904	239659	222024	227940	-0.6	-2.2	-0.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								EU28: EUQO27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	5964	6295	6449	6735	7157	7491	7858	0.8	1.0	0.9
Public road transport	549	541	528	546	569	585	599	-0.4	0.8	0.5
Private cars and motorcycles	4466	4721	4843	5001	5254	5418	5621	0.8	0.8	0.7
Rail	450	464	499	540	599	669	735	1.0	1.8	2.1
Aviation ⁽³⁾	458	528	539	608	692	773	854	1.7	2.5	2.1
Inland navigation	42	42	40	40	43	46	48	-0.3	0.6	1.1
Freight transport activity (Gtkm)	2295	2612	2556	2704	2980	3215	3455	1.1	1.5	1.5
Heavy goods and light commercial vehicles	1589	1853	1809	1915	2108	2257	2412	1.3	1.5	1.4
Rail	405	416	394	428	482	538	595	-0.3	2.0	2.1
Inland navigation	300	343	354	361	390	419	448	1.7	1.0	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	341525	364526	359402	358062	350701	335505	325598	0.5	-0.2	-0.7
Public road transport	8775	8725	8834	9040	9262	9264	9159	0.1	0.5	-0.1
Private cars and motorcycles	206270	212102	211618	204765	189963	171385	160963	0.3	-1.1	-1.6
Heavy goods and light commercial vehicles	67279	79273	76918	78507	81798	82695	83604	1.3	0.6	0.2
Rail	8168	7668	7129	7395	7899	8460	8895	-1.4	1.0	1.2
Aviation	44876	49959	49230	53303	56434	58058	57059	0.9	1.4	0.1
Inland navigation	6156	6798	5673	5051	5346	5643	5918	-0.8	-0.6	1.0
By transport activity										
Passenger transport	266294	275041	273897	271237	259967	243272	231898	0.3	-0.5	-1.1
Freight transport	75231	89484	85505	86825	90734	92234	93700	1.3	0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.8	1.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.9	3.7	4.6	6.1	6.4	6.6			
ENERGY EFFICIENCY										
Primary energy consumption	1613782	1708642	1650085	1559891	1529719	1450337	1369069	0.2	-0.8	-1.1
Final Energy Demand	1129427	1186370	1155879	1133457	1135379	1083696	1031401	0.2	-0.2	-1.0
by sector										
Industry	330627	327576	283437	284539	294657	283173	269235	-1.5	0.4	-0.9
Energy intensive industries	215899	215115	182721	182407	188555	178680	166333	-1.7	0.3	-1.2
Other industrial sectors	114728	112461	100716	102131	106102	104493	102903	-1.3	0.5	-0.3
Residential	288564	307594	313829	299747	299089	285114	267453	0.8	-0.5	-1.1
Tertiary	166677	183368	196770	188333	188042	176980	166179	1.7	-0.5	-1.2
Transport ⁽⁵⁾	343558	367831	361842	360838	353591	338430	328534	0.5	-0.2	-0.7
by fuel										
Solids	61977	53988	50512	47694	45589	40592	29441	-2.0	-1.0	-4.3
Oil	487065	502509	455207	437598	405007	369296	334648	-0.7	-1.2	-1.9
Gas	267588	281191	273366	265878	264120	248294	236734	0.2	-0.3	-1.1
Electricity	217644	239548	244471	241010	251769	259335	264991	1.2	0.3	0.5
Heat (from CHP and District Heating)	48044	52425	52875	49062	50695	50574	50781	1.4	-0.4	0.0
Renewable energy forms	49109	56708	79448	92104	117824	114143	112342	4.9	4.0	-0.5
Other	0	0	0	111	376	1463	2464	0.0	0.0	20.7
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	154	148	137	124	113	100	89	-1.2	-1.9	-2.3
Industry (Energy on Value added, index 2000=100)	100	93	80	77	75	68	62	-2.2	-0.6	-2.0
Residential (Energy on Private Income, index 2000=100)	100	97	94	87	79	70	61	-0.6	-1.7	-2.6
Tertiary (Energy on Value added, index 2000=100)	100	99	100	91	83	73	64	0.0	-1.8	-2.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	39	37	36	33	30	26	24	-0.8	-1.8	-2.3
Freight transport (toe/Mtkm)	33	34	33	32	30	29	27	0.2	-0.9	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	5326.4	5349.2	4875.0	4583.4	4278.8	3899.2	3411.9	-0.9	-1.3	-2.2
of which ETS sectors (2013 scope) GHG emissions		2501.2	2179.1	2016.7	1890.2	1706.5	1424.0		-1.4	-2.8
of which ESD sectors (2013 scope) GHG emissions		2847.9	2699.9	2566.7	2388.6	2192.7	1987.9		-1.2	-1.8
CO ₂ Emissions (energy related)	3992.2	4127.1	3782.3	3524.1	3284.7	2967.1	2579.7	-0.5	-1.4	-2.4
Power generation/District heating	1406.3	1486.8	1344.0	1177.9	1069.1	946.9	755.0	-0.5	-2.3	-3.4
Energy Branch	167.3	170.7	155.2	148.7	132.4	117.6	106.3	-0.7	-1.6	-2.2
Industry	691.0	634.1	511.8	505.5	493.4	429.9	357.8	-3.0	-0.4	-3.2
Residential	468.0	484.2	466.9	422.7	385.1	355.7	315.8	0.0	-1.9	-2.0
Tertiary	257.9	271.6	267.9	245.8	221.8	186.0	156.1	0.4	-1.9	-3.5
Transport	1001.7	1079.8	1036.6	1023.4	983.0	931.1	888.7	0.3	-0.5	-1.0
CO ₂ Emissions (non energy and non land use related)	277.3	282.4	237.3	238.8	248.0	243.0	216.9	-1.5	0.4	-1.3
Non-CO2 GHG emissions	1057.0	939.6	855.4	820.5	746.1	689.1	615.3	-2.1	-1.4	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	92.5	92.9	84.7	79.6	74.3	67.7	59.3	-0.9	-1.3	-2.2
Carbon intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.39	0.37	0.33	0.30	0.26	0.23	0.18	-1.6	-2.3	-3.8
Final energy demand (t of CO ₂ /toe)	2.14	2.08	1.98	1.94	1.83	1.76	1.67	-0.8	-0.7	-1.0
Industry	2.09	1.94	1.81	1.78	1.67	1.52	1.33	-1.5	-0.8	-2.3
Residential	1.62	1.57	1.49	1.41	1.29	1.25	1.18	-0.9	-1.4	-0.9
Tertiary	1.55	1.48	1.36	1.31	1.18	1.05	0.94	-1.3	-1.4	-2.3
Transport	2.92	2.94	2.86	2.84	2.78	2.75	2.71	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.5	8.7	12.4	16.1	21.1	24.1	27.0			
RES-H&C share	9.0	10.3	14.0	17.4	22.4	24.4	27.0			
RES-E share	13.3	14.8	19.7	28.2	35.5	42.0	47.3			
RES-T share (based on ILUC formula)	0.9	1.7	5.2	6.9	11.2	14.1	17.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	57	65	85	94	93	92	2.1	3.7	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	0	117	136	144	153	159	164	0.0	1.2	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1055.8	1282.5	1467.9	1505.9	1794.7	1932.2	2060.5	3.4	2.0	1.4
as % of GDP	9.4	10.4	11.4	11.2	12.3	12.4	12.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Austria : EU027				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	8	8	8	9	9	9	9	0.4	0.5	0.5		
GDP (in 000 ME13)	257	279	298	316	345	373	400	1.5	1.5	1.5		
Gross Inland Consumption (ktoe)	28996	34373	34604	32933	33457	32335	30700	1.8	-0.3	-0.9		
Solids	3597	4000	3365	3333	3406	2975	1965	-0.7	0.1	-5.4		
Oil	12173	14448	12833	12275	11736	10907	10122	0.5	-0.9	-1.5		
Natural gas	6519	8159	8215	6454	7664	7188	6882	2.3	-0.7	-1.1		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6		
Renewable energy forms	6825	7537	9991	9810	10211	10931	11428	3.9	0.2	1.1		
Energy Branch Consumption	1306	1566	1504	1593	1501	1369	1244	1.4	0.0	-1.9		
Non-Energy Uses	1718	1717	1850	2037	2202	2312	2359	0.7	1.8	0.7		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	9776	10012	12114	11277	11474	11397	11441	2.2	-0.5	0.0		
Solids	293	0	0	0	0	0	0	-51.8	-100.0	0.0		
Oil	1092	1003	1036	813	673	343	111	-0.5	-4.2	-16.5		
Natural gas	1533	1404	1486	1270	1139	666	449	-0.3	-2.6	-8.9		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	6859	7605	9592	9195	9661	10388	10880	3.4	0.1	1.2		
Hydro	3597	3154	3299	3527	3698	3811	3845	-0.9	1.1	0.4		
Biomass & Waste	3169	4214	5914	5018	5160	5182	4920	6.4	-1.4	-0.5		
Wind	6	114	178	340	382	527	1054	40.8	8.0	10.7		
Solar and others	63	93	168	260	358	782	933	10.3	7.9	10.0		
Geothermal	25	30	35	49	64	85	128	3.4	6.3	7.2		
Net Imports (ktoe)	18970	24517	21577	21656	21963	20938	19260	1.3	0.2	-1.3		
Solids	3019	3971	3358	3333	3406	2975	1965	1.1	0.1	-5.4		
Oil	10850	13204	11510	11462	11062	10564	10010	0.6	-0.4	-1.0		
Crude oil and Feedstocks	7791	8100	7011	8001	7815	7670	7423	-1.1	1.1	-0.5		
Oil products	3059	5104	4499	3461	3248	2894	2587	3.9	-3.2	-2.2		
Natural gas	5253	7153	6115	5184	6525	6522	6433	1.5	0.7	-0.1		
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6		
Import Dependency (%)	65.4	71.3	62.4	65.8	65.7	64.8	62.7					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	59874	64066	67933	59617	71974	75888	78834	1.3	0.6	0.9		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	5727	7165	4918	4194	4942	3242	46	-1.5	0.0	-37.4		
Oil (including refinery gas)	1702	1641	1273	208	215	71	67	-2.9	-16.3	-11.0		
Gas (including derived gases)	8864	14347	16137	6774	14624	12170	11250	6.2	-1.0	-2.6		
Biomass-waste	1675	2882	5088	2592	3568	4469	4028	11.8	-3.5	1.2		
Hydro (pumping excluded)	41836	36677	38363	41009	42995	44320	44710	-0.9	1.1	0.4		
Wind	67	1331	2064	3958	4443	6133	12254	40.9	8.0	10.7		
Solar	3	21	88	871	1174	5472	6467	38.2	29.5	18.6		
Geothermal and other renewables	0	2	2	11	11	11	11	0.0	21.5	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	17911	19092	21503	22989	23337	27387	30191	1.8	0.8	2.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	11668	12440	13841	16437	17371	21927	25055	1.7	2.3	3.7		
Hydro (pumping excluded)	11613	11632	12706	13149	13699	13702	13797	0.9	0.8	0.1		
Wind	50	778	981	2412	2583	3337	5493	34.7	10.2	7.8		
Solar	5	30	154	876	1090	4887	5766	40.9	21.6	18.1		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	6243	6652	7662	6552	5966	5460	5135	2.1	-2.5	-1.5		
of which cogeneration units	2632	3253	3157	3003	3063	2963	2720	1.8	-0.3	-1.2		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	1887	1660	1359	873	804	778	778	-3.2	-5.1	-0.3		
Gas fired	2816	3389	4512	4074	3567	3335	3009	4.8	-2.3	-1.7		
Oil fired	1260	1145	1139	971	815	483	423	-1.0	-3.3	-6.4		
Biomass-waste fired	280	456	650	633	778	862	923	8.8	1.8	1.7		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	2	1	2	2	2	2	0.0	7.2	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	36.8	36.7	35.1	28.4	33.9	30.6	29.0					
Efficiency of gross thermal power generation (%)	39.9	41.3	41.3	39.7	43.9	39.4	38.3					
% of gross electricity from CHP	10.4	15.4	15.4	17.7	22.9	18.0	16.0					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	72.8	63.9	67.1	81.3	72.5	79.6	85.6					
Fuel Inputs to Thermal Power Generation (ktoe)	3877	5421	5713	2988	4575	4353	3462	4.0	-2.2	-2.7		
Solids	1216	1507	1019	908	1072	729	14	-1.8	0.5	-35.3		
Oil (including refinery gas)	278	262	176	60	69	23	22	-4.5	-8.9	-10.8		
Gas (including derived gases)	1961	2836	2868	1406	2589	2399	2231	3.9	-1.0	-1.5		
Biomass & Waste	421	814	1649	604	834	1192	1186	14.6	-6.6	3.6		
Geothermal heat	0	2	1	10	10	10	10	0.0	23.4	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	11349	11946	11472	12554	11809	11073	10356	0.1	0.3	-1.3		
Refineries	8865	9275	8040	9141	8778	8263	7744	-1.0	0.9	-1.2		
Biofuels and hydrogen production	16	50	495	571	444	424	425	41.2	-1.1	-0.5		
District heating	558	613	869	678	635	601	584	4.5	-3.1	-0.8		
Derived gases, cokeries etc.	1910	2009	2068	2164	1952	1785	1604	0.8	-0.6	-1.9		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Austria: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	96	101	107	112	119	126	131	1.1	1.1	1.0
Public road transport	9	9	10	10	10	11	11	0.4	0.7	0.6
Private cars and motorcycles	68	72	75	78	80	84	87	1.0	0.7	0.7
Rail	12	13	15	16	18	20	22	1.9	2.2	1.7
Aviation ⁽³⁾	6	7	8	9	10	11	12	2.0	2.6	2.2
Inland navigation	0	0	0	0	0	0	0	-0.6	0.6	1.2
Freight transport activity (Gtkm)	50	54	61	65	70	75	80	2.0	1.3	1.3
Heavy goods and light commercial vehicles	31	33	39	43	45	48	51	2.3	1.5	1.2
Rail	17	19	20	20	22	24	26	1.8	0.9	1.6
Inland navigation	2	2	2	2	3	3	3	-0.3	0.9	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	6787	8815	8507	8480	8038	7569	7370	2.3	-0.6	-0.9
Public road transport	92	97	101	103	106	107	107	0.9	0.5	0.1
Private cars and motorcycles	4520	5616	5043	4708	4265	3814	3572	1.1	-1.7	-1.8
Heavy goods and light commercial vehicles	1290	2135	2387	2622	2605	2549	2552	6.3	0.9	-0.2
Rail	267	242	247	249	265	274	279	-0.8	0.7	0.5
Aviation	591	679	707	776	773	800	834	1.8	0.9	0.8
Inland navigation	28	45	22	23	24	26	27	-2.1	0.8	1.0
By transport activity										
Passenger transport	5260	6438	5894	5634	5197	4777	4570	1.1	-1.3	-1.3
Freight transport	1527	2377	2613	2846	2841	2793	2800	5.5	0.8	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	6.0	6.9	5.8	6.1	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	27277	32657	32754	30896	31254	30023	28342	1.8	-0.5	-1.0
Final Energy Demand	23692	28185	28423	28425	28041	26990	25926	1.8	-0.1	-0.8
by sector										
Industry	7283	8825	9195	9724	9936	9622	9377	2.4	0.8	-0.6
Energy intensive industries	5321	6148	6212	6588	6643	6322	6081	1.6	0.7	-0.9
Other industrial sectors	1962	2676	2983	3136	3293	3300	3296	4.3	1.0	0.0
Residential	6332	6828	6797	6669	6518	6299	5854	0.7	-0.4	-1.1
Tertiary	3070	3449	3686	3285	3264	3218	3045	1.8	-1.2	-0.7
Transport ⁽⁵⁾	7007	9082	8744	8746	8323	7851	7650	2.2	-0.5	-0.8
by fuel										
Solids	1403	1466	1169	1135	1186	1228	991	-1.8	0.2	-1.8
Oil	9818	12084	10539	9934	9336	8504	7768	0.7	-1.2	-1.8
Gas	4464	5125	5259	5142	5121	4740	4558	1.7	-0.3	-1.2
Electricity	4432	5013	5358	5436	5801	6001	6238	1.9	0.8	0.7
Heat (from CHP and District Heating)	1020	1353	1832	2008	1901	1984	1955	6.0	0.4	0.3
Renewable energy forms	2555	3145	4266	4769	4690	4511	4380	5.3	1.0	-0.7
Other	0	0	0	2	5	21	37	0.0	0.0	21.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	113	123	116	104	97	87	77	0.3	-1.8	-2.3
Industry (Energy on Value added, index 2000=100)	100	111	108	109	104	95	87	0.8	-0.4	-1.8
Residential (Energy on Private Income, index 2000=100)	100	100	93	85	77	68	59	-0.7	-1.9	-2.6
Tertiary (Energy on Value added, index 2000=100)	100	103	101	85	77	69	61	0.1	-2.7	-2.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	54	47	43	37	31	29	0.1	-2.6	-2.5
Freight transport (toe/Mtkm)	30	44	43	44	41	37	35	3.4	-0.5	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.1	96.8	89.0	82.8	82.2	75.1	66.0	0.3	-0.8	-2.2
of which ETS sectors (2013 scope) GHG emissions	38.3	35.2	32.7	32.7	34.4	30.5	25.3		-0.3	-3.0
of which ESD sectors (2013 scope) GHG emissions	58.4	58.4	53.7	50.0	47.9	44.5	40.6		-1.2	-1.6
CO2 Emissions (energy related)	65.6	78.6	71.5	65.7	65.8	59.4	51.6	0.9	-0.8	-2.4
Power generation/District heating	12.5	17.0	15.1	11.2	14.1	12.4	9.0	1.9	-0.7	-4.3
Energy Branch	3.3	3.7	3.8	4.1	3.6	3.2	2.9	1.3	-0.3	-2.3
Industry	16.8	18.5	17.6	17.8	17.2	15.2	13.1	0.5	-0.3	-2.7
Residential	8.9	8.6	7.7	6.8	6.4	5.7	5.0	-1.5	-1.9	-2.4
Tertiary	3.9	4.4	3.2	2.0	1.8	1.6	1.2	-1.8	-5.8	-3.8
Transport	20.2	26.5	24.1	23.9	22.8	21.3	20.5	1.8	-0.5	-1.1
CO2 Emissions (non energy and non land use related)	4.6	5.0	5.4	5.3	5.3	5.2	5.2	1.6	-0.3	-0.3
Non-CO2 GHG emissions	15.8	13.2	12.1	11.7	11.1	10.5	9.2	-2.7	-0.8	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	108.2	121.6	111.8	104.0	103.3	94.3	82.9	0.3	-0.8	-2.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.17	0.21	0.17	0.13	0.15	0.12	0.09	-0.3	-1.2	-5.0
Final energy demand (t of CO2/toe)	2.10	2.06	1.85	1.77	1.72	1.62	1.53	-1.3	-0.7	-1.1
Industry	2.31	2.10	1.92	1.83	1.73	1.58	1.39	-1.9	-1.0	-2.1
Residential	1.41	1.26	1.13	1.02	0.98	0.91	0.85	-2.2	-1.4	-1.4
Tertiary	1.26	1.27	0.88	0.60	0.54	0.49	0.40	-3.6	-4.7	-3.1
Transport	2.88	2.91	2.76	2.73	2.74	2.71	2.68	-0.4	0.0	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	24.6	23.6	30.5	34.5	35.2	37.8	41.0			
RES-H&C share	20.4	22.0	29.7	37.0	36.4	35.8	37.7			
RES-E share	66.9	62.4	65.7	68.0	68.4	76.6	83.0			
RES-T share (based on ILUC formula)	6.8	4.8	10.9	11.4	12.6	15.9	20.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	68	68	69	58	65	72	75	0.0	-0.5	1.4
Average Price of Electricity in Final demand sectors (€13/MWh)	130	115	143	131	140	150	151	0.9	-0.2	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	21.8	28.6	32.9	32.2	38.6	42.6	45.5	4.2	1.6	1.7
as % of GDP	8.5	10.2	11.0	10.2	11.2	11.4	11.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Belgium: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	10	10	11	11	12	12	13	0.8	0.9	0.9		
GDP (in 000 ME13)	324	350	372	385	414	443	479	1.4	1.1	1.5		
Gross Inland Consumption (ktoe)	59302	59008	61346	54681	54727	50166	47606	0.3	-1.1	-1.4		
Solids	7922	5081	3673	3205	2006	2009	1669	-7.4	-5.9	-1.8		
Oil	24136	24721	24699	23472	21993	21085	19996	0.2	-1.2	-0.9		
Natural gas	13369	14728	16999	14941	14149	16853	16322	2.4	-1.8	1.4		
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0		
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5		
Renewable energy forms	1081	1658	3560	4242	6207	6809	7165	12.7	5.7	1.4		
Energy Branch Consumption	2366	2403	2246	2406	2216	2112	2031	-0.5	-0.1	-0.9		
Non-Energy Uses	6739	7516	8541	8464	8523	8597	8536	2.4	0.0	0.0		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	13607	13718	15356	10620	14086	7337	6467	1.2	-0.9	-7.5		
Solids	206	57	0	0	0	0	0	-97.1	-100.0	0.0		
Oil	0	6	-7	-14	-14	-14	-13	1692.2	7.2	-0.3		
Natural gas	2	0	0	0	0	0	0	0.0	-100.0	0.0		
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0		
Renewable energy sources	977	1377	2996	3725	5468	6110	6480	11.9	6.2	1.7		
Hydro	40	25	27	31	32	45	49	-3.8	1.7	4.5		
Biomass & Waste	931	1327	2793	2944	3957	3948	4014	11.6	3.5	0.1		
Wind	1	20	111	431	1032	1487	1633	54.9	25.0	4.7		
Solar and others	1	3	60	313	440	618	763	50.7	22.0	5.6		
Geothermal	3	3	4	6	7	12	22	3.0	5.7	11.3		
Net Imports (ktoe)	50502	53396	53753	52611	49720	52253	50928	0.6	-0.8	0.2		
Solids	7220	5150	3591	3205	2006	2009	1669	-6.7	-5.7	-1.8		
Oil	29527	32605	32752	32035	31039	30066	28595	1.0	-0.5	-0.8		
Crude oil and Feedstocks	34177	32251	31004	27409	27194	26879	26291	-1.0	-1.3	-0.3		
Oil products	-4650	354	1749	4626	3845	3188	2304	0.0	8.2	-5.0		
Natural gas	13278	14817	16791	14941	14195	17309	17526	2.4	-1.7	2.1		
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5		
Import Dependency (%)	78.1	80.1	78.0	83.2	77.9	87.7	88.7					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	82773	85709	93764	69728	73990	69735	70247	1.3	-2.3	-0.5		
Nuclear energy	48157	47595	47944	28180	35207	5071	0	0.0	-3.0	-100.0		
Solids	12916	8199	4190	2975	195	288	42	-10.6	-26.4	-14.3		
Oil (including refinery gas)	797	1740	406	96	674	696	716	-6.5	5.2	0.6		
Gas (including derived gases)	19091	25143	33178	23812	18283	36048	37851	5.7	-5.8	7.5		
Biomass-waste	1336	2516	5882	5914	3251	4069	5351	16.0	-5.8	5.1		
Hydro (pumping excluded)	460	288	312	365	368	522	571	-3.8	1.7	4.5		
Wind	16	227	1292	5009	11998	17289	18984	55.1	25.0	4.7		
Solar	0	1	560	3376	4013	5750	6732	0.0	21.8	5.3		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	14674	14867	17071	18515	20998	22695	24384	1.5	2.1	1.5		
Nuclear energy	5921	5921	5921	3907	5055	3041	0	0.0	-1.6	-100.0		
Renewable energy	117	274	1934	5560	8494	11810	13389	32.4	15.9	4.7		
Hydro (pumping excluded)	103	105	118	119	119	163	177	1.4	0.1	4.1		
Wind	14	167	912	2229	4558	6204	6860	51.8	17.5	4.2		
Solar	0	2	904	3212	3818	5443	6352	0.0	15.5	5.2		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	8636	8672	9216	9048	7449	7844	10995	0.7	-2.1	4.0		
of which cogeneration units	1112	1893	2575	1552	657	1468	1263	8.8	-12.8	6.8		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	2290	1450	1184	825	43	43	16	-6.4	-28.2	-9.7		
Gas fired	4392	5201	6468	6799	6270	6778	9937	3.9	-0.3	4.7		
Oil fired	1581	1494	836	646	266	246	215	-6.2	-10.8	-2.1		
Biomass-waste fired	373	527	727	777	869	778	828	6.9	1.8	-0.5		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	61.5	63.0	60.3	41.2	38.8	34.3	32.3					
Efficiency of gross thermal power generation (%)	41.4	42.1	44.8	44.7	44.4	46.9	51.5					
% of gross electricity from CHP	6.5	8.5	16.0	17.4	8.1	17.4	17.6					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	60.4	59.1	59.7	61.4	74.1	46.9	45.0					
Fuel Inputs to Thermal Power Generation (ktoe)	7090	7677	8386	6315	4343	7530	7344	1.7	-6.4	5.4		
Solids	2629	1833	936	761	47	66	9	-9.8	-25.8	-15.8		
Oil (including refinery gas)	180	411	57	29	223	230	237	-10.8	14.6	0.6		
Gas (including derived gases)	3790	4612	5671	4111	2951	5931	5561	4.1	-6.3	6.5		
Biomass & Waste	492	821	1722	1414	1122	1303	1538	13.4	-4.2	3.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	54711	52964	50595	41255	42569	34987	32946	-0.8	-1.7	-2.5		
Refineries	38602	37483	35454	31882	31696	31396	30795	-0.8	-1.1	-0.3		
Biofuels and hydrogen production	0	0	352	341	871	801	770	0.0	9.5	-1.2		
District heating	45	29	6	15	19	17	18	-11.8	11.8	-0.2		
Derived gases, cokeries etc.	16064	15452	14782	9016	9983	2773	1363	-0.8	-3.8	-18.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Belgium: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	137	145	154	158	169	176	184	1.2	1.0	0.9
Public road transport	13	18	17	18	18	18	18	1.8	2.7	0.2
Private cars and motorcycles	107	109	115	117	126	130	134	0.8	0.9	0.6
Rail	9	10	12	12	13	15	16	3.1	1.2	2.3
Aviation ⁽³⁾	8	8	9	10	12	13	15	0.9	2.5	2.5
Inland navigation	0	0	0	0	0	0	0	-0.3	1.4	1.4
Freight transport activity (Gtkm)	70	65	63	66	76	84	92	-1.1	1.8	2.0
Heavy goods and light commercial vehicles	55	48	46	47	54	60	64	-1.7	1.5	1.8
Rail	8	8	7	8	9	11	13	-0.3	2.1	3.4
Inland navigation	8	9	9	12	13	14	15	2.2	2.9	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	9747	9972	10593	10179	10007	9858	9807	0.8	-0.6	-0.2
Public road transport	158	204	292	290	287	280	271	6.4	-0.2	-0.6
Private cars and motorcycles	4815	4463	5177	4757	4258	3852	3669	0.7	-1.9	-1.5
Heavy goods and light commercial vehicles	2857	3618	3413	3397	3635	3752	3847	1.8	0.6	0.6
Rail	184	186	177	181	210	237	262	-0.4	1.7	2.2
Aviation	1530	1281	1382	1389	1442	1547	1550	-1.0	0.4	0.7
Inland navigation	204	219	152	164	176	189	208	-2.9	1.5	1.7
By transport activity										
Passenger transport	6608	6016	6932	6518	6076	5778	5596	0.5	-1.3	-0.8
Freight transport	3139	3956	3661	3660	3931	4080	4210	1.6	0.7	0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.8	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	3.4	3.4	9.1	9.2	9.1			
ENERGY EFFICIENCY										
Primary energy consumption	52563	51491	52805	46217	46204	41569	39070	0.0	-1.3	-1.7
Final Energy Demand	37766	36705	37534	36239	36443	35199	34083	-0.1	-0.3	-0.7
by sector										
Industry	14218	11775	11688	11055	11231	10689	10219	-1.9	-0.4	-0.9
Energy intensive industries	10700	9088	8641	8013	8027	7674	7282	-2.1	-0.7	-1.0
Other industrial sectors	3518	2686	3047	3042	3204	3015	2936	-1.4	0.5	-0.9
Residential	8974	9299	9266	9230	9329	9182	8606	0.3	0.1	-0.8
Tertiary	4827	5658	5982	5722	5825	5417	5400	2.2	-0.3	-0.8
Transport ⁽⁵⁾	9747	9973	10598	10232	10058	9911	9859	0.8	-0.5	-0.2
by fuel										
Solids	3403	2019	1621	1505	1357	1264	1030	-7.2	-1.8	-2.7
Oil	16661	16586	15314	14610	13007	12090	11153	-0.8	-1.6	-1.5
Gas	10010	10009	11147	10465	10567	10329	10104	1.1	-0.5	-0.4
Electricity	6667	6896	7163	7033	7247	7384	7705	0.7	0.1	0.6
Heat (from CHP and District Heating)	492	428	640	567	607	670	733	2.7	-0.5	1.9
Renewable energy forms	533	767	1650	2058	3635	3375	3240	12.0	8.2	-1.1
Other	0	0	0	3	23	89	119	0.0	0.0	18.0
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	183	168	165	142	132	113	99	-1.0	-2.2	-2.8
Industry (Energy on Value added, index 2000=100)	100	82	88	81	77	69	62	-1.3	-1.3	-2.2
Residential (Energy on Private Income, index 2000=100)	100	98	90	84	78	71	61	-1.1	-1.4	-2.5
Tertiary (Energy on Value added, index 2000=100)	100	107	105	97	91	79	72	0.5	-1.4	-2.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	43	38	39	35	30	27	25	-1.1	-2.5	-1.9
Freight transport (toe/Mtkm)	45	61	58	55	52	48	46	2.6	-1.1	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	154.0	148.3	136.1	127.3	112.1	114.1	104.6	-1.2	-1.9	-0.7
of which ETS sectors (2013 scope) GHG emissions	70.1	58.6	52.1	42.8	42.8	48.9	44.5		-3.1	0.4
of which ESD sectors (2013 scope) GHG emissions	78.3	77.6	75.2	69.3	65.2	60.1			-1.1	-1.4
CO2 Emissions (energy related)	122.7	114.2	106.4	97.8	84.7	88.7	82.8	-1.4	-2.3	-0.2
Power generation/District heating	25.1	24.0	20.4	15.8	9.0	17.8	16.7	-2.0	-7.9	6.4
Energy Branch	4.9	4.4	3.9	4.6	4.0	3.8	3.6	-2.3	0.4	-1.0
Industry	34.5	24.8	22.1	19.7	18.4	16.0	14.1	-4.4	-1.8	-2.6
Residential	20.3	20.5	18.9	18.4	16.9	16.5	14.9	-0.7	-1.1	-1.2
Tertiary	8.7	10.6	10.2	9.5	9.0	7.9	7.3	1.6	-1.3	-2.1
Transport	29.2	29.9	30.9	29.7	27.4	26.8	26.3	0.6	-1.2	-0.4
CO2 Emissions (non energy and non land use related)	8.1	13.3	9.5	10.2	9.9	9.1	7.6	1.6	0.4	-2.5
Non-CO2 GHG emissions	23.2	20.9	20.2	19.3	17.5	16.2	14.1	-1.3	-1.4	-2.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.5	98.7	90.6	84.7	74.6	75.9	69.6	-1.2	-1.9	-0.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.28	0.26	0.20	0.20	0.11	0.22	0.21	-3.5	-5.8	6.6
Final energy demand (t of CO2/toe)	2.45	2.34	2.19	2.14	1.97	1.91	1.83	-1.1	-1.1	-0.7
Industry	2.43	2.11	1.89	1.79	1.63	1.50	1.38	-2.5	-1.4	-1.7
Residential	2.26	2.21	2.04	2.00	1.81	1.80	1.73	-1.0	-1.2	-0.4
Tertiary	1.80	1.87	1.71	1.66	1.55	1.45	1.35	-0.5	-1.0	-1.4
Transport	2.99	3.00	2.91	2.91	2.72	2.70	2.66	-0.3	-0.7	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	5.6	8.6	14.0	15.9	17.1			
RES-H&C share	1.9	3.4	6.1	8.5	13.9	13.7	14.2			
RES-E share	1.1	2.4	7.1	15.2	20.0	28.2	31.2			
RES-T share (based on ILUC formula)	0.0	0.1	4.1	4.6	10.1	12.9	16.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	49	59	86	105	117	115	3.2	6.0	0.9
Average Price of Electricity in Final demand sectors (€13/MWh)	128	116	139	141	146	157	162	0.9	0.5	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	32.9	35.9	48.6	47.3	58.9	64.5	70.1	4.0	1.9	1.8
as % of GDP	10.2	10.3	13.1	12.3	14.2	14.5	14.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Bulgaria: EUCo27			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	8	8	7	7	7	7	6	-1.0	-0.7	-0.7	
GDP (in 000 ME13)	25	33	38	40	45	50	53	4.1	1.8	1.7	
Gross Inland Consumption (ktoe)	18523	19754	17770	16469	16346	15466	14893	-0.4	-0.8	-0.9	
Solids	6433	6895	6887	5983	5649	4501	3728	0.7	-2.0	-4.1	
Oil	4068	4725	3888	3732	3544	3459	3290	-0.5	-0.9	-0.7	
Natural gas	2931	2804	2300	2118	2120	1852	1829	-2.4	-0.8	-1.5	
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0	
Electricity	-397	-652	-726	-1011	-914	-916	-852	6.2	2.3	-0.7	
Renewable energy forms	788	1156	1465	1870	2170	2794	3122	6.4	4.0	3.7	
Energy Branch Consumption	905	911	1032	907	859	757	697	1.3	-1.8	-2.1	
Non-Energy Uses	980	851	422	427	498	563	604	-8.1	1.7	2.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	9867	10629	10531	9856	10691	10355	10180	0.7	0.2	-0.5	
Solids	4295	4178	4942	4055	4632	3661	3149	1.4	-0.6	-3.8	
Oil	68	58	61	17	20	25	29	-1.2	-10.7	3.9	
Natural gas	12	384	59	125	128	129	139	17.0	8.0	0.8	
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0	
Renewable energy sources	792	1182	1512	1883	2135	2763	3087	6.7	3.5	3.8	
Hydro	230	373	435	349	373	364	363	6.6	-1.5	-0.3	
Biomass & Waste	562	776	975	1283	1485	1552	1584	5.7	4.3	0.6	
Wind	0	0	59	98	102	424	628	0.0	5.7	20.0	
Solar and others	0	0	12	118	140	390	480	0.0	28.4	13.1	
Geothermal	0	33	33	34	36	33	33	0.0	0.9	-0.9	
Net Imports (ktoe)	8544	9276	7075	6717	5801	5272	4885	-1.9	-2.0	-1.7	
Solids	2258	2553	1700	1928	1017	840	579	-2.8	-5.0	-5.5	
Oil	3944	4943	4025	3820	3670	3592	3422	0.2	-0.9	-0.7	
Crude oil and Feedstocks	5228	6145	5916	6308	5992	5724	5411	1.2	0.1	-1.0	
Oil products	-1284	-1202	-1891	-2489	-2322	-2132	-1989	3.9	2.1	-1.5	
Natural gas	2742	2458	2131	1993	1994	1725	1702	-2.5	-0.7	-1.6	
Electricity	-397	-652	-726	-1011	-914	-916	-852	6.2	2.3	-0.7	
Import Dependency (%)	46.0	46.7	39.6	40.5	35.2	33.7	32.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	40646	43972	46017	48844	48731	48560	48362	1.2	0.6	-0.1	
Nuclear energy	18178	18653	15249	15662	15326	15326	15326	-1.7	0.1	0.0	
Solids	16941	18458	22606	23316	22636	17844	14656	2.9	0.0	-4.3	
Oil (including refinery gas)	661	606	393	441	70	0	0	-5.1	-15.8	-100.0	
Gas (including derived gases)	2178	1896	1967	3035	3866	2281	2225	-1.0	7.0	-5.4	
Biomass-waste	15	17	49	54	164	389	607	12.6	12.8	14.0	
Hydro (pumping excluded)	2673	4337	5057	4062	4334	4235	4218	6.6	-1.5	-0.3	
Wind	0	5	681	1144	1183	4930	7304	0.0	5.7	20.0	
Solar	0	0	15	1129	1152	3553	4024	0.0	54.2	13.3	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	10471	10635	9943	11968	11805	13488	14366	-0.5	1.7	2.0	
Nuclear energy	3610	2765	1920	1920	1920	1920	1920	-6.1	0.0	0.0	
Renewable energy	1016	1992	2697	4081	4110	7100	8171	10.3	4.3	7.1	
Hydro (pumping excluded)	1016	1984	2184	2338	2338	2338	2338	8.0	0.7	0.0	
Wind	0	8	488	691	703	2018	2765	0.0	3.7	14.7	
Solar	0	0	25	1052	1069	2744	3069	0.0	45.6	11.1	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	5845	5878	5326	5967	5775	4468	4275	-0.9	0.8	-3.0	
of which cogeneration units	1129	1191	1017	1814	1694	1766	1746	-1.0	5.2	0.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	5100	5100	4703	5313	4813	3495	3385	-0.8	0.2	-3.5	
Gas fired	689	737	607	626	909	877	791	-1.3	4.1	-1.4	
Oil fired	57	42	13	13	2	2	2	-13.6	-18.4	0.0	
Biomass-waste fired	0	0	3	15	51	94	97	0.0	32.3	6.7	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	39.9	42.8	47.7	42.3	43.3	38.4	36.2				
Efficiency of gross thermal power generation (%)	28.4	27.0	28.5	36.8	39.0	38.3	38.2				
% of gross electricity from CHP	7.8	6.1	8.0	12.0	12.6	9.3	8.5				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	51.3	52.3	45.7	45.1	45.5	58.6	65.1				
Fuel Inputs to Thermal Power Generation (ktoe)	5986	6689	7553	6282	5891	4606	3933	2.4	-2.5	-4.0	
Solids	4928	5817	6610	5466	5210	4166	3465	3.0	-2.4	-4.0	
Oil (including refinery gas)	171	174	219	110	17	0	0	2.5	-22.6	-100.0	
Gas (including derived gases)	884	697	720	692	625	349	333	-2.0	-1.4	-6.1	
Biomass & Waste	3	2	4	15	38	91	135	1.4	25.9	13.5	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	12213	13505	11285	10638	10379	10107	9788	-0.8	-0.8	-0.6	
Refineries	5310	6421	6041	6617	6291	6025	5698	1.3	0.4	-1.0	
Biofuels and hydrogen production	0	0	13	106	188	182	190	0.0	30.3	0.1	
District heating	324	368	304	96	98	109	114	-0.6	-10.7	1.5	
Derived gases, cokeries etc.	6579	6717	4927	3819	3801	3792	3786	-2.9	-2.6	0.0	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Bulgaria: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	48	56	65	72	76	80	84	3.2	1.4	1.1
Public road transport	15	14	11	11	11	12	12	-3.1	0.6	0.4
Private cars and motorcycles	28	36	48	53	54	57	58	5.7	1.3	0.7
Rail	4	3	3	3	4	4	4	-2.5	1.7	1.8
Aviation ⁽³⁾	2	4	4	5	6	8	10	8.8	4.9	4.5
Inland navigation	0	0	0	0	0	0	0	-1.8	0.9	1.3
Freight transport activity (Gtkm)	11	16	18	20	22	25	26	5.7	2.0	1.7
Heavy goods and light commercial vehicles	5	11	9	10	11	12	13	7.0	2.0	1.2
Rail	6	5	3	3	4	4	5	-5.7	1.9	2.4
Inland navigation	0	1	6	6	7	8	9	34.4	2.0	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	1841	2682	2719	2837	2880	2855	2838	4.0	0.6	-0.1
Public road transport	399	362	262	263	270	268	263	-4.1	0.3	-0.3
Private cars and motorcycles	956	1389	1581	1628	1560	1449	1392	5.2	-0.1	-1.1
Heavy goods and light commercial vehicles	305	652	590	646	700	719	710	6.8	1.7	0.1
Rail	78	69	52	44	49	53	56	-4.0	-0.6	1.3
Aviation	101	201	182	207	244	301	349	6.1	3.0	3.6
Inland navigation	3	10	53	49	58	65	68	34.5	0.9	1.7
By transport activity										
Passenger transport	1473	1965	2034	2106	2083	2029	2016	3.3	0.2	-0.3
Freight transport	369	718	685	731	797	825	823	6.4	1.5	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	0.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	3.8	6.6	6.5	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	17543	18903	17348	16042	15848	14903	14289	-0.1	-0.9	-1.0
Final Energy Demand	9106	10184	8843	9205	9466	9415	9262	-0.3	0.7	-0.2
by sector										
Industry	3967	4037	2561	2709	2776	2804	2811	-4.3	0.8	0.1
Energy intensive industries	3124	3161	1789	1929	1918	1894	1873	-5.4	0.7	-0.2
Other industrial sectors	843	876	772	780	858	909	938	-0.9	1.1	0.9
Residential	2155	2117	2246	2307	2374	2352	2262	0.4	0.6	-0.5
Tertiary	972	1128	1174	1179	1268	1248	1201	1.9	0.8	-0.5
Transport ⁽⁵⁾	2013	2903	2862	3011	3048	3011	2988	3.6	0.6	-0.2
by fuel										
Solids	879	979	414	487	415	314	247	-7.3	0.0	-5.0
Oil	3026	3712	3125	3134	3046	2978	2821	0.3	-0.3	-0.8
Gas	1681	1565	1058	1052	1078	1041	1033	-4.5	0.2	-0.4
Electricity	2085	2211	2331	2382	2507	2578	2669	1.1	0.7	0.6
Heat (from CHP and District Heating)	880	939	960	841	863	913	899	0.9	-1.1	0.4
Renewable energy forms	555	778	956	1309	1556	1588	1588	5.6	5.0	0.2
Other	0	0	0	0	0	2	4	0.0	0.0	28.7
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	733	599	472	415	362	310	278	-4.3	-2.6	-2.6
Industry (Energy on Value added, index 2000=100)	100	68	37	39	35	32	30	-9.4	-0.6	-1.6
Residential (Energy on Private Income, index 2000=100)	100	72	67	67	58	52	46	-3.9	-1.4	-2.4
Tertiary (Energy on Value added, index 2000=100)	100	91	81	76	71	63	57	-2.1	-1.3	-2.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	34	30	28	26	24	23	0.0	-1.3	-1.5
Freight transport (toe/Mtkm)	35	44	37	37	36	34	31	0.7	-0.4	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	64.4	67.0	61.2	55.6	51.0	44.2	39.9	-0.5	-1.8	-2.4
of which ETS sectors (2013 scope) GHG emissions	39.4	35.6	30.0	28.3	23.1	19.8			-2.3	-3.5
of which ESD sectors (2013 scope) GHG emissions	27.6	25.6	25.6	22.7	21.1	20.1			-1.2	-1.2
CO ₂ Emissions (energy related)	44.3	49.1	45.9	40.1	38.1	32.2	28.3	0.4	-1.8	-2.9
Power generation/District heating	24.6	27.9	31.2	25.1	23.7	18.6	15.6	2.4	-2.7	-4.1
Energy Branch	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.8	-1.8	-1.6
Industry	10.6	9.8	3.7	4.0	3.9	3.6	3.1	-10.0	0.6	-2.2
Residential	1.4	1.2	1.0	1.0	0.7	0.5	0.4	-3.1	-4.0	-5.7
Tertiary	1.2	1.1	0.8	0.7	0.7	0.6	0.5	-4.0	-1.5	-3.8
Transport	5.7	8.3	8.3	8.4	8.3	8.2	8.1	3.7	0.1	-0.3
CO ₂ Emissions (non energy and non land use related)	3.5	4.0	3.0	3.0	3.1	3.2	3.2	-1.5	0.4	0.4
Non-CO2 GHG emissions	16.7	14.0	12.3	12.5	9.8	8.8	8.4	-3.0	-2.2	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	58.5	60.9	55.6	50.5	46.3	40.1	36.2	-0.5	-1.8	-2.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.46	0.49	0.51	0.41	0.39	0.30	0.26	1.2	-2.7	-4.1
Final energy demand (t of CO ₂ /toe)	2.07	2.01	1.55	1.53	1.44	1.37	1.30	-2.8	-0.8	-1.0
Industry	2.67	2.43	1.44	1.47	1.41	1.28	1.11	-6.0	-0.2	-2.3
Residential	0.63	0.58	0.44	0.41	0.28	0.21	0.16	-3.5	-4.5	-5.2
Tertiary	1.24	0.97	0.69	0.61	0.54	0.47	0.39	-5.8	-2.3	-3.3
Transport	2.85	2.88	2.88	2.80	2.73	2.73	2.71	0.1	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.6	9.1	14.1	18.7	21.1	27.1	30.6			
RES-H&C share	10.5	14.1	25.2	30.8	34.0	35.9	38.8			
RES-E share	4.0	8.5	12.3	17.4	18.1	34.9	42.4			
RES-T share (based on ILUC formula)	0.3	0.4	1.1	5.4	9.9	10.7	12.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	55	58	68	69	75	82	0.8	1.8	1.8
Average Price of Electricity in Final demand sectors (€13/MWh)	44	56	75	89	106	129	138	5.4	3.5	2.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	5.2	7.4	9.5	10.5	12.9	14.6	16.5	6.2	3.0	2.5
as % of GDP	20.7	22.3	25.3	26.5	28.5	29.2	30.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Croatia: EU027						
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30				
								Annual % Change						
Population (in million)	4	4	4	4	4	4	4	-0.4	-0.3	-0.3				
GDP (in 000 M€13)	36	45	46	45	49	52	55	2.4	0.5	1.3				
Gross Inland Consumption (ktoe)	7793	8888	8561	8018	8225	7764	7463	0.9	-0.4	-1.0				
Solids	431	683	683	751	684	310	252	4.7	0.0	-9.5				
Oil	3929	4490	3699	3414	3232	3073	2855	-0.6	-1.3	-1.2				
Natural gas	2210	2370	2632	2144	2474	2368	2216	1.8	-0.6	-1.1				
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0				
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1				
Renewable energy forms	880	906	1138	1195	1422	1663	1730	2.6	2.3	2.0				
Energy Branch Consumption	821	825	745	726	707	595	582	-1.0	-0.5	-1.9				
Non-Energy Uses	656	675	596	514	529	534	536	-0.9	-1.2	0.1				
SECURITY OF SUPPLY														
Production (incl.recovery of products) (ktoe)	3580	3799	4222	3368	3654	3641	3469	1.7	-1.4	-0.5				
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0				
Oil	1345	1029	767	466	461	436	391	-5.5	-5.0	-1.6				
Natural gas	1355	1865	2215	1431	1537	1311	1117	5.0	-3.6	-3.1				
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0				
Renewable energy sources	880	906	1240	1471	1656	1894	1961	3.5	2.9	1.7				
Hydro	505	545	716	533	544	549	550	3.6	-2.7	0.1				
Biomass & Waste	375	360	500	859	1021	1008	998	2.9	7.4	-0.2				
Wind	0	1	12	56	60	138	183	0.0	17.5	11.8				
Solar and others	0	0	5	16	23	192	222	0.0	16.0	25.5				
Geothermal	0	0	7	7	8	8	8	0.0	1.3	-0.1				
Net Imports (ktoe)	4134	5208	4461	4657	4578	4130	4000	0.8	0.3	-1.3				
Solids	478	624	699	751	684	310	252	3.9	-0.2	-9.5				
Oil	2406	3583	2980	2955	2778	2644	2470	2.2	-0.7	-1.2				
Crude oil and Feedstocks	3952	4334	3647	2979	2839	2756	2637	-0.8	-2.5	-0.7				
Oil products	-1546	-751	-667	-24	-61	-113	-166	-8.1	-21.2	10.5				
Natural gas	905	562	476	713	937	1058	1099	-6.2	7.0	1.6				
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1				
Import Dependency (%)	52.9	58.4	52.1	58.0	55.6	53.1	53.6							
ELECTRICITY														
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	10684	12354	13999	11996	14103	14590	14446	2.7	0.1	0.2				
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0				
Solids	1551	2328	2385	2671	2640	905	762	4.4	1.0	-11.7				
Oil (including refinery gas)	1687	1855	560	77	25	281	212	-10.4	-26.7	23.9				
Gas (including derived gases)	1571	1814	2553	2232	4062	3310	2792	5.0	4.8	-3.7				
Biomass-waste	1	14	33	98	285	299	351	41.9	24.1	2.1				
Hydro (pumping excluded)	5874	6333	8329	6200	6324	6387	6392	3.6	-2.7	0.1				
Wind	0	10	139	650	699	1604	2133	0.0	17.5	11.8				
Solar	0	0	0	68	68	1803	1803	0.0	0.0	38.8				
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0				
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0				
Net Generation Capacity (MW _e)	3786	3945	4216	4884	4928	6359	6548	1.1	1.6	2.9				
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0				
Renewable energy	2079	2066	2220	2668	2702	4323	4658	0.7	2.0	5.6				
Hydro (pumping excluded)	2079	2060	2141	2190	2190	2190	2190	0.3	0.2	0.0				
Wind	0	6	79	423	457	867	1202	0.0	19.2	10.2				
Solar	0	0	0	55	55	1266	1266	0.0	0.0	36.7				
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0				
Thermal power	1707	1879	1996	2216	2226	2036	1890	1.6	1.1	-1.6				
of which cogeneration units	558	515	486	298	596	898	605	-1.4	2.1	0.2				
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0				
Solids fired	311	311	311	311	656	656	656	0.0	7.7	0.0				
Gas fired	781	919	1031	1706	1396	1196	1089	2.8	3.1	-2.4				
Oil fired	615	646	649	185	150	157	111	0.5	-13.6	-2.9				
Biomass-waste fired	0	3	5	13	24	27	33	0.0	17.3	3.3				
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0				
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0				
Avg. Load factor of net power capacity ⁽²⁾ (%)	31.0	34.4	36.6	27.3	31.8	25.8	24.8							
Efficiency of gross thermal power generation (%)	33.1	34.9	37.5	44.0	47.6	43.7	42.5							
% of gross electricity from CHP	16.8	0.0	14.3	15.5	19.0	17.9	18.7							
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
% of carbon free (RES, nuclear) gross electricity generation	55.0	51.5	60.7	58.5	52.3	69.2	73.9							
Fuel Inputs to Thermal Power Generation (ktoe)	1249	1479	1269	993	1268	944	834	0.2	0.0	-4.1				
Solids	357	537	532	612	557	208	187	4.1	0.5	-10.3				
Oil (including refinery gas)	395	447	120	14	8	78	63	-11.3	-23.4	22.6				
Gas (including derived gases)	497	490	611	350	648	599	511	2.1	0.6	-2.3				
Biomass & Waste	0	4	7	17	55	60	72	36.6	23.2	2.8				
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0				
Fuel Input to other conversion processes	5394	5327	4409	3555	3569	3448	3261	-2.0	-2.1	-0.9				
Refineries	5299	5210	4304	3414	3270	3162	3000	-2.1	-2.7	-0.9				
Biofuels and hydrogen production	0	0	3	70	223	204	185	0.0	56.1	-1.9				
District heating	83	104	97	70	74	74	65	1.6	-2.7	-1.3				
Derived gases, cokeries etc.	12	13	4	1	2	9	11	-10.0	-5.6	16.7				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Croatia: EUQ27			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
TRANSPORT											
Passenger transport activity (Gpkm)	27	31	34	36	39	41	43	2.5	1.4	1.0	
Public road transport	3	3	3	3	4	4	4	-0.3	1.0	0.6	
Private cars and motorcycles	21	25	27	28	30	31	33	2.4	1.2	0.9	
Rail	2	2	2	2	3	3	3	2.7	1.3	0.9	
Aviation ⁽³⁾	1	1	2	3	3	3	4	12.0	3.7	2.6	
Inland navigation	0	0	0	0	0	0	0	212.2	1.1	1.7	
Freight transport activity (Gtkm)	4	12	12	12	14	15	16	10.2	1.5	1.6	
Heavy goods and light commercial vehicles	3	9	8	8	10	10	11	12.1	1.5	1.7	
Rail	2	3	3	3	3	3	3	3.9	1.4	1.4	
Inland navigation	0	0	1	1	1	1	1	30.9	1.4	1.0	
Energy demand in transport (ktoe) ⁽⁴⁾	1544	1921	2068	2074	2135	2074	2041	3.0	0.3	-0.4	
Public road transport	41	39	61	63	66	66	65	3.9	0.8	-0.1	
Private cars and motorcycles	1192	1192	1332	1324	1320	1234	1183	1.1	-0.1	-1.1	
Heavy goods and light commercial vehicles	161	508	479	465	511	522	532	11.5	0.6	0.4	
Rail	46	52	50	48	52	53	55	0.8	0.5	0.5	
Aviation	76	98	108	134	144	154	160	3.6	2.9	1.1	
Inland navigation	29	33	38	39	43	45	47	2.8	1.3	0.9	
By transport activity											
Passenger transport	1329	1340	1514	1535	1543	1467	1423	1.3	0.2	-0.8	
Freight transport	215	581	554	540	592	606	619	9.9	0.7	0.4	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.5				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.1	3.5	10.7	10.4	9.8				
ENERGY EFFICIENCY											
Primary energy consumption	7138	8213	7965	7504	7696	7231	6927	1.1	-0.3	-1.0	
Final Energy Demand	5371	6343	6347	6190	6301	6118	5905	1.7	-0.1	-0.6	
by sector											
Industry	1378	1563	1366	1394	1388	1307	1240	-0.1	0.2	-1.1	
Energy intensive industries	847	907	752	745	734	674	624	-1.2	-0.2	-1.6	
Other industrial sectors	531	656	614	649	654	633	617	1.5	0.6	-0.6	
Residential	1666	1922	1893	1784	1779	1757	1668	1.3	-0.6	-0.6	
Tertiary	781	935	1018	934	996	977	952	2.7	-0.2	-0.5	
Transport ⁽⁵⁾	1547	1923	2070	2078	2139	2077	2045	3.0	0.3	-0.4	
by fuel											
Solids	74	146	150	139	127	102	65	7.3	-1.6	-6.5	
Oil	2683	3108	2902	2755	2565	2398	2199	0.8	-1.2	-1.5	
Gas	1009	1236	1288	1170	1228	1226	1204	2.5	-0.5	-0.2	
Electricity	1018	1240	1364	1317	1392	1394	1447	3.0	0.2	0.4	
Heat (from CHP and District Heating)	213	258	246	226	239	254	252	1.4	-0.3	0.5	
Renewable energy forms	375	356	397	582	747	735	726	0.6	6.5	-0.3	
Other	0	0	0	1	2	9	12	0.0	0.0	17.2	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	214	196	184	179	168	150	135	-1.5	-0.9	-2.2	
Industry (Energy on Value added, index 2000=100)	100	97	88	106	98	89	81	-1.3	1.1	-1.9	
Residential (Energy on Private Income, index 2000=100)	100	91	88	95	86	79	70	-1.2	-0.3	-1.9	
Tertiary (Energy on Value added, index 2000=100)	100	97	99	95	92	84	77	-0.1	-0.8	-1.8	
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	41	43	41	38	34	31	-1.2	-1.2	-1.8	
Freight transport (toe/Mtkm)	48	49	47	45	43	41	39	-0.2	-0.8	-1.1	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	26.3	30.7	28.5	25.4	24.9	22.1	20.0	0.8	-1.3	-2.2	
of which ETS sectors (2013 scope) GHG emissions		12.7	10.8	9.6	10.0	8.0	7.1		-0.8	-3.4	
of which ESD sectors (2013 scope) GHG emissions		17.9	17.7	15.7	14.9	14.0	12.9		-1.7	-1.4	
CO ₂ Emissions (energy related)	17.0	20.2	18.6	17.0	17.0	14.7	13.4	0.9	-0.9	-2.3	
Power generation/District heating	4.1	5.1	4.3	3.5	4.0	2.6	2.2	0.3	-0.6	-5.6	
Energy Branch	2.0	2.0	1.8	1.7	1.7	1.4	1.4	-1.0	-0.5	-2.2	
Industry	2.9	3.5	2.8	2.9	2.7	2.3	1.9	-0.2	-0.5	-3.4	
Residential	1.9	2.4	2.1	1.7	1.7	1.7	1.5	1.0	-2.1	-1.6	
Tertiary	1.5	1.5	1.4	1.2	1.2	1.1	1.0	-0.6	-1.6	-1.4	
Transport	4.5	5.7	6.2	6.0	5.7	5.5	5.4	3.1	-0.8	-0.5	
CO ₂ Emissions (non energy and non land use related)	2.6	3.1	2.5	2.4	2.6	2.4	2.1	-0.3	0.1	-1.8	
Non-CO ₂ GHG emissions	6.7	7.4	7.4	5.9	5.4	5.0	4.5	0.9	-3.1	-1.8	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	74.2	86.5	80.4	71.5	70.3	62.2	56.5	0.8	-1.3	-2.2	
Carbon Intensity indicators											
Electricity and Steam production (t of CO ₂ /MWh)	0.30	0.32	0.25	0.23	0.23	0.14	0.12	-2.1	-0.7	-6.0	
Final energy demand (t of CO ₂ /toe)	2.01	2.06	1.97	1.90	1.79	1.74	1.65	-0.2	-1.0	-0.8	
Industry	2.09	2.23	2.08	2.08	1.94	1.78	1.53	-0.1	-0.7	-2.3	
Residential	1.15	1.24	1.12	0.95	0.96	0.95	0.87	-0.3	-1.5	-1.0	
Tertiary	1.89	1.57	1.37	1.26	1.19	1.14	1.08	-3.2	-1.4	-0.9	
Transport	2.94	2.97	2.97	2.88	2.65	2.64	2.63	0.1	-1.1	-0.1	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	14.8	12.8	14.3	18.5	21.3	26.0	28.3				
RES-H&C share	13.0	10.9	13.1	18.0	18.8	20.8	24.7				
RES-E share	36.2	32.8	34.2	39.1	39.1	54.2	55.7				
RES-T share (based on ILUC formula)	1.2	0.9	1.1	5.1	10.1	12.6	14.9				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	83	75	67	59	68	80	87	-2.1	0.1	2.5	
Average Price of Electricity in Final demand sectors (€13/MWh)	96	84	109	110	122	132	137	1.3	1.2	1.1	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	4.4	5.9	7.6	7.5	9.0	10.2	11.1	5.5	1.7	2.1	
as % of GDP	12.2	12.9	16.4	16.8	18.5	19.7	20.1				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Cyprus: EUC027			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	1	1	1	1	1	1	1	1.7	0.9	0.3	
GDP (in 000 ME13)	14	16	19	16	19	21	22	2.8	0.2	1.9	
Gross Inland Consumption (ktoe)	2412	2539	2740	2157	2150	2033	1979	1.3	-2.4	-0.8	
Solids	33	36	17	0	0	0	0	-6.5	-53.4	-11.3	
Oil	2334	2446	2611	1995	1346	1217	1161	1.1	-6.4	-1.5	
Natural gas	0	0	0	0	558	535	512	0.0	0.0	-0.9	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	0	0	0	0	0	0	0	0.0	0.0	6.4	
Renewable energy forms	46	57	112	162	245	281	306	9.4	8.1	2.2	
Energy Branch Consumption	54	22	19	17	15	8	8	-9.7	-2.4	-6.4	
Non-Energy Uses	86	73	85	38	42	43	43	-0.1	-7.0	0.4	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	44	51	89	137	195	2106	2976	7.2	8.2	31.3	
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Natural gas	0	0	0	0	0	1874	2717	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	44	51	89	137	195	232	259	7.2	8.2	2.9	
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biomass & Waste	9	10	24	28	37	46	53	10.5	4.3	3.8	
Wind	0	0	3	21	36	36	47	0.0	29.7	2.6	
Solar and others	36	41	61	86	118	144	153	5.6	6.8	2.6	
Geothermal	0	0	1	2	4	6	6	0.0	18.6	3.5	
Net Imports (ktoe)	2565	2843	2945	2243	2198	192	-712	1.4	-2.9	0.0	
Solids	33	43	11	0	0	0	0	-10.4	-51.4	-11.3	
Oil	2531	2794	2910	2218	1587	1477	1421	1.4	-5.9	-1.1	
Crude oil and Feedstocks	1160	0	0	0	0	0	0	-100.0	0.0	0.0	
Oil products	1371	2794	2910	2218	1587	1477	1421	7.8	-5.9	-1.1	
Natural gas	0	0	0	0	561	-1333	-2180	0.0	0.0	0.0	
Electricity	0	0	0	0	0	0	0	0.0	0.0	-0.3	
Import Dependency (%)	98.6	100.7	100.8	94.3	91.8	8.4	-31.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3370	4376	5322	4573	4932	5288	5435	4.7	-0.8	1.0	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	3370	4376	5249	4086	434	22	22	4.5	-22.1	-25.7	
Gas (including derived gases)	0	0	0	0	3441	3835	3663	0.0	0.0	0.6	
Biomass-waste	0	0	35	45	59	109	172	0.0	5.4	11.3	
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wind	0	0	31	248	422	422	548	0.0	29.8	2.6	
Solar	0	0	6	195	576	899	1030	0.0	58.4	6.0	
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	983	1119	1498	1755	1980	2169	2281	4.3	2.8	1.4	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	0	0	89	292	554	715	826	0.0	20.1	4.1	
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wind	0	0	82	158	216	216	266	0.0	10.2	2.1	
Solar	0	0	7	135	338	499	560	0.0	47.4	5.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	983	1119	1409	1462	1426	1455	1455	3.7	0.1	0.2	
of which cogeneration units	0	5	22	2	2	1	2	0.0	-21.7	2.6	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	35.8	
Gas fired	0	0	0	0	34	514	514	0.0	0.0	31.3	
Oil fired	983	1119	1406	1452	1382	930	930	3.6	-0.2	-3.9	
Biomass-waste fired	0	0	3	10	10	10	11	0.0	12.7	0.2	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	37.2	42.1	38.9	28.5	27.4	27.3	26.7				
Efficiency of gross thermal power generation (%)	32.9	34.9	38.4	48.0	51.9	61.6	61.9				
% of gross electricity from CHP	0.0	0.3	1.0	1.7	1.6	1.0	0.8				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	1.4	10.6	21.4	27.0	32.2				
Fuel Inputs to Thermal Power Generation (ktoe)	881	1077	1182	741	652	554	536	3.0	-5.8	-2.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	881	1077	1178	731	81	0	0	2.9	-23.4	-100.0	
Gas (including derived gases)	0	0	0	0	558	534	510	0.0	0.0	-0.9	
Biomass & Waste	0	0	4	10	13	20	26	0.0	12.6	7.1	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1178	0	15	17	41	37	32	-35.4	10.5	-2.4	
Refineries	1178	0	0	0	0	0	0	-100.0	0.0	0.0	
Biofuels and hydrogen production	0	0	15	17	41	36	31	0.0	10.5	-2.6	
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0	
Derived gases, cokeries etc.	0	0	0	0	0	0	1	0.0	0.0	15.6	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Cyprus: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	12	14	15	15	18	20	22	1.9	2.3	1.9
Public road transport	1	1	1	1	1	1	1	1.4	0.8	0.2
Private cars and motorcycles	4	5	6	6	7	7	7	4.0	0.9	0.6
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	7	8	7	8	10	12	14	0.5	3.6	2.8
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	1	1	1	1	1	1	1	-1.6	0.7	1.3
Heavy goods and light commercial vehicles	1	1	1	1	1	1	1	-1.6	0.7	1.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	860	982	1050	916	963	951	942	2.0	-0.9	-0.2
Public road transport	32	35	37	37	38	37	35	1.5	0.3	-0.6
Private cars and motorcycles	373	444	577	490	483	433	391	4.5	-1.8	-2.1
Heavy goods and light commercial vehicles	173	197	152	125	126	126	128	-1.3	-1.8	0.1
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	282	306	284	263	316	354	387	0.1	1.1	2.1
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	687	785	898	791	836	824	814	2.7	-0.7	-0.3
Freight transport	173	197	152	125	126	126	128	-1.3	-1.8	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.5	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.4	1.8	4.2	3.9	3.3			
ENERGY EFFICIENCY										
Primary energy consumption	2326	2466	2655	2118	2108	1990	1936	1.3	-2.3	-0.8
Final Energy Demand	1650	1834	1926	1700	1761	1750	1704	1.6	-0.9	-0.3
by sector										
Industry	445	320	235	202	204	198	192	-6.2	-1.4	-0.6
Energy intensive industries	240	221	171	141	145	145	149	-3.3	-1.7	0.3
Other industrial sectors	205	98	63	61	60	53	43	-11.1	-0.6	-3.2
Residential	211	322	333	323	315	307	287	4.7	-0.5	-0.9
Tertiary	134	209	309	259	279	294	284	8.7	-1.0	0.2
Transport ⁽⁵⁾	860	983	1050	916	963	951	942	2.0	-0.9	-0.2
by fuel										
Solids	32	36	17	0	0	0	0	-6.4	-53.4	-11.3
Oil	1317	1403	1384	1226	1223	1174	1118	0.5	-1.2	-0.9
Gas	0	0	0	0	0	1	2	0.0	0.0	17.5
Electricity	258	341	420	360	390	426	438	5.0	-0.7	1.2
Heat (from CHP and District Heating)	0	0	0	1	1	1	1	0.0	25.5	-1.3
Renewable energy forms	42	54	105	114	146	147	144	9.6	3.4	-0.2
Other	0	0	0	0	0	1	2	-100.0	0.0	24.7
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	175	157	151	131	115	98	88	-1.5	-2.6	-2.6
Industry (Energy on Value added, index 2000=100)	100	70	56	57	53	47	43	-5.6	-0.6	-2.0
Residential (Energy on Private Income, index 2000=100)	100	129	114	116	102	91	79	1.3	-1.1	-2.5
Tertiary (Energy on Value added, index 2000=100)	100	133	166	151	142	135	119	5.2	-1.5	-1.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	50	51	53	44	38	34	30	0.5	-3.2	-2.3
Freight transport (toe/Mtkm)	129	135	133	109	104	97	93	0.3	-2.5	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	11.3	10.4	10.3	8.2	7.3	6.7	6.4	-0.9	-3.4	-1.3
of which ETS sectors (2013 scope) GHG emissions		6.0	5.7	4.1	3.5	3.3	3.3		-4.9	-0.6
of which ESD sectors (2013 scope) GHG emissions		4.4	4.5	4.2	3.8	3.5	3.1		-1.8	-1.9
CO2 Emissions (energy related)	7.2	8.0	8.1	6.1	5.3	4.9	4.6	1.2	-4.1	-1.4
Power generation/District heating	2.8	3.5	3.8	2.4	1.6	1.3	1.2	2.9	-8.4	-2.7
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.0
Industry	1.4	1.0	0.6	0.6	0.5	0.5	0.4	-7.6	-1.6	-2.4
Residential	0.2	0.5	0.4	0.3	0.3	0.2	0.2	4.7	-2.4	-4.2
Tertiary	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.0	-1.9	-3.3
Transport	2.6	3.0	3.1	2.7	2.8	2.7	2.7	1.8	-1.2	-0.2
CO2 Emissions (non energy and non land use related)	0.9	0.9	0.6	0.5	0.6	0.6	0.6	-3.5	-0.5	-0.2
Non-CO2 GHG emissions	3.2	1.5	1.6	1.6	1.4	1.3	1.2	-6.9	-1.5	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	179.4	166.0	163.7	131.1	115.6	107.1	101.9	-0.9	-3.4	-1.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.85	0.80	0.71	0.52	0.32	0.24	0.22	-1.7	-7.7	-3.6
Final energy demand (t of CO2/toe)	2.57	2.45	2.24	2.22	2.14	2.07	2.02	-1.3	-0.5	-0.5
Industry	3.16	3.11	2.70	2.73	2.64	2.47	2.22	-1.6	-0.2	-1.7
Residential	1.11	1.44	1.11	1.04	0.91	0.79	0.65	0.0	-1.9	-3.3
Tertiary	0.00	0.43	0.69	0.73	0.63	0.52	0.45	0.0	-0.9	-3.4
Transport	3.02	3.00	2.95	2.94	2.86	2.87	2.88	-0.2	-0.3	0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.9	3.1	5.9	9.1	14.9	17.5	20.1			
RES-H&C share	7.9	10.0	18.2	21.8	24.3	27.2	31.3			
RES-E share	0.0	0.0	1.4	10.6	21.4	27.0	32.2			
RES-T share (based on ILUC formula)	0.0	0.0	2.0	1.3	10.3	10.8	11.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	114	115	154	84	112	109	114	3.1	-3.1	0.1
Average Price of Electricity in Final demand sectors (€13/MWh)	132	146	181	204	198	183	188	3.2	0.9	-0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.1	1.9	2.5	2.4	3.0	3.3	3.6	8.1	2.0	1.8
as % of GDP	8.3	12.0	13.7	14.8	16.4	16.1	16.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Czech Republic: EU027					
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	10	10	10	11	11	11	11	0.2	0.2	0.1		
GDP (in 000 ME13)	112	137	157	165	181	197	216	3.4	1.4	1.8		
Gross Inland Consumption (ktoe)	41097	45124	44681	41122	41000	40823	39686	0.8	-0.9	-0.3		
Solids	21643	20248	18364	15061	14939	14369	13228	-1.6	-2.0	-1.2		
Oil	7881	9899	9306	8965	8818	8576	8462	1.7	-0.5	-0.4		
Natural gas	7500	7703	8070	7797	7178	7211	6772	0.7	-1.2	-0.6		
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0		
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7		
Renewable energy forms	1429	1955	2980	3521	3857	4482	5123	7.6	2.6	2.9		
Energy Branch Consumption	1768	1796	2068	1808	1763	1733	1657	1.6	-1.6	-0.6		
Non-Energy Uses	2093	2948	2783	2447	2583	2691	2753	2.9	-0.7	0.6		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	30536	32861	31570	27296	27869	28640	27752	0.3	-1.2	0.0		
Solids	25049	23570	20730	16524	16883	17018	15527	-1.9	-2.0	-0.8		
Oil	386	591	290	223	222	210	190	-2.8	-2.7	-1.5		
Natural gas	169	154	202	191	181	172	162	1.8	-1.1	-1.1		
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0		
Renewable energy sources	1426	2142	3101	3560	3786	4442	5075	8.1	2.0	3.0		
Hydro	151	205	240	208	218	211	223	4.7	-0.9	0.2		
Biomass & Waste	1275	1933	2770	3106	3235	3722	3979	8.1	1.6	2.1		
Wind	0	2	29	44	65	181	535	76.2	8.5	23.4		
Solar and others	0	3	62	202	266	325	331	0.0	15.7	2.2		
Geothermal	0	0	0	0	2	3	6	0.0	0.0	12.4		
Net Imports (ktoe)	9414	12641	11447	13826	13131	12183	11934	2.0	1.4	-1.0		
Solids	-4721	-3270	-2968	-1463	-1944	-2649	-2299	-4.5	-4.1	1.7		
Oil	7512	9649	8974	8742	8597	8366	8273	1.8	-0.4	-0.4		
Crude oil and Feedstocks	5596	7730	7837	6115	6054	5946	5925	3.4	-2.5	-0.2		
Oil products	1916	1919	1137	2627	2542	2421	2347	-5.1	8.4	-0.8		
Natural gas	7482	7535	6846	7606	6997	7039	6610	-0.9	0.2	-0.6		
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7		
Import Dependency (%)	22.9	28.0	25.6	33.6	32.0	29.8	30.1					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	72911	81931	85319	82069	80216	83023	85798	1.6	-0.6	0.7		
Nuclear energy	13590	24728	27998	27596	27596	27596	27594	7.5	-0.1	0.0		
Solids	52752	49522	47113	41095	42446	40167	37299	-1.1	-1.0	-1.3		
Oil (including refinery gas)	372	326	159	231	0	0	0	-8.1	-100.0	0.0		
Gas (including derived gases)	3907	4215	4121	5853	3559	5562	5952	0.5	-1.5	5.3		
Biomass-waste	531	739	2188	2214	1099	2673	3620	15.2	-6.7	12.7		
Hydro (pumping excluded)	1758	2380	2789	2421	2541	2449	2593	4.7	-0.9	0.2		
Wind	1	21	335	508	759	2108	6220	78.9	8.5	23.4		
Solar	0	0	615	2149	2214	2466	2518	0.0	13.7	1.3		
Geothermal and other renewables	0	0	1	0	2	2	2	0.0	9.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	13990	16314	17995	18816	18573	19550	20726	2.5	0.3	1.1		
Nuclear energy	1958	4006	4006	4006	4006	4006	4006	7.4	0.0	0.0		
Renewable energy	953	1043	2989	3628	3816	4570	6382	12.1	2.5	5.3		
Hydro (pumping excluded)	952	1020	1049	1080	1080	1085	1115	1.0	0.3	0.3		
Wind	1	22	213	282	408	923	2650	70.9	6.7	20.6		
Solar	0	1	1727	2266	2328	2563	2617	0.0	3.0	1.2		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	11079	11265	11000	11182	10751	10974	10337	-0.1	-0.2	-0.4		
of which cogeneration units	3733	5199	4792	3852	3973	3190	2771	2.5	-1.9	-3.5		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	9823	9935	9571	9656	9487	9414	8797	-0.3	-0.1	-0.8		
Gas fired	1097	1110	1176	1220	935	1232	1137	0.7	-2.3	2.0		
Oil fired	140	140	117	134	72	64	64	-1.8	-4.7	-1.2		
Biomass-waste fired	19	80	136	171	258	264	339	21.7	6.6	2.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	55.0	52.9	50.0	46.3	45.8	45.2	44.2					
Efficiency of gross thermal power generation (%)	31.4	30.0	30.3	31.9	32.8	32.1	32.2					
% of gross electricity from CHP	17.9	16.8	14.2	17.4	19.4	15.9	15.0					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	21.8	34.0	39.8	42.5	42.6	44.9	49.6					
Fuel Inputs to Thermal Power Generation (ktoe)	15744	15702	15219	13299	12354	12953	12528	-0.3	-2.1	0.1		
Solids	13945	14025	13445	10677	11109	10905	10243	-0.4	-1.9	-0.8		
Oil (including refinery gas)	311	161	78	59	0	0	0	-12.9	-100.0	0.0		
Gas (including derived gases)	1236	1292	1134	1938	959	1312	1342	-0.9	-1.7	3.4		
Biomass & Waste	253	224	562	626	284	734	942	8.3	-6.6	12.7		
Geothermal heat	0	0	0	0	2	2	2	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	15035	19758	20049	17183	17047	16871	16565	2.9	-1.6	-0.3		
Refineries	6151	8144	8337	6497	6449	6339	6301	3.1	-2.5	-0.2		
Biofuels and hydrogen production	62	3	231	285	595	534	528	14.1	9.9	-1.2		
District heating	975	916	787	650	692	699	594	-2.1	-1.3	-1.5		
Derived gases, cokeries etc.	7846	10696	10693	9751	9311	9299	9142	3.1	-1.4	-0.2		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Czech Republic: EUQ27				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
							Annual % Change				
TRANSPORT											
Passenger transport activity (Gpkm)	103	112	108	113	124	135	146	0.5	1.4	1.6	
Public road transport	16	16	17	17	19	20	21	0.5	0.9	1.3	
Private cars and motorcycles	67	72	67	68	75	80	86	0.0	1.1	1.4	
Rail	15	15	16	18	20	22	24	0.1	2.6	1.9	
Aviation ⁽³⁾	5	10	9	9	11	12	14	5.6	2.3	2.7	
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0	
Freight transport activity (Gtkm)	46	49	48	50	55	59	64	0.3	1.4	1.5	
Heavy goods and light commercial vehicles	29	34	34	35	38	41	43	1.7	1.1	1.4	
Rail	17	15	14	15	17	19	20	-2.4	2.1	1.9	
Inland navigation	0	0	0	0	0	0	0	-7.0	1.1	2.0	
Energy demand in transport (ktoe) ⁽⁴⁾	4252	5983	6121	6178	6313	6101	6082	3.7	0.3	-0.4	
Public road transport	233	296	379	385	401	410	415	5.0	0.6	0.3	
Private cars and motorcycles	2563	3389	3394	3319	3297	3035	2916	2.8	-0.3	-1.2	
Heavy goods and light commercial vehicles	1038	1753	1810	1914	2003	1999	2040	5.7	1.0	0.2	
Rail	216	197	193	211	235	248	264	-1.1	2.0	1.2	
Aviation	197	343	341	345	373	405	442	5.6	0.9	1.7	
Inland navigation	5	5	4	4	4	4	5	-2.2	-0.7	1.8	
By transport activity											
Passenger transport	3107	4132	4229	4175	4216	4004	3938	3.1	0.0	-0.7	
Freight transport	1145	1850	1892	2003	2097	2097	2144	5.1	1.0	0.2	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	0.9				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	1.5	0.0	3.8	4.7	9.7	9.2	9.1				
ENERGY EFFICIENCY											
Primary energy consumption	39004	42175	41899	38675	38417	38132	36933	0.7	-0.9	-0.4	
Final Energy Demand	24798	26026	24853	24635	25291	24656	23868	0.0	0.2	-0.6	
by sector											
Industry	10129	9681	7933	7883	8102	7926	7830	-2.4	0.2	-0.3	
Energy intensive industries	6420	6748	5015	5079	5067	4916	4721	-2.4	0.1	-0.7	
Other industrial sectors	3709	2934	2919	2804	3035	3009	3110	-2.4	0.4	0.2	
Residential	6150	6345	6665	6340	6582	6474	6047	0.8	-0.1	-0.8	
Tertiary	4151	3904	3979	4098	4141	3995	3740	-0.4	0.4	-1.0	
Transport ⁽⁵⁾	4368	6095	6276	6315	6466	6261	6250	3.7	0.3	-0.3	
by fuel											
Solids	5134	3769	2424	2616	2238	1866	1443	-7.2	-0.8	-4.3	
Oil	5322	6817	6541	6366	6159	5823	5654	2.1	-0.6	-0.9	
Gas	6491	6741	6662	6128	6320	6076	5813	0.3	-0.5	-0.8	
Electricity	4246	4754	4919	5012	5279	5504	5673	1.5	0.7	0.7	
Heat (from CHP and District Heating)	2624	2478	2249	2102	2275	2379	2301	-1.5	0.1	0.1	
Renewable energy forms	981	1467	2058	2411	3018	2995	2959	7.7	3.9	-0.2	
Other	0	0	0	1	2	13	25	-100.0	0.0	28.1	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	366	329	285	250	227	208	184	-2.5	-2.3	-2.1	
Industry (Energy on Value added, index 2000=100)	100	69	44	43	40	37	33	-7.8	-1.0	-2.0	
Residential (Energy on Private Income, index 2000=100)	100	87	80	75	70	62	52	-2.2	-1.4	-2.9	
Tertiary (Energy on Value added, index 2000=100)	100	82	76	73	67	59	50	-2.7	-1.3	-2.9	
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	35	36	34	31	27	25	2.2	-1.5	-2.4	
Freight transport (toe/Mtkm)	25	38	40	40	38	35	34	4.8	-0.4	-1.3	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	153.1	150.6	140.8	128.6	121.7	117.5	108.9	-0.8	-1.5	-1.1	
of which ETS sectors (2013 scope) GHG emissions	87.1	79.4	68.7	65.9	65.3	61.0	61.0		-1.9	-0.8	
of which ESD sectors (2013 scope) GHG emissions	63.6	61.4	59.9	55.8	52.2	47.9	47.9		-1.0	-1.5	
CO2 Emissions (energy related)	125.7	124.3	114.6	102.9	99.3	96.1	89.7	-0.9	-1.4	-1.0	
Power generation/District heating	66.8	66.2	63.2	52.8	51.8	51.8	48.7	-0.6	-2.0	-0.6	
Energy Branch	2.6	2.2	3.1	2.7	2.6	2.5	2.4	1.6	-1.8	-0.8	
Industry	28.3	24.7	17.5	17.0	15.7	14.4	12.7	-4.7	-1.1	-2.1	
Residential	8.8	8.4	8.3	7.8	7.5	7.0	6.4	-0.6	-0.9	-1.6	
Tertiary	6.8	4.9	4.9	4.8	4.7	3.9	3.3	-3.3	-0.4	-3.4	
Transport	12.4	17.8	17.6	17.6	17.0	16.5	16.3	3.6	-0.4	-0.4	
CO2 Emissions (non energy and non land use related)	5.6	5.3	4.8	5.2	5.3	5.1	5.0	-1.7	1.1	-0.5	
Non-CO2 GHG emissions	21.7	21.1	21.5	20.5	17.1	16.3	14.2	-0.1	-2.3	-1.9	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	77.5	76.3	71.3	65.1	61.6	59.5	55.1	-0.8	-1.5	-1.1	
Carbon Intensity indicators											
Electricity and Steam production (t of CO2/MWh)	0.60	0.55	0.52	0.46	0.45	0.44	0.41	-1.4	-1.4	-1.0	
Final energy demand (t of CO2/toe)	2.27	2.15	1.94	1.92	1.78	1.69	1.62	-1.6	-0.9	-0.9	
Industry	2.79	2.55	2.21	2.16	1.94	1.82	1.62	-2.3	-1.3	-1.8	
Residential	1.43	1.33	1.24	1.24	1.14	1.08	1.06	-1.4	-0.8	-0.8	
Tertiary	1.63	1.26	1.22	1.18	1.13	0.97	0.88	-2.9	-0.8	-2.5	
Transport	2.85	2.92	2.81	2.79	2.63	2.63	2.61	-0.1	-0.7	-0.1	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	6.1	9.5	11.9	13.6	15.5	18.4				
RES-H&C share	5.9	9.1	12.6	15.5	17.3	19.4	22.1				
RES-E share	3.4	3.8	7.5	10.3	9.0	12.7	19.2				
RES-T share (based on ILUC formula)	1.8	0.3	4.4	5.5	10.2	10.6	11.6				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	60	83	83	90	90	2.0	3.3	0.8	
Average Price of Electricity in Final demand sectors (€13/MWh)	66	83	142	128	132	135	144	7.9	-0.8	0.9	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	14.7	20.3	28.4	27.5	32.1	35.2	38.1	6.8	1.2	1.7	
as % of GDP	13.1	14.8	18.1	16.7	17.7	17.9	17.7				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Denmark: EUC027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	5	5	6	6	6	6	6	0.4	0.4	0.5
GDP (in 000 ME13)	233	248	247	256	289	321	350	0.6	1.6	1.9
Gross Inland Consumption (ktoe)	19733	19553	20040	16820	16823	15987	15710	0.2	-1.7	-0.7
Solids	3985	3713	3809	1860	1679	912	671	-0.5	-7.9	-8.8
Oil	9101	8063	7568	6738	6251	5775	5322	-1.8	-1.9	-1.6
Natural gas	4465	4413	4435	3680	2643	2487	2318	-0.1	-5.0	-1.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Renewable energy forms	2124	3246	4326	3795	5635	6108	7033	7.4	2.7	2.2
Energy Branch Consumption	1121	1205	1132	911	890	739	610	0.1	-2.4	-3.7
Non-Energy Uses	301	289	263	283	313	328	341	-1.3	1.8	0.9
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	27958	30781	22915	15259	15897	13631	11998	-2.0	-3.6	-2.8
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil	18465	18464	12040	8158	7712	6411	4428	-4.2	-4.4	-5.4
Natural gas	7428	9397	7356	4188	3858	2459	1803	-0.1	-6.2	-7.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	2065	2920	3520	2913	4327	4761	5767	5.5	2.1	2.9
Hydro	3	2	2	2	2	2	2	-3.6	0.2	1.1
Biomass & Waste	1688	2335	2825	1819	2823	3021	3032	5.3	0.0	0.7
Wind	365	569	672	1007	1318	1495	2015	6.3	7.0	4.3
Solar and others	8	10	16	80	100	126	174	7.2	19.9	5.8
Geothermal	1	4	5	6	85	117	544	13.8	32.6	20.3
Net Imports (ktoe)	-7370	-10130	-3257	2304	1728	3206	4617	-7.8	0.0	10.3
Solids	3783	3505	2642	1860	1679	912	671	-3.5	-4.4	-8.8
Oil	-8386	-9068	-3586	-676	-666	196	1714	-8.1	-15.5	0.0
Crude oil and Feedstocks	-8783	-10933	-5033	-669	-738	92	1604	-5.4	-17.5	0.0
Oil products	397	1865	1447	-7	72	104	110	13.8	-25.9	4.4
Natural gas	-2882	-5010	-3022	-508	-1207	46	600	0.5	-8.8	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Import Dependency (%)	-35.1	-49.9	-15.7	13.1	9.8	19.0	27.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	36053	36246	38862	26963	30692	30950	36529	0.8	-2.3	1.8
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	16673	15463	17006	6440	5410	2728	1856	0.2	-10.8	-10.1
Oil (including refinery gas)	4439	1375	774	214	7	66	58	-16.0	-37.5	23.5
Gas (including derived gases)	8774	8780	7906	4589	705	1441	1535	-1.0	-21.5	8.1
Biomass-waste	1895	3989	5340	3223	8455	8544	8857	10.9	4.7	0.5
Hydro (pumping excluded)	30	23	21	21	21	21	24	-3.5	0.2	1.1
Wind	4241	6614	7809	11709	15325	17381	23432	6.3	7.0	4.3
Solar	1	2	6	768	768	768	768	17.5	63.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	11787	13021	13419	15207	13634	13242	13754	1.3	0.2	0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2401	3141	3818	5910	6456	6682	8297	4.7	5.4	2.5
Hydro (pumping excluded)	10	11	9	9	9	9	10	-1.0	0.0	1.1
Wind	2390	3127	3802	5064	5609	5835	7450	4.8	4.0	2.9
Solar	1	3	7	837	838	838	838	21.5	61.4	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	9386	9880	9601	9297	7179	6561	5457	0.2	-2.9	-2.7
of which cogeneration units	5578	5685	5806	7114	6166	5435	4679	0.4	0.6	-2.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5214	5061	4466	4225	2366	2090	1472	-1.5	-6.2	-4.6
Gas fired	1862	2278	2274	2274	1135	1135	897	2.0	-6.7	-2.3
Oil fired	860	860	1017	1017	492	223	218	1.7	-7.0	-7.8
Biomass-waste fired	1449	1681	1844	1781	3186	3113	2870	2.4	5.6	-1.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	33.4	30.2	31.4	19.6	24.7	25.8	29.5			
Efficiency of gross thermal power generation (%)	34.9	35.7	35.3	32.4	33.4	32.7	32.7			
% of gross electricity from CHP	52.6	52.1	49.2	53.6	46.9	40.1	31.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	17.1	29.3	33.9	58.3	80.1	86.3	90.6			
Fuel Inputs to Thermal Power Generation (ktoe)	7834	7127	7624	3838	3759	3363	3237	-0.3	-6.8	-1.5
Solids	3669	3444	3770	1696	1529	818	604	0.3	-8.6	-8.9
Oil (including refinery gas)	1354	346	221	65	2	21	17	-16.6	-39.0	27.0
Gas (including derived gases)	2112	1996	1812	1197	202	379	389	-1.5	-19.7	6.7
Biomass & Waste	699	1341	1821	880	2026	2145	2227	10.0	1.1	1.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	9001	8288	8139	8416	8109	7572	7372	-1.0	0.0	-0.9
Refineries	8435	7700	7175	7493	6974	6501	6026	-1.6	-0.3	-1.5
Biofuels and hydrogen production	0	0	27	277	434	368	317	0.0	32.1	-3.1
District heating	549	575	923	644	691	670	985	5.3	-2.9	3.6
Derived gases, cokeries etc.	17	13	13	3	10	34	43	-2.9	-2.2	15.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Denmark: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	75	76	78	83	90	94	99	0.4	1.3	1.0
Public road transport	7	7	7	7	8	8	8	-0.7	0.9	0.6
Private cars and motorcycles	51	51	52	54	58	59	61	0.1	1.1	0.6
Rail	6	6	7	7	8	9	10	1.8	1.7	2.3
Aviation ⁽³⁾	8	9	10	12	13	14	16	2.7	2.5	2.2
Inland navigation	3	3	3	3	3	4	4	-0.7	1.1	1.1
Freight transport activity (Gtkm)	21	22	23	25	29	31	33	0.6	2.3	1.3
Heavy goods and light commercial vehicles	18	18	18	20	23	25	26	0.2	2.5	1.3
Rail	2	2	2	2	3	3	3	1.0	1.6	1.9
Inland navigation	2	2	2	2	3	3	3	3.6	1.0	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4816	5324	5180	5009	4965	4732	4603	0.7	-0.4	-0.8
Public road transport	203	202	199	204	213	215	212	-0.2	0.7	0.0
Private cars and motorcycles	2627	2866	2828	2599	2399	2119	1993	0.7	-1.6	-1.8
Heavy goods and light commercial vehicles	864	1003	1011	971	1060	1073	1061	1.6	0.5	0.0
Rail	103	107	113	118	125	132	137	0.9	1.0	0.9
Aviation	856	955	874	960	997	1013	1014	0.2	1.3	0.2
Inland navigation	163	192	156	158	171	180	186	-0.4	0.9	0.8
<i>By transport activity</i>										
Passenger transport	3874	4197	4049	3915	3774	3523	3401	0.4	-0.7	-1.0
Freight transport	942	1128	1132	1094	1191	1209	1202	1.9	0.5	0.1
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	5.6	9.0	8.6	7.9			
ENERGY EFFICIENCY										
Primary energy consumption	19432	19264	19777	16536	16510	15660	15369	0.2	-1.8	-0.7
Final Energy Demand	14717	15497	15606	14800	14759	14291	13695	0.6	-0.6	-0.7
<i>by sector</i>										
Industry	2934	2864	2417	2568	2706	2637	2548	-1.9	1.1	-0.6
Energy intensive industries	1156	1107	849	908	934	857	785	-3.0	1.0	-1.7
Other industrial sectors	1778	1757	1569	1659	1771	1780	1763	-1.2	1.2	0.0
Residential	4162	4453	4916	4345	4188	4075	3808	1.7	-1.6	-0.9
Tertiary	2805	2856	3094	2879	2900	2847	2736	1.0	-0.6	-0.6
Transport ⁽⁵⁾	4816	5324	5179	5009	4965	4732	4603	0.7	-0.4	-0.8
<i>by fuel</i>										
Solids	290	253	166	163	149	94	67	-5.4	-1.1	-7.7
Oil	7058	7293	6759	6083	5659	5177	4739	-0.4	-1.8	-1.8
Gas	1667	1708	1771	1744	1826	1689	1639	0.6	0.3	-1.1
Electricity	2791	2877	2783	2733	2836	2962	3149	0.0	0.2	1.1
Heat (from CHP and District Heating)	2255	2424	2840	2556	2495	2463	2264	2.3	-1.3	-1.0
Renewable energy forms	656	943	1287	1519	1784	1871	1788	7.0	3.3	0.0
Other	0	0	0	3	10	34	49	-100.0	0.0	16.6
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	85	79	81	66	58	50	45	-0.4	-3.3	-2.6
Industry (Energy on Value added, index 2000=100)	100	101	91	94	90	80	72	-0.9	-0.1	-2.2
Residential (Energy on Private Income, index 2000=100)	100	96	102	84	71	62	53	0.2	-3.5	-3.0
Tertiary (Energy on Value added, index 2000=100)	100	96	101	91	80	70	62	0.1	-2.3	-2.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	44	46	43	39	34	30	27	-0.4	-2.2	-2.3
Freight transport (toe/Mtkm)	44	51	50	44	42	39	37	1.3	-1.7	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.7	66.3	63.9	50.5	45.7	39.1	35.1	-1.1	-3.3	-2.6
of which ETS sectors (2013 scope) GHG emissions	29.3	27.9	18.0	14.6	11.4	9.7			-6.3	-4.0
of which ESD sectors (2013 scope) GHG emissions	37.0	36.0	32.5	31.1	27.7	25.4			-1.4	-2.0
CO₂ Emissions (energy related)	53.3	50.0	48.8	35.8	31.1	26.1	23.2	-0.9	-4.4	-2.9
Power generation/District heating	24.5	20.3	21.2	10.6	7.1	4.5	3.5	-1.4	-10.4	-6.8
Energy Branch	2.2	2.3	2.1	1.9	1.7	1.4	1.1	-0.5	-2.1	-4.4
Industry	5.4	5.1	3.9	4.1	4.1	3.5	2.9	-3.2	0.4	-3.6
Residential	3.9	3.6	3.2	2.6	2.2	2.0	1.7	-2.0	-3.7	-2.6
Tertiary	3.0	2.7	2.9	2.5	2.4	1.9	1.6	-0.3	-1.8	-4.1
Transport	14.3	15.9	15.5	14.2	13.5	12.9	12.5	0.8	-1.3	-0.8
CO₂ Emissions (non energy and non land use related)	2.6	2.3	1.4	1.4	1.5	1.4	1.2	-6.1	1.0	-2.3
Non-CO₂ GHG emissions	15.8	14.0	13.7	13.3	13.1	11.6	10.7	-1.4	-0.4	-2.0
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.2	91.8	88.4	69.8	63.3	54.1	48.6	-1.1	-3.3	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.36	0.28	0.26	0.17	0.11	0.07	0.05	-3.0	-8.3	-7.0
Final energy demand (t of CO ₂ /toe)	1.81	1.76	1.63	1.58	1.51	1.42	1.36	-1.0	-0.8	-1.0
Industry	1.85	1.79	1.63	1.58	1.52	1.31	1.12	-1.3	-0.7	-3.0
Residential	0.95	0.80	0.66	0.59	0.53	0.50	0.45	-3.6	-2.1	-1.7
Tertiary	1.05	0.95	0.93	0.88	0.83	0.65	0.58	-1.2	-1.2	-3.5
Transport	2.97	2.99	2.99	2.83	2.72	2.72	2.72	0.0	-0.9	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	10.5	15.6	22.0	23.9	33.9	39.4	44.5			
RES-H&C share	15.3	22.2	30.8	28.2	36.9	45.3	49.4			
RES-E share	15.0	25.0	33.1	42.0	62.7	66.4	79.4			
RES-T share (based on ILUC formula)	0.3	0.5	1.3	8.0	13.1	15.5	20.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	87	89	108	108	112	102	1.8	1.9	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	169	178	195	186	207	210	212	1.4	0.6	0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	18.3	21.9	23.2	20.9	25.6	28.2	30.6	2.4	1.0	1.8
as % of GDP	7.9	8.8	9.4	8.2	8.8	8.8	8.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Estonia: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	1	1	1	1	1	1	1	-0.5	-0.4	-0.8		
GDP (in 000 ME13)	11	15	15	18	20	22	24	3.6	3.0	1.6		
Gross Inland Consumption (ktoe)	4979	5622	6155	6344	6429	6287	5620	2.1	0.4	-1.3		
Solids	2968	3190	3917	3589	3674	3604	2853	2.8	-0.6	-2.5		
Oil	916	1182	1109	1065	976	898	847	1.9	-1.3	-1.4		
Natural gas	662	800	563	796	855	805	700	-1.6	4.3	-2.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0		
Renewable energy forms	513	589	847	995	1039	1077	1151	5.1	2.1	1.0		
Energy Branch Consumption	163	193	199	190	186	178	144	2.0	-0.7	-2.5		
Non-Energy Uses	180	229	90	280	295	305	310	-6.7	12.6	0.5		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	3435	4250	5467	5368	5402	5340	4620	4.8	-0.1	-1.6		
Solids	2669	3176	3943	3594	3675	3614	2862	4.0	-0.7	-2.5		
Oil	249	375	532	681	649	595	544	7.9	2.0	-1.7		
Natural gas	5	7	5	0	0	0	0	-1.7	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	512	692	988	1093	1077	1131	1214	6.8	0.9	1.2		
Hydro	0	2	2	3	3	3	3	19.1	2.1	0.0		
Biomass & Waste	512	686	962	1040	1015	1063	1086	6.5	0.5	0.7		
Wind	0	5	24	49	57	62	119	0.0	9.2	7.5		
Solar and others	0	0	0	0	2	3	6	0.0	0.0	13.0		
Geothermal	0	0	0	0	0	0	1	0.0	0.0	19.3		
Net Imports (ktoe)	1628	1489	862	1219	1262	1182	1237	-6.2	3.9	-0.2		
Solids	270	23	-22	-5	-2	-10	-9	0.0	-23.0	18.9		
Oil	786	917	760	625	555	525	507	-0.3	-3.1	-0.9		
Crude oil and Feedstocks	-125	-225	-394	-560	-524	-472	-423	12.2	2.9	-2.1		
Oil products	911	1142	1153	1185	1080	997	931	2.4	-0.7	-1.5		
Natural gas	657	792	558	796	861	818	732	-1.6	4.4	-1.6		
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0		
Import Dependency (%)	32.0	25.9	13.5	18.5	18.9	18.1	21.1					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	8513	10205	12964	10765	11315	11361	9401	4.3	-1.4	-1.8		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	7682	9302	11167	8608	9082	9059	6483	3.8	-2.0	-3.3		
Oil (including refinery gas)	56	32	41	0	0	0	0	-3.1	-100.0	0.0		
Gas (including derived gases)	757	760	712	689	658	626	573	-0.6	-0.8	-1.4		
Biomass-waste	13	35	740	859	873	925	933	49.8	1.7	0.7		
Hydro (pumping excluded)	5	22	27	33	33	33	33	18.4	2.0	0.0		
Wind	0	54	277	575	668	717	1379	0.0	9.2	7.5		
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	2912	2684	2827	2689	2276	2295	2511	-0.3	-2.1	1.0		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	2	36	114	312	343	367	573	49.8	11.6	5.3		
Hydro (pumping excluded)	2	5	6	8	8	8	8	11.6	2.9	0.0		
Wind	0	31	108	303	334	358	564	0.0	12.0	5.4		
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	2910	2648	2713	2377	1933	1929	1939	-0.7	-3.3	0.0		
of which cogeneration units	452	1604	447	437	266	260	465	-0.1	-5.0	5.7		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	2684	2411	2430	1871	1413	1413	1413	-1.0	-5.3	0.0		
Gas fired	218	224	224	362	371	364	371	0.3	5.2	0.0		
Oil fired	8	8	8	0	0	0	0	0.0	-100.0	0.0		
Biomass-waste fired	0	5	51	144	148	152	154	0.0	11.2	0.4		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	29.8	38.8	47.4	40.9	51.2	51.1	39.1					
Efficiency of gross thermal power generation (%)	30.0	33.5	34.9	34.3	34.3	33.9	33.7					
% of gross electricity from CHP	11.0	10.2	10.3	12.7	11.1	9.4	11.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.2	1.1	8.1	13.6	13.9	14.7	24.9					
Fuel Inputs to Thermal Power Generation (ktoe)	2442	2600	3115	2543	2662	2693	2036	2.5	-1.6	-2.6		
Solids	2199	2353	2715	2171	2288	2309	1652	2.1	-1.7	-3.2		
Oil (including refinery gas)	16	10	12	0	0	0	0	-3.0	-100.0	0.0		
Gas (including derived gases)	226	227	209	168	166	166	162	-0.8	-2.3	-0.2		
Biomass & Waste	2	10	179	205	208	218	223	55.3	1.5	0.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	926	1271	1523	1753	1790	1683	1574	5.1	1.6	-1.3		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	0	10	65	55	45	0.0	0.0	-3.5		
District heating	454	489	446	418	434	420	403	-0.2	-0.3	-0.7		
Derived gases, cokeries etc.	473	782	1077	1325	1290	1209	1125	8.6	1.8	-1.4		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Estonia: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	10	14	14	15	16	16	17	2.8	1.6	0.8
Public road transport	3	3	2	2	2	2	3	-2.4	1.5	0.5
Private cars and motorcycles	7	10	10	11	12	12	12	4.3	1.4	0.5
Rail	0	0	0	0	0	0	1	-1.3	3.0	2.6
Aviation ⁽³⁾	0	1	1	1	1	1	1	12.3	4.1	3.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.3	1.2
Freight transport activity (Gtkm)	10	13	9	10	11	12	14	-1.1	2.2	2.1
Heavy goods and light commercial vehicles	2	3	2	3	3	3	3	1.9	3.1	1.3
Rail	8	11	7	7	8	9	10	-2.0	1.9	2.4
Inland navigation	0	0	0	0	0	0	0	-6.9	1.0	1.1
Energy demand in transport (ktoe) ⁽⁴⁾	580	766	781	811	795	739	709	3.0	0.2	-1.1
Public road transport	62	62	67	74	76	76	74	0.7	1.3	-0.2
Private cars and motorcycles	349	475	499	524	484	415	371	3.6	-0.3	-2.6
Heavy goods and light commercial vehicles	95	135	116	132	139	143	146	2.0	1.9	0.4
Rail	46	44	54	33	39	41	45	1.7	-3.2	1.5
Aviation	21	42	38	42	50	58	65	6.4	2.8	2.7
Inland navigation	7	8	8	6	7	7	7	1.2	-1.7	0.9
By transport activity										
Passenger transport	441	589	614	647	618	558	521	3.4	0.1	-1.7
Freight transport	138	178	167	164	176	181	188	1.9	0.5	0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.0	1.3	8.2	7.7	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	4799	5394	6065	6064	6134	5982	5310	2.4	0.1	-1.4
Final Energy Demand	2434	2877	2907	3036	3092	3014	2901	1.8	0.6	-0.6
by sector										
Industry	571	718	575	713	745	741	720	0.1	2.6	-0.4
Energy intensive industries	245	273	231	294	305	302	290	-0.6	2.8	-0.5
Other industrial sectors	327	446	343	419	441	438	429	0.5	2.5	-0.3
Residential	929	890	1028	963	989	982	943	1.0	-0.4	-0.5
Tertiary	348	495	520	544	557	546	522	4.1	0.7	-0.6
Transport ⁽⁵⁾	586	774	785	816	800	745	715	3.0	0.2	-1.1
by fuel										
Solids	118	118	83	64	56	46	35	-3.4	-3.8	-4.7
Oil	772	982	941	966	861	770	711	2.0	-0.9	-1.9
Gas	177	263	207	286	329	324	284	1.6	4.7	-1.4
Electricity	431	519	594	614	653	681	708	3.3	1.0	0.8
Heat (from CHP and District Heating)	511	547	531	484	512	507	498	0.4	-0.4	-0.3
Renewable energy forms	425	447	550	622	681	686	659	2.6	2.1	-0.3
Other	0	0	0	0	0	2	6	-100.0	0.0	37.4
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	465	372	405	346	314	283	234	-1.4	-2.5	-2.9
Industry (Energy on Value added, index 2000=100)	100	84	67	69	66	61	56	-4.0	-0.2	-1.6
Residential (Energy on Private Income, index 2000=100)	100	63	74	58	52	47	41	-2.9	-3.4	-2.4
Tertiary (Energy on Value added, index 2000=100)	100	104	108	93	85	76	67	0.8	-2.4	-2.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	44	41	37	32	29	0.3	-1.6	-2.6
Freight transport (toe/Mtkm)	14	13	19	17	16	15	14	3.1	-1.6	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	17.0	18.2	18.8	16.5	16.7	16.2	12.6	1.0	-1.2	-2.8
of which ETS sectors (2013 scope) GHG emissions		13.0	13.8	11.3	11.9	11.9	8.8		-1.4	-3.0
of which ESD sectors (2013 scope) GHG emissions		5.1	5.0	5.1	4.7	4.3	3.7		-0.5	-2.3
CO2 Emissions (energy related)	14.0	15.5	16.4	14.1	14.4	14.1	10.9	1.6	-1.3	-2.8
Power generation/District heating	10.7	11.3	12.7	10.1	10.6	10.7	7.8	1.7	-1.7	-3.1
Energy Branch	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.5	3.0	-2.4
Industry	0.9	1.0	0.8	0.8	0.7	0.7	0.5	-1.8	0.0	-3.2
Residential	0.3	0.2	0.2	0.2	0.2	0.2	0.2	-4.2	0.5	-1.9
Tertiary	0.3	0.5	0.4	0.5	0.5	0.4	0.3	2.1	1.9	-3.5
Transport	1.7	2.3	2.3	2.4	2.2	2.0	1.9	3.1	-0.6	-1.2
CO2 Emissions (non energy and non land use related)	0.7	0.7	0.4	0.5	0.5	0.4	0.4	-6.0	3.0	-2.7
Non-CO2 GHG emissions	2.3	1.9	2.0	1.9	1.8	1.6	1.3	-1.4	-1.0	-2.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	42.2	45.2	46.7	41.0	41.5	40.2	31.4	1.0	-1.2	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.67	0.64	0.63	0.59	0.59	0.60	0.49	-0.6	-0.6	-1.8
Final energy demand (t of CO2/toe)	1.33	1.42	1.27	1.28	1.17	1.09	1.03	-0.5	-0.8	-1.3
Industry	1.58	1.43	1.31	1.07	1.01	0.93	0.75	-1.8	-2.6	-2.9
Residential	0.32	0.26	0.19	0.20	0.20	0.18	0.18	-5.2	0.9	-1.4
Tertiary	0.91	1.05	0.75	0.92	0.84	0.70	0.63	-2.0	1.2	-2.9
Transport	2.96	2.98	2.99	2.96	2.75	2.74	2.72	0.1	-0.8	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	17.9	17.4	24.6	24.2	25.9	27.1	30.5			
RES-H&C share	31.8	32.2	43.2	39.9	38.8	40.9	44.7			
RES-E share	0.2	1.1	10.4	14.4	14.9	15.6	22.2			
RES-T share (based on ILUC formula)	0.0	0.0	0.2	0.2	10.0	10.5	11.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€133/MWh)	42	43	47	65	66	74	95	1.0	3.5	3.8
Average Price of Electricity in Final demand sectors (€133/MWh)	59	63	80	109	124	139	151	3.2	4.5	2.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.3	2.0	2.9	3.7	4.4	4.8	5.1	8.6	4.1	1.7
as % of GDP	12.0	13.5	19.3	20.0	21.4	21.6	21.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Finland: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	5	5	5	5	6	6	6	0.3	0.5	0.5		
GDP (in 000 ME13)	157	179	187	188	199	210	226	1.7	0.6	1.3		
Gross Inland Consumption (ktoe)	32531	34529	37124	33972	35239	34925	32800	1.3	-0.5	-0.7		
Solids	5131	4936	6874	4106	4615	4187	3042	3.0	-3.9	-4.1		
Oil	9342	10335	10121	9288	8370	7454	6449	0.8	-1.9	-2.6		
Natural gas	3422	3598	3838	2821	2677	2864	2848	1.2	-3.5	0.6		
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7		
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8		
Renewable energy forms	7816	8195	9508	10767	10556	12206	13732	2.0	1.1	2.7		
Energy Branch Consumption	1168	1209	1529	1577	1541	1346	1251	2.7	0.1	-2.1		
Non-Energy Uses	1040	1155	1229	1157	1191	1224	1234	1.7	-0.3	0.4		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	14892	16669	17662	18108	20966	22721	22248	1.7	1.7	0.6		
Solids	1088	2136	1803	1007	1113	1272	1293	5.2	-4.7	1.5		
Oil	189	257	389	433	393	354	314	7.5	0.1	-2.2		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7		
Renewable energy sources	7816	8273	9589	10905	10726	12361	13978	2.1	1.1	2.7		
Hydro	1261	1185	1111	1350	1215	1269	1296	-1.3	0.9	0.6		
Biomass & Waste	6549	7072	8451	9354	9034	10199	11774	2.6	0.7	2.7		
Wind	7	15	25	198	464	868	868	14.2	33.8	6.5		
Solar and others	1	1	1	2	13	23	35	10.0	26.3	10.0		
Geothermal	0	0	0	0	0	1	5	0.0	0.0	39.5		
Net Imports (ktoe)	18337	18979	17869	16077	14480	12403	10748	-0.3	-2.1	-2.9		
Solids	3537	3341	3977	3099	3502	2914	1749	1.2	-1.3	-6.7		
Oil	10357	10655	9232	9068	8179	7290	6310	-1.1	-1.2	-2.6		
Crude oil and Feedstocks	11964	10713	11206	13148	11844	10685	9533	-0.7	0.6	-2.1		
Oil products	-1607	-58	-1974	-4080	-3665	-3394	-3223	2.1	6.4	-1.3		
Natural gas	3422	3598	3838	2821	2680	2872	2869	1.2	-3.5	0.7		
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8		
Import Dependency (%)	55.2	54.2	47.9	47.0	40.9	35.3	32.6					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	69934	70538	80591	71480	84109	97598	91121	1.4	0.4	0.8		
Nuclear energy	22479	23271	22800	23137	36999	37079	28850	0.1	5.0	-2.5		
Solids	12452	10998	20826	8559	11120	11985	8706	5.3	-6.1	-2.4		
Oil (including refinery gas)	587	500	484	635	39	264	248	-1.9	-22.2	20.2		
Gas (including derived gases)	10816	11921	11847	7771	6538	8951	8980	0.9	-5.8	3.2		
Biomass-waste	8860	9891	11413	13361	9892	14463	19160	2.6	-1.4	6.8		
Hydro (pumping excluded)	14660	13784	12922	15702	14123	14756	15067	-1.3	0.9	0.6		
Wind	78	170	294	2307	5392	10095	10095	14.2	33.8	6.5		
Solar	1	2	5	7	6	6	14	14.9	2.0	9.7		
Geothermal and other renewables	1	1	0	0	0	0	0	-8.4	-96.5	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	16012	16586	16691	18173	19614	20502	19055	0.4	1.6	-0.3		
Nuclear energy	2726	2726	2726	2726	4378	4378	3398	0.0	4.8	-2.5		
Renewable energy	2923	3121	3359	4289	5628	7243	7326	1.4	5.3	2.7		
Hydro (pumping excluded)	2882	3035	3155	3276	3276	3374	3447	0.9	0.4	0.5		
Wind	38	82	197	1001	2343	3860	3860	17.9	28.1	5.1		
Solar	3	4	7	12	9	9	19	8.8	2.5	7.8		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	10363	10739	10605	11158	9609	8882	8330	0.2	-1.0	-1.4		
of which cogeneration units	8280	5832	6168	6361	5448	5704	5001	-2.9	-1.2	-0.9		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	4676	4633	4532	4340	3303	2308	1770	-0.3	-3.1	-6.0		
Gas fired	2570	2481	2703	2698	2825	3108	2906	0.5	0.4	0.3		
Oil fired	1519	1505	1194	1532	643	628	607	-2.4	-6.0	-0.6		
Biomass-waste fired	1597	2120	2176	2589	2838	2838	3046	3.1	2.7	0.7		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.9	46.7	52.8	43.2	47.0	52.2	52.4					
Efficiency of gross thermal power generation (%)	39.3	36.8	36.6	34.5	34.5	34.9	35.2					
% of gross electricity from CHP	36.4	38.9	36.2	33.7	26.9	28.9	31.2					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	65.9	66.8	58.9	76.3	79.0	78.3	80.3					
Fuel Inputs to Thermal Power Generation (ktoe)	7166	7782	10460	7561	6887	8794	9052	3.9	-4.1	2.8		
Solids	3181	2998	5098	2421	2886	2914	2016	4.8	-5.5	-3.5		
Oil (including refinery gas)	122	98	99	168	13	65	59	-2.1	-18.6	16.7		
Gas (including derived gases)	2119	2385	2516	1493	1282	1556	1543	1.7	-6.5	1.9		
Biomass & Waste	1744	2302	2747	3480	2706	4259	5433	4.6	-0.2	7.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	21306	21544	23155	24530	26264	24284	20420	0.8	1.3	-2.5		
Refineries	13059	12876	14265	15688	14229	12823	11363	0.9	0.0	-2.2		
Biofuels and hydrogen production	0	0	140	334	374	342	325	0.0	10.3	-1.4		
District heating	1059	1265	1600	1434	1503	1313	1227	4.2	-0.6	-2.0		
Derived gases, cokeries etc.	7188	7403	7149	7074	10159	9806	7505	-0.1	3.6	-3.0		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Finland: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	80	87	91	94	97	100	104	1.2	0.7	0.7
Public road transport	8	8	8	8	8	8	8	-0.2	0.3	0.3
Private cars and motorcycles	57	63	66	68	69	70	71	1.5	0.4	0.4
Rail	4	4	4	5	5	6	6	1.4	1.5	1.5
Aviation ⁽³⁾	8	9	9	10	12	13	14	1.2	3.0	2.1
Inland navigation	4	4	4	4	4	4	4	-0.6	0.6	0.6
Freight transport activity (Gtkm)	42	42	42	43	46	49	53	-0.2	1.0	1.4
Heavy goods and light commercial vehicles	29	30	27	28	30	31	33	-0.5	0.8	1.2
Rail	10	10	10	10	11	12	13	-0.4	1.4	1.8
Inland navigation	3	3	5	5	5	5	6	3.0	0.8	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	4338	4624	4827	4896	4738	4477	4254	1.1	-0.2	-1.1
Public road transport	120	116	121	121	121	119	116	0.1	0.0	-0.4
Private cars and motorcycles	2334	2542	2693	2631	2401	2128	1936	1.4	-1.1	-2.1
Heavy goods and light commercial vehicles	1158	1186	1129	1145	1164	1146	1155	-0.3	0.3	-0.1
Rail	90	92	90	94	101	106	110	0.0	1.2	0.9
Aviation	469	526	619	746	785	806	759	2.8	2.4	-0.3
Inland navigation	167	163	175	159	166	172	178	0.5	-0.6	0.7
<i>By transport activity</i>										
Passenger transport	3086	3310	3549	3604	3418	3168	2927	1.4	-0.4	-1.5
Freight transport	1251	1314	1278	1292	1320	1309	1327	0.2	0.3	0.0
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.0	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.9	7.0	8.2	8.3	8.4			
ENERGY EFFICIENCY										
Primary energy consumption	31491	33375	35896	32815	34049	33701	31566	1.3	-0.5	-0.8
Final Energy Demand	24510	25239	26243	24732	24697	23310	22328	0.7	-0.6	-1.0
<i>by sector</i>										
Industry	12313	11922	11428	10647	10745	9896	9488	-0.7	-0.6	-1.2
Energy intensive industries	10172	9616	9017	8347	8411	7526	7117	-1.2	-0.7	-1.7
Other industrial sectors	2141	2306	2412	2299	2334	2370	2371	1.2	-0.3	0.2
Residential	4544	5053	5804	5338	5405	5206	5008	2.5	-0.7	-0.8
Tertiary	3296	3616	4169	3837	3795	3717	3564	2.4	-0.9	-0.6
Transport ⁽⁵⁾	4356	4648	4842	4910	4752	4490	4267	1.1	-0.2	-1.1
<i>by fuel</i>										
Solids	1109	873	843	702	698	645	460	-2.7	-1.9	-4.1
Oil	7850	8102	7619	7073	6495	5558	4631	-0.3	-1.6	-3.3
Gas	1209	1082	1012	981	983	1048	1191	-1.8	-0.3	1.9
Electricity	6507	6942	7178	6788	6896	7204	7235	1.0	-0.4	0.5
Heat (from CHP and District Heating)	3334	3972	4656	4143	4253	3945	3630	3.4	-0.9	-1.6
Renewable energy forms	4501	4268	4935	5042	5364	4891	5150	0.9	0.8	-0.4
Other	0	0	0	3	7	20	30	0.0	1586.5	16.1
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	207	193	199	181	177	166	145	-0.4	-1.2	-1.9
Industry (Energy on Value added, index 2000=100)	100	81	79	75	74	65	59	-2.3	-0.8	-2.2
Residential (Energy on Private Income, index 2000=100)	100	94	98	86	82	75	67	-0.2	-1.8	-2.1
Tertiary (Energy on Value added, index 2000=100)	100	100	110	100	92	85	76	0.9	-1.7	-1.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	36	36	34	32	29	26	23	-0.6	-1.5	-2.4
Freight transport (toe/Mtkm)	30	31	31	30	29	27	25	0.4	-0.6	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	73.1	71.5	78.2	61.1	58.8	53.7	45.0	0.7	-2.8	-2.6
of which ETS sectors (2013 scope) GHG emissions		37.2	43.9	30.8	31.6	29.5	23.3		-3.2	-3.0
of which ESD sectors (2013 scope) GHG emissions		34.3	34.3	30.3	27.2	24.2	21.7		-2.3	-2.2
CO₂ Emissions (energy related)	58.1	57.7	65.3	48.5	47.6	42.9	35.2	1.2	-3.1	-3.0
Power generation/District heating	22.5	23.0	32.3	17.5	18.7	18.3	14.2	3.7	-5.3	-2.7
Energy Branch	2.5	2.5	2.8	3.1	2.8	2.1	1.9	1.2	0.0	-3.9
Industry	14.2	12.7	11.0	10.1	9.5	7.8	6.1	-2.5	-1.4	-4.4
Residential	2.4	2.3	1.8	1.4	1.3	1.1	0.7	-2.6	-3.5	-5.9
Tertiary	3.6	3.5	3.4	2.8	2.4	1.4	0.9	-0.6	-3.6	-8.7
Transport	12.9	13.8	14.0	13.6	13.0	12.2	11.4	0.8	-0.8	-1.3
CO₂ Emissions (non energy and non land use related)	1.5	1.6	2.2	2.3	2.2	2.2	1.8	3.8	0.3	-2.3
Non-CO₂ GHG emissions	13.6	12.2	10.8	10.3	9.0	8.6	8.1	-2.3	-1.8	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	101.1	98.9	108.1	84.4	81.3	74.2	62.2	0.7	-2.8	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.20	0.19	0.23	0.14	0.14	0.12	0.10	1.4	-5.2	-2.7
Final energy demand (t of CO ₂ /toe)	1.35	1.28	1.15	1.13	1.06	0.96	0.86	-1.6	-0.8	-2.1
Industry	1.15	1.06	0.96	0.95	0.89	0.79	0.64	-1.8	-0.8	-3.2
Residential	0.52	0.45	0.32	0.26	0.24	0.21	0.14	-5.0	-2.8	-5.2
Tertiary	1.09	0.97	0.81	0.74	0.62	0.38	0.27	-2.9	-2.6	-8.1
Transport	2.97	2.97	2.89	2.77	2.73	2.71	2.67	-0.3	-0.6	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	28.7	28.8	32.5	41.1	42.1	46.5	52.8			
RES-H&C share	38.2	39.1	44.4	55.2	57.9	61.9	71.0			
RES-E share	27.3	26.9	27.7	36.2	33.2	42.6	47.9			
RES-T share (based on ILUC formula)	0.8	0.9	4.3	16.3	18.9	21.9	25.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	52	55	59	95	92	89	97	1.4	4.5	0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	68	80	98	122	132	139	146	3.7	3.0	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.9	20.3	25.8	27.4	32.7	35.3	37.9	4.4	2.4	1.5
as % of GDP	10.7	11.3	13.8	14.6	16.4	16.8	16.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								France: EUCO27			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	57	60	61	63	64	66	67	0.7	0.5	0.4	
GDP (in 000 M€13)	1812	1962	2024	2091	2266	2417	2594	1.1	1.1	1.4	
Gross Inland Consumption (ktoe)	257565	276646	267546	255764	249163	236605	226684	0.4	-0.7	-0.9	
Solids	15048	14303	12076	8763	8525	5892	5025	-2.2	-3.4	-5.1	
Oil	88937	93185	82668	79806	75305	70418	65534	-0.7	-0.9	-1.4	
Natural gas	35766	41025	42540	38807	36050	33384	29631	1.7	-1.6	-1.9	
Nuclear	107093	116474	110539	109294	97019	94378	94378	0.3	-1.3	-0.3	
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3	
Renewable energy forms	16695	16847	22365	24473	37959	38220	37660	3.0	5.4	-0.1	
Energy Branch Consumption	10822	9989	9635	8309	7426	6687	6284	-1.2	-2.6	-1.7	
Non-Energy Uses	16851	16704	14290	14232	14666	14772	14824	-1.6	0.3	0.1	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	129790	136271	135095	135170	136027	133412	132750	0.4	0.1	-0.2	
Solids	2483	383	162	143	0	0	0	-23.9	-100.0	0.0	
Oil	2023	1604	1542	1217	1122	958	904	-2.7	-3.1	-2.1	
Natural gas	1505	909	646	304	294	284	274	-8.1	-7.6	-0.7	
Nuclear	107093	116474	110539	109294	97019	94378	94378	0.3	-1.3	-0.3	
Renewable energy sources	16688	16902	22206	24212	37591	37792	37194	2.9	5.4	-0.1	
Hydro	5771	4442	5364	5476	5753	5515	5516	-0.7	0.7	-0.4	
Biomass & Waste	10763	12159	15690	15780	23690	21749	18841	3.8	4.2	-2.3	
Wind	7	83	855	1850	4741	5620	7295	62.6	18.7	4.4	
Solar and others	21	26	118	870	3081	4522	5100	18.7	38.6	5.2	
Geothermal	126	192	180	236	325	386	442	3.6	6.1	3.1	
Net Imports (ktoe)	134082	144103	132149	123217	115888	106058	96901	-0.1	-1.3	-1.8	
Solids	13005	13511	12192	8620	8525	5892	5025	-0.6	-3.5	-5.1	
Oil	91265	95114	82886	81211	76880	72200	67258	-1.0	-0.7	-1.3	
Crude oil and Feedstocks	85329	85302	65254	46552	45803	44253	42504	-2.6	-3.5	-0.7	
Oil products	5936	9813	17632	34659	31078	27947	24755	11.5	5.8	-2.2	
Natural gas	35779	40720	39553	38504	35810	33226	29696	1.0	-1.0	-1.9	
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3	
Import Dependency (%)	51.5	51.6	49.0	47.7	46.0	44.3	42.2				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	535965	571353	563931	584203	597543	600260	611191	0.5	0.6	0.2	
Nuclear energy	415162	451529	428521	444338	396167	385196	385062	0.3	-0.8	-0.3	
Solids	27004	27515	23359	8820	9109	413	59	-1.4	-9.0	-39.6	
Oil (including refinery gas)	7165	7925	5565	516	0	337	331	-2.5	-100.0	0.0	
Gas (including derived gases)	15365	26254	26385	25753	23739	19313	7933	5.6	-1.1	-10.4	
Biomass-waste	3559	5016	6675	10512	14131	19796	19015	6.5	7.8	3.0	
Hydro (pumping excluded)	67121	51658	62388	63671	66898	64124	64139	-0.7	0.7	-0.4	
Wind	77	964	9942	21517	55129	65350	84827	62.6	18.7	4.4	
Solar	5	10	620	8601	31589	44533	47817	63.1	48.2	4.2	
Geothermal and other renewables	507	482	476	474	782	1198	2008	-0.6	5.1	9.9	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114543	114015	123033	127555	148953	154972	162390	0.7	1.9	0.9	
Nuclear energy	64293	64053	63679	63247	61327	59493	59493	-0.1	-0.4	-0.3	
Renewable energy	23570	24601	32099	40333	66684	77564	85853	3.1	7.6	2.6	
Hydro (pumping excluded)	23266	23571	23779	23779	23635	23635	23635	0.2	-0.1	0.0	
Wind	57	777	7050	10358	22130	25130	31212	61.9	12.1	3.5	
Solar	7	13	1030	6100	20535	28228	30093	64.7	34.9	3.9	
Other renewables (tidal etc.)	240	240	240	240	384	571	914	0.0	4.8	9.1	
Thermal power	26680	25361	27256	23974	20942	17915	17043	0.2	-2.6	-2.0	
of which cogeneration units	7013	5779	4606	10620	5929	4313	3716	-4.1	2.6	-4.6	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	10552	8637	7229	5385	3856	3834	3780	-3.7	-6.1	-0.2	
Gas fired	4116	6055	9334	9646	9181	8972	8289	8.5	-0.2	-1.0	
Oil fired	11328	9794	9643	7693	5008	1849	1701	-1.6	-6.3	-10.2	
Biomass-waste fired	684	876	1049	1249	2894	3258	3270	4.4	10.7	1.2	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	2	3	3	3	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	51.0	54.6	50.0	50.2	44.1	42.7	41.5				
Efficiency of gross thermal power generation (%)	34.9	33.3	30.0	39.7	38.8	36.6	32.6				
% of gross electricity from CHP	3.0	2.4	2.8	2.4	1.8	1.7	1.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	90.8	89.2	90.2	94.0	94.5	96.7	98.6				
Fuel Inputs to Thermal Power Generation (ktoe)	13278	17328	17887	9873	10425	9371	7217	3.0	-5.3	-3.6	
Solids	6559	6402	4717	2258	2323	94	12	-3.2	-6.8	-40.9	
Oil (including refinery gas)	1242	2160	1639	135	0	111	110	2.8	-79.3	268.0	
Gas (including derived gases)	4002	6298	8178	4941	3960	3691	1843	7.4	-7.0	-7.4	
Biomass & Waste	1476	2469	3352	2529	4127	5459	5237	8.5	2.1	2.4	
Geothermal heat	0	0	0	10	15	15	15	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	205144	211862	191250	166425	153165	148944	146708	-0.7	-2.2	-0.4	
Refineries	90823	88392	73306	49009	48091	46404	44552	-2.1	-4.1	-0.8	
Biofuels and hydrogen production	325	651	2397	2746	3127	2985	2970	22.1	2.7	-0.5	
District heating	312	448	608	546	574	580	477	6.9	-0.6	-1.8	
Derived gases, cokeries etc.	113684	122371	114938	114124	101373	98976	98710	0.1	-1.2	-0.3	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								France: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	950	998	1033	1091	1169	1211	1265	0.8	1.2	0.8
Public road transport	42	42	50	55	60	63	65	1.7	1.9	0.8
Private cars and motorcycles	754	801	811	850	901	917	942	0.7	1.1	0.4
Rail	81	90	101	107	119	131	144	2.1	1.7	2.0
Aviation ⁽³⁾	69	62	68	76	86	97	109	-0.1	2.3	2.4
Inland navigation	3	3	3	3	3	4	4	-0.8	0.7	1.3
Freight transport activity (Gtkm)	412	409	392	413	470	518	575	-0.5	1.8	2.0
Heavy goods and light commercial vehicles	311	319	296	310	356	391	433	-0.5	1.9	2.0
Rail	58	41	30	37	42	50	60	-6.3	3.5	3.4
Inland navigation	43	49	66	66	71	77	83	4.4	0.8	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	50360	50194	49347	50154	50040	48014	46697	-0.2	0.1	-0.7
Public road transport	536	519	595	654	705	719	719	1.0	1.7	0.2
Private cars and motorcycles	31157	31368	31602	31615	29882	26811	24900	0.1	-0.6	-1.8
Heavy goods and light commercial vehicles	10961	10554	9424	9543	10301	10715	11219	-1.5	0.9	0.9
Rail	1134	980	932	1017	1082	1157	1227	-1.9	1.5	1.3
Aviation	6088	6291	6294	6827	7535	8039	8021	0.3	1.8	0.6
Inland navigation	483	481	500	499	535	573	610	0.4	0.7	1.3
By transport activity										
Passenger transport	38753	38887	39197	39839	38895	36371	34462	0.1	-0.1	-1.2
Freight transport	11607	11307	10150	10316	11145	11643	12235	-1.3	0.9	0.9
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.3	2.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.7	1.3	4.9	5.6	6.5	6.7	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	240713	259943	253256	241532	234497	221833	211859	0.5	-0.8	-1.0
Final Energy Demand	154639	160337	155397	155251	156628	146885	138428	0.0	0.1	-1.2
by sector										
Industry	36670	34356	28478	30330	31303	30033	29153	-2.5	1.0	-0.7
Energy intensive industries	20906	20576	16506	17590	18022	16976	16332	-2.3	0.9	-1.0
Other industrial sectors	15764	13780	11972	12740	13281	13057	12821	-2.7	1.0	-0.4
Residential	42153	45931	45463	44159	45108	40926	36788	0.8	-0.1	-2.0
Tertiary	25209	29569	31792	30270	29812	27520	25369	2.3	-0.6	-1.6
Transport ⁽⁵⁾	50607	50482	49664	50492	50405	48405	47117	-0.2	0.1	-0.7
by fuel										
Solids	5775	5218	4547	4076	4168	3598	2882	-2.4	-0.9	-3.6
Oil	72503	71421	64647	63583	59030	54287	49569	-1.1	-0.9	-1.7
Gas	30907	33744	32430	32675	31028	29090	27382	0.5	-0.4	-1.2
Electricity	33096	36352	38185	37788	38993	39461	40523	1.4	0.2	0.4
Heat (from CHP and District Heating)	3236	4163	3525	3658	3385	3301	3139	0.9	-0.4	-0.8
Renewable energy forms	9123	9439	12064	13458	19978	16997	14659	2.8	5.2	-3.0
Other	0	0	0	12	46	151	273	0.0	0.0	19.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	142	141	132	122	110	98	87	-0.7	-1.8	-2.3
Industry (Energy on Value added, index 2000=100)	100	89	78	80	77	70	65	-2.5	-0.1	-1.7
Residential (Energy on Private Income, index 2000=100)	100	98	91	86	80	68	57	-0.9	-1.3	-3.4
Tertiary (Energy on Value added, index 2000=100)	100	108	110	101	92	79	67	1.0	-1.8	-3.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	34	33	32	30	27	24	21	-0.7	-1.6	-2.4
Freight transport (toe/Mtkm)	28	28	26	25	24	22	21	-0.9	-0.9	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	585.3	552.1	512.0	482.2	444.8	406.1	365.8	-1.3	-1.4	-1.9
of which ETS sectors (2013 scope) GHG emissions	173.2	147.3	131.8	125.5	111.5	97.7		-1.6	-2.5	
of which ESD sectors (2013 scope) GHG emissions	378.8	364.7	347.3	350.4	319.3	294.6	268.1	-1.3	-1.7	
CO ₂ Emissions (energy related)	388.3	394.4	360.0	332.5	308.1	276.5	249.1	-0.8	-1.5	-2.1
Power generation/District heating	46.7	53.6	48.1	26.7	22.5	14.5	9.8	0.3	-7.3	-8.0
Energy Branch	19.9	16.3	15.0	13.7	11.6	10.3	9.4	-2.7	-2.6	-2.0
Industry	74.6	67.0	54.1	59.8	57.7	50.9	45.2	-3.2	0.6	-2.4
Residential	59.3	64.8	57.2	51.5	43.6	39.7	34.0	-0.4	-2.7	-2.5
Tertiary	39.8	44.4	44.7	38.9	33.3	29.0	24.6	1.1	-2.9	-3.0
Transport	148.0	148.1	140.9	141.9	139.5	132.2	126.1	-0.5	-0.1	-1.0
CO ₂ Emissions (non energy and non land use related)	28.9	28.5	25.7	25.6	26.6	24.8	20.1	-1.2	0.4	-2.8
Non-CO ₂ GHG emissions	168.1	129.2	126.3	124.1	110.1	104.8	96.6	-2.8	-1.4	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	104.5	98.6	91.4	86.1	79.4	72.5	65.3	-1.3	-1.4	-1.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.08	0.09	0.08	0.04	0.04	0.02	0.02	-0.3	-7.8	-8.1
Final energy demand (t of CO ₂ /toe)	2.08	2.02	1.91	1.88	1.75	1.71	1.66	-0.8	-0.9	-0.5
Industry	2.03	1.95	1.90	1.97	1.84	1.69	1.55	-0.7	-0.3	-1.7
Residential	1.41	1.41	1.26	1.17	0.97	0.97	0.93	-1.1	-2.6	-0.4
Tertiary	1.58	1.50	1.41	1.29	1.12	1.05	0.97	-1.2	-2.3	-1.4
Transport	2.92	2.93	2.84	2.81	2.77	2.73	2.68	-0.3	-0.2	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	9.5	9.5	12.5	15.5	23.6	25.2	26.5			
RES-H&C share	12.4	12.3	15.8	19.4	30.0	30.4	30.4			
RES-E share	14.7	13.7	14.9	19.8	31.5	36.3	39.6			
RES-T share (based on ILUC formula)	1.4	2.0	6.3	7.7	10.2	12.7	16.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	61	58	57	90	93	82	72	-0.7	5.1	-2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	108	100	109	123	145	147	152	0.0	2.9	0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	176.3	196.0	216.7	274.0	283.8	292.9	2.4	3.4	0.7
as % of GDP	8.5	9.0	9.7	10.4	12.1	11.7	11.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Germany: EU027			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	82	83	82	81	81	80	80	0.0	-0.1	-0.1	
GDP (in 000 ME13)	2370	2442	2608	2790	2973	3126	3251	1.0	1.3	0.9	
Gross Inland Consumption (ktoe)	342337	341916	332974	322609	308985	290077	264410	-0.3	-0.7	-1.5	
Solids	84802	81952	78824	78036	77896	74793	59744	-0.7	-0.1	-2.6	
Oil	130980	121460	111798	111688	102755	93384	83977	-1.6	-0.8	-2.0	
Natural gas	71878	77782	75905	74011	68585	67917	65888	0.5	-1.0	-0.4	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Electricity	263	-393	-1286	-4145	558	1385	1321	0.0	0.0	9.0	
Renewable energy forms	10665	19054	31477	39195	50717	52599	53480	11.4	4.9	0.5	
Energy Branch Consumption	14566	14384	13378	13631	12248	11492	10157	-0.8	-0.9	-1.9	
Non-Energy Uses	25064	24662	22582	24685	25861	26513	26458	-1.0	1.4	0.2	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	135549	137356	129648	120921	109978	99102	88051	-0.4	-1.6	-2.2	
Solids	60629	56484	45906	42340	37289	35535	26366	-2.7	-2.1	-3.4	
Oil	4680	5782	4754	4964	3809	2920	2236	0.2	-2.2	-5.2	
Natural gas	15825	14334	11113	10749	9889	8247	6194	-3.5	-1.2	-4.6	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Renewable energy sources	10665	18695	31618	39044	50516	52400	53254	11.5	4.8	0.5	
Hydro	1869	1689	1802	1925	1936	2024	2070	-0.4	0.7	0.7	
Biomass & Waste	7876	14249	24988	27662	32638	32050	29955	12.2	2.7	-0.9	
Wind	804	2341	3250	5689	9411	10065	11163	15.0	11.2	1.7	
Solar and others	116	371	1493	3575	5505	7184	8572	29.1	13.9	4.5	
Geothermal	0	46	86	192	1026	1077	1495	0.0	28.1	3.8	
Net Imports (ktoe)	204709	208118	201696	204465	202003	194047	179554	-0.1	0.0	-1.2	
Solids	21663	25972	31644	35695	40607	39257	33378	3.9	2.5	-1.9	
Oil	125918	120239	109834	109501	101883	93403	84688	-1.4	-0.7	-1.8	
Crude oil and Feedstocks	101441	111039	91612	87783	82418	76393	70587	-1.0	-1.1	-1.5	
Oil products	24477	9200	18222	21718	19465	17010	14101	-2.9	0.7	-3.2	
Natural gas	56865	61940	61645	63262	58755	59804	59941	0.8	-0.5	0.2	
Electricity	263	-393	-1286	-4145	558	1385	1321	0.0	0.0	9.0	
Import Dependency (%)	59.4	60.4	60.1	62.8	64.7	66.2	67.1				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	572313	615800	626583	645695	598249	622666	608580	0.9	-0.5	0.2	
Nuclear energy	169606	163055	140556	96916	34469	0	0	-1.9	-13.1	-100.0	
Solids	296687	288142	262896	272894	273970	269618	211413	-1.2	0.4	-2.6	
Oil (including refinery gas)	4785	11997	8741	1079	940	2108	1905	6.2	-20.0	7.3	
Gas (including derived gases)	59970	83608	100912	92808	72400	101267	106879	5.3	-3.3	4.0	
Biomass-waste	10121	20849	42975	58715	35101	44915	57762	15.6	-2.0	5.1	
Hydro (pumping excluded)	21732	19638	20953	22382	22506	23539	24065	-0.4	0.7	0.7	
Wind	9352	27229	37793	66153	109427	117039	129800	15.0	11.2	1.7	
Solar	60	1283	11727	34612	48465	63211	75785	69.3	15.2	4.6	
Geothermal and other renewables	0	-1	30	137	969	969	969	0.0	41.4	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114373	123973	154603	189032	207116	207563	220353	3.1	3.0	0.6	
Nuclear energy	21644	20656	20656	12188	6907	0	0	-0.5	-10.4	-100.0	
Renewable energy	11040	25641	50141	90293	120216	132933	152238	16.3	9.1	2.4	
Hydro (pumping excluded)	4831	5210	5407	5590	5592	5802	5906	1.1	0.3	0.5	
Wind	6095	18375	27180	44946	61821	60536	68118	16.1	8.6	1.0	
Solar	114	2056	17554	39757	52803	66595	78215	65.5	11.6	4.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	81689	77676	83806	86551	79993	74630	68115	0.3	-0.5	-1.6	
of which cogeneration units	14369	20840	24554	17074	6203	11337	12531	5.5	-12.9	7.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	50924	48087	47789	52819	49170	44016	36711	-0.6	0.3	-2.9	
Gas fired	21336	21671	26890	25178	21891	21904	23087	2.3	-2.0	0.5	
Oil fired	8066	5686	5688	5028	1674	1457	1247	-3.4	-11.5	-2.9	
Biomass-waste fired	1363	2232	3432	3501	7087	7082	6899	9.7	7.5	-0.3	
Hydrogen plants	0	0	0	1	1	1	1	0.0	0.0	0.0	
Geothermal heat	0	0	8	24	170	170	170	0.0	35.8	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	53.3	53.0	43.5	36.8	31.2	32.5	30.2				
Efficiency of gross thermal power generation (%)	37.8	38.6	39.4	40.5	37.6	39.3	42.2				
% of gross electricity from CHP	10.6	12.6	13.2	12.8	6.1	11.2	13.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	36.8	37.7	40.5	43.2	41.9	40.1	47.4				
Fuel Inputs to Thermal Power Generation (ktoe)	84562	90075	90587	90286	87621	91712	77302	0.7	-0.3	-1.2	
Solids	67101	65740	59687	61356	60916	59255	45894	-1.2	0.2	-2.8	
Oil (including refinery gas)	1411	1427	855	236	311	682	594	-4.9	-9.6	6.7	
Gas (including derived gases)	12891	17808	19955	16546	12500	17399	17684	4.5	-4.6	3.5	
Biomass & Waste	3158	5100	10066	12030	13061	13543	12297	12.3	2.6	-0.6	
Geothermal heat	0	0	24	118	834	834	834	0.0	42.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	180304	187908	163048	142875	120424	103375	96191	-1.0	-3.0	-2.2	
Refineries	119420	125092	103238	98875	92861	86061	79395	-1.4	-1.1	-1.6	
Biofuels and hydrogen production	237	1859	2884	3011	2837	2680	2771	28.4	-0.2	-0.2	
District heating	1198	3942	4754	4043	3515	3040	2970	14.8	-3.0	-1.7	
Derived gases, cokeries etc.	59450	57015	52171	36947	21211	11594	11054	-1.3	-8.6	-6.3	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Germany: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	1066	1099	1130	1187	1208	1236	1265	0.6	0.7	0.5
Public road transport	69	67	62	63	67	67	67	-1.1	0.8	0.3
Private cars and motorcycles	850	876	905	942	949	957	971	0.6	0.5	0.2
Rail	90	92	100	111	115	129	138	1.1	1.4	1.8
Aviation ⁽³⁾	55	62	61	69	75	80	85	1.1	2.0	1.3
Inland navigation	2	2	2	2	2	3	3	-0.8	1.0	1.5
Freight transport activity (Gtkm)	493	545	592	619	682	720	761	1.9	1.4	1.1
Heavy goods and light commercial vehicles	342	385	422	439	486	510	538	2.1	1.4	1.0
Rail	83	95	107	116	126	135	144	2.6	1.6	1.4
Inland navigation	68	65	63	65	70	74	79	-0.7	1.0	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	65101	59797	58145	59791	56162	52111	49260	-1.1	-0.3	-1.1
Public road transport	1047	897	803	815	836	823	801	-2.6	0.4	-0.4
Private cars and motorcycles	42176	37675	35607	35814	31246	27272	24942	-1.7	-1.3	-2.2
Heavy goods and light commercial vehicles	12303	11057	11325	11780	12375	12172	12195	-0.8	0.9	-0.1
Rail	1947	1580	1414	1496	1455	1522	1526	-3.2	0.3	0.5
Aviation	7345	8265	8719	9601	9944	9999	9457	1.7	1.3	-0.5
Inland navigation	283	323	278	285	307	324	340	-0.2	1.0	1.0
By transport activity										
Passenger transport	51841	47805	45951	47113	42838	38948	36040	-1.2	-0.7	-1.7
Freight transport	13261	11992	12194	12678	13324	13163	13220	-0.8	0.9	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.3	2.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.4	3.2	5.1	5.2	5.3	5.9	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	317273	317254	310393	297925	283124	263564	237952	-0.2	-0.9	-1.7
Final Energy Demand	219989	218456	219721	217308	213400	199431	186426	0.0	-0.3	-1.3
by sector										
Industry	57570	59093	60563	62096	65087	62327	58374	0.5	0.7	-1.1
Energy intensive industries	39345	40705	42170	43510	45859	43676	40146	0.7	0.8	-1.3
Other industrial sectors	18225	18389	18393	18586	19228	18651	18229	0.1	0.4	-0.5
Residential	63072	63498	62442	58726	57392	53083	49747	-0.1	-0.8	-1.4
Tertiary	34239	35302	38222	36396	34478	31643	28792	1.1	-1.0	-1.8
Transport ⁽⁵⁾	65109	60563	58494	60090	56442	52378	49512	-1.1	-0.4	-1.3
by fuel										
Solids	10958	8238	9379	9284	9903	9590	7848	-1.5	0.5	-2.3
Oil	99738	90309	83168	82419	73232	63554	54911	-1.8	-1.3	-2.8
Gas	56064	55136	56501	56368	55549	49723	47707	0.1	-0.2	-1.5
Electricity	41570	44907	45781	44880	45877	48677	47811	1.0	0.0	0.4
Heat (from CHP and District Heating)	6831	10751	11268	9856	9778	9644	9750	5.1	-1.4	0.0
Renewable energy forms	4828	9116	13625	14468	18967	17845	17764	10.9	3.4	-0.7
Other	0	0	0	32	94	396	636	0.0	0.0	21.0
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	144	140	128	116	104	93	81	-1.2	-2.0	-2.4
Industry (Energy on Value added, index 2000=100)	100	96	93	90	90	83	75	-0.7	-0.3	-1.7
Residential (Energy on Private Income, index 2000=100)	100	99	94	83	76	66	59	-0.6	-2.2	-2.5
Tertiary (Energy on Value added, index 2000=100)	100	98	98	87	77	67	58	-0.2	-2.4	-2.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	37	33	32	28	25	22	-2.2	-1.7	-2.5
Freight transport (toe/Mtkm)	27	22	21	20	20	18	17	-2.6	-0.5	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	1076.8	1015.8	957.1	943.5	891.9	834.2	719.2	-1.2	-0.7	-2.1
of which ETS sectors (2013 scope) GHG emissions	543.7	505.7	510.9	510.9	495.2	483.0	405.9		-0.2	-2.0
of which ESD sectors (2013 scope) GHG emissions	472.1	451.3	432.6	432.6	396.7	351.2	313.3		-1.3	-2.3
CO2 Emissions (energy related)	852.1	825.2	787.8	777.7	733.0	685.5	589.8	-0.8	-0.7	-2.2
Power generation/District heating	330.6	344.9	324.5	317.5	303.7	307.8	252.8	-0.2	-0.7	-1.8
Energy Branch	28.1	26.2	23.5	25.9	22.0	19.8	17.7	-1.8	-0.7	-2.1
Industry	130.2	115.3	115.3	112.7	114.3	99.5	85.9	-1.2	-0.1	-2.8
Residential	119.4	110.8	104.3	98.0	87.9	76.6	70.4	-1.3	-1.7	-2.2
Tertiary	58.5	55.9	56.3	55.4	47.9	38.2	30.1	-0.4	-1.6	-4.5
Transport	185.3	172.2	163.8	168.2	157.2	143.6	132.8	-1.2	-0.4	-1.7
CO2 Emissions (non energy and non land use related)	63.7	61.6	55.6	56.8	58.4	57.0	49.8	-1.4	0.5	-1.6
Non-CO2 GHG emissions	161.0	128.9	113.7	109.1	100.4	91.6	79.6	-3.4	-1.2	-2.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	85.5	80.6	76.0	74.9	70.8	66.2	57.1	-1.2	-0.7	-2.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.50	0.46	0.42	0.41	0.42	0.41	0.35	-1.7	-0.1	-1.9
Final energy demand (t of CO2/toe)	2.24	2.08	2.00	2.00	1.91	1.79	1.71	-1.1	-0.5	-1.1
Industry	2.26	1.95	1.90	1.81	1.76	1.60	1.47	-1.7	-0.8	-1.8
Residential	1.89	1.74	1.67	1.67	1.53	1.44	1.42	-1.2	-0.9	-0.8
Tertiary	1.71	1.58	1.47	1.52	1.39	1.21	1.05	-1.5	-0.6	-2.8
Transport	2.85	2.84	2.80	2.80	2.79	2.74	2.68	-0.2	-0.1	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.6	6.7	10.5	13.5	18.6	21.1	23.4			
RES-H&C share	4.2	6.7	9.6	10.6	17.5	19.3	19.5			
RES-E share	6.1	10.5	18.1	29.5	34.9	38.1	45.3			
RES-T share (based on ILUC formula)	0.8	4.2	6.9	8.8	10.4	15.0	20.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	51	62	86	106	104	105	3.7	5.6	-0.1
Average Price of Electricity in Final demand sectors (€13/MWh)	132	171	164	160	169	177	180	2.2	0.3	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	225.6	285.4	302.7	290.0	344.1	364.0	382.0	3.0	1.3	1.0
as % of GDP	9.5	11.7	11.6	10.4	11.6	11.6	11.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Greece: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	11 <td>11<td>11<td>11<td>11<td>10</td><td>10</td><td>0.3</td><td>-0.5</td><td>-0.8</td><td colspan="2"></td></td></td></td></td>	11 <td>11<td>11<td>11<td>10</td><td>10</td><td>0.3</td><td>-0.5</td><td>-0.8</td><td colspan="2"></td></td></td></td>	11 <td>11<td>11<td>10</td><td>10</td><td>0.3</td><td>-0.5</td><td>-0.8</td><td colspan="2"></td></td></td>	11 <td>11<td>10</td><td>10</td><td>0.3</td><td>-0.5</td><td>-0.8</td><td colspan="2"></td></td>	11 <td>10</td> <td>10</td> <td>0.3</td> <td>-0.5</td> <td>-0.8</td> <td colspan="2"></td>	10	10	0.3	-0.5	-0.8		
GDP (in 000 ME13)	190	231	232	200	207	213	225	2.0	-1.1	0.8		
Gross Inland Consumption (ktoe)	28292	31410	28725	26055	25201	22201	19514	0.2	-1.3	-2.5		
Solids	9038	8944	7863	6765	5650	3576	1982	-1.4	-3.3	-9.9		
Oil	16085	18119	14974	12997	12146	10669	9063	-0.7	-2.1	-2.9		
Natural gas	1705	2354	3235	2979	3779	3391	3152	6.6	1.6	-1.8		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5		
Renewable energy forms	1466	1668	2163	2714	3225	4320	5134	4.0	4.1	4.8		
Energy Branch Consumption	1634	1820	1839	1906	1780	1562	1369	1.2	-0.3	-2.6		
Non-Energy Uses	719	761	1108	824	847	836	835	4.4	-2.7	-0.1		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	10012	10326	9461	9027	8365	7471	6796	-0.6	-1.2	-2.1		
Solids	8222	8538	7315	6430	5352	3351	1847	-1.2	-3.1	-10.1		
Oil	282	101	132	75	73	70	68	-7.3	-5.7	-0.7		
Natural gas	42	18	8	0	0	0	0	-15.8	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	1466	1668	2006	2521	2940	4050	4881	3.2	3.9	5.2		
Hydro	318	431	641	506	508	477	480	7.3	-2.3	-0.6		
Biomass & Waste	1009	1015	919	1157	1348	1450	1465	-0.9	3.9	0.8		
Wind	39	109	233	330	448	1126	1603	19.7	6.7	13.6		
Solar and others	99	101	197	514	621	979	1314	7.1	12.2	7.8		
Geothermal	2	12	16	16	15	17	19	25.9	-0.4	2.3		
Net Imports (ktoe)	22151	23498	21712	20057	19820	17658	15680	-0.2	-0.9	-2.3		
Solids	769	364	401	335	298	225	135	-6.3	-2.9	-7.6		
Oil	19695	20476	17433	15950	15023	13455	11770	-1.2	-1.5	-2.4		
Crude oil and Feedstocks	20596	19488	20633	24349	23257	21674	20051	0.0	1.2	-1.5		
Oil products	-900	988	-3200	-8399	-8234	-8219	-8282	13.5	9.9	0.1		
Natural gas	1689	2332	3231	2979	3814	3463	3339	6.7	1.7	-1.3		
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5		
Import Dependency (%)	69.5	68.6	69.1	69.0	70.3	70.3	69.8					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	53425	59427	57367	54082	58269	56619	55008	0.7	0.2	-0.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	34313	35543	30797	26751	23101	14813	7854	-1.1	-2.8	-10.2		
Oil (including refinery gas)	8885	9207	6089	4847	5122	2384	129	-3.7	-1.7	-30.8		
Gas (including derived gases)	5920	8171	9830	8817	13840	11444	9754	5.2	3.5	-3.4		
Biomass-waste	163	222	319	195	382	907	896	6.9	1.8	8.9		
Hydro (pumping excluded)	3693	5017	7460	5880	5901	5552	5577	7.3	-2.3	-0.6		
Wind	451	1266	2714	3834	5207	13095	18637	19.7	6.7	13.6		
Solar	0	1	158	3757	4715	8423	12161	0.0	40.4	9.9		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	11212	13208	15889	19208	19727	23761	26804	3.5	2.2	3.1		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	3298	3598	4715	8146	9363	14297	18207	3.6	7.1	6.9		
Hydro (pumping excluded)	3072	3106	3215	3389	3579	3579	3579	0.5	1.1	0.0		
Wind	226	491	1298	2152	2637	5265	6996	19.1	7.3	10.3		
Solar	0	1	202	2605	3147	5454	7632	0.0	31.6	9.3		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	7914	9610	11174	11062	10365	9464	8598	3.5	-0.7	-1.9		
of which cogeneration units	195	3051	588	284	309	315	394	11.7	-6.2	2.5		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	4454	4754	4312	3923	3054	3124	2869	-0.3	-3.4	-0.6		
Gas fired	1157	2203	4189	5062	5306	5273	4738	13.7	2.4	-1.1		
Oil fired	2302	2625	2618	2022	1824	834	733	1.3	-3.6	-8.7		
Biomass-waste fired	1	28	55	55	180	233	258	50.5	12.6	3.7		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	50.3	47.7	38.3	29.6	31.5	26.0	22.9					
Efficiency of gross thermal power generation (%)	36.9	37.0	37.5	38.6	41.4	42.9	43.9					
% of gross electricity from CHP	2.1	7.8	4.3	3.0	3.4	3.0	2.9					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	8.1	10.9	18.6	25.3	27.8	49.4	67.8					
Fuel Inputs to Thermal Power Generation (ktoe)	11492	12344	10787	9041	8820	5921	3654	-0.6	-2.0	-8.4		
Solids	8170	8694	7567	6558	5457	3415	1882	-0.8	-3.2	-10.1		
Oil (including refinery gas)	1978	1992	1278	1005	1071	504	43	-4.3	-1.8	-27.6		
Gas (including derived gases)	1280	1605	1863	1435	2209	1813	1546	3.8	1.7	-3.5		
Biomass & Waste	64	52	79	43	83	190	183	2.2	0.4	8.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	22570	21629	22585	24150	24055	22530	20981	0.0	0.6	-1.4		
Refineries	22508	21536	22462	23941	23769	22236	20669	0.0	0.6	-1.4		
Biofuels and hydrogen production	0	0	124	207	279	278	289	0.0	8.5	0.3		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	62	93	0	2	7	16	23	-95.7	1750.9	13.2		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Greece: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	129	153	161	164	172	176	183	2.2	0.7	0.6
Public road transport	22	22	21	21	22	23	23	-0.3	0.6	0.4
Private cars and motorcycles	67	90	105	106	108	107	108	4.7	0.2	0.1
Rail	3	3	3	3	3	4	4	-0.2	1.0	1.8
Aviation ⁽³⁾	30	31	24	26	32	35	40	-2.2	2.8	2.3
Inland navigation	7	7	7	7	7	8	8	-0.1	0.2	0.6
Freight transport activity (Gtkm)	38	34	37	37	39	41	42	-0.1	0.5	0.7
Heavy goods and light commercial vehicles	28	24	30	30	32	33	34	0.8	0.5	0.7
Rail	0	1	1	1	1	1	1	3.7	0.8	1.1
Inland navigation	9	9	6	6	7	7	7	-3.6	0.5	0.9
Energy demand in transport (ktoe) ⁽⁴⁾	7286	8174	8147	7472	7252	6868	6521	1.1	-1.2	-1.1
Public road transport	423	438	403	403	408	402	389	-0.5	0.1	-0.5
Private cars and motorcycles	3327	4435	4483	4018	3695	3268	2898	3.0	-1.9	-2.4
Heavy goods and light commercial vehicles	1668	1426	1601	1480	1487	1454	1414	-0.4	-0.7	-0.5
Rail	49	46	24	22	23	24	24	-6.8	-0.3	0.3
Aviation	1325	1181	919	936	1016	1085	1148	-3.6	1.0	1.2
Inland navigation	495	648	717	612	622	635	649	3.8	-1.4	0.4
By transport activity										
Passenger transport	5530	6460	6297	5784	5550	5193	4878	1.3	-1.3	-1.3
Freight transport	1756	1714	1850	1688	1702	1675	1643	0.5	-0.8	-0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.5	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	2.8	3.9	4.3	4.7			
ENERGY EFFICIENCY										
Primary energy consumption	27573	30650	27617	25230	24353	21365	18679	0.0	-1.2	-2.6
Final Energy Demand	18676	20958	19197	17486	17115	16167	15026	0.3	-1.1	-1.3
by sector										
Industry	4450	4161	3672	3224	3306	3198	2907	-1.9	-1.0	-1.3
Energy intensive industries	2737	2588	2427	2157	2193	2091	1808	-1.2	-1.0	-1.9
Other industrial sectors	1714	1573	1245	1067	1113	1106	1098	-3.1	-1.1	-0.1
Residential	4502	5510	4615	4351	4280	3997	3647	0.2	-0.8	-1.6
Tertiary	2426	3100	2752	2426	2264	2090	1937	1.3	-1.9	-1.5
Transport ⁽⁵⁾	7297	8188	8158	7484	7265	6882	6536	1.1	-1.2	-1.1
by fuel										
Solids	891	458	302	208	193	161	99	-10.3	-4.4	-6.4
Oil	12744	14413	12110	10307	9463	8652	7639	-0.5	-2.4	-2.1
Gas	257	586	982	1018	1030	1041	1049	14.3	0.5	0.2
Electricity	3710	4377	4568	4397	4597	4450	4349	2.1	0.1	-0.6
Heat (from CHP and District Heating)	28	49	46	44	50	58	64	5.2	0.8	2.5
Renewable energy forms	1046	1076	1191	1510	1774	1785	1792	1.3	4.1	0.1
Other	0	0	0	2	7	19	33	0.0	0.0	16.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	149	136	124	130	122	104	87	-1.8	-0.2	-3.3
Industry (Energy on Value added, index 2000=100)	100	88	101	99	98	92	80	0.1	-0.4	-1.9
Residential (Energy on Private Income, index 2000=100)	100	99	80	88	88	81	71	-2.2	1.0	-2.1
Tertiary (Energy on Value added, index 2000=100)	100	101	86	88	79	71	62	-1.5	-0.9	-2.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	40	40	37	33	30	27	24	-0.9	-2.1	-2.0
Freight transport (toe/Mtkm)	46	51	50	45	43	41	39	0.7	-1.4	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	133.3	139.6	121.4	105.7	96.7	78.7	62.4	-0.9	-2.2	-4.3
of which ETS sectors (2013 scope) GHG emissions	77.2	64.9	57.3	53.1	53.1	39.3	28.1		-2.0	-6.2
of which ESD sectors (2013 scope) GHG emissions	62.4	56.5	48.4	43.6	43.6	39.4	34.3		-2.6	-2.4
CO2 Emissions (energy related)	98.4	106.4	92.1	79.6	73.1	56.9	43.0	-0.7	-2.3	-5.2
Power generation/District heating	52.1	55.6	47.9	40.9	37.2	23.7	13.6	-0.8	-2.5	-9.6
Energy Branch	3.1	3.4	3.6	3.9	3.5	3.3	2.9	1.6	-0.1	-1.8
Industry	10.4	8.9	7.2	6.2	5.9	5.2	4.1	-3.7	-1.9	-3.5
Residential	7.6	9.9	6.7	5.0	4.3	3.9	3.1	-1.3	-4.2	-3.5
Tertiary	3.4	4.3	2.8	1.8	1.2	1.0	0.8	-2.1	-8.0	-4.4
Transport	21.8	24.4	24.0	21.7	20.9	19.7	18.5	1.0	-1.4	-1.2
CO2 Emissions (non energy and non land use related)	8.9	9.6	6.6	6.8	6.7	6.9	6.6	-2.9	0.1	-0.1
Non-CO2 GHG emissions	26.1	23.6	22.6	19.3	16.9	14.9	12.8	-1.4	-2.9	-2.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.1	129.9	113.0	98.4	90.0	73.3	58.1	-0.9	-2.2	-4.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.97	0.93	0.83	0.75	0.63	0.41	0.24	-1.6	-2.7	-9.1
Final energy demand (t of CO2/toe)	2.32	2.26	2.12	1.99	1.89	1.85	1.76	-0.9	-1.1	-0.7
Industry	2.35	2.13	1.96	1.91	1.79	1.63	1.42	-1.8	-0.9	-2.3
Residential	1.69	1.79	1.45	1.16	1.01	0.98	0.84	-1.5	-3.5	-1.9
Tertiary	1.41	1.38	1.01	0.76	0.53	0.47	0.40	-3.3	-6.2	-2.9
Transport	2.99	2.98	2.94	2.90	2.87	2.86	2.83	-0.2	-0.2	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.2	7.0	9.7	14.4	18.5	26.0	33.8			
RES-H&C share	13.6	12.8	17.4	24.8	30.1	33.2	39.0			
RES-E share	7.2	8.2	12.3	22.4	25.8	47.1	65.5			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	1.4	10.2	12.1	16.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	60	63	72	85	97	103	102	1.9	3.0	0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	74	78	108	124	137	150	160	3.8	2.4	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	15.2	20.2	26.7	26.6	31.4	33.1	34.8	5.8	1.6	1.0
as % of GDP	8.0	8.7	11.5	13.3	15.1	15.6	15.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Hungary: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	10	10	10	10	10	-0.2	-0.2	-0.1
GDP (in 000 ME13)	83	102	101	107	117	131	145	1.9	1.5	2.2
Gross Inland Consumption (ktoe)	25298	27611	25811	23493	24257	24810	25422	0.2	-0.6	0.5
Solids	3850	3031	2730	2635	2124	1420	692	-3.4	-2.5	-10.6
Oil	6964	7115	6699	6271	6317	6401	6396	-0.4	-0.6	0.1
Natural gas	9657	12094	9816	7786	8576	7088	6572	0.2	-1.3	-2.6
Nuclear	3672	3585	4078	3666	3677	6045	7861	1.1	-1.0	7.9
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Renewable energy forms	859	1251	2042	1931	2700	3030	3211	9.0	2.8	1.7
Energy Branch Consumption	1164	1062	1095	1029	949	930	923	-0.6	-1.4	-0.3
Non-Energy Uses	1587	2169	1974	2275	2502	2820	3081	2.2	2.4	2.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	11598	10372	11065	10244	9900	10857	12238	-0.5	-1.1	2.1
Solids	2893	1748	1593	1794	1367	662	165	-5.8	-1.5	-19.0
Oil	1699	1457	1150	795	619	278	194	-3.8	-6.0	-11.0
Natural gas	2475	2331	2235	1857	1199	522	493	-1.0	-6.0	-8.5
Nuclear	3672	3585	4078	3666	3677	6045	7861	1.1	-1.0	7.9
Renewable energy sources	859	1251	2010	2132	3038	3350	3526	8.9	4.2	1.5
Hydro	15	17	16	20	20	20	20	0.6	2.1	0.0
Biomass & Waste	758	1145	1844	1905	2660	2620	2522	9.3	3.7	-0.5
Wind	0	1	46	50	77	77	77	0.0	5.3	0.0
Solar and others	0	2	6	9	45	209	229	0.0	23.5	17.6
Geothermal	86	87	99	148	237	425	678	1.4	9.1	11.1
Net Imports (ktoe)	13956	17421	14988	13249	14357	13953	13184	0.7	-0.4	-0.8
Solids	1087	1299	1143	841	757	757	527	0.5	-4.0	-3.6
Oil	5291	5780	5637	5476	5698	6123	6202	0.6	0.1	0.9
Crude oil and Feedstocks	5887	5988	5806	5273	5503	5934	6039	-0.1	-0.5	0.9
Oil products	-596	-208	-169	203	195	189	163	-11.9	0.0	-1.8
Natural gas	7283	9808	7726	5929	7378	6566	6079	0.6	-0.5	-1.9
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Import Dependency (%)	55.2	63.1	58.1	56.4	59.2	56.2	51.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	35191	35756	37371	27859	33193	36298	38567	0.6	-1.2	1.5
Nuclear energy	14180	13834	15761	15087	15024	24706	32131	1.1	-0.5	7.9
Solids	9590	7023	6234	6436	5075	2290	540	-4.2	-2.0	-20.1
Oil (including refinery gas)	4404	455	490	52	0	0	0	-19.7	-100.0	0.0
Gas (including derived gases)	6719	12502	11714	3383	9569	4118	829	5.7	-2.0	-21.7
Biomass-waste	120	1730	2449	2015	2241	2343	2007	35.2	-0.9	-1.1
Hydro (pumping excluded)	178	202	188	232	232	232	232	0.5	2.1	0.0
Wind	0	10	534	585	890	890	890	0.0	5.2	0.0
Solar	0	0	1	32	97	1656	1873	0.0	55.6	34.5
Geothermal and other renewables	0	0	0	38	65	65	65	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	8589	8297	8292	7495	7095	9262	10433	-0.4	-1.5	3.9
Nuclear energy	1920	1920	1920	1960	1960	3221	4482	0.0	0.2	8.6
Renewable energy	48	66	348	431	640	2098	2300	21.9	6.3	13.7
Hydro (pumping excluded)	48	49	53	57	57	57	57	1.0	0.7	0.0
Wind	0	17	293	329	477	477	477	0.0	5.0	0.0
Solar	0	0	2	45	106	1564	1766	0.0	48.7	32.5
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6621	6311	6024	5103	4495	3944	3651	-0.9	-2.9	-2.1
of which cogeneration units	1464	2047	1862	1144	1575	1133	1024	2.4	-1.7	-4.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1747	1380	1155	1137	692	425	414	-4.1	-5.0	-5.0
Gas fired	4160	4622	4605	3496	3385	3098	2822	1.0	-3.0	-1.8
Oil fired	602	176	91	91	11	11	5	-17.2	-19.2	-7.3
Biomass-waste fired	112	133	173	349	356	358	358	4.4	7.5	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	30	52	52	52	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	42.9	45.7	47.7	39.3	50.4	42.4	40.0			
Efficiency of gross thermal power generation (%)	29.8	32.8	34.1	37.3	40.5	37.3	27.6			
% of gross electricity from CHP	13.5	19.1	19.6	14.4	13.8	9.1	6.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	41.1	44.1	50.7	64.6	55.9	82.3	96.5			
Fuel Inputs to Thermal Power Generation (ktoe)	6009	5692	5265	2752	3597	2031	1073	-1.3	-3.7	-11.4
Solids	2755	1924	1646	1611	1289	593	145	-5.0	-2.4	-19.6
Oil (including refinery gas)	1052	155	138	15	0	0	0	-18.4	-100.0	0.0
Gas (including derived gases)	2140	3079	2704	657	1600	708	271	2.4	-5.1	-16.3
Biomass & Waste	61	534	777	436	653	674	601	28.9	-1.7	-0.8
Geothermal heat	0	0	0	32	56	56	56	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12946	13165	14441	12781	12808	15177	16983	1.1	-1.2	2.9
Refineries	7638	8118	8427	6997	7089	7183	7179	1.0	-1.7	0.1
Biofuels and hydrogen production	0	3	175	182	348	325	328	0.0	7.1	-0.6
District heating	471	627	474	648	634	625	879	0.1	3.0	3.3
Derived gases, cokeries etc.	4837	4417	5365	4954	4737	7044	8598	1.0	-1.2	6.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Hungary: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	80	84	84	86	95	103	110	0.5	1.3	1.5
Public road transport	19	18	16	17	18	18	19	-1.3	0.8	0.7
Private cars and motorcycles	47	51	54	54	60	64	68	1.4	1.1	1.2
Rail	12	12	10	11	12	14	16	-1.8	2.1	2.3
Aviation ⁽³⁾	2	4	4	4	5	6	8	5.9	3.0	5.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	27	35	34	35	38	42	46	2.3	1.1	1.9
Heavy goods and light commercial vehicles	17	24	23	23	24	26	28	2.7	0.7	1.6
Rail	9	9	9	10	11	12	14	0.0	2.1	2.6
Inland navigation	1	2	2	2	3	3	3	10.4	1.0	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	3309	4308	4341	3958	4120	4132	4211	2.8	-0.5	0.2
Public road transport	339	361	335	346	353	352	347	-0.1	0.5	-0.2
Private cars and motorcycles	1805	2191	2208	2035	2072	1997	1961	2.0	-0.6	-0.5
Heavy goods and light commercial vehicles	763	1341	1418	1214	1277	1287	1330	6.4	-1.0	0.4
Rail	171	154	150	152	172	193	208	-1.3	1.3	1.9
Aviation	230	261	230	207	243	300	360	0.0	0.6	4.0
Inland navigation	1	1	1	4	4	4	5	3.1	14.6	1.7
By transport activity										
Passenger transport	2449	2877	2826	2642	2731	2720	2743	1.4	-0.3	0.0
Freight transport	860	1431	1515	1316	1389	1413	1467	5.8	-0.9	0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	4.1	4.7	8.8	8.5	8.5			
ENERGY EFFICIENCY										
Primary energy consumption	23711	25442	23837	21219	21754	21991	22342	0.1	-0.9	0.3
Final Energy Demand	16139	18218	16596	15895	16146	15686	15219	0.3	-0.3	-0.6
by sector										
Industry	3513	3369	2890	3081	3001	3114	3093	-1.9	0.4	0.3
Energy intensive industries	2517	2267	1854	1941	1850	1875	1768	-3.0	0.0	-0.5
Other industrial sectors	996	1102	1036	1141	1151	1239	1324	0.4	1.1	1.4
Residential	5603	6464	5740	5253	5260	4962	4765	0.2	-0.9	-1.0
Tertiary	3712	4072	3625	3566	3726	3443	3117	-0.2	0.3	-1.8
Transport ⁽⁵⁾	3311	4313	4341	3995	4159	4167	4244	2.7	-0.4	0.2
by fuel										
Solids	665	690	481	501	370	381	166	-3.2	-2.6	-7.7
Oil	4218	4904	4638	4261	4179	4031	3877	1.0	-1.0	-0.7
Gas	6503	7852	6261	5868	5788	5384	5201	-0.4	-0.8	-1.1
Electricity	2531	2780	2941	2977	3096	3278	3388	1.5	0.5	0.9
Heat (from CHP and District Heating)	1447	1308	1090	985	1007	910	957	-2.8	-0.8	-0.5
Renewable energy forms	774	683	1184	1301	1701	1688	1611	4.3	3.7	-0.5
Other	0	0	0	1	5	13	18	0.0	0.0	14.3
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	305	271	257	219	207	190	175	-1.7	-2.1	-1.7
Industry (Energy on Value added, index 2000=100)	100	74	64	63	56	52	47	-4.4	-1.2	-1.8
Residential (Energy on Private Income, index 2000=100)	100	90	87	77	71	60	52	-1.4	-2.0	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	90	81	75	71	59	48	-2.0	-1.3	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	33	32	30	27	25	23	0.8	-1.7	-1.5
Freight transport (toe/Mtkm)	32	41	45	38	37	34	32	3.5	-2.0	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	79.8	76.9	67.7	59.4	55.7	48.1	41.7	-1.6	-1.9	-2.9
of which ETS sectors (2013 scope) GHG emissions	30.6	25.6	19.8	19.6	19.5	14.1	10.1		-2.7	-6.3
of which ESD sectors (2013 scope) GHG emissions	46.3	42.1	39.9	36.2	34.0	31.5	31.5		-1.5	-1.4
CO2 Emissions (energy related)	55.0	56.4	49.0	41.5	40.5	33.6	28.7	-1.1	-1.9	-3.4
Power generation/District heating	22.1	18.3	16.0	10.5	10.9	5.6	2.7	-3.2	-3.8	-13.0
Energy Branch	1.5	1.2	1.5	1.6	1.4	1.3	1.2	-0.3	-0.6	-1.4
Industry	6.8	6.7	5.3	5.8	4.9	4.6	3.7	-2.4	-0.8	-2.8
Residential	8.8	10.7	8.6	7.3	7.0	6.6	6.3	-0.2	-2.1	-1.1
Tertiary	6.1	6.7	5.2	5.2	5.2	4.3	3.6	-1.6	-0.1	-3.5
Transport	9.7	12.7	12.3	11.2	11.2	11.1	11.2	2.4	-1.0	0.0
CO2 Emissions (non energy and non land use related)	4.5	4.9	3.7	4.4	4.8	5.0	4.8	-1.9	2.5	0.1
Non-CO2 GHG emissions	20.3	15.6	15.0	13.5	10.4	9.5	8.2	-3.0	-3.6	-2.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.3	81.2	71.5	62.7	58.8	50.8	44.0	-1.6	-1.9	-2.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.41	0.34	0.31	0.26	0.23	0.11	0.05	-2.7	-2.7	-13.9
Final energy demand (t of CO2/toe)	1.94	2.02	1.90	1.85	1.75	1.70	1.63	-0.2	-0.8	-0.7
Industry	1.92	2.00	1.84	1.87	1.64	1.49	1.20	-0.4	-1.1	-3.1
Residential	1.57	1.66	1.50	1.39	1.33	1.33	1.31	-0.4	-1.2	-0.1
Tertiary	1.65	1.65	1.44	1.45	1.39	1.25	1.17	-1.4	-0.3	-1.8
Transport	2.92	2.94	2.83	2.81	2.69	2.67	2.63	-0.3	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.8	4.5	8.6	10.0	13.2	14.7	15.4			
RES-H&C share	7.6	6.0	11.1	13.4	17.1	19.0	21.0			
RES-E share	0.6	4.4	7.1	6.7	7.9	11.1	10.6			
RES-T share (based on ILUC formula)	0.0	0.3	4.7	6.0	10.0	10.3	10.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	48	60	67	76	71	79	84	3.5	0.5	1.7
Average Price of Electricity in Final demand sectors (€13/MWh)	78	107	132	113	130	140	154	5.4	-0.2	1.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	11.2	16.1	20.3	18.0	22.2	25.2	27.9	6.1	0.9	2.3
as % of GDP	13.5	15.9	20.2	16.7	18.9	19.2	19.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Ireland: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	4	4	5	5	5	5	5	1.9	0.8	0.0		
GDP (in 000 M€13)	130	165	165	183	208	225	245	2.4	2.3	1.6		
Gross Inland Consumption (ktoe)	14425	15265	15191	14208	14452	14157	13573	0.5	-0.5	-0.6		
Solids	2601	2664	1979	2028	1844	1496	1108	-2.7	-0.7	-5.0		
Oil	8145	8589	7818	6926	6749	6532	6278	-0.4	-1.5	-0.7		
Natural gas	3436	3470	4683	4016	4013	4061	3688	3.1	-1.5	-0.8		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1		
Renewable energy forms	235	366	671	1152	1983	2216	2623	11.1	11.4	2.8		
Energy Branch Consumption	254	300	243	250	206	197	176	-0.4	-1.7	-1.6		
Non-Energy Uses	675	516	341	360	405	425	440	-6.6	1.7	0.8		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	2159	1647	1843	2031	1944	2148	2532	-1.6	0.5	2.7		
Solids	965	820	981	740	0	1	1	0.2	-56.5	13.3		
Oil	0	0	0	44	0	0	0	0.0	0.0	13.3		
Natural gas	958	461	233	231	233	233	231	-13.2	0.0	-0.1		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	235	366	628	1016	1710	1914	2300	10.3	10.5	3.0		
Hydro	73	54	52	62	66	65	65	-3.4	2.6	-0.2		
Biomass & Waste	141	216	327	420	651	812	876	8.8	7.1	3.0		
Wind	21	96	242	520	935	947	1234	27.7	14.5	2.8		
Solar and others	0	1	8	13	58	89	121	54.0	22.6	7.7		
Geothermal	0	0	0	0	0	1	3	0.0	0.0	21.6		
Net Imports (ktoe)	12370	13765	13215	12285	12617	12124	11163	0.7	-0.5	-1.2		
Solids	1681	1886	945	1288	1844	1495	1107	-5.6	6.9	-5.0		
Oil	8203	8694	7706	6991	6866	6645	6385	-0.6	-1.2	-0.7		
Crude oil and Feedstocks	3016	3166	2987	2873	2875	2715	2551	-0.1	-0.4	-1.2		
Oil products	5186	5527	4718	4118	3982	3930	3834	-0.9	-1.7	-0.4		
Natural gas	2478	3010	4480	3784	3781	3830	3472	6.1	-1.7	-0.8		
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1		
Import Dependency (%)	84.9	89.6	86.5	85.8	86.6	84.9	81.5					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	23673	25626	28425	26857	31139	31960	32607	1.8	0.9	0.5		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	8587	8839	6384	6793	6070	4906	3557	-2.9	-0.5	-5.2		
Oil (including refinery gas)	4638	3340	605	15	3	15	6	-18.4	-41.0	7.3		
Gas (including derived gases)	9263	11574	17705	12617	12728	14368	12800	6.7	-3.2	0.1		
Biomass-waste	95	130	317	660	682	886	1115	12.8	8.0	5.0		
Hydro (pumping excluded)	846	631	599	721	771	760	760	-3.4	2.6	-0.2		
Wind	244	1112	2815	6049	10869	11009	14353	27.7	14.5	2.8		
Solar	0	0	0	1	16	16	16	0.0	0.0	0.0		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	4452	5930	8091	9091	9685	9138	9698	6.2	1.8	0.0		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	355	751	1611	2724	4222	4264	5318	16.3	10.1	2.3		
Hydro (pumping excluded)	236	234	237	237	258	258	258	0.0	0.8	0.0		
Wind	119	517	1374	2486	3945	3987	5042	27.7	11.1	2.5		
Solar	0	0	0	1	19	19	19	0.0	0.0	0.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	4097	5179	6480	6366	5464	4874	4380	4.7	-1.7	-2.2		
of which cogeneration units	77	240	285	264	63	303	304	14.0	-14.0	17.0		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	1369	1387	1213	1186	842	842	842	-1.2	-3.6	0.0		
Gas fired	1872	2625	4081	3969	3624	3509	3160	8.1	-1.2	-1.4		
Oil fired	842	1124	1143	1143	801	326	173	3.1	-3.5	-14.2		
Biomass-waste fired	14	43	43	69	197	198	204	11.4	16.6	0.3		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	57.4	47.1	38.5	32.4	35.6	38.8	37.6					
Efficiency of gross thermal power generation (%)	40.7	43.2	46.8	47.2	47.8	47.6	47.6					
% of gross electricity from CHP	2.4	1.7	6.7	8.4	2.8	16.3	17.8					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	5.0	7.3	13.1	27.7	39.6	39.6	49.8					
Fuel Inputs to Thermal Power Generation (ktoe)	4775	4758	4600	3661	3517	3644	3160	-0.4	-2.6	-1.1		
Solids	1930	1920	1358	1448	1344	1089	798	-3.5	-0.1	-5.1		
Oil (including refinery gas)	997	769	128	4	1	4	1	-18.5	-40.4	7.4		
Gas (including derived gases)	1825	2040	3039	2066	2020	2340	2095	5.2	-4.0	0.4		
Biomass & Waste	24	30	75	143	153	211	266	12.2	7.5	5.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	3341	3204	3033	3024	3135	2988	2836	-1.0	0.3	-1.0		
Refineries	3341	3203	2940	2933	2928	2762	2596	-1.3	0.0	-1.2		
Biofuels and hydrogen production	0	1	93	89	200	195	197	0.0	7.9	-0.1		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	2	8	31	43	0.0	2205.1	18.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Ireland: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	50	65	70	69	78	86	92	3.4	1.1	1.7
Public road transport	7	8	8	9	9	9	9	2.0	0.3	0.6
Private cars and motorcycles	35	45	48	46	52	58	62	3.3	0.8	1.8
Rail	1	2	2	2	2	2	2	2.7	1.0	1.1
Aviation ⁽³⁾	6	10	10	11	14	16	17	5.2	3.1	1.9
Inland navigation	1	1	1	1	1	1	1	0.9	1.0	0.8
Freight transport activity (Gtkm)	12	17	11	12	14	15	17	-0.9	2.4	2.5
Heavy goods and light commercial vehicles	11	17	10	11	13	15	17	-0.5	2.4	2.5
Rail	0	0	0	0	0	0	0	-15.4	1.2	1.5
Inland navigation	0	0	0	0	0	0	0	-2.5	1.4	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	4082	5078	4715	4586	4766	4782	4865	1.5	0.1	0.2
Public road transport	96	101	110	111	112	113	114	1.4	0.2	0.2
Private cars and motorcycles	2206	2577	2807	2583	2528	2446	2376	2.4	-1.0	-0.6
Heavy goods and light commercial vehicles	1086	1482	967	1019	1136	1231	1348	-1.2	1.6	1.7
Rail	40	42	44	44	47	49	50	0.8	0.7	0.6
Aviation	629	857	767	809	921	920	953	2.0	1.8	0.3
Inland navigation	25	18	20	21	22	23	24	-2.1	1.0	0.8
<i>By transport activity</i>										
Passenger transport	2958	3559	3724	3544	3604	3525	3490	2.3	-0.3	-0.3
Freight transport	1124	1519	990	1042	1162	1257	1375	-1.3	1.6	1.7
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.7	1.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.0	2.0	4.4	4.8	4.9			
ENERGY EFFICIENCY										
Primary energy consumption	13750	14749	14850	13848	14047	13732	13134	0.8	-0.6	-0.7
Final Energy Demand	10779	12597	11957	11423	11768	11418	11126	1.0	-0.2	-0.6
<i>by sector</i>										
Industry	2498	2582	2146	2453	2563	2410	2291	-1.5	1.8	-1.1
Energy intensive industries	1245	1341	1023	1166	1182	1024	909	-1.9	1.5	-2.6
Other industrial sectors	1252	1241	1123	1287	1381	1386	1382	-1.1	2.1	0.0
Residential	2513	2954	3296	2823	2857	2779	2623	2.7	-1.4	-0.8
Tertiary	1684	1979	1799	1556	1577	1441	1341	0.7	-1.3	-1.6
Transport ⁽⁵⁾	4085	5082	4715	4590	4771	4787	4870	1.4	0.1	0.2
<i>by fuel</i>										
Solids	671	751	604	567	501	407	311	-1.0	-1.9	-4.7
Oil	7045	8204	7270	6439	6234	6002	5748	0.3	-1.5	-0.8
Gas	1200	1364	1593	1883	1929	1658	1539	2.9	1.9	-2.2
Electricity	1745	2094	2186	2107	2262	2324	2410	2.3	0.3	0.6
Heat (from CHP and District Heating)	0	0	0	1	14	36	63	0.0	0.0	16.0
Renewable energy forms	118	184	304	424	820	959	1011	10.0	10.4	2.1
Other	0	0	0	2	8	31	45	0.0	1734.5	19.1
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	111	93	92	78	70	63	56	-1.9	-2.7	-2.2
Industry (Energy on Value added, index 2000=100)	100	85	75	80	73	64	56	-2.8	-0.3	-2.6
Residential (Energy on Private Income, index 2000=100)	100	95	98	86	75	64	53	-0.2	-2.7	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	97	82	64	57	48	41	-1.9	-3.6	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	51	46	46	43	38	34	31	-1.2	-1.7	-2.0
Freight transport (toe/Mtkm)	96	88	92	89	86	81	80	-0.3	-0.7	-0.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	71.8	73.1	65.0	63.1	61.3	59.0	55.0	-1.0	-0.6	-1.1
of which ETS sectors (2013 scope) GHG emissions	25.4	20.0	18.5	17.6	16.6	14.2		-1.2	-2.2	
of which ESD sectors (2013 scope) GHG emissions	47.8	45.0	44.6	43.7	42.4	40.8		-0.3	-0.7	
CO₂ Emissions (energy related)	43.2	47.3	42.0	37.8	36.2	34.1	30.9	-0.3	-1.5	-1.6
Power generation/District heating	15.6	15.3	13.3	11.0	10.3	10.0	8.2	-1.6	-2.5	-2.2
Energy Branch	0.3	0.4	0.3	0.4	0.3	0.2	0.2	-1.3	-1.1	-1.5
Industry	5.3	5.6	3.6	3.8	3.4	2.6	2.0	-3.9	-0.4	-5.0
Residential	6.4	7.2	7.8	6.5	6.1	5.5	4.8	2.1	-2.5	-2.3
Tertiary	3.4	3.5	3.1	2.5	2.4	2.0	1.7	-0.7	-2.8	-3.3
Transport	12.3	15.3	13.9	13.6	13.8	13.7	13.9	1.3	-0.1	0.1
CO₂ Emissions (non energy and non land use related)	2.9	2.7	1.4	1.8	1.9	1.8	1.5	-7.0	3.1	-2.4
Non-CO₂ GHG emissions	25.6	23.1	21.5	23.5	23.2	23.1	22.6	-1.7	0.8	-0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.2	126.5	112.3	109.1	106.0	102.1	95.1	-1.0	-0.6	-1.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.66	0.60	0.47	0.41	0.33	0.31	0.25	-3.4	-3.5	-2.8
Final energy demand (t of CO ₂ /toe)	2.53	2.51	2.38	2.32	2.18	2.09	2.02	-0.6	-0.9	-0.8
Industry	2.13	2.16	1.66	1.56	1.33	1.09	0.89	-2.5	-2.2	-3.9
Residential	2.53	2.44	2.37	2.30	2.13	1.99	1.84	-0.7	-1.1	-1.4
Tertiary	1.99	1.77	1.74	1.63	1.50	1.39	1.26	-1.3	-1.5	-1.7
Transport	3.00	3.01	2.96	2.96	2.89	2.87	2.84	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.0	2.8	5.6	8.7	15.4	17.8	21.9			
RES-H&C share	2.4	3.5	4.5	6.1	12.0	17.0	20.9			
RES-E share	4.8	7.2	14.5	26.5	41.7	41.8	52.1			
RES-T share (based on ILUC formula)	0.0	0.0	2.4	4.3	10.0	11.9	15.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	72	75	89	92	97	96	5.9	2.1	0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	117	147	158	175	178	183	184	3.0	1.2	0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.8	13.9	15.5	15.6	18.8	20.8	22.2	4.7	1.9	1.6
as % of GDP	7.5	8.4	9.4	8.5	9.1	9.3	9.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)											Italy: EUCo27
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change
Population (in million)	57	58	59	61	62	63	64	0.4	0.5	0.3	
GDP (in 000 ME13)	1564	1643	1622	1565	1675	1776	1885	0.4	0.3	1.2	
Gross Inland Consumption (ktoe)	174219	187471	174761	159035	161288	151219	143730	0.0	-0.8	-1.1	
Solids	12550	16461	14170	16106	18594	11521	8287	1.2	2.8	-7.8	
Oil	89540	83963	69558	61171	56724	51231	46572	-2.5	-2.0	-2.0	
Natural gas	57945	70651	68057	56177	59839	57812	56283	1.6	-1.3	-0.6	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7	
Renewable energy forms	10371	12170	19180	21628	23553	27891	29835	6.3	2.1	2.4	
Energy Branch Consumption	7704	10052	9539	8520	8167	7215	6606	2.2	-1.5	-2.1	
Non-Energy Uses	9019	8607	9560	7050	7322	7366	7340	0.6	-2.6	0.0	
SECURITY OF SUPPLY											
Production (incl. recovery of products) (ktoe)	28400	27839	29560	30751	31737	34716	36228	0.4	0.7	1.3	
Solids	3	60	64	55	0	0	0	33.7	-100.0	0.0	
Oil	4915	6376	5687	5142	5667	5613	5619	1.5	0.0	-0.1	
Natural gas	13627	9886	6885	6760	5763	4592	4008	-6.6	-1.8	-3.6	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	9856	11516	16924	18793	20308	24511	26601	5.6	1.8	2.7	
Hydro	3800	3101	4395	4138	4087	4212	4251	1.5	-0.7	0.4	
Biomass & Waste	1736	3392	6670	10105	11371	12786	13119	14.4	5.5	1.4	
Wind	48	202	785	1258	1260	2149	2844	32.1	4.8	8.5	
Solar and others	12	30	298	2199	2500	4200	5136	37.4	23.7	7.5	
Geothermal	4259	4791	4776	1092	1089	1164	1251	1.2	-13.7	1.4	
Net Imports (ktoe)	152069	160241	149804	131764	133132	120226	111346	-0.1	-1.2	-1.8	
Solids	13133	16367	14301	16050	18594	11521	8287	0.9	2.7	-7.8	
Oil	87599	79154	67826	59509	54582	49212	44449	-2.5	-2.1	-2.0	
Crude oil and Feedstocks	89451	94307	84882	68525	61717	55037	49186	-0.5	-3.1	-2.2	
Oil products	-1852	-15153	-17056	-9016	-7135	-5825	-4737	24.9	-8.3	-4.0	
Natural gas	47008	59840	61600	49416	54133	53349	52624	2.7	-1.3	-0.3	
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7	
Import Dependency (%)	86.5	84.5	84.3	81.1	80.8	77.6	75.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	269941	296840	298773	288968	317890	312699	318893	1.0	0.6	0.0	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	26272	43606	39734	58856	67163	41209	30497	4.2	5.4	-7.6	
Oil (including refinery gas)	85878	47124	21714	8782	7794	4695	6751	-12.8	-9.7	-1.4	
Gas (including derived gases)	106398	156191	158215	110293	127551	111433	108522	4.0	-2.1	-1.6	
Biomass-waste	1908	6153	11586	18671	21446	31730	32327	19.8	6.4	4.2	
Hydro (pumping excluded)	44199	36067	51116	48119	47527	48981	49436	1.5	-0.7	0.4	
Wind	563	2344	9126	14628	14646	24983	33067	32.1	4.8	8.5	
Solar	17	31	1906	23409	25552	43458	52082	59.9	29.6	7.4	
Geothermal and other renewables	4706	5324	5376	6210	6210	6210	6210	1.3	1.5	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	71896	82950	104920	127454	122843	126947	127092	3.9	1.6	0.3	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	16770	18701	26470	46375	47826	62485	71712	4.7	6.1	4.1	
Hydro (pumping excluded)	16390	17036	17563	18512	18805	18805	18885	0.7	0.7	0.0	
Wind	363	1635	5794	8958	8963	12305	15715	31.9	4.5	5.8	
Solar	17	30	3113	18905	20057	31375	37111	68.3	20.5	6.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	55126	64249	78450	81079	75017	64462	55381	3.6	-0.4	-3.0	
of which cogeneration units	6476	5888	7351	17228	17158	17099	13981	1.3	8.8	-2.0	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9518	8279	9511	9511	8858	5103	5098	0.0	-0.7	-5.4	
Gas fired	22819	36431	51677	52045	51357	47090	41707	8.5	-0.1	-2.1	
Oil fired	21763	17998	14748	13928	8629	5984	2170	-3.8	-5.2	-12.9	
Biomass-waste fired	436	870	1774	4810	5388	5499	5620	15.1	11.7	0.4	
Hydrogen plants	0	0	12	12	12	12	12	0.0	0.0	0.0	
Geothermal heat	590	671	728	773	773	773	773	2.1	0.6	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	40.8	39.1	31.3	24.8	28.3	27.2	27.8				
Efficiency of gross thermal power generation (%)	39.4	37.7	37.7	45.5	45.6	46.0	46.2				
% of gross electricity from CHP	8.3	9.0	11.5	15.3	15.4	11.5	11.1				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	19.0	16.8	26.5	38.4	36.3	49.7	54.3				
Fuel Inputs to Thermal Power Generation (ktoe)	49150	58911	53964	38349	43372	36518	34278	0.9	-2.2	-2.3	
Solids	6045	10399	9484	12963	14694	8342	6098	4.6	4.5	-8.4	
Oil (including refinery gas)	18954	12079	7365	1905	1674	1130	1489	-9.0	-13.8	-1.2	
Gas (including derived gases)	19668	29585	28966	18745	21733	19554	18762	3.9	-2.8	-1.5	
Biomass & Waste	438	2270	3527	3795	4330	6552	6988	23.2	2.1	4.9	
Geothermal heat	4046	4578	4623	941	941	941	941	1.3	-14.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	101609	106909	97409	78677	74334	67320	60864	-0.4	-2.7	-2.0	
Refineries	95900	101959	91472	74873	68938	62388	56552	-0.5	-2.8	-2.0	
Biofuels and hydrogen production	0	177	1419	1593	2212	2010	1891	0.0	4.5	-1.6	
District heating	0	0	110	121	122	122	119	0.0	1.1	-0.3	
Derived gases, cokeries etc.	5709	4773	4408	2090	3061	2800	2303	-2.6	-3.6	-2.8	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Italy: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	943	931	952	967	1020	1052	1087	0.1	0.7	0.6
Public road transport	93	101	102	105	107	109	110	0.9	0.5	0.3
Private cars and motorcycles	756	727	740	746	781	798	821	-0.2	0.5	0.5
Rail	55	56	54	55	63	70	77	-0.2	1.5	2.0
Aviation ⁽³⁾	34	43	51	56	63	70	74	4.3	2.2	1.6
Inland navigation	5	5	5	5	5	5	6	-0.3	0.5	1.1
Freight transport activity (Gtkm)	253	303	268	271	290	306	323	0.6	0.8	1.1
Heavy goods and light commercial vehicles	192	226	202	203	217	228	240	0.5	0.7	1.0
Rail	23	23	19	20	22	24	26	-2.0	1.7	1.6
Inland navigation	38	54	48	48	51	54	58	2.4	0.5	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	42174	44377	41220	39856	39008	37217	36052	-0.2	-0.5	-0.8
Public road transport	1061	1231	1245	1278	1309	1303	1283	1.6	0.5	-0.2
Private cars and motorcycles	27882	27505	25835	24747	23404	21390	20181	-0.8	-1.0	-1.5
Heavy goods and light commercial vehicles	7944	10062	8686	8259	8433	8457	8498	0.9	-0.3	0.1
Rail	526	492	463	487	522	560	585	-1.3	1.2	1.1
Aviation	3491	3700	3863	4073	4275	4379	4326	1.0	1.0	0.1
Inland navigation	1269	1387	1128	1012	1065	1128	1178	-1.2	-0.6	1.0
By transport activity										
Passenger transport	33399	32865	31375	30531	29445	27563	26304	-0.6	-0.6	-1.1
Freight transport	8775	11512	9844	9324	9563	9654	9749	1.2	-0.3	0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	1.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	3.5	4.1	5.8	5.6	5.5			
ENERGY EFFICIENCY										
Primary energy consumption	165200	178864	165201	151985	153965	143853	136390	0.0	-0.7	-1.2
Final Energy Demand	125579	134544	124781	122385	122441	117441	111975	-0.1	-0.2	-0.9
by sector										
Industry	40502	39858	30905	27952	28605	26931	25031	-2.7	-0.8	-1.3
Energy intensive industries	25289	25477	19382	16985	17604	16641	15172	-2.6	-1.0	-1.5
Other industrial sectors	15214	14382	11523	10966	11001	10290	9859	-2.7	-0.5	-1.1
Residential	27656	31313	31959	34859	34812	33925	32405	1.5	0.9	-0.7
Tertiary	14901	18537	20182	19017	19273	18607	17712	3.1	-0.5	-0.8
Transport ⁽⁵⁾	42519	44836	41734	40557	39751	37977	36827	-0.2	-0.5	-0.8
by fuel										
Solids	3586	3980	2910	2094	2643	2140	1210	-2.1	-1.0	-7.5
Oil	57249	59005	48733	45659	41857	37588	33141	-1.6	-1.5	-2.3
Gas	38022	40609	38499	36390	37251	37406	36722	0.1	-0.3	-0.1
Electricity	23472	25871	25736	25288	26267	26250	26802	0.9	0.2	0.2
Heat (from CHP and District Heating)	1449	3082	3332	3592	3777	3848	3825	8.7	1.3	0.1
Renewable energy forms	1802	1997	5570	9356	10629	10146	10149	11.9	6.7	-0.5
Other	0	0	0	6	17	63	125	0.0	0.0	21.8
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	111	114	108	102	96	85	76	-0.3	-1.1	-2.3
Industry (Energy on Value added, index 2000=100)	100	100	83	79	77	70	63	-1.8	-0.7	-2.0
Residential (Energy on Private Income, index 2000=100)	100	109	110	123	114	104	93	0.9	0.4	-2.0
Tertiary (Energy on Value added, index 2000=100)	100	117	126	121	114	103	92	2.3	-1.0	-2.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	33	33	30	29	26	23	22	-1.0	-1.5	-1.9
Freight transport (toe/Mtkm)	35	38	37	34	33	32	30	0.6	-1.1	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	558.5	592.5	509.9	457.0	458.6	400.8	359.7	-0.9	-1.1	-2.4
of which ETS sectors (2013 scope) GHG emissions	261.5	213.8	172.1	188.2	149.4	131.1		-1.3	-3.6	
of which ESD sectors (2013 scope) GHG emissions	331.0	296.1	284.8	270.4	251.4	228.6		-0.9	-1.7	
CO2 Emissions (energy related)	432.5	470.4	404.2	354.7	361.4	310.6	279.6	-0.7	-1.1	-2.5
Power generation/District heating	137.1	158.5	135.9	106.9	122.0	87.9	77.4	-0.1	-1.1	-4.4
Energy Branch	15.9	18.4	16.4	14.1	12.9	11.2	10.1	0.4	-2.4	-2.4
Industry	78.0	72.5	49.5	42.3	42.6	37.1	30.2	-4.5	-1.5	-3.4
Residential	53.4	59.9	53.6	51.4	49.7	48.2	43.6	0.0	-0.8	-1.3
Tertiary	24.4	29.3	30.2	26.0	25.5	23.7	20.9	2.2	-1.7	-2.0
Transport	123.7	131.8	118.6	114.0	108.7	102.6	97.5	-0.4	-0.9	-1.1
CO2 Emissions (non energy and non land use related)	28.6	30.8	24.1	21.1	21.8	21.6	19.2	-1.7	-1.0	-1.3
Non-CO2 GHG emissions	97.3	91.3	81.6	81.2	75.5	68.6	60.9	-1.7	-0.8	-2.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	106.3	112.8	97.1	87.0	87.3	76.3	68.5	-0.9	-1.1	-2.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.47	0.45	0.38	0.31	0.32	0.23	0.20	-2.0	-1.7	-4.4
Final energy demand (t of CO2/toe)	2.23	2.18	2.02	1.91	1.85	1.80	1.72	-1.0	-0.9	-0.8
Industry	1.93	1.82	1.60	1.51	1.49	1.38	1.21	-1.8	-0.7	-2.1
Residential	1.93	1.91	1.68	1.48	1.43	1.42	1.34	-1.4	-1.6	-0.6
Tertiary	1.64	1.58	1.50	1.37	1.32	1.28	1.18	-0.9	-1.2	-1.1
Transport	2.91	2.94	2.84	2.81	2.74	2.70	2.65	-0.2	-0.4	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	5.8	10.5	18.2	19.9	23.9	28.4			
RES-H&C share	2.9	4.6	10.4	20.1	22.3	24.7	31.4			
RES-E share	15.7	16.3	20.1	33.6	32.5	44.5	48.8			
RES-T share (based on ILUC formula)	0.6	1.1	5.0	7.1	10.6	13.1	16.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	66	77	90	86	93	100	101	3.2	0.4	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	140	130	153	152	157	168	175	0.9	0.3	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	134.7	151.9	164.9	170.7	190.1	203.3	218.3	2.0	1.4	1.4
as % of GDP	8.6	9.2	10.2	10.9	11.3	11.4	11.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Latvia: EU027	
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	2	2	2	2	2	2	2	-1.2	-1.0	-1.4	
GDP (in 000 ME13)	13	20	19	23	27	29	31	3.6	3.5	1.7	
Gross Inland Consumption (ktoe)	3864	4592	4629	4341	4530	4674	4462	1.8	-0.2	-0.2	
Solids	132	82	109	84	72	46	31	-1.9	-4.1	-8.0	
Oil	1295	1487	1521	1464	1433	1400	1292	1.6	-0.6	-1.0	
Natural gas	1092	1358	1462	867	923	1150	917	3.0	-4.5	-0.1	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6	
Renewable energy forms	1191	1481	1463	1758	1958	2002	2053	2.1	3.0	0.5	
Energy Branch Consumption	39	42	48	33	36	41	33	2.1	-2.9	-0.7	
Non-Energy Uses	75	97	73	105	127	143	148	-0.3	5.7	1.5	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	1411	1868	1979	2228	2485	2514	2566	3.4	2.3	0.3	
Solids	16	3	2	1	0	0	0	-17.4	-100.0	0.0	
Oil	2	7	2	0	0	0	0	1.1	-100.0	0.0	
Natural gas	0	0	0	0	0	0	0	2.1	-100.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	1393	1858	1975	2228	2485	2514	2566	3.6	2.3	0.3	
Hydro	242	286	303	248	272	272	272	2.2	-1.1	0.0	
Biomass & Waste	1150	1568	1668	1972	2158	2185	2183	3.8	2.6	0.1	
Wind	0	4	4	8	54	55	107	30.2	29.1	7.1	
Solar and others	0	0	0	0	1	2	3	0.0	0.0	8.2	
Geothermal	0	0	0	0	0	0	0	0.0	0.0	14.4	
Net Imports (ktoe)	2361	3097	2220	2456	2406	2529	2273	-0.6	0.8	-0.6	
Solids	61	77	112	84	72	46	31	6.3	-4.4	-8.0	
Oil	1235	1783	1671	1807	1788	1757	1640	3.1	0.7	-0.9	
Crude oil and Feedstocks	87	4	2	0	0	0	0	-31.8	-100.0	0.0	
Oil products	1148	1779	1669	1807	1788	1757	1640	3.8	0.7	-0.9	
Natural gas	1113	1434	903	867	929	1162	947	-2.1	0.3	0.2	
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6	
Import Dependency (%)	61.0	63.9	45.5	52.4	49.2	50.1	47.0				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	4136	4906	6627	5587	6682	8174	7652	4.8	0.1	1.4	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	78	0	2	78	108	88	88	-30.7	49.0	-2.0	
Oil (including refinery gas)	107	6	2	0	0	0	0	-32.8	-100.0	0.0	
Gas (including derived gases)	1128	1486	2988	2023	2122	3486	2236	10.2	-3.4	0.5	
Biomass-waste	0	41	66	511	662	798	918	0.0	25.9	3.3	
Hydro (pumping excluded)	2819	3326	3520	2878	3160	3160	3160	2.2	-1.1	0.0	
Wind	4	47	49	95	628	640	1247	28.5	29.1	7.1	
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	2089	2162	2546	2837	3101	3104	3402	2.0	2.0	0.9	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	1515	1562	1606	1652	1872	1873	2148	0.6	1.5	1.4	
Hydro (pumping excluded)	1513	1536	1576	1589	1589	1589	1589	0.4	0.1	0.0	
Wind	2	26	30	62	281	283	557	31.1	25.1	7.1	
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	574	600	940	1185	1229	1231	1254	5.1	2.7	0.2	
of which cogeneration units	254	586	870	1026	1028	1039	1102	13.1	1.7	0.7	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	23	2	21	21	21	21	21	-0.9	0.0	0.0	
Gas fired	522	572	893	1098	1098	1089	1089	5.5	2.1	-0.1	
Oil fired	27	15	15	15	15	15	15	-5.4	0.0	0.0	
Biomass-waste fired	2	10	10	50	95	105	128	17.8	24.9	3.1	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.2	23.3	27.2	20.9	23.1	28.3	24.4				
Efficiency of gross thermal power generation (%)	20.7	21.9	32.3	45.9	45.6	46.2	40.1				
% of gross electricity from CHP	31.4	30.7	45.0	38.6	33.9	46.2	35.0				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	68.3	69.6	54.9	62.4	66.6	56.3	69.6				
Fuel Inputs to Thermal Power Generation (ktoe)	545	602	815	490	546	815	696	4.1	-3.9	2.5	
Solids	53	1	9	13	17	14	14	-15.9	6.4	-2.2	
Oil (including refinery gas)	84	19	10	0	0	0	0	-19.3	-100.0	0.0	
Gas (including derived gases)	408	562	767	360	384	604	445	6.5	-6.7	1.5	
Biomass & Waste	0	22	29	117	144	197	236	0.0	17.4	5.1	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	570	479	383	344	425	409	387	-3.9	1.1	-0.9	
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biofuels and hydrogen production	0	3	27	37	89	74	68	0.0	12.6	-2.7	
District heating	569	476	356	307	336	333	316	-4.6	-0.6	-0.6	
Derived gases, cokeries etc.	1	0	0	0	0	2	3	-95.3	1788.3	26.6	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Latvia: EUQ2027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	15	17	18	18	20	21	22	1.5	1.0	1.2
Public road transport	2	3	2	2	2	3	3	-0.2	0.7	0.4
Private cars and motorcycles	12	12	13	13	14	14	15	0.8	0.7	0.6
Rail	1	1	1	1	1	1	1	-1.2	1.8	3.0
Aviation ⁽³⁾	0	1	2	2	2	3	3	20.4	2.2	3.6
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	15	24	21	24	26	30	33	3.1	2.2	2.4
Heavy goods and light commercial vehicles	2	4	4	4	5	5	6	5.8	2.2	1.6
Rail	13	20	17	20	21	24	27	2.6	2.2	2.5
Inland navigation	0	0	0	0	0	0	0	179.2	1.5	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	746	1064	1200	1158	1194	1195	1150	4.9	-0.1	-0.4
Public road transport	51	67	68	65	66	67	68	2.9	-0.3	0.2
Private cars and motorcycles	502	603	673	613	590	539	478	3.0	-1.3	-2.1
Heavy goods and light commercial vehicles	89	242	260	255	292	314	315	11.2	1.2	0.8
Rail	76	94	76	87	91	101	110	0.1	1.8	1.9
Aviation	27	59	118	132	148	166	171	15.9	2.3	1.5
Inland navigation	0	0	5	6	7	8	8	0.0	3.5	1.2
By transport activity										
Passenger transport	582	729	861	811	805	773	719	4.0	-0.7	-1.1
Freight transport	163	335	340	347	389	422	432	7.6	1.4	1.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.3	2.3	3.3	7.6	6.5	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	3789	4495	4556	4237	4403	4531	4314	1.9	-0.3	-0.2
Final Energy Demand	3254	4018	4120	4104	4249	4225	4031	2.4	0.3	-0.5
by sector										
Industry	576	699	774	912	991	1015	979	3.0	2.5	-0.1
Energy intensive industries	229	282	305	277	305	303	269	2.9	0.0	-1.3
Other industrial sectors	348	417	469	635	686	713	710	3.0	3.9	0.3
Residential	1327	1504	1389	1286	1299	1265	1192	0.5	-0.7	-0.9
Tertiary	602	749	756	744	761	745	705	2.3	0.1	-0.8
Transport ⁽⁵⁾	749	1067	1201	1162	1197	1198	1154	4.8	0.0	-0.4
by fuel										
Solids	62	74	94	70	54	32	17	4.2	-5.4	-10.8
Oil	1056	1323	1446	1355	1307	1257	1145	3.2	-1.0	-1.3
Gas	329	508	498	391	437	461	447	4.2	-1.3	0.2
Electricity	385	493	534	568	621	664	706	3.3	1.5	1.3
Heat (from CHP and District Heating)	598	603	575	524	569	564	541	-0.4	-0.1	-0.5
Renewable energy forms	824	1018	973	1194	1260	1245	1170	1.7	2.6	-0.7
Other	0	0	0	0	0	2	6	0.0	0.0	32.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	293	235	246	189	171	159	142	-1.8	-3.6	-1.8
Industry (Energy on Value added, index 2000=100)	100	87	102	98	93	87	79	0.2	-1.0	-1.6
Residential (Energy on Private Income, index 2000=100)	100	74	67	51	45	39	35	-4.0	-3.9	-2.6
Tertiary (Energy on Value added, index 2000=100)	100	83	82	67	59	52	46	-2.0	-3.2	-2.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	37	41	44	41	37	33	29	1.7	-1.8	-2.6
Freight transport (toe/Mtkm)	11	14	16	14	15	14	13	4.4	-0.8	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.5	11.3	12.3	10.6	10.1	10.3	9.1	1.6	-1.9	-1.1
of which ETS sectors (2013 scope) GHG emissions		3.1	3.6	2.4	2.5	3.0	2.3		-3.7	-0.6
of which ESD sectors (2013 scope) GHG emissions		8.2	8.7	8.3	7.6	7.3	6.7		-1.3	-1.2
CO ₂ Emissions (energy related)	6.8	7.7	8.3	6.5	6.4	6.7	5.8	2.0	-2.6	-1.1
Power generation/District heating	2.6	2.2	2.4	1.2	1.2	1.7	1.2	-0.9	-6.6	-0.4
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.0	1.1	1.0	0.8	0.8	0.7	0.6	0.0	-2.9	-3.1
Residential	0.3	0.4	0.6	0.4	0.4	0.4	0.4	6.5	-2.2	-2.1
Tertiary	0.7	0.8	0.8	0.7	0.7	0.6	0.6	2.1	-1.8	-2.4
Transport	2.2	3.2	3.5	3.4	3.3	3.3	3.1	4.9	-0.6	-0.5
CO ₂ Emissions (non energy and non land use related)	0.2	0.2	0.5	0.7	0.7	0.7	0.6	10.4	2.8	-1.1
Non-CO2 GHG emissions	3.5	3.3	3.4	3.4	3.0	2.9	2.7	-0.1	-1.3	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	39.5	42.5	46.3	40.0	38.1	38.6	34.2	1.6	-1.9	-1.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.21	0.17	0.16	0.09	0.09	0.11	0.08	-2.2	-6.4	-0.7
Final energy demand (t of CO ₂ /toe)	1.29	1.37	1.45	1.30	1.23	1.19	1.14	1.1	-1.6	-0.7
Industry	1.80	1.55	1.34	0.85	0.78	0.71	0.58	-2.9	-5.3	-3.0
Residential	0.22	0.29	0.40	0.35	0.34	0.31	0.30	6.0	-1.5	-1.3
Tertiary	1.14	1.10	1.12	0.98	0.92	0.83	0.78	-0.2	-1.9	-1.6
Transport	2.93	2.97	2.93	2.90	2.76	2.76	2.71	0.0	-0.6	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	33.5	32.4	30.5	37.5	40.3	41.9	45.5			
RES-H&C share	40.1	43.0	40.9	51.2	51.7	55.4	60.0			
RES-E share	52.7	43.0	42.1	46.2	53.3	50.8	55.5			
RES-T share (based on ILUC formula)	2.1	1.5	3.5	5.2	10.2	12.1	15.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€133/MWh)	107	86	93	77	85	92	109	-1.4	-0.9	2.5
Average Price of Electricity in Final demand sectors (€133/MWh)	57	66	107	102	115	125	134	6.5	0.7	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.0	3.4	5.1	4.4	5.1	5.8	6.6	10.0	0.1	2.5
as % of GDP	14.8	17.3	27.0	19.0	19.4	19.9	21.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Lithuania: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	3	3	3	3	3	2	-1.1	-1.0	-1.8
GDP (in 000 M€13)	19	27	29	35	40	42	43	4.4	3.3	0.7
Gross Inland Consumption (ktoe)	7063	8711	6787	6651	6562	6426	7097	-0.4	-0.3	0.8
Solids	91	185	213	254	197	139	90	8.8	-0.8	-7.6
Oil	2125	2710	2502	2432	2368	2265	2020	1.6	-0.5	-1.6
Natural gas	2064	2477	2492	2122	2082	2251	1747	1.9	-1.8	-1.7
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Renewable energy forms	675	881	1065	1249	1347	1378	1344	4.7	2.4	0.0
Energy Branch Consumption	610	853	743	680	612	595	574	2.0	-1.9	-0.6
Non-Energy Uses	662	804	714	717	793	784	758	0.8	1.1	-0.4
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	3269	3900	1318	1358	1478	1501	3475	-8.7	1.2	8.9
Solids	12	20	9	19	7	8	8	-3.0	-2.1	1.3
Oil	352	267	125	77	77	73	68	-9.9	-4.7	-1.1
Natural gas	0	0	0	0	0	0	0	4.2	-100.0	0.0
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Renewable energy sources	682	900	1185	1262	1394	1420	1389	5.7	1.6	0.0
Hydro	29	39	46	38	38	38	38	4.7	-2.0	0.0
Biomass & Waste	653	858	1114	1158	1276	1196	1143	5.5	1.4	-1.1
Wind	0	0	19	60	66	164	164	0.0	13.1	9.5
Solar and others	0	0	0	5	8	7	8	0.0	0.0	0.4
Geothermal	0	3	5	1	6	15	35	0.0	3.1	19.2
Net Imports (ktoe)	4247	5026	5668	5454	5248	5095	3792	2.9	-0.8	-3.2
Solids	80	174	196	235	190	132	82	9.4	-0.3	-8.1
Oil	2223	2622	2607	2516	2452	2354	2109	1.6	-0.6	-1.5
Crude oil and Feedstocks	4760	9029	9339	9639	9125	8594	7955	7.0	-0.2	-1.4
Oil products	-2537	-6408	-6732	-7123	-6672	-6240	-5846	10.3	-0.1	-1.3
Natural gas	2065	2493	2485	2122	2085	2258	1760	1.9	-1.7	-1.7
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Import Dependency (%)	59.4	56.8	81.8	80.1	78.0	77.2	52.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	11121	14415	4994	5066	5985	8120	14035	-7.7	1.8	8.9
Nuclear energy	8419	10337	0	0	0	0	9377	-100.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	655	401	647	182	0	0	0	-0.1	-100.0	0.0
Gas (including derived gases)	1707	3217	3436	3028	3988	4916	1568	7.2	1.5	-8.9
Biomass-waste	0	7	147	657	725	794	679	0.0	17.3	-0.7
Hydro (pumping excluded)	340	451	540	440	440	440	440	4.7	-2.0	0.0
Wind	0	2	224	695	767	1906	1906	0.0	13.1	9.5
Solar	0	0	0	64	64	64	64	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	5539	4135	2878	3443	2446	2901	3801	-6.3	-1.6	4.5
Nuclear energy	2880	1440	0	0	0	0	1117	-100.0	0.0	0.0
Renewable energy	103	118	249	614	638	1225	1225	9.2	9.9	6.7
Hydro (pumping excluded)	103	117	116	116	116	116	116	1.2	0.0	0.0
Wind	0	1	133	424	448	1035	1035	0.0	12.9	8.7
Solar	0	0	0	74	74	74	74	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2556	2577	2629	2829	1808	1676	1459	0.3	-3.7	-2.1
of which cogeneration units	650	1038	1100	1799	576	1094	896	5.4	-6.3	4.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	3	3	0	0	0	0	0	-100.0	0.0	0.0
Gas fired	1736	1781	1822	1992	1519	1519	1348	0.5	-1.8	-1.2
Oil fired	817	793	770	770	200	48	0	-0.6	-12.6	-55.4
Biomass-waste fired	0	0	37	67	90	110	111	0.0	9.3	2.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.1	36.5	18.3	15.0	26.1	30.3	40.0			
Efficiency of gross thermal power generation (%)	22.0	25.1	28.4	36.6	46.9	45.1	27.6			
% of gross electricity from CHP	15.5	15.5	34.6	45.5	51.0	43.9	11.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	78.8	74.9	18.2	36.6	33.4	39.5	88.8			
Fuel Inputs to Thermal Power Generation (ktoe)	924	1240	1282	909	865	1089	699	3.3	-3.9	-2.1
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil (including refinery gas)	200	178	100	49	0	0	0	-6.7	-100.0	0.0
Gas (including derived gases)	723	1057	1117	725	702	865	486	4.4	-4.5	-3.6
Biomass & Waste	1	5	65	135	163	224	213	59.7	9.7	2.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	7911	12651	9987	10232	9878	9365	10654	2.4	-0.1	0.8
Refineries	5032	9415	9446	9704	9277	8814	8172	6.5	-0.2	-1.3
Biofuels and hydrogen production	0	3	45	59	113	102	93	0.0	9.7	-1.9
District heating	656	520	496	468	488	449	378	-2.7	-0.2	-2.5
Derived gases, cokeries etc.	2223	2713	0	0	0	1	2011	0.0	0.0	154.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Lithuania: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	30	40	38	39	41	43	44	2.3	1.0	0.7
Public road transport	3	4	3	3	3	3	3	-0.2	0.6	0.2
Private cars and motorcycles	26	35	33	34	36	37	38	2.4	0.8	0.6
Rail	1	0	0	0	1	1	1	-4.8	3.4	1.7
Aviation ⁽³⁾	0	1	1	2	2	2	2	14.6	4.2	2.4
Inland navigation	0	0	0	0	0	0	0	0.4	1.4	0.8
Freight transport activity (Gtkm)	11	17	19	20	24	26	27	5.3	2.6	1.3
Heavy goods and light commercial vehicles	2	4	5	6	7	7	7	9.1	2.8	0.5
Rail	9	12	13	14	17	19	20	4.2	2.5	1.6
Inland navigation	0	0	0	0	0	0	0	0.4	1.7	0.7
Energy demand in transport (ktoe) ⁽⁴⁾	1054	1413	1521	1582	1631	1587	1489	3.7	0.7	-0.9
Public road transport	40	51	40	41	41	41	39	0.0	0.3	-0.4
Private cars and motorcycles	705	845	919	881	871	814	737	2.7	-0.5	-1.7
Heavy goods and light commercial vehicles	204	387	443	517	555	560	548	8.1	2.3	-0.1
Rail	76	79	65	67	78	80	80	-1.5	1.8	0.3
Aviation	27	46	49	69	79	85	78	6.1	4.9	-0.1
Inland navigation	3	5	6	6	7	7	7	7.2	1.3	0.5
By transport activity										
Passenger transport	777	947	1013	998	998	947	861	2.7	-0.2	-1.5
Freight transport	277	466	508	584	633	640	628	6.2	2.2	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	0.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.2	3.0	3.8	7.0	6.5	6.5			
ENERGY EFFICIENCY										
Primary energy consumption	6401	7907	6073	5934	5769	5642	6339	-0.5	-0.5	0.9
Final Energy Demand	3767	4601	4763	4996	5034	4823	4400	2.4	0.6	-1.3
by sector										
Industry	780	987	898	1172	1184	1196	1100	1.4	2.8	-0.7
Energy intensive industries	363	436	486	689	694	696	639	3.0	3.6	-0.8
Other industrial sectors	416	551	412	483	490	500	461	-0.1	1.8	-0.6
Residential	1368	1509	1599	1498	1436	1331	1181	1.6	-1.1	-1.9
Tertiary	563	672	720	718	756	685	607	2.5	0.5	-2.2
Transport ⁽⁵⁾	1057	1433	1546	1608	1657	1612	1512	3.9	0.7	-0.9
by fuel										
Solids	82	177	208	238	180	121	71	9.8	-1.4	-8.8
Oil	1356	1616	1613	1664	1694	1608	1444	1.7	0.5	-1.6
Gas	363	519	567	649	599	610	547	4.6	0.6	-0.9
Electricity	533	686	717	832	894	887	867	3.0	2.2	-0.3
Heat (from CHP and District Heating)	827	905	922	870	910	905	800	1.1	-0.1	-1.3
Renewable energy forms	605	698	738	743	757	692	669	2.0	0.3	-1.2
Other	0	0	0	0	0	1	2	0.0	0.0	28.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	374	317	234	191	164	152	166	-4.6	-3.5	0.1
Industry (Energy on Value added, index 2000=100)	100	80	66	74	69	67	61	-4.1	0.4	-1.2
Residential (Energy on Private Income, index 2000=100)	100	72	76	59	50	43	38	-2.7	-4.2	-2.7
Tertiary (Energy on Value added, index 2000=100)	100	88	87	72	65	55	48	-1.3	-2.9	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	26	23	27	25	24	21	19	0.3	-1.2	-2.2
Freight transport (toe/Mtkm)	25	27	27	29	26	24	23	0.9	-0.3	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.8	24.8	23.0	21.3	19.5	18.6	15.8	1.5	-1.7	-2.1
of which ETS sectors (2013 scope) GHG emissions	11.7	9.4	7.8	7.0	7.0	7.2	5.3		-2.9	-2.8
of which ESD sectors (2013 scope) GHG emissions	13.2	13.6	13.4	13.4	12.5	11.4	10.5		-0.8	-1.7
CO2 Emissions (energy related)	10.3	12.4	12.3	11.4	10.7	10.5	8.5	1.8	-1.4	-2.3
Power generation/District heating	4.0	4.0	3.7	2.4	2.1	2.5	1.4	-0.8	-5.5	-3.6
Energy Branch	1.1	1.7	1.6	1.5	1.4	1.3	1.1	3.8	-1.4	-2.2
Industry	1.1	1.3	1.2	1.5	1.4	1.4	1.0	0.7	2.2	-3.1
Residential	0.5	0.6	0.8	0.8	0.6	0.4	0.4	3.7	-2.6	-4.1
Tertiary	0.5	0.6	0.6	0.6	0.6	0.4	0.3	2.2	-0.6	-5.6
Transport	3.1	4.2	4.5	4.6	4.6	4.4	4.1	3.7	0.2	-1.0
CO2 Emissions (non energy and non land use related)	1.5	3.1	2.8	2.3	2.4	2.3	1.8	6.0	-1.4	-2.8
Non-CO2 GHG emissions	8.0	9.3	7.9	7.6	6.4	5.8	5.6	0.0	-2.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	41.1	51.5	47.7	44.1	40.4	38.6	32.8	1.5	-1.7	-2.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.17	0.14	0.21	0.14	0.12	0.13	0.06	2.3	-5.6	-6.5
Final energy demand (t of CO2/toe)	1.39	1.47	1.48	1.50	1.43	1.40	1.34	0.6	-0.3	-0.6
Industry	1.38	1.35	1.29	1.31	1.21	1.19	0.95	-0.7	-0.6	-2.4
Residential	0.40	0.43	0.50	0.51	0.42	0.33	0.34	2.1	-1.6	-2.2
Tertiary	0.88	0.84	0.86	0.82	0.77	0.64	0.54	-0.3	-1.1	-3.5
Transport	2.94	2.94	2.89	2.87	2.76	2.76	2.73	-0.2	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	15.7	17.0	19.7	22.8	24.3	25.5	26.9			
RES-H&C share	26.1	30.4	33.2	36.7	38.3	37.3	41.5			
RES-E share	4.0	3.8	7.4	15.6	16.0	25.6	24.6			
RES-T share (based on ILUC formula)	0.1	0.3	3.5	4.7	10.3	10.9	11.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	57	174	124	110	110	114	8.7	-4.5	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	64	73	112	104	120	137	161	5.7	0.7	3.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.7	4.0	5.6	5.9	7.1	7.9	8.3	7.6	2.5	1.6
as % of GDP	14.2	14.4	19.3	16.8	17.9	18.6	19.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Luxembourg: EUC027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	0	0	1	1	1	1	1	1.5	2.5	2.2
GDP (in 000 M€13)	32	38	41	45	52	60	68	2.6	2.3	2.8
Gross Inland Consumption (ktoe)	3654	4800	4642	4616	4730	4820	4854	2.4	0.2	0.3
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.4
Oil	2320	3160	2869	2908	2866	2828	2898	2.2	0.0	0.1
Natural gas	671	1176	1197	1031	1044	1153	1065	6.0	-1.4	0.2
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9
Renewable energy forms	64	106	160	245	391	420	453	9.6	9.4	1.5
Energy Branch Consumption	26	30	50	51	55	61	66	6.9	0.9	1.8
Non-Energy Uses	55	29	33	39	42	45	47	-5.1	2.5	1.1
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	64	111	122	148	265	295	322	6.7	8.1	2.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil	0	0	0	0	0	0	0	11.5	-100.0	0.0
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	64	111	122	148	265	295	322	6.7	8.1	2.0
Hydro	11	8	9	9	9	10	10	-1.4	0.2	0.3
Biomass & Waste	51	97	105	119	186	205	196	7.5	5.9	0.6
Wind	2	5	5	7	43	43	48	7.4	24.8	1.1
Solar and others	0	2	3	13	27	37	68	0.0	25.2	9.8
Geothermal	0	0	0	0	0	0	0	0.0	0.0	14.3
Net Imports (ktoe)	3639	4671	4503	4468	4465	4525	4531	2.2	-0.1	0.1
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.4
Oil	2368	3141	2852	2908	2866	2828	2898	1.9	0.0	0.1
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil products	2368	3141	2852	2908	2866	2828	2898	1.9	0.0	0.1
Natural gas	671	1176	1197	1031	1044	1153	1065	6.0	-1.4	0.2
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9
Import Dependency (%)	99.6	97.3	97.0	96.8	94.4	93.9	93.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	422	3348	3230	2762	3275	3945	4360	22.6	0.1	2.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	0	1	1	0	3	3	3	0.0	11.2	0.0
Gas (including derived gases)	215	3107	2916	2304	2364	2998	3147	29.8	-2.1	2.9
Biomass-waste	56	76	129	158	175	210	217	8.7	3.1	2.2
Hydro (pumping excluded)	124	94	108	110	110	114	114	-1.4	0.2	0.3
Wind	27	52	55	78	501	500	560	7.4	24.7	1.1
Solar	0	17	21	112	121	121	320	0.0	19.2	10.2
Geothermal and other renewables	0	1	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	163	574	597	702	971	955	1438	13.8	5.0	4.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	47	93	107	212	467	460	718	8.6	15.9	4.4
Hydro (pumping excluded)	33	34	34	34	34	35	35	0.3	0.0	0.3
Wind	14	35	44	58	302	294	323	12.1	21.2	0.7
Solar	0	24	29	120	131	131	360	0.0	16.2	10.7
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	116	481	490	490	504	496	721	15.5	0.3	3.6
of which cogeneration units	63	101	121	229	182	126	202	6.7	4.1	1.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0
Gas fired	103	468	469	469	469	457	682	16.4	0.0	3.8
Oil fired	5	5	4	1	2	2	2	-2.3	-7.8	0.0
Biomass-waste fired	9	9	17	20	34	37	37	7.1	7.1	0.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.9	66.2	61.4	44.1	37.9	46.5	34.1			
Efficiency of gross thermal power generation (%)	24.3	47.5	47.4	50.5	50.0	48.4	53.7			
% of gross electricity from CHP	17.7	10.1	9.6	23.3	16.0	7.8	8.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	49.1	7.2	9.7	16.6	27.7	23.9	27.8			
Fuel Inputs to Thermal Power Generation (ktoe)	96	576	553	419	437	570	539	19.1	-2.3	2.1
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	1	0	0	0	0	0	0	-100.0	0.0	0.0
Gas (including derived gases)	66	544	520	383	392	513	481	22.8	-2.8	2.1
Biomass & Waste	29	32	33	36	46	57	57	1.5	3.2	2.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1	3	46	113	153	154	169	57.2	12.8	1.0
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	1	42	108	147	148	163	0.0	13.4	1.0
District heating	1	2	4	5	5	5	5	23.1	2.3	-0.1
Derived gases, cokeries etc.	0	0	0	0	0	1	1	0.0	0.0	14.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Luxembourg: EUO27				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
TRANSPORT											Annual % Change
Passenger transport activity (Gpkm)	7	8	9	9	10	12	13	1.6	2.0	2.1	
Public road transport	1	1	1	1	1	1	1	4.2	1.7	1.4	
Private cars and motorcycles	6	6	7	7	8	9	10	1.5	2.0	2.1	
Rail	0	0	0	0	0	1	1	0.4	3.1	2.9	
Aviation ⁽²⁾	1	1	1	1	1	1	1	-0.5	2.4	2.8	
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0	
Freight transport activity (Gtkm)	3	3	3	3	4	5	5	0.8	3.6	1.9	
Heavy goods and light commercial vehicles	2	2	2	3	3	4	4	2.8	4.1	1.7	
Rail	1	0	0	0	0	0	1	-6.5	2.0	3.2	
Inland navigation	0	0	0	0	0	0	0	-0.5	0.9	1.7	
Energy demand in transport (ktoe) ⁽⁴⁾	1914	2781	2604	2697	2763	2760	2876	3.1	0.6	0.4	
Public road transport	60	92	106	115	122	124	129	5.9	1.4	0.5	
Private cars and motorcycles	1153	1521	1341	1311	1219	1157	1219	1.5	-0.9	0.0	
Heavy goods and light commercial vehicles	364	721	709	818	958	977	989	6.9	3.1	0.3	
Rail	12	11	13	14	16	18	20	0.8	1.9	2.2	
Aviation	321	432	431	435	445	481	517	3.0	0.3	1.5	
Inland navigation	4	3	4	3	3	3	3	-1.0	-1.8	1.5	
By transport activity											
Passenger transport	1535	2046	1880	1863	1788	1764	1866	2.0	-0.5	0.4	
Freight transport	379	735	724	834	975	997	1010	6.7	3.0	0.4	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	0.8				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.6	4.0	5.4	5.4	5.4				
ENERGY EFFICIENCY											
Primary energy consumption	3599	4771	4609	4576	4688	4775	4807	2.5	0.2	0.3	
Final Energy Demand	3505	4477	4327	4382	4473	4480	4545	2.1	0.3	0.2	
by sector											
Industry	714	754	739	585	590	560	497	0.4	-2.2	-1.7	
Energy intensive industries	583	598	601	438	432	397	333	0.3	-3.2	-2.6	
Other industrial sectors	130	156	139	148	158	163	164	0.6	1.3	0.4	
Residential	468	525	508	498	521	548	549	0.8	0.3	0.5	
Tertiary	409	418	477	601	599	612	622	1.5	2.3	0.4	
Transport ⁽⁵⁾	1914	2781	2604	2697	2763	2760	2876	3.1	0.6	0.4	
by fuel											
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.4	
Oil	2261	3106	2835	2869	2824	2783	2851	2.3	0.0	0.1	
Gas	605	631	675	645	652	640	584	1.1	-0.4	-1.1	
Electricity	497	529	568	557	599	652	704	1.4	0.5	1.6	
Heat (from CHP and District Heating)	13	75	74	80	75	78	75	19.2	0.2	-0.1	
Renewable energy forms	22	59	108	181	278	293	304	17.2	9.9	0.9	
Other	0	0	0	0	1	3	10	0.0	0.0	32.5	
Energy intensity indicators											
Gross Int. Cons./GDP (toe/M€13)	115	126	113	103	92	81	71	-0.1	-2.1	-2.5	
Industry (Energy on Value added, index 2000=100)	100	101	133	100	92	78	63	2.9	-3.7	-3.7	
Residential (Energy on Private Income, index 2000=100)	100	103	93	90	83	76	66	-0.7	-1.1	-2.2	
Tertiary (Energy on Value added, index 2000=100)	100	85	86	98	84	74	65	-1.5	-0.1	-2.5	
Passenger transport (toe/Mpkm) ⁽⁶⁾	204	244	209	188	162	142	136	0.3	-2.5	-1.8	
Freight transport (toe/Mtkm)	139	268	247	245	235	218	202	5.9	-0.5	-1.5	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	10.7	14.1	13.3	12.9	12.8	12.8	12.6	2.2	-0.4	-0.2	
of which ETS sectors (2013 scope) GHG emissions		4.2	3.8	3.5	3.4	3.7	3.4		-1.0	0.1	
of which ESD sectors (2013 scope) GHG emissions		9.9	9.5	9.5	9.4	9.2	9.2		-0.2	-0.2	
CO2 Emissions (energy related)	8.9	12.6	11.8	11.4	11.3	11.4	11.3	2.9	-0.4	0.0	
Power generation/District heating	0.2	1.3	1.2	0.9	0.9	1.2	1.1	22.6	-2.8	2.1	
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Industry	1.2	1.1	1.0	0.8	0.8	0.6	0.5	-2.0	-2.8	-4.7	
Residential	1.1	1.2	1.1	1.1	1.0	1.0	1.0	0.5	-1.1	-0.2	
Tertiary	0.6	0.5	0.6	0.7	0.6	0.6	0.5	-0.6	0.7	-2.0	
Transport	5.8	8.4	7.8	7.9	8.0	7.9	8.2	3.1	0.2	0.3	
CO2 Emissions (non energy and non land use related)	0.7	0.7	0.6	0.5	0.5	0.5	0.4	-2.1	-1.1	-2.9	
Non-CO2 GHG emissions	1.1	0.9	1.0	1.0	1.0	1.0	0.9	-0.9	0.1	-0.9	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	80.3	106.5	100.3	97.4	96.4	96.6	94.8	2.2	-0.4	-0.2	
Carbon Intensity indicators											
Electricity and Steam production (t of CO2/MWh)	0.28	0.30	0.30	0.25	0.22	0.25	0.22	0.7	-2.9	-0.3	
Final energy demand (t of CO2/toe)	2.49	2.52	2.43	2.40	2.32	2.27	2.24	-0.2	-0.5	-0.3	
Industry	1.71	1.47	1.36	1.39	1.28	1.14	0.93	-2.3	-0.6	-3.1	
Residential	2.29	2.28	2.22	2.14	1.93	1.85	1.79	-0.3	-1.4	-0.7	
Tertiary	1.59	1.25	1.28	1.23	1.08	0.98	0.85	-2.1	-1.6	-2.4	
Transport	3.01	3.04	2.99	2.92	2.88	2.86	2.85	-0.1	-0.4	-0.1	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.8	1.4	2.9	5.0	8.2	8.8	9.7				
RES-H&C share	1.4	3.6	4.8	6.4	12.3	14.7	17.2				
RES-E share	2.1	3.2	3.8	6.1	12.0	11.4	13.6				
RES-T share (based on ILUC formula)	0.0	0.0	1.9	7.5	10.1	10.8	11.4				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	87	63	78	82	96	95	102	-1.1	2.1	0.7	
Average Price of Electricity in Final demand sectors (€13/MWh)	108	119	110	116	122	132	140	0.1	1.1	1.4	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.0	4.4	4.6	4.7	5.9	6.5	7.4	4.3	2.5	2.3	
as % of GDP	9.5	11.5	11.2	10.4	11.4	10.9	10.8				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Malta: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	0	0	0	0	0	0	0	0.9	0.6	0.4		
GDP (in 000 M€13)	6	6	7	8	8	9	10	1.8	2.1	1.9		
Gross Inland Consumption (ktoe)	802	972	908	675	744	733	723	1.3	-2.0	-0.3		
Solids	0	0	0	0	0	0	0	0.0	0.0	-10.5		
Oil	802	972	903	579	342	337	318	1.2	-9.3	-0.7		
Natural gas	0	0	0	0	338	323	329	0.0	0.0	-0.3		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Renewable energy forms	0	1	5	21	49	56	59	0.0	25.7	1.8		
Energy Branch Consumption	10	2	10	6	5	4	4	0.5	-7.2	-2.0		
Non-Energy Uses	0	20	9	11	12	13	12	0.0	3.4	0.0		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	0	1	4	16	38	45	50	0.0	24.3	2.9		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	0	1	4	16	38	45	50	0.0	24.3	2.9		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	0	0	1	3	1	2	2	0.0	9.5	4.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar and others	0	1	4	13	36	43	48	0.0	25.6	2.9		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	3.1		
Net Imports (ktoe)	1458	1630	2362	2099	2095	2111	2146	4.9	-1.2	0.2		
Solids	0	0	0	0	0	0	0	0.0	0.0	-10.5		
Oil	1458	1630	2361	2019	1719	1735	1675	4.9	-3.1	-0.3		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	1458	1630	2361	2019	1719	1735	1675	4.9	-3.1	-0.3		
Natural gas	0	0	0	0	349	349	446	0.0	0.0	2.5		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Import Dependency (%)	100.3	100.0	99.0	99.2	98.2	97.9	97.7					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	1917	2240	2115	1402	2477	2659	2748	1.0	1.6	1.0		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1917	2240	2113	1293	0	0	0	1.0	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	2143	2283	2365	0.0	0.0	1.0		
Biomass-waste	0	0	0	6	8	11	13	0.0	0.0	4.9		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	0	103	326	365	369	0.0	0.0	1.3		
Geothermal and other renewables	0	0	2	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	577	577	579	541	786	945	1078	0.0	3.1	3.2		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	2	60	185	212	214	0.0	57.2	1.5		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	2	60	185	212	214	0.0	57.2	1.5		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	577	577	577	481	601	733	865	0.0	0.4	3.7		
of which cogeneration units	0	0	0	1	1	1	1	0.0	0.0	-4.8		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	238	478	718	0.0	0.0	11.7		
Oil fired	577	577	577	479	361	253	144	0.0	-4.6	-8.8		
Biomass-waste fired	0	0	0	2	2	2	3	0.0	0.0	2.7		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	35.6	43.8	39.3	28.2	35.1	31.6	28.6					
Efficiency of gross thermal power generation (%)	35.4	29.3	31.7	45.4	54.6	60.9	62.1					
% of gross electricity from CHP	0.0	0.0	0.0	0.4	0.3	0.3	0.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	0.1	7.7	13.5	14.1	13.9					
Fuel Inputs to Thermal Power Generation (ktoe)	465	658	573	246	339	324	330	2.1	-5.1	-0.3		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	465	658	573	245	0	0	0	2.1	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	337	323	328	0.0	0.0	-0.3		
Biomass & Waste	0	0	0	1	1	1	1	0.0	0.0	-0.1		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	0	0	1	3	7	7	6	0.0	23.4	-2.5		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	1	3	7	7	6	0.0	23.3	-2.6		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	0	0.0	0.0	20.3		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Malta: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	5	5	5	6	7	7	8	1.2	2.2	1.2
Public road transport	0	0	1	1	1	1	1	0.8	0.5	0.4
Private cars and motorcycles	2	2	2	2	2	2	2	2.0	0.5	0.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	2	2	3	3	4	4	5	0.7	3.8	1.8
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	0	0	0	0	0	0	0	0.3	1.3	1.6
Heavy goods and light commercial vehicles	0	0	0	0	0	0	0	0.3	1.3	1.6
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	268	242	255	256	270	270	264	-0.5	0.6	-0.2
Public road transport	12	13	12	12	12	11	11	-0.3	-0.2	-0.7
Private cars and motorcycles	97	105	110	109	102	92	84	1.2	-0.7	-2.0
Heavy goods and light commercial vehicles	36	37	31	31	34	35	37	-1.5	0.7	0.9
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	122	87	102	105	122	131	133	-1.8	1.8	0.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	232	205	224	225	236	234	227	-0.4	0.5	-0.4
Freight transport	36	37	31	31	34	35	37	-1.5	0.7	0.9
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.4	1.2	2.7	2.6	2.2			
ENERGY EFFICIENCY										
Primary energy consumption	802	952	899	664	732	720	711	1.2	-2.0	-0.3
Final Energy Demand	483	478	476	501	546	560	552	-0.1	1.4	0.1
by sector										
Industry	83	74	48	51	51	52	54	-5.4	0.7	0.4
Energy intensive industries	13	19	8	8	8	8	8	-4.8	-0.1	0.1
Other industrial sectors	70	55	40	44	43	44	46	-5.5	0.9	0.5
Residential	76	77	80	85	101	107	104	0.5	2.4	0.3
Tertiary	55	85	94	108	124	131	131	5.4	2.8	0.5
Transport ⁽⁵⁾	268	242	255	256	270	270	264	-0.5	0.6	-0.2
by fuel										
Solids	0	0	0	0	0	0	0	0.0	0.0	-10.5
Oil	348	309	316	323	329	325	306	-1.0	0.4	-0.7
Gas	0	0	0	0	0	0	0	0.0	0.0	9.7
Electricity	135	168	155	166	196	211	219	1.4	2.4	1.1
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0.0	0.0	-0.2
Renewable energy forms	0	1	5	11	20	23	26	0.0	14.2	2.7
Other	0	0	0	0	0	0	0	0.0	0.0	32.1
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	142	162	134	89	89	80	72	-0.6	-4.0	-2.2
Industry (Energy on Value added, index 2000=100)	100	116	74	73	67	62	60	-2.9	-1.1	-1.1
Residential (Energy on Private Income, index 2000=100)	100	93	89	91	97	92	80	-1.1	0.9	-1.9
Tertiary (Energy on Value added, index 2000=100)	100	137	123	125	130	124	111	2.1	0.5	-1.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	40	39	37	33	30	28	-1.3	-1.8	-1.6
Freight transport (toe/Mtkm)	139	135	116	113	110	107	102	-1.7	-0.6	-0.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	2.8	3.3	3.1	2.1	2.1	1.9	1.9	1.0	-3.9	-1.1
of which ETS sectors (2013 scope) GHG emissions		2.4	2.1	1.1	1.2	1.2	1.2		-6.0	0.1
of which ESD sectors (2013 scope) GHG emissions		1.0	1.0	1.0	0.9	0.8	0.7		-0.4	-2.8
CO2 Emissions (energy related)	2.5	3.0	2.8	1.8	1.8	1.7	1.7	0.9	-4.4	-0.5
Power generation/District heating	1.5	2.1	1.8	0.8	0.8	0.8	0.8	2.1	-8.1	-0.3
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-9.7	0.2	-4.1
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.2	2.4	-2.8
Tertiary	0.0	0.0	0.1	0.1	0.1	0.1	0.1	6.2	-0.7	-1.9
Transport	0.8	0.7	0.8	0.8	0.8	0.8	0.8	-0.5	0.3	-0.2
CO2 Emissions (non energy and non land use related)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-17.5	1.7
Non-CO2 GHG emissions	0.3	0.3	0.3	0.3	0.3	0.2	0.2	1.6	-0.5	-5.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	127.9	150.8	141.1	95.1	94.6	88.2	84.6	1.0	-3.9	-1.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.78	0.95	0.87	0.56	0.32	0.28	0.28	1.1	-9.6	-1.3
Final energy demand (t of CO2/toe)	2.17	1.94	1.99	1.93	1.80	1.74	1.66	-0.9	-1.0	-0.8
Industry	1.55	1.43	0.97	1.00	0.92	0.81	0.59	-4.6	-0.5	-4.5
Residential	1.02	0.80	0.86	0.91	0.86	0.78	0.63	-1.7	0.0	-3.1
Tertiary	0.67	0.40	0.72	0.73	0.51	0.45	0.40	0.7	-3.4	-2.4
Transport	3.00	3.00	2.99	2.96	2.92	2.92	2.91	0.0	-0.2	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.0	0.1	1.0	6.0	11.7	13.0	14.1			
RES-H&C share	0.0	1.0	7.0	17.5	24.0	28.5	37.3			
RES-E share	0.0	0.0	0.1	4.8	12.5	13.2	13.0			
RES-T share (based on ILUC formula)	0.0	0.0	0.5	4.2	10.0	10.5	9.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€133/MWh)	78	111	173	117	90	96	108	8.4	-6.3	1.8
Average Price of Electricity in Final demand sectors (€133/MWh)	75	84	201	177	170	165	164	10.4	-1.7	-0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	0.4	0.5	0.8	0.8	1.1	1.2	1.3	8.2	2.3	2.0
as % of GDP	6.8	8.9	12.5	11.2	12.7	13.1	12.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Netherlands: EUO27				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	16	16	17	17	17	17	18	0.4	0.3	0.2		
GDP (in 000 ME13)	537	573	613	620	668	706	738	1.3	0.9	1.0		
Gross Inland Consumption (ktoe)	75572	81469	86612	83760	83480	80915	76725	1.4	-0.4	-0.8		
Solids	7852	8195	7596	9274	7937	7571	6232	-0.3	0.4	-2.4		
Oil	28245	32464	34649	34892	34345	33377	32037	2.1	-0.1	-0.7		
Natural gas	35009	35334	39309	33859	30933	30848	28895	1.2	-2.4	-0.7		
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4		
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0		
Renewable energy forms	1827	2872	3796	3906	9232	8777	9150	7.6	9.3	-0.1		
Energy Branch Consumption	5353	6336	5088	5605	5437	4988	4703	-0.5	0.7	-1.4		
Non-Energy Uses	10491	13013	17582	13895	14823	15314	15372	5.3	-1.7	0.4		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	57555	62220	70219	51471	52974	45573	38084	2.0	-2.8	-3.2		
Solids	7	8	6	0	0	0	0	-2.0	-100.0	0.0		
Oil	2405	2328	1985	1381	1414	957	739	-1.9	-3.3	-6.3		
Natural gas	52203	56276	63534	44126	40615	33904	26163	2.0	-4.4	-4.3		
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4		
Renewable energy sources	1926	2577	3671	5009	9989	9722	10192	6.7	10.5	0.2		
Hydro	12	8	9	9	9	9	9	-3.0	-0.1	0.1		
Biomass & Waste	1831	2371	3282	4236	7000	6619	6902	6.0	7.9	-0.1		
Wind	71	178	343	618	2394	2394	2394	17.0	21.4	0.0		
Solar and others	11	21	29	123	546	623	799	9.8	34.1	3.9		
Geothermal	0	0	8	24	41	77	88	0.0	18.2	8.1		
Net imports (ktoe)	33759	37076	30549	47678	45884	51410	55807	-1.0	4.2	2.0		
Solids	7998	8312	9228	9274	7937	7571	6232	1.4	-1.5	-2.4		
Oil	41425	47836	45167	48901	48029	47895	47042	0.9	0.6	-0.2		
Crude oil and Feedstocks	61018	61724	60676	53468	50696	48165	45705	-0.1	-1.8	-1.0		
Oil products	-19594	-13888	-15508	-4567	-2666	-271	1337	-2.3	-16.1	0.0		
Natural gas	-17191	-20941	-24211	-10267	-9402	-2463	4155	3.5	-9.0	0.0		
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0		
Import Dependency (%)	38.0	37.7	30.4	48.1	46.4	53.0	59.4					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	89631	100219	118140	107572	123350	134388	134832	2.8	0.4	0.9		
Nuclear energy	3926	3997	3969	3907	3907	4047	4047	0.1	-0.2	0.4		
Solids	24276	23500	22588	29437	23817	24222	21112	-0.7	0.5	-1.2		
Oil (including refinery gas)	2641	2262	1253	799	0	57	57	-7.2	-100.0	0.0		
Gas (including derived gases)	54606	61588	77566	56686	46785	60830	62670	3.6	-4.9	3.0		
Biomass-waste	3203	6683	8606	8344	15896	12286	13699	10.4	6.3	-1.5		
Hydro (pumping excluded)	142	88	105	100	104	105	105	-3.0	-0.1	0.1		
Wind	829	2067	3993	7185	27838	27838	27838	17.0	21.4	0.0		
Solar	8	34	60	1113	5003	5003	5304	22.2	55.5	0.6		
Geothermal and other renewables	0	0	0	0	0	0	0	12.8	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	21048	21728	25072	30866	38388	37388	35109	1.8	4.4	-0.9		
Nuclear energy	485	485	485	485	485	485	485	0.0	0.0	0.0		
Renewable energy	497	1312	2362	4706	15780	15780	16127	16.9	20.9	0.2		
Hydro (pumping excluded)	37	37	37	37	37	37	37	0.0	0.0	0.0		
Wind	447	1224	2237	3431	10157	10157	10157	17.5	16.3	0.0		
Solar	13	51	88	1238	5586	5586	5933	21.1	51.4	0.6		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	20066	19931	22225	25674	22123	21123	18497	1.0	0.0	-1.8		
of which cogeneration units	7372	7162	9300	8514	2416	5679	7635	2.4	-12.6	12.2		
of which CCS units	0	0	0	0	0	250	650	0.0	0.0	0.0		
Solids fired	4394	4394	4394	6975	5388	5054	4429	0.0	2.1	-1.9		
Gas fired	14667	14529	16575	17356	14404	13735	11746	1.2	-1.4	-2.0		
Oil fired	490	218	218	204	77	77	66	-7.8	-9.9	-1.6		
Biomass-waste fired	514	790	1037	1138	2254	2257	2257	7.3	8.1	0.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	50.5	52.1	38.3	35.4	39.6	42.2					
Efficiency of gross thermal power generation (%)	41.6	41.4	44.5	45.4	43.6	44.5	46.2					
% of gross electricity from CHP	37.6	29.4	33.2	37.8	16.9	26.0	36.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	1.4	3.5					
% of carbon free (RES, nuclear) gross electricity generation	9.0	12.8	14.2	19.2	42.8	36.7	37.8					
Fuel Inputs to Thermal Power Generation (ktoe)	17516	19517	21244	18047	17047	18825	18139	1.9	-2.2	0.6		
Solids	4998	4958	4669	6490	4857	4947	4262	-0.7	0.4	-1.3		
Oil (including refinery gas)	634	553	342	177	0	20	20	-6.0	-80.0	276.4		
Gas (including derived gases)	10671	11953	13773	9489	7743	10246	10411	2.6	-5.6	3.0		
Biomass & Waste	1213	2052	2460	1892	4446	3612	3446	7.3	6.1	-2.5		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	86454	91417	68924	63771	61741	59393	56757	-2.2	-1.1	-0.8		
Refineries	82233	86869	64188	58847	56695	55005	52725	-2.4	-1.2	-0.7		
Biofuels and hydrogen production	0	0	230	579	484	476	505	0.0	7.7	0.4		
District heating	398	436	499	366	338	321	273	2.3	-3.8	-2.1		
Derived gases, cokeries etc.	3824	4113	4007	3979	4224	3592	3254	0.5	0.5	-2.6		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Netherlands: EUQ27			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
							Annual % Change			
TRANSPORT										
Passenger transport activity (Gpkm)	184	195	183	191	200	210	218	-0.1	0.9	0.9
Public road transport	11	12	12	13	13	14	14	0.8	0.9	0.6
Private cars and motorcycles	143	152	138	141	146	152	157	-0.4	0.6	0.7
Rail	16	17	17	19	21	23	24	0.5	2.1	1.6
Aviation ⁽³⁾	13	14	15	17	18	21	22	1.1	2.4	1.9
Inland navigation	1	1	1	1	1	1	1	0.1	1.1	1.3
Freight transport activity (Gtkm)	94	100	106	111	121	129	135	1.3	1.3	1.1
Heavy goods and light commercial vehicles	48	51	54	55	61	64	66	1.2	1.3	0.8
Rail	5	6	6	6	7	8	8	2.7	1.5	1.7
Inland navigation	41	42	47	50	53	57	61	1.2	1.3	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	14297	15197	14986	14817	14216	13546	12949	0.5	-0.5	-0.9
Public road transport	212	224	260	267	271	268	262	2.1	0.4	-0.3
Private cars and motorcycles	8007	8288	8206	7708	6911	6239	5843	0.2	-1.7	-1.7
Heavy goods and light commercial vehicles	2184	2594	2715	2594	2743	2745	2715	2.2	0.1	-0.1
Rail	184	172	182	189	204	216	224	-0.1	1.1	0.9
Aviation	3382	3712	3463	3821	3833	3806	3618	0.2	1.0	-0.6
Inland navigation	328	207	159	239	253	271	287	-7.0	4.8	1.3
By transport activity										
Passenger transport	11703	12265	11985	11861	11085	10388	9802	0.2	-0.8	-1.2
Freight transport	2594	2933	3001	2957	3131	3158	3147	1.5	0.4	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	0.8	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	4.0	3.6	4.0	4.3			
ENERGY EFFICIENCY										
Primary energy consumption	65081	68457	69030	69864	68657	65601	61353			
Final Energy Demand	50505	51654	51835	50854	50378	47232	44376	0.6	-0.1	-1.1
by sector								0.3	-0.3	-1.3
Industry	14804	14814	12208	12815	13621	12304	11779	-1.9	1.1	-1.4
Energy intensive industries	10277	10532	8224	8734	9340	8501	8217	-2.2	1.3	-1.3
Other industrial sectors	4527	4281	3984	4082	4281	3803	3562	-1.3	0.7	-1.8
Residential	10299	10143	11518	10892	10520	10316	9597	1.1	-0.9	-0.9
Tertiary	11104	11499	13124	12329	12022	11066	10051	1.7	-0.9	-1.8
Transport ⁽⁵⁾	14297	15198	14985	14817	14216	13546	12949	0.5	-0.5	-0.9
by fuel										
Solids	1330	1515	1270	1402	1592	1524	967	-0.5	2.3	-4.9
Oil	16505	17382	16113	15746	14878	13720	12658	-0.2	-0.8	-1.6
Gas	21011	20346	22378	21405	20331	17758	15861	0.6	-1.0	-2.5
Electricity	8408	8986	9189	9034	9566	9740	9778	0.9	0.4	0.2
Heat (from CHP and District Heating)	2893	2981	2106	2038	2151	2275	2371	-3.1	0.2	1.0
Renewable energy forms	358	444	780	1223	1832	2131	2595	8.1	8.9	3.5
Other	0	0	0	8	27	84	146	-100.0	0.0	18.3
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	141	142	141	135	125	115	104	0.0	-1.2	-1.8
Industry (Energy on Value added, index 2000=100)	100	96	75	75	74	63	58	-2.9	-0.1	-2.4
Residential (Energy on Private Income, index 2000=100)	100	94	106	98	87	79	69	0.6	-1.9	-2.2
Tertiary (Energy on Value added, index 2000=100)	100	96	101	94	85	74	64	0.1	-1.7	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	40	37	32	28	25	-0.4	-2.4	-2.6
Freight transport (toe/Mtkm)	28	29	28	27	26	25	23	0.2	-0.9	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	222.8	221.6	216.9	209.7	193.0	183.6	163.5	-0.3	-1.2	-1.6
of which ETS sectors (2013 scope) GHG emissions	103.3	95.6	95.8	85.1	84.0	73.4		-1.2	-1.5	
of which ESD sectors (2013 scope) GHG emissions	118.2	121.4	113.9	108.0	99.6	90.2		-1.2	-1.8	
CO ₂ Emissions (energy related)	168.5	175.7	175.0	171.3	155.9	147.3	130.0	0.4	-1.2	-1.8
Power generation/District heating	51.9	55.5	57.7	54.3	43.6	47.3	41.2	1.1	-2.8	-0.6
Energy Branch	11.1	12.3	8.8	10.4	9.9	8.6	7.7	-2.3	1.2	-2.5
Industry	26.6	26.5	22.9	26.6	27.7	22.3	17.9	-1.5	1.9	-4.3
Residential	18.9	17.9	20.6	19.1	17.5	16.6	14.8	0.9	-1.6	-1.7
Tertiary	17.5	18.3	21.1	18.7	16.6	14.2	12.3	1.9	-2.4	-3.0
Transport	42.4	45.3	43.9	42.3	40.6	38.4	36.1	0.4	-0.8	-1.2
CO ₂ Emissions (non energy and non land use related)	7.1	8.8	8.6	8.5	8.8	8.9	8.7	2.0	0.3	-0.1
Non-CO2 GHG emissions	47.3	37.0	33.3	29.9	28.3	27.4	24.8	-3.4	-1.6	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.0	98.4	96.4	93.2	85.8	81.6	72.7	-0.3	-1.2	-1.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.40	0.38	0.37	0.38	0.28	0.28	0.24	-0.6	-3.0	-1.4
Final energy demand (t of CO ₂ /toe)	2.09	2.09	2.09	2.10	2.03	1.94	1.83	0.0	-0.3	-1.1
Industry	1.80	1.79	1.87	2.07	2.03	1.81	1.52	0.4	0.8	-2.9
Residential	1.84	1.77	1.79	1.75	1.66	1.60	1.54	-0.2	-0.8	-0.8
Tertiary	1.58	1.59	1.61	1.51	1.38	1.28	1.22	0.2	-1.5	-1.2
Transport	2.97	2.98	2.93	2.86	2.86	2.83	2.79	-0.1	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	3.9	5.2	13.1	13.9	15.8			
RES-H&C share	1.5	2.1	2.9	2.9	7.8	9.5	11.9			
RES-E share	2.6	6.3	9.7	12.9	38.1	34.4	35.4			
RES-T share (based on ILUC formula)	0.1	0.2	3.1	9.3	10.8	12.8	15.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	65	73	84	91	98	2.7	2.5	1.5
Average Price of Electricity in Final demand sectors (€13/MWh)	118	130	129	120	137	145	157	0.9	0.6	1.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	47.8	60.9	67.3	65.0	77.8	83.7	88.6	3.5	1.5	1.3
as % of GDP	8.9	10.6	11.0	10.5	11.7	11.9	12.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Poland: EU027		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	38	38	38	38	38	38	37	0.0	0.1	-0.2		
GDP (in 000 M€13)	253	294	371	425	492	559	623	3.9	2.9	2.4		
Gross Inland Consumption (ktoe)	88648	92226	100730	101934	105501	104452	101523	1.3	0.5	-0.4		
Solids	56291	54612	54808	53011	50232	45925	39118	-0.3	-0.8	-2.5		
Oil	19037	21696	25747	25895	26624	25489	24531	3.1	0.3	-0.8		
Natural gas	9964	12237	12807	13159	16191	17748	20862	2.5	2.4	2.6		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-548	-962	-116	6	63	167	81	-14.4	0.0	2.5		
Renewable energy forms	3905	4643	7684	9863	12391	15124	16932	7.0	4.9	3.2		
Energy Branch Consumption	6664	6104	6095	6243	6142	5438	5092	-0.9	0.1	-1.5		
Non-Energy Uses	4357	4573	4961	5545	6359	6934	7389	1.3	2.5	1.5		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	79590	78592	67394	70900	70318	66104	62225	-1.6	0.4	-1.2		
Solids	71299	68857	55381	55586	51980	44600	35784	-2.5	-0.6	-3.7		
Oil	1062	1143	1063	1539	1582	1536	1492	0.0	4.1	-0.6		
Natural gas	3317	3887	3696	3947	4586	4924	8071	1.1	2.2	5.8		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	3912	4705	7254	9829	12170	15043	16878	6.4	5.3	3.3		
Hydro	181	189	251	206	209	217	239	3.3	-1.8	1.4		
Biomass & Waste	3728	4493	6838	8749	10859	12541	13415	6.3	4.7	2.1		
Wind	0	12	143	832	984	2034	2632	80.0	21.3	10.3		
Solar and others	0	0	8	22	82	203	261	0.0	25.5	12.3		
Geothermal	3	11	13	21	38	49	330	16.1	11.0	24.1		
Net Imports (ktoe)	8773	15932	31567	31285	35474	38668	39641	13.7	1.2	1.1		
Solids	-16353	-13039	-2814	-2575	-1748	1325	3333	-16.1	-4.6	0.0		
Oil	19067	21466	25187	24607	25330	24263	23358	2.8	0.1	-0.8		
Crude oil and Feedstocks	17616	17893	22965	24633	24837	23426	22110	2.7	0.8	-1.2		
Oil products	1451	3573	2222	-26	494	838	1248	4.4	-14.0	9.7		
Natural gas	6607	8531	8874	9213	11609	12833	12815	3.0	2.7	1.0		
Electricity	-548	-962	-116	6	63	167	81	-14.4	0.0	2.5		
Import Dependency (%)	9.9	17.2	31.3	30.6	33.5	36.9	38.9					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	143174	155359	157089	162367	177237	188264	201998	0.9	1.2	1.3		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	135888	142161	136592	137628	142076	132094	119291	0.1	0.4	-1.7		
Oil (including refinery gas)	1916	2757	2892	9	0	470	471	4.2	-100.0	0.0		
Gas (including derived gases)	2961	6573	6689	2968	9780	16868	30825	8.5	3.9	12.2		
Biomass-waste	298	1532	6332	9667	11449	12592	17937	35.7	6.1	4.6		
Hydro (pumping excluded)	2106	2201	2920	2397	2427	2523	2783	3.3	-1.8	1.4		
Wind	5	135	1664	9669	11437	23650	30608	78.7	21.3	10.3		
Solar	0	0	0	29	67	67	84	0.0	0.0	2.3		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	30310	31721	33411	38260	33682	38171	42676	1.0	0.1	2.4		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	821	1036	2044	6084	6756	12321	15355	9.6	12.7	8.6		
Hydro (pumping excluded)	817	915	936	949	949	981	1044	1.4	0.1	1.0		
Wind	4	121	1108	5100	5728	11261	14212	75.5	17.9	9.5		
Solar	0	0	0	35	79	79	99	0.0	0.0	2.3		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	29489	30685	31367	32176	26926	25850	27321	0.6	-1.5	0.1		
of which cogeneration units	9354	8313	8693	6564	6348	7477	8109	-0.7	-3.1	2.5		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	28214	28608	29158	28543	23065	20780	19353	0.3	-2.3	-1.7		
Gas fired	764	1548	1592	1659	1710	2833	5627	7.6	0.7	12.6		
Oil fired	396	396	396	398	171	162	155	0.0	-8.1	-0.9		
Biomass-waste fired	115	133	221	1574	1980	2074	2186	6.8	24.5	1.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.0	51.1	48.8	44.3	55.2	52.2	50.6					
Efficiency of gross thermal power generation (%)	33.1	33.9	34.2	35.2	37.4	37.2	39.2					
% of gross electricity from CHP	16.1	16.8	17.6	18.2	20.7	18.8	17.9					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	1.7	2.5	6.9	13.4	14.3	20.6	25.5					
Fuel Inputs to Thermal Power Generation (ktoe)	36625	38771	38341	36695	37548	37434	36969	0.5	-0.2	-0.2		
Solids	35247	36349	34345	33735	33127	31264	28297	-0.3	-0.4	-1.6		
Oil (including refinery gas)	245	184	171	2	0	154	154	-3.5	-74.4	286.7		
Gas (including derived gases)	1032	1805	2179	913	1961	3074	4971	7.8	-1.0	9.7		
Biomass & Waste	102	434	1645	2046	2460	2942	3548	32.1	4.1	3.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	32964	31279	38702	40301	40608	37792	34384	1.6	0.5	-1.6		
Refineries	18969	18975	24192	27120	27451	26036	24697	2.5	1.3	-1.1		
Biofuels and hydrogen production	0	49	887	1100	1397	1396	1325	0.0	4.7	-0.5		
District heating	4179	3465	3716	3183	3579	3280	3302	-1.2	-0.4	-0.8		
Derived gases, cokeries etc.	9816	8789	9908	8898	8182	7080	5061	0.1	-1.9	-4.7		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Poland: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	225	233	268	302	344	374	407	1.7	2.6	1.7
Public road transport	59	49	42	44	46	48	49	-3.4	1.1	0.6
Private cars and motorcycles	134	156	194	223	254	272	291	3.8	2.7	1.4
Rail	29	23	22	24	31	38	46	-2.5	3.2	4.2
Aviation ⁽³⁾	3	5	9	11	13	16	20	12.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	-0.9	2.0	2.0
Freight transport activity (Gtkm)	114	140	170	201	228	258	287	4.0	3.0	2.3
Heavy goods and light commercial vehicles	59	90	121	150	167	188	208	7.4	3.3	2.3
Rail	54	50	49	51	61	70	78	-1.0	2.2	2.6
Inland navigation	1	0	0	0	0	0	0	-16.7	2.7	3.1
Energy demand in transport (ktoe) ⁽⁴⁾	9830	12265	17459	18691	19800	19510	19479	5.9	1.3	-0.2
Public road transport	654	581	610	632	669	680	675	-0.7	0.9	0.1
Private cars and motorcycles	6314	7213	9660	10120	10624	9885	9568	4.3	1.0	-1.0
Heavy goods and light commercial vehicles	2041	3678	6307	6957	7384	7699	7829	11.9	1.6	0.6
Rail	541	469	372	366	426	470	520	-3.7	1.4	2.0
Aviation	274	319	508	613	693	772	882	6.4	3.1	2.4
Inland navigation	6	5	3	3	4	4	4	-7.4	2.3	2.3
By transport activity										
Passenger transport	7317	8170	10823	11407	12039	11403	11203	4.0	1.1	-0.7
Freight transport	2514	4095	6636	7283	7760	8107	8276	10.2	1.6	0.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	0.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	5.2	6.0	7.2	7.3	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	84291	87654	95769	96389	99142	97519	94134	1.3	0.3	-0.5
Final Energy Demand	55260	58986	67070	68144	71664	70777	69506	2.0	0.7	-0.3
by sector										
Industry	18504	16147	14193	16600	17434	18081	17820	-2.6	2.1	0.2
Energy intensive industries	13031	10951	9372	10814	11123	11099	10434	-3.2	1.7	-0.6
Other industrial sectors	5473	5196	4821	5786	6311	6983	7387	-1.3	2.7	1.6
Residential	17193	19454	22501	20556	21377	20547	19905	2.7	-0.5	-0.7
Tertiary	9644	10846	12664	12057	12781	12364	12016	2.8	0.1	-0.6
Transport ⁽⁵⁾	9919	12539	17712	18930	20073	19785	19764	6.0	1.3	-0.2
by fuel										
Solids	13215	12285	14494	13387	11198	9635	6944	0.9	-2.5	-4.7
Oil	15500	17844	20727	21289	21524	20137	19100	2.9	0.4	-1.2
Gas	7574	8780	9468	9673	11131	11294	12065	2.3	1.6	0.8
Electricity	8482	9064	10238	11011	12275	13428	14465	1.9	1.8	1.7
Heat (from CHP and District Heating)	6886	7056	6547	6063	6918	6649	7344	-0.5	0.6	0.6
Renewable energy forms	3602	3957	5596	6721	8617	9623	9547	4.5	4.4	1.0
Other	0	0	0	1	1	11	41	0.0	0.0	41.4
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	350	313	272	240	214	187	163	-2.5	-2.4	-2.7
Industry (Energy on Value added, index 2000=100)	100	64	36	36	32	29	25	-9.7	-1.3	-2.4
Residential (Energy on Private Income, index 2000=100)	100	98	93	74	66	55	48	-0.8	-3.4	-3.2
Tertiary (Energy on Value added, index 2000=100)	100	100	100	83	76	65	57	0.0	-2.7	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	32	34	39	36	34	29	26	2.0	-1.5	-2.5
Freight transport (toe/Mtkm)	22	29	39	36	34	31	29	5.9	-1.4	-1.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	400.5	403.1	411.9	407.8	399.8	376.4	346.5	0.3	-0.3	-1.4
of which ETS sectors (2013 scope) GHG emissions	222.2	210.3	208.8	206.0	195.7	179.4		-0.2	-1.4	
of which ESD sectors (2013 scope) GHG emissions	180.9	201.6	199.0	193.8	180.7	167.0		-0.4	-1.5	
CO ₂ Emissions (energy related)	303.3	307.5	320.7	311.8	306.9	287.6	263.0	0.6	-0.4	-1.5
Power generation/District heating	167.4	171.0	165.6	157.9	158.3	152.1	140.9	-0.1	-0.4	-1.2
Energy Branch	10.2	7.7	8.5	9.7	9.1	7.8	7.3	-1.8	0.7	-2.3
Industry	51.9	36.9	30.4	34.9	31.8	28.4	23.4	-5.2	0.4	-3.0
Residential	27.4	35.5	44.9	37.8	34.7	30.7	25.6	5.1	-2.6	-3.0
Tertiary	18.4	20.7	21.9	19.1	18.1	14.8	12.5	1.7	-1.9	-3.7
Transport	28.0	35.8	49.3	52.4	54.9	53.8	53.2	5.8	1.1	-0.3
CO ₂ Emissions (non energy and non land use related)	22.3	20.8	20.2	22.9	25.4	26.1	25.8	-1.0	2.3	0.1
Non-CO ₂ GHG emissions	75.0	74.7	71.0	73.2	67.5	62.7	57.8	-0.5	-0.5	-1.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.4	84.9	86.8	85.9	84.3	79.3	73.0	0.3	-0.3	-1.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.71	0.69	0.67	0.65	0.59	0.55	0.47	-0.6	-1.2	-2.2
Final energy demand (t of CO ₂ /toe)	2.27	2.18	2.19	2.12	1.95	1.80	1.65	-0.4	-1.2	-1.6
Industry	2.81	2.28	2.14	2.10	1.83	1.57	1.32	-2.6	-1.6	-3.2
Residential	1.59	1.83	2.00	1.84	1.62	1.50	1.29	2.3	-2.1	-2.3
Tertiary	1.91	1.91	1.73	1.59	1.42	1.20	1.04	-1.0	-2.0	-3.1
Transport	2.82	2.85	2.79	2.77	2.73	2.72	2.69	-0.1	-0.2	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.5	6.9	9.2	11.8	15.1	18.3	20.2			
RES-H&C share	9.6	10.2	11.6	13.8	19.1	22.5	24.3			
RES-E share	1.6	2.7	6.6	13.4	14.3	20.4	25.4			
RES-T share (based on ILUC formula)	0.2	0.7	6.1	7.5	10.1	10.8	11.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	38	40	49	67	73	83	96	2.6	4.1	2.8
Average Price of Electricity in Final demand sectors (€13/MWh)	77	93	128	121	132	143	157	5.2	0.3	1.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	34.0	46.3	66.0	71.1	92.9	108.0	119.7	6.9	3.5	2.6
as % of GDP	13.4	15.7	17.8	16.7	18.9	19.3	19.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Portugal: EUCO27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
											Annual % Change	
Population (in million)	10	10	11	10	10	10	10	0.3	-0.4	-0.4		
GDP (in 000 M€13)	169	176	181	174	187	204	217	0.7	0.4	1.5		
Gross Inland Consumption (ktoe)	25285	27475	24205	22984	21357	20974	19222	-0.4	-1.2	-1.0		
Solids	3805	3349	1658	3347	809	9	3	-8.0	-6.9	-42.3		
Oil	15475	16174	12215	10669	10387	10063	9379	-2.3	-1.6	-1.0		
Natural gas	2078	3751	4489	3446	3422	3589	2017	8.0	-2.7	-5.1		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3		
Renewable energy forms	3846	3615	5618	5328	6288	6812	7385	3.9	1.1	1.6		
Energy Branch Consumption	1028	1235	1195	1417	1209	1229	1156	1.5	0.1	-0.4		
Non-Energy Uses	2393	2587	1728	1470	1485	1517	1505	-3.2	-1.5	0.1		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	3891	3615	5800	5217	6157	6687	7249	4.1	0.6	1.6		
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	45	0	0	0	0	0	0	-96.1	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	3846	3615	5800	5217	6157	6687	7249	4.2	0.6	1.6		
Hydro	974	407	1389	820	1596	1563	1623	3.6	1.4	0.2		
Biomass & Waste	2770	2967	3375	3181	3275	3580	3254	2.0	-0.3	-0.1		
Wind	14	153	790	1004	1012	1013	1676	49.2	2.5	5.2		
Solar and others	19	23	66	136	199	455	617	13.6	11.6	12.0		
Geothermal	70	66	181	76	76	77	79	10.0	-8.3	0.4		
Net Imports (ktoe)	22072	24845	18588	18330	15753	14825	12496	-1.7	-1.6	-2.3		
Solids	3914	3225	1629	3347	809	9	3	-8.4	-6.8	-42.3		
Oil	16039	17140	12436	11231	10935	10589	9871	-2.5	-1.3	-1.0		
Crude oil and Feedstocks	12316	13795	11875	14608	14073	13482	12624	-0.4	1.7	-1.1		
Oil products	3723	3345	561	-3376	-3138	-2893	-2754	-17.2	0.0	-1.3		
Natural gas	2039	3893	4505	3446	3428	3602	2050	8.2	-2.7	-5.0		
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3		
Import Dependency (%)	85.1	88.6	75.1	77.8	71.9	68.9	63.3					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	43372	46188	53688	50197	48527	47877	48325	2.2	-1.0	0.0		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	14595	15226	7100	14862	3502	0	0	-7.0	-6.8	-100.0		
Oil (including refinery gas)	8421	8791	3008	769	1967	1252	610	-9.8	-4.2	-11.0		
Gas (including derived gases)	7231	13606	14900	9528	8667	8888	865	7.5	-5.3	-20.6		
Biomass-waste	1553	1987	2942	2936	3074	3993	3293	6.6	0.4	0.7		
Hydro (pumping excluded)	11323	4731	16148	9537	18553	18170	18870	3.6	1.4	0.2		
Wind	168	1773	9182	11676	11767	11781	19492	49.2	2.5	5.2		
Solar	1	3	212	680	789	3585	4988	68.3	14.1	20.2		
Geothermal and other renewables	80	71	196	208	208	208	208	9.4	0.6	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	10989	13461	18921	21094	21849	21969	25508	5.6	1.4	1.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	4619	6083	9036	12611	14827	16446	20075	6.9	5.1	3.1		
Hydro (pumping excluded)	4535	5017	5106	7065	9183	9408	9971	1.2	6.0	0.8		
Wind	83	1064	3796	5079	5113	5113	7522	46.6	3.0	3.9		
Solar	1	2	134	467	531	1924	2582	63.2	14.8	17.1		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	6370	7378	9885	8484	7022	5523	5433	4.5	-3.4	-2.5		
of which cogeneration units	1676	1079	1310	1491	1783	1388	1240	-2.4	3.1	-3.6		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	1774	1728	1728	1728	578	0	0	-0.3	-10.4	-100.0		
Gas fired	1542	2477	4799	5062	4989	4134	4059	12.0	0.4	-2.0		
Oil fired	2819	2915	2990	1144	783	695	669	0.6	-12.5	-1.6		
Biomass-waste fired	221	244	343	521	643	666	676	4.5	6.5	0.5		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	14	14	25	29	29	29	29	6.0	1.5	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	43.5	37.8	31.6	26.3	24.9	24.5	21.4					
Efficiency of gross thermal power generation (%)	42.0	43.1	41.8	42.2	43.6	40.4	29.0					
% of gross electricity from CHP	10.0	11.6	11.8	17.0	22.6	13.9	9.8					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	30.3	18.5	53.4	49.9	70.9	78.8	96.9					
Fuel Inputs to Thermal Power Generation (ktoe)	6520	7914	5787	5770	3433	3053	1478	-1.2	-5.1	-8.1		
Solids	3198	3319	1597	3329	794	0	0	-6.7	-6.8	-100.0		
Oil (including refinery gas)	1683	1793	574	185	466	296	144	-10.2	-2.1	-11.1		
Gas (including derived gases)	1215	2309	2775	1560	1433	1635	251	8.6	-6.4	-16.0		
Biomass & Waste	356	428	662	621	664	1047	1008	6.4	0.0	4.3		
Geothermal heat	69	65	180	75	75	75	75	10.1	-8.4	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	13004	13953	12457	15231	14690	14086	13186	-0.4	1.7	-1.1		
Refineries	12555	13953	12148	14807	14263	13662	12782	-0.3	1.6	-1.1		
Biofuels and hydrogen production	0	0	309	422	423	403	379	0.0	3.2	-1.1		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	449	0	0	1	4	21	25	0.0	0.0	20.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Portugal: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	105	115	116	121	125	136	144	1.0	0.8	1.5
Public road transport	12	6	6	6	6	7	7	-6.4	0.5	1.1
Private cars and motorcycles	73	87	86	86	86	93	98	1.7	0.1	1.3
Rail	5	5	5	5	6	7	8	1.4	1.7	2.3
Aviation ⁽³⁾	16	17	18	23	26	29	31	1.6	3.3	2.0
Inland navigation	0	0	0	0	0	0	0	1.0	0.9	1.3
Freight transport activity (Gtkm)	26	32	27	28	30	32	34	0.5	0.9	1.4
Heavy goods and light commercial vehicles	20	25	20	20	21	23	24	-0.4	0.9	1.3
Rail	2	2	2	2	3	3	3	0.6	1.5	2.4
Inland navigation	4	5	5	6	6	6	7	4.6	0.6	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	6636	7188	7226	6867	6640	6538	6393	0.9	-0.8	-0.4
Public road transport	237	135	129	129	128	133	142	-5.9	0.0	1.0
Private cars and motorcycles	4590	5056	5149	4730	4388	4112	3907	1.2	-1.6	-1.2
Heavy goods and light commercial vehicles	891	1026	835	797	845	879	879	-0.6	0.1	0.4
Rail	89	67	57	50	56	57	62	-4.3	-0.3	1.1
Aviation	784	888	1012	1124	1185	1315	1361	2.6	1.6	1.4
Inland navigation	45	18	45	37	39	41	43	0.1	-1.5	1.1
<i>By transport activity</i>										
Passenger transport	5689	6109	6318	6007	5728	5586	5438	1.1	-1.0	-0.5
Freight transport	947	1079	908	860	912	951	956	-0.4	0.0	0.5
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	4.3	6.2	6.5	6.6	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	22892	24889	22477	21514	19872	19457	17717	-0.2	-1.2	-1.1
Final Energy Demand	17919	19009	18022	16789	16811	16457	15718	0.1	-0.7	-0.7
<i>by sector</i>										
Industry	6323	5796	5453	5066	5139	4937	4645	-1.5	-0.6	-1.0
Energy intensive industries	4179	3889	3634	3613	3666	3518	3257	-1.4	0.1	-1.2
Other industrial sectors	2144	1907	1819	1452	1474	1419	1388	-1.6	-2.1	-0.6
Residential	2804	3224	2976	2632	2764	2759	2612	0.6	-0.7	-0.6
Tertiary	2157	2801	2368	2224	2267	2222	2067	0.9	-0.4	-0.9
Transport ⁽⁵⁾	6636	7188	7226	6867	6640	6538	6393	0.9	-0.8	-0.4
<i>by fuel</i>										
Solids	466	17	50	17	15	9	3	-20.0	-11.4	-14.0
Oil	10713	10812	9199	8142	7706	7471	6996	-1.5	-1.8	-1.0
Gas	873	1307	1564	1691	1801	1776	1603	6.0	1.4	-1.2
Electricity	3300	3983	4290	3865	4052	4094	4099	2.7	-0.6	0.1
Heat (from CHP and District Heating)	134	328	338	325	363	300	437	9.7	0.7	1.9
Renewable energy forms	2434	2563	2581	2748	2870	2785	2549	0.6	1.1	-1.2
Other	0	0	0	1	4	22	30	0.0	0.0	22.2
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	150	156	134	132	114	103	88	-1.1	-1.6	-2.5
Industry (Energy on Value added, index 2000=100)	100	93	89	85	82	74	67	-1.2	-0.8	-1.9
Residential (Energy on Private Income, index 2000=100)	100	108	94	87	86	78	69	-0.6	-0.9	-2.1
Tertiary (Energy on Value added, index 2000=100)	100	120	94	91	86	77	67	-0.6	-0.9	-2.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	47	46	41	37	33	30	-0.3	-2.2	-2.2
Freight transport (toe/Mtkm)	36	33	33	31	31	29	28	-0.9	-0.8	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	86.9	90.7	73.4	73.2	59.6	54.5	45.7	-1.7	-2.1	-2.6
of which ETS sectors (2013 scope) GHG emissions	40.6	27.7	32.3	32.0	22.0	19.1	14.2		-2.3	-4.3
of which ESD sectors (2013 scope) GHG emissions	50.1	45.7	40.9	37.7	35.4	31.5			-1.9	-1.8
CO₂ Emissions (energy related)	61.0	64.6	49.6	50.1	38.7	34.7	28.9	-2.1	-2.4	-2.9
Power generation/District heating	21.7	24.9	14.9	18.0	8.1	4.8	1.1	-3.6	-5.9	-18.5
Energy Branch	2.5	3.1	2.5	3.1	2.6	2.8	2.6	-0.2	0.6	-0.1
Industry	11.6	8.2	6.3	5.7	5.5	5.1	4.2	-5.9	-1.4	-2.7
Residential	2.0	2.3	2.6	2.0	2.0	2.1	1.9	2.5	-2.4	-0.8
Tertiary	3.4	4.4	2.4	2.0	1.7	1.6	1.3	-3.2	-3.3	-3.0
Transport	19.9	21.7	20.9	19.5	18.8	18.4	17.9	0.5	-1.1	-0.5
CO₂ Emissions (non energy and non land use related)	6.6	7.0	5.4	6.1	6.0	6.2	5.4	-2.0	1.1	-1.1
Non-CO₂ GHG emissions	19.3	19.1	18.4	16.9	14.8	13.6	11.4	-0.4	-2.1	-2.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	139.7	145.8	118.0	117.7	95.9	87.7	73.5	-1.7	-2.1	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.50	0.25	0.32	0.15	0.09	0.02	-6.3	-5.1	-18.5
Final energy demand (t of CO ₂ /toe)	2.05	1.92	1.78	1.73	1.66	1.65	1.60	-1.4	-0.7	-0.4
Industry	1.83	1.42	1.15	1.12	1.06	1.04	0.90	-4.5	-0.8	-1.7
Residential	0.71	0.72	0.86	0.75	0.73	0.74	0.71	1.9	-1.7	-0.2
Tertiary	1.55	1.56	1.02	0.88	0.76	0.70	0.61	-4.1	-2.9	-2.1
Transport	3.00	3.01	2.89	2.84	2.83	2.82	2.80	-0.4	-0.2	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	19.1	19.4	24.3	25.3	33.4	36.1	41.8			
RES-H&C share	30.4	32.1	33.9	36.8	38.7	40.0	41.1			
RES-E share	28.3	27.7	40.7	47.4	63.7	70.1	87.8			
RES-T share (based on ILUC formula)	0.4	0.4	5.7	1.3	10.9	13.2	17.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	67	76	79	98	113	117	104	1.6	3.7	-0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	118	120	104	128	140	145	146	-1.3	3.0	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.8	22.3	24.4	23.5	28.6	31.2	33.5	3.8	1.6	1.6
as % of GDP	10.0	12.7	13.5	13.5	15.3	15.3	15.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Romania: EUCo27			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	22	21	20	20	20	19	19	-1.0	-0.3	-0.4	
GDP (in 000 ME13)	87	114	130	145	163	181	195	4.1	2.3	1.8	
Gross Inland Consumption (ktoe)	36650	39207	35800	33091	35005	35495	33449	-0.2	-0.2	-0.5	
Solids	7493	8788	7008	6207	6463	4881	2939	-0.7	-0.8	-7.6	
Oil	9992	10286	9310	8775	8538	8423	7986	-0.7	-0.9	-0.7	
Natural gas	13680	13923	10788	9688	10767	10084	9315	-2.3	0.0	-1.4	
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3	
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1	
Renewable energy forms	4137	5026	5891	6299	6970	7253	8409	3.6	1.7	1.9	
Energy Branch Consumption	3675	4105	2839	2480	2446	2310	2074	-2.5	-1.5	-1.6	
Non-Energy Uses	1883	2467	1473	1754	2001	2175	2331	-2.4	3.1	1.5	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	28465	28224	27824	26642	28353	30142	29710	-0.2	0.2	0.5	
Solids	5604	5795	5904	5042	5112	3712	2161	0.5	-1.4	-8.2	
Oil	6355	6226	4565	3643	3647	3658	3657	-3.3	-2.2	0.0	
Natural gas	10968	9701	8619	8848	9964	9940	9907	-2.4	1.5	-0.1	
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3	
Renewable energy sources	4131	5070	5739	6271	6785	7083	8236	3.3	1.7	2.0	
Hydro	1271	1738	1710	1386	1438	1443	1443	3.0	-1.7	0.0	
Biomass & Waste	2854	3314	3980	4135	4559	4595	4740	3.4	1.4	0.4	
Wind	0	0	26	557	560	725	1467	0.0	35.8	10.1	
Solar and others	0	0	0	163	183	250	423	0.0	111.9	8.7	
Geothermal	7	18	23	30	45	71	164	13.1	7.1	13.7	
Net Imports (ktoe)	8009	10867	7827	6473	6663	5390	3781	-0.2	-1.6	-5.5	
Solids	1920	2939	1234	1165	1351	1168	778	-4.3	0.9	-5.4	
Oil	3437	3988	4838	5156	4922	4801	4369	3.5	0.2	-1.2	
Crude oil and Feedstocks	4801	8857	6233	5504	4999	4639	4114	2.6	-2.2	-1.9	
Oil products	-1364	-4870	-1395	-348	-77	161	255	0.2	-25.1	0.0	
Natural gas	2712	4190	1816	839	803	146	-589	-3.9	-7.8	0.0	
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1	
Import Dependency (%)	21.8	27.7	21.9	19.5	19.1	15.2	11.3				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	51560	59413	60619	67528	70639	75411	76320	1.6	1.5	0.8	
Nuclear energy	5456	5555	11623	11890	11922	23792	23606	7.9	0.3	7.1	
Solids	18926	21916	20681	21982	22416	15762	8012	0.9	0.8	-9.8	
Oil (including refinery gas)	3399	1894	692	626	405	231	209	-14.7	-5.2	-6.4	
Gas (including derived gases)	9001	9834	7323	8032	9948	6995	5066	-2.0	3.1	-6.5	
Biomass-waste	0	7	111	522	763	974	1544	0.0	21.3	7.3	
Hydro (pumping excluded)	14778	20207	19883	16112	16723	16778	16778	3.0	-1.7	0.0	
Wind	0	0	306	6473	6512	8427	17053	0.0	35.8	10.1	
Solar	0	0	0	1891	1950	2452	4051	0.0	0.0	7.6	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	20197	19153	20120	24896	23886	23504	25806	0.0	1.7	0.8	
Nuclear energy	672	672	1344	1414	1414	2828	2828	7.2	0.5	7.2	
Renewable energy	6242	6289	6863	11413	11457	12575	16325	1.0	5.3	3.6	
Hydro (pumping excluded)	6242	6289	6474	6645	6645	6645	6645	0.4	0.3	0.0	
Wind	0	0	389	2976	2989	3857	6552	0.0	22.6	8.2	
Solar	0	0	0	1792	1824	2074	3129	0.0	0.0	5.5	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	13283	12192	11913	12070	11015	8101	6653	-1.1	-0.8	-4.9	
of which cogeneration units	3431	5246	4582	4234	4098	2747	2709	2.9	-1.1	-4.1	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	7602	7057	6643	6441	5626	3094	1909	-1.3	-1.6	-10.2	
Gas fired	3728	3439	3488	4173	4118	4067	3856	-0.7	1.7	-0.7	
Oil fired	1806	1691	1759	1360	1132	771	676	-0.3	-4.3	-5.0	
Biomass-waste fired	147	5	23	96	139	169	212	-16.9	19.7	4.3	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.5	33.1	31.5	28.5	31.2	34.3	32.3				
Efficiency of gross thermal power generation (%)	25.3	28.0	28.6	39.2	38.9	38.6	37.2				
% of gross electricity from CHP	32.3	26.2	10.8	12.0	12.4	10.1	8.5				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	39.2	43.4	52.7	54.6	53.6	69.5	82.6				
Fuel Inputs to Thermal Power Generation (ktoe)	10788	10329	8675	6836	7405	5343	3430	-2.2	-1.6	-7.4	
Solids	5462	6085	5929	5216	5337	3848	2090	0.8	-1.0	-9.0	
Oil (including refinery gas)	1736	799	327	176	130	74	67	-15.4	-8.8	-6.4	
Gas (including derived gases)	3579	3437	2399	1331	1769	1201	913	-3.9	-3.0	-6.4	
Biomass & Waste	12	9	21	113	169	219	361	6.1	23.3	7.9	
Geothermal heat	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	16275	19666	15568	13664	13418	15860	15261	-0.4	-1.5	1.3	
Refineries	11250	15219	11480	9680	9164	8791	8261	0.2	-2.2	-1.0	
Biofuels and hydrogen production	0	0	115	273	559	529	505	0.0	17.1	-1.0	
District heating	1738	825	749	702	679	620	581	-8.1	-1.0	-1.5	
Derived gases, cokeries etc.	3287	3621	3223	3009	3017	5920	5914	-0.2	-0.7	7.0	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Romania: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	85	93	110	118	130	145	159	2.6	1.7	2.1
Public road transport	12	12	12	12	13	13	14	0.0	0.8	0.7
Private cars and motorcycles	54	63	78	85	92	103	113	3.9	1.7	2.0
Rail	18	15	13	13	15	16	17	-3.3	1.6	1.6
Aviation ⁽³⁾	2	3	7	8	10	12	15	15.1	3.4	4.7
Inland navigation	0	0	0	0	0	0	0	-2.5	2.1	2.6
Freight transport activity (Gtkm)	27	56	43	51	61	70	77	4.7	3.5	2.3
Heavy goods and light commercial vehicles	8	31	16	20	25	29	32	7.2	4.4	2.4
Rail	16	17	12	15	18	21	23	-2.7	3.9	2.6
Inland navigation	3	8	14	15	18	20	21	18.4	2.1	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	3336	4186	5073	5448	5730	5925	5965	4.3	1.2	0.4
Public road transport	293	260	359	373	379	379	377	2.0	0.5	0.0
Private cars and motorcycles	2082	2416	3214	3381	3374	3342	3254	4.4	0.5	-0.4
Heavy goods and light commercial vehicles	363	1182	946	1142	1358	1487	1533	10.1	3.7	1.2
Rail	357	159	222	245	274	303	322	-4.6	2.1	1.6
Aviation	128	128	272	265	298	362	422	7.8	0.9	3.6
Inland navigation	113	42	59	42	47	52	56	-6.2	-2.2	1.8
<i>By transport activity</i>										
Passenger transport	2648	2855	3921	4091	4133	4175	4149	4.0	0.5	0.0
Freight transport	689	1331	1152	1356	1597	1750	1816	5.3	3.3	1.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.3	5.1	10.0	9.2	8.8			
ENERGY EFFICIENCY										
Primary energy consumption	34767	36740	34326	31337	33004	33321	31118	-0.1	-0.4	-0.6
Final Energy Demand	22772	24714	22591	23117	24611	24615	23864	-0.1	0.9	-0.3
<i>by sector</i>										
Industry	9296	10007	6876	7316	8151	8295	7974	-3.0	1.7	-0.2
Energy intensive industries	6510	7208	4759	4794	5397	5368	5000	-3.1	1.3	-0.8
Other industrial sectors	2787	2799	2117	2522	2754	2927	2974	-2.7	2.7	0.8
Residential	8409	7990	8102	7825	8138	7806	7475	-0.4	0.0	-0.8
Tertiary	1606	2441	2489	2468	2529	2522	2380	4.5	0.2	-0.6
Transport ⁽⁵⁾	3460	4276	5124	5507	5793	5992	6034	4.0	1.2	0.4
<i>by fuel</i>										
Solids	1046	1611	939	815	940	848	670	-1.1	0.0	-3.3
Oil	5526	6628	6184	6765	6604	6590	6203	1.1	0.7	-0.6
Gas	6910	7754	6189	6337	6836	6761	6382	-1.1	1.0	-0.7
Electricity	2918	3341	3553	3683	4077	4279	4484	2.0	1.4	1.0
Heat (from CHP and District Heating)	3570	2136	1650	1493	1622	1691	1704	-7.4	-0.2	0.5
Renewable energy forms	2802	3244	4077	4023	4532	4442	4411	3.8	1.1	-0.3
Other	0	0	0	0	1	4	10	-100.0	0.0	26.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	423	343	275	229	215	197	171	-4.2	-2.5	-2.2
Industry (Energy on Value added, index 2000=100)	100	78	44	41	40	37	32	-7.8	-1.0	-2.1
Residential (Energy on Private Income, index 2000=100)	100	59	49	43	39	34	30	-6.9	-2.1	-2.7
Tertiary (Energy on Value added, index 2000=100)	100	119	114	102	92	83	71	1.4	-2.1	-2.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	31	31	35	34	32	28	26	1.3	-1.2	-2.0
Freight transport (toe/Mtkm)	25	24	27	27	26	25	24	0.5	-0.2	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	145.9	151.3	125.5	118.7	118.5	107.3	92.8	-1.5	-0.6	-2.4
of which ETS sectors (2013 scope) GHG emissions	74.8	55.8	46.9	48.8	39.7	28.9		-1.3	-5.1	
of which ESD sectors (2013 scope) GHG emissions		76.5	69.6	71.8	69.7	67.6	63.8		0.0	-0.9
CO₂ Emissions (energy related)	88.8	95.8	77.4	71.5	73.8	64.8	53.1	-1.4	-0.5	-3.2
Power generation/District heating	42.0	39.0	33.6	27.2	28.6	20.4	11.8	-2.2	-1.6	-8.4
Energy Branch	6.8	7.7	5.1	4.0	3.8	3.6	3.4	-2.8	-2.9	-1.2
Industry	21.6	25.2	14.4	14.7	15.7	14.6	12.6	-4.0	0.9	-2.1
Residential	6.6	7.3	5.8	6.5	6.9	6.9	6.5	-1.2	1.7	-0.5
Tertiary	1.9	4.2	3.6	3.5	3.5	3.3	2.8	6.7	-0.4	-2.2
Transport	9.9	12.4	14.8	15.5	15.4	16.0	16.0	4.1	0.4	0.4
CO₂ Emissions (non energy and non land use related)	13.4	8.7	7.1	7.4	7.8	7.6	6.8	-6.1	0.8	-1.3
Non-CO₂ GHG emissions	43.8	46.7	40.9	39.8	36.9	34.8	32.8	-0.7	-1.0	-1.2
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	57.4	59.5	49.4	46.7	46.6	42.2	36.5	-1.5	-0.6	-2.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.42	0.39	0.30	0.30	0.20	0.12	-0.6	-2.5	-9.0
Final energy demand (t of CO ₂ /toe)	1.76	1.99	1.71	1.74	1.68	1.66	1.59	-0.3	-0.1	-0.6
Industry	2.33	2.52	2.09	2.01	1.92	1.77	1.58	-1.1	-0.8	-1.9
Residential	0.79	0.92	0.72	0.83	0.85	0.88	0.87	-0.8	1.6	0.3
Tertiary	1.17	1.70	1.44	1.42	1.37	1.31	1.17	2.2	-0.5	-1.6
Transport	2.86	2.90	2.89	2.81	2.67	2.68	2.65	0.1	-0.8	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.9	17.6	23.3	25.1	26.2	27.5	32.8			
RES-H&C share	16.1	17.9	27.4	25.9	26.4	27.7	30.9			
RES-E share	30.2	28.8	30.4	42.3	40.7	44.1	60.5			
RES-T share (based on ILUC formula)	2.3	1.9	3.8	7.5	10.2	10.8	14.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	72	70	76	75	76	77	5.0	0.7	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	52	105	90	101	109	120	130	5.7	1.9	1.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.9	19.1	23.0	26.7	32.5	37.0	41.3	8.8	3.5	2.4
as % of GDP	11.5	16.8	17.7	18.4	19.9	20.5	21.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovakia: EU027					
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30			
								Annual % Change					
Population (in million)	5	5	5	5	5	5	5	0.0	0.0	-0.2			
GDP (in 000 ME13)	43	55	69	76	89	102	117	4.8	2.6	2.7			
Gross Inland Consumption (ktoe)	18302	19029	17864	16867	18301	18680	18799	-0.2	0.2	0.3			
Solids	4278	4231	3897	3247	3092	2768	2011	-0.9	-2.3	-4.2			
Oil	3415	3711	3692	3346	3440	3426	3478	0.8	-0.7	0.1			
Natural gas	5777	5884	5007	4939	4983	5239	4618	-1.4	0.0	-0.8			
Nuclear	4255	4626	3819	3569	4953	5375	6837	-1.1	2.6	3.3			
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6			
Renewable energy forms	810	859	1360	1551	2038	2101	2093	5.3	4.1	0.3			
Energy Branch Consumption	623	1297	963	942	935	852	815	4.5	-0.3	-1.4			
Non-Energy Uses	1365	1279	1053	1597	1738	1870	2019	-2.6	5.1	1.5			
SECURITY OF SUPPLY													
Production (incl.recovery of products) (ktoe)	6389	6684	6345	6192	7957	8060	9268	-0.1	2.3	1.5			
Solids	1018	637	613	593	512	431	191	-4.9	-1.8	-9.4			
Oil	165	383	387	297	264	0	0	8.9	-3.7	-100.0			
Natural gas	133	126	88	120	107	75	76	-4.0	1.9	-3.3			
Nuclear	4255	4626	3819	3569	4953	5375	6837	-1.1	2.6	3.3			
Renewable energy sources	818	912	1438	1613	2122	2178	2164	5.8	4.0	0.2			
Hydro	397	399	452	407	468	432	431	1.3	0.4	-0.8			
Biomass & Waste	421	505	972	1148	1575	1646	1598	8.7	4.9	0.1			
Wind	0	1	1	1	2	2	2	0.0	16.2	0.0			
Solar and others	0	0	6	51	63	70	79	0.0	26.8	2.4			
Geothermal	0	8	8	6	14	28	53	0.0	5.4	14.3			
Net Imports (ktoe)	11997	12428	11230	10675	10344	10620	9531	-0.7	-0.8	-0.8			
Solids	3432	3739	2951	2654	2580	2336	1820	-1.5	-1.3	-3.4			
Oil	3090	3274	3266	3048	3176	3426	3478	0.6	-0.3	0.9			
Crude oil and Feedstocks	5720	5429	5282	5716	5604	5640	5466	-0.8	0.6	-0.2			
Oil products	-2630	-2155	-2015	-2667	-2428	-2214	-1989	-2.6	1.9	-2.0			
Natural gas	5707	5735	5003	4819	4876	5164	4542	-1.3	-0.3	-0.7			
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6			
Import Dependency (%)	65.5	65.3	62.9	63.3	56.5	56.9	50.7						
ELECTRICITY													
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	30798	31352	27464	27068	34015	36526	38107	-1.1	2.2	1.1			
Nuclear energy	16494	17727	14574	14662	20320	22049	29180	-1.2	3.4	3.7			
Solids	5584	5535	3570	4120	4615	3614	1623	-4.4	2.6	-9.9			
Oil (including refinery gas)	202	741	600	164	8	91	91	11.5	-34.7	26.8			
Gas (including derived gases)	3871	2629	2716	1730	914	3385	271	-3.5	-10.3	-11.4			
Biomass-waste	32	76	726	1129	2151	1807	1280	36.6	11.5	-5.1			
Hydro (pumping excluded)	4615	4638	5255	4738	5448	5021	5017	1.3	0.4	-0.8			
Wind	0	6	6	6	26	26	26	0.0	15.8	0.0			
Solar	0	0	17	520	532	532	619	0.0	40.8	1.5			
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0			
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0			
Net Generation Capacity (MW _e)	6919	7103	6715	7497	7733	7659	8438	-0.3	1.4	0.9			
Nuclear energy	2707	2707	1845	1940	2820	2820	4020	-3.8	4.3	3.6			
Renewable energy	1685	1601	1624	2220	2357	2357	2417	-0.4	3.8	0.3			
Hydro (pumping excluded)	1685	1596	1600	1607	1719	1719	1719	-0.5	0.7	0.0			
Wind	0	5	5	5	19	19	19	0.0	14.3	0.0			
Solar	0	0	19	608	620	620	680	0.0	41.7	0.9			
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0			
Thermal power	2526	2795	3246	3337	2556	2482	2001	2.5	-2.4	-2.4			
of which cogeneration units	618	5411	2821	1020	873	915	816	16.4	-11.1	-0.7			
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0			
Solids fired	1618	1617	1313	1274	792	711	454	-2.1	-4.9	-5.4			
Gas fired	821	1067	1674	1738	1326	1328	1103	7.4	-2.3	-1.8			
Oil fired	81	81	81	84	84	84	84	0.0	0.4	0.0			
Biomass-waste fired	7	30	177	241	353	358	359	38.2	7.1	0.2			
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0			
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0			
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.2	46.9	42.6	38.8	47.3	51.5	49.0						
Efficiency of gross thermal power generation (%)	31.4	29.0	25.6	36.3	37.0	37.4	28.1						
% of gross electricity from CHP	18.4	15.3	15.9	25.6	21.9	19.6	8.6						
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
% of carbon free (RES, nuclear) gross electricity generation	68.6	71.6	74.9	77.8	83.7	80.6	94.8						
Fuel Inputs to Thermal Power Generation (ktoe)	2656	2664	2555	1692	1789	2048	999	-0.4	-3.5	-5.7			
Solids	1619	1677	1205	1089	1132	981	463	-2.9	-0.6	-8.5			
Oil (including refinery gas)	31	100	293	34	3	30	30	25.4	-37.2	26.8			
Gas (including derived gases)	1002	847	793	314	170	597	144	-2.3	-14.3	-1.6			
Biomass & Waste	4	40	264	255	484	440	362	51.0	6.2	-2.9			
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0			
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0			
Fuel Input to other conversion processes	12901	13989	12558	12416	13507	13514	14645	-0.3	0.7	0.8			
Refineries	5959	6398	6011	6450	6335	6138	5993	0.1	0.5	-0.6			
Biofuels and hydrogen production	0	11	98	118	176	173	177	0.0	6.0	0.1			
District heating	674	718	497	367	376	381	360	-3.0	-2.8	-0.4			
Derived gases, cokeries etc.	6268	6862	5952	5481	6620	6822	8116	-0.5	1.1	2.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovakia: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	37	39	36	38	45	51	57	-0.2	2.2	2.5
Public road transport	9	9	5	6	6	7	8	-5.5	2.0	2.2
Private cars and motorcycles	24	26	27	28	34	38	43	1.2	2.1	2.3
Rail	3	3	3	3	3	4	5	-2.1	2.9	3.2
Aviation ⁽³⁾	0	2	1	1	1	2	2	15.3	3.0	4.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	20	21	22	23	26	29	32	1.1	1.8	2.1
Heavy goods and light commercial vehicles	7	11	13	14	15	16	18	6.0	1.9	1.6
Rail	11	9	8	8	10	11	13	-3.2	1.8	3.0
Inland navigation	1	1	1	1	1	1	2	-1.5	1.0	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	1455	1794	2241	2205	2349	2350	2408	4.4	0.5	0.2
Public road transport	193	185	132	141	154	165	175	-3.7	1.5	1.3
Private cars and motorcycles	830	992	1194	1155	1209	1171	1191	3.7	0.1	-0.2
Heavy goods and light commercial vehicles	308	527	821	814	873	886	897	10.3	0.6	0.3
Rail	83	42	40	41	48	54	61	-7.1	1.8	2.6
Aviation	27	39	41	44	53	62	71	4.5	2.5	3.0
Inland navigation	14	7	12	10	11	12	13	-2.0	-0.4	1.4
<i>By transport activity</i>										
Passenger transport	1064	1223	1374	1346	1424	1406	1446	2.6	0.4	0.2
Freight transport	390	570	867	859	925	944	962	8.3	0.7	0.4
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.6	4.4	5.5	7.7	7.9	8.0			
ENERGY EFFICIENCY										
Primary energy consumption	16937	17751	16811	15270	16563	16810	16780	-0.1	-0.1	0.1
Final Energy Demand	10980	11561	11546	11225	11660	11566	11254	0.5	0.1	-0.4
<i>by sector</i>										
Industry	4532	4713	4361	4420	4553	4557	4471	-0.4	0.4	-0.2
Energy intensive industries	3678	3887	3637	3655	3721	3686	3561	-0.1	0.2	-0.4
Other industrial sectors	854	826	723	765	831	872	910	-1.7	1.4	0.9
Residential	2586	2540	2312	2176	2215	2196	2057	-1.1	-0.4	-0.7
Tertiary	2407	1916	2240	2038	2159	2076	1956	-0.7	-0.4	-1.0
Transport ⁽⁵⁾	1455	2392	2633	2591	2733	2738	2770	6.1	0.4	0.1
<i>by fuel</i>										
Solids	1747	1572	1637	1294	1228	1165	985	-0.6	-2.8	-2.2
Oil	1703	2184	2301	2230	2289	2231	2219	3.1	-0.1	-0.3
Gas	4698	4540	4119	4011	4086	3836	3561	-1.3	-0.1	-1.4
Electricity	1893	1965	2075	2219	2346	2524	2660	0.9	1.2	1.3
Heat (from CHP and District Heating)	619	951	851	726	813	823	758	3.2	-0.5	-0.7
Renewable energy forms	320	349	562	745	896	979	1059	5.8	4.8	1.7
Other	0	0	0	0	2	8	12	0.0	0.0	22.3
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	424	347	259	221	206	183	161	-4.8	-2.3	-2.4
Industry (Energy on Value added, index 2000=100)	100	61	39	37	34	30	26	-8.9	-1.5	-2.5
Residential (Energy on Private Income, index 2000=100)	100	78	59	51	44	38	30	-5.1	-2.9	-3.7
Tertiary (Energy on Value added, index 2000=100)	100	72	68	54	49	41	33	-3.8	-3.2	-3.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	31	37	35	31	27	25	2.7	-1.8	-2.3
Freight transport (toe/Mtkm)	20	27	40	37	36	33	30	7.2	-1.1	-1.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	54.1	54.7	50.8	45.0	42.2	39.9	34.0	-0.6	-1.8	-2.1
of which ETS sectors (2013 scope) GHG emissions	29.2	24.7	20.4	18.7	17.7	13.2		-2.7	-3.4	
of which ESD sectors (2013 scope) GHG emissions	25.5	26.1	24.6	23.4	22.2	20.7		-1.1	-1.2	
CO₂ Emissions (energy related)	38.7	41.6	38.7	33.6	32.2	30.3	25.1	0.0	-1.8	-2.5
Power generation/District heating	11.1	11.2	9.2	6.3	5.7	6.4	3.1	-1.8	-4.7	-5.9
Energy Branch	1.6	3.4	2.5	2.2	2.0	1.7	1.6	4.4	-2.0	-2.4
Industry	13.3	14.1	12.8	12.0	11.3	9.7	8.5	-0.4	-1.3	-2.8
Residential	4.1	3.6	3.4	2.8	2.7	2.6	2.4	-2.0	-2.2	-1.2
Tertiary	4.5	2.7	3.5	3.1	3.1	2.6	2.1	-2.5	-1.0	-3.7
Transport	4.1	6.6	7.3	7.1	7.3	7.3	7.3	5.9	0.1	0.0
CO₂ Emissions (non energy and non land use related)	6.7	3.9	3.2	3.5	3.5	3.5	3.3	-7.0	0.9	-0.6
Non-CO₂ GHG emissions	8.7	9.1	8.9	7.8	6.4	6.1	5.5	0.2	-3.2	-1.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	71.5	72.3	67.2	59.5	55.8	52.8	44.9	-0.6	-1.8	-2.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.27	0.25	0.23	0.17	0.13	0.13	0.06	-1.4	-6.0	-6.5
Final energy demand (t of CO ₂ /toe)	2.37	2.34	2.33	2.24	2.10	1.92	1.81	-0.2	-1.1	-1.4
Industry	2.94	2.99	2.94	2.72	2.47	2.13	1.90	0.0	-1.7	-2.6
Residential	1.60	1.40	1.47	1.30	1.22	1.17	1.16	-0.9	-1.8	-0.5
Tertiary	1.85	1.43	1.55	1.54	1.45	1.26	1.10	-1.8	-0.7	-2.7
Transport	2.82	2.77	2.77	2.74	2.69	2.67	2.65	-0.2	-0.3	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.3	5.8	9.0	11.7	14.2	15.1	16.4			
RES-H&C share	1.2	4.9	7.8	10.3	12.3	15.3	18.6			
RES-E share	11.9	13.5	17.8	21.7	25.9	21.9	19.7			
RES-T share (based on ILUC formula)	1.7	1.5	5.3	6.6	10.1	10.8	11.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	62	60	70	80	82	75	84	1.2	1.6	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	94	102	143	128	133	140	145	4.3	-0.7	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	7.1	8.5	11.5	11.2	13.7	15.6	17.3	4.9	1.8	2.4
as % of GDP	16.4	15.6	16.6	14.7	15.4	15.3	14.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovenia: EU027			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	2	2	2	2	2	2	2	0.3	0.2	0.0	
GDP (in 000 ME13)	28	34	37	38	41	45	48	2.7	1.0	1.6	
Gross Inland Consumption (ktoe)	6451	7325	7226	6776	7002	6828	6722	1.1	-0.3	-0.4	
Solids	1305	1539	1451	1268	1353	1095	1227	1.1	-0.7	-1.0	
Oil	2419	2580	2579	2360	2276	2096	1880	0.6	-1.2	-1.9	
Natural gas	826	929	863	681	689	755	745	0.4	-2.2	0.8	
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4	
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6	
Renewable energy forms	788	787	1054	1182	1394	1501	1584	3.0	2.8	1.3	
Energy Branch Consumption	107	100	112	99	105	87	100	0.5	-0.6	-0.5	
Non-Energy Uses	238	310	209	114	120	121	125	-1.3	-5.4	0.4	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	3085	3492	3687	3441	3763	3664	3953	1.8	0.2	0.5	
Solids	1062	1184	1196	1023	1127	863	1073	1.2	-0.6	-0.5	
Oil	1	0	0	0	0	0	0	-95.0	-100.0	0.0	
Natural gas	6	3	6	3	4	11	15	0.0	-3.9	14.2	
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4	
Renewable energy sources	788	787	1025	1094	1259	1362	1436	2.7	2.1	1.3	
Hydro	330	298	388	380	391	407	437	1.6	0.1	1.1	
Biomass & Waste	458	489	601	632	723	745	765	2.7	1.9	0.6	
Wind	0	0	0	0	24	26	31	0.0	0.0	2.4	
Solar and others	0	0	9	36	54	127	151	0.0	19.2	10.8	
Geothermal	0	0	27	45	66	56	52	0.0	9.4	-2.5	
Net Imports (ktoe)	3415	3855	3581	3356	3260	3184	2790	0.5	-0.9	-1.5	
Solids	244	323	279	245	226	231	154	1.4	-2.1	-3.8	
Oil	2466	2634	2596	2380	2297	2116	1900	0.5	-1.2	-1.9	
Crude oil and Feedstocks	152	0	0	0	0	0	0	-100.0	0.0	0.0	
Oil products	2314	2634	2596	2380	2297	2116	1900	1.2	-1.2	-1.9	
Natural gas	820	925	857	678	685	745	730	0.4	-2.2	0.6	
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6	
Import Dependency (%)	52.9	52.5	49.4	49.4	46.4	46.5	41.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	13624	15117	16248	15126	16438	16949	18593	1.8	0.1	1.2	
Nuclear energy	4761	5884	5657	5421	5628	5801	5801	1.7	-0.1	0.3	
Solids	4611	5271	5288	4858	5182	4031	4465	1.4	-0.2	-1.5	
Oil (including refinery gas)	55	42	8	0	0	0	0	-17.5	-100.0	0.0	
Gas (including derived gases)	293	339	548	14	111	496	602	6.5	-14.8	18.5	
Biomass-waste	70	120	222	111	300	422	802	12.2	3.0	10.3	
Hydro (pumping excluded)	3834	3461	4512	4423	4542	4735	5077	1.6	0.1	1.1	
Wind	0	0	0	5	284	302	360	0.0	0.0	2.4	
Solar	0	0	13	295	391	1163	1485	0.0	40.8	14.3	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	-100.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	2955	3111	3186	3490	3887	4421	4585	0.8	2.0	1.7	
Nuclear energy	700	700	700	700	700	700	700	0.0	0.0	0.0	
Renewable energy	843	979	1086	1385	1773	2506	2925	2.6	5.0	5.1	
Hydro (pumping excluded)	843	979	1074	1119	1220	1220	1300	2.5	1.3	0.6	
Wind	0	0	0	4	200	212	251	0.0	0.0	2.3	
Solar	0	0	12	262	352	1074	1373	0.0	40.2	14.6	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	1412	1432	1400	1405	1414	1215	960	-0.1	0.1	-3.8	
of which cogeneration units	648	336	333	228	213	251	249	-6.4	-4.4	1.5	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	923	923	792	792	792	678	632	-1.5	0.0	-2.2	
Gas fired	278	284	372	470	469	396	178	3.0	2.3	-9.2	
Oil fired	176	190	185	92	29	16	16	0.5	-16.9	-5.7	
Biomass-waste fired	35	35	51	51	124	124	134	3.9	9.3	0.7	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.4	51.9	54.5	46.4	45.3	41.8	44.2				
Efficiency of gross thermal power generation (%)	33.2	32.9	33.4	34.4	34.5	33.4	33.5				
% of gross electricity from CHP	6.4	7.3	6.9	8.9	8.5	6.4	6.1				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	63.6	62.6	64.0	67.8	67.8	73.3	72.7				
Fuel Inputs to Thermal Power Generation (ktoe)	1302	1508	1562	1247	1394	1276	1508	1.8	-1.1	0.8	
Solids	1215	1412	1381	1217	1301	1052	1200	1.3	-0.6	-0.8	
Oil (including refinery gas)	13	9	3	0	0	0	0	-13.3	-100.0	0.0	
Gas (including derived gases)	59	58	113	3	19	102	125	6.7	-16.1	20.4	
Biomass & Waste	15	30	65	27	73	121	183	15.5	1.2	9.6	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1479	1607	1562	1481	1580	1629	1627	0.6	0.1	0.3	
Refineries	171	0	0	0	0	0	0	-100.0	0.0	0.0	
Biofuels and hydrogen production	0	0	46	98	145	142	146	0.0	12.3	0.0	
District heating	80	89	57	61	62	57	50	-3.2	0.8	-2.1	
Derived gases, cokeries etc.	1228	1518	1459	1322	1373	1430	1431	1.7	-0.6	0.4	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovenia: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	25	27	30	31	34	35	37	2.0	1.0	0.9
Public road transport	4	3	3	3	3	3	3	-1.0	0.2	0.3
Private cars and motorcycles	20	23	26	27	29	30	31	2.4	1.0	0.7
Rail	1	1	1	1	1	1	2	1.4	4.1	3.8
Aviation ⁽³⁾	0	0	0	0	0	1	1	2.0	3.3	3.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	6	11	11	12	15	18	20	5.6	3.3	2.8
Heavy goods and light commercial vehicles	4	8	8	8	10	12	13	7.9	3.1	2.1
Rail	3	3	3	4	5	6	7	1.8	3.6	4.2
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	1249	1492	1806	1838	1908	1867	1789	3.8	0.6	-0.6
Public road transport	78	71	92	94	96	95	92	1.8	0.3	-0.3
Private cars and motorcycles	1025	1047	1304	1319	1301	1207	1103	2.4	0.0	-1.6
Heavy goods and light commercial vehicles	98	323	355	370	444	489	510	13.8	2.3	1.4
Rail	24	28	26	27	33	38	43	1.0	2.2	2.7
Aviation	25	23	28	28	34	38	41	1.3	2.0	1.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	1132	1146	1430	1447	1438	1349	1246	2.4	0.1	-1.4
Freight transport	117	346	376	391	470	519	543	12.4	2.3	1.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.0	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.5	5.4	7.7	7.8	8.3			
ENERGY EFFICIENCY										
Primary energy consumption	6214	7016	7017	6662	6882	6706	6597	1.2	-0.2	-0.4
Final Energy Demand	4457	4897	4927	4954	5047	4913	4638	1.0	0.2	-0.8
by sector										
Industry	1424	1644	1273	1332	1411	1425	1333	-1.1	1.0	-0.6
Energy intensive industries	836	1028	788	890	943	940	842	-0.6	1.8	-1.1
Other industrial sectors	588	616	485	442	468	486	491	-1.9	-0.4	0.5
Residential	1077	1140	1191	1145	1100	1038	976	1.0	-0.8	-1.2
Tertiary	697	620	657	638	628	580	539	-0.6	-0.4	-1.5
Transport ⁽⁵⁾	1259	1493	1806	1839	1909	1869	1790	3.7	0.6	-0.6
by fuel										
Solids	90	80	47	51	52	42	26	-6.3	1.1	-6.6
Oil	2264	2409	2447	2239	2156	1976	1757	0.8	-1.3	-2.0
Gas	569	665	620	635	645	621	591	0.9	0.4	-0.9
Electricity	905	1096	1029	1098	1157	1256	1290	1.3	1.2	1.1
Heat (from CHP and District Heating)	195	196	192	197	205	205	199	-0.2	0.6	-0.3
Renewable energy forms	435	452	592	735	832	811	769	3.1	3.5	-0.8
Other	0	0	0	0	0	1	5	0.0	0.0	31.9
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	227	215	195	181	171	153	140	-1.5	-1.3	-2.0
Industry (Energy on Value added, index 2000=100)	100	93	70	74	71	65	57	-3.6	0.3	-2.3
Residential (Energy on Private Income, index 2000=100)	100	93	85	87	77	65	57	-1.6	-1.1	-3.0
Tertiary (Energy on Value added, index 2000=100)	100	74	70	66	59	50	43	-3.5	-1.6	-3.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	42	46	46	42	37	33	0.3	-1.0	-2.3
Freight transport (toe/Mtkm)	18	32	34	33	31	29	27	6.4	-1.0	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.0	20.2	19.2	17.5	17.4	15.7	15.3	0.1	-1.0	-1.3
of which ETS sectors (2013 scope) GHG emissions		8.9	8.2	7.2	7.5	6.5	6.8		-0.8	-1.0
of which ESD sectors (2013 scope) GHG emissions		11.3	11.0	10.2	9.8	9.2	8.5		-1.1	-1.5
CO2 Emissions (energy related)	14.1	15.5	15.3	13.8	13.9	12.4	12.3	0.9	-1.0	-1.2
Power generation/District heating	5.5	6.3	6.2	5.3	5.6	4.7	5.4	1.3	-1.1	-0.3
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.9	-4.9	13.9
Industry	2.4	2.3	1.7	1.7	1.7	1.5	1.2	-3.0	-0.5	-3.6
Residential	1.3	1.5	1.2	0.9	0.8	0.7	0.6	-1.0	-4.0	-2.8
Tertiary	1.2	1.0	0.9	0.7	0.6	0.4	0.3	-3.0	-4.1	-5.0
Transport	3.7	4.4	5.3	5.2	5.3	5.1	4.8	3.8	0.0	-1.0
CO2 Emissions (non energy and non land use related)	1.0	1.2	0.8	0.7	0.7	0.8	0.6	-1.7	-1.1	-1.7
Non-CO2 GHG emissions	3.9	3.5	3.0	3.0	2.7	2.5	2.4	-2.6	-1.0	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.0	108.4	103.1	93.8	93.3	84.4	82.1	0.1	-1.0	-1.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.34	0.35	0.33	0.30	0.29	0.24	0.26	-0.3	-1.2	-1.3
Final energy demand (t of CO2/toe)	1.91	1.88	1.85	1.72	1.64	1.56	1.48	-0.4	-1.1	-1.1
Industry	1.66	1.41	1.37	1.29	1.18	1.02	0.86	-1.9	-1.5	-3.1
Residential	1.24	1.28	1.01	0.79	0.73	0.64	0.62	-2.0	-3.2	-1.6
Tertiary	1.68	1.63	1.32	1.03	0.91	0.77	0.64	-2.4	-3.6	-3.5
Transport	2.90	2.97	2.93	2.85	2.76	2.73	2.66	0.1	-0.6	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.6	15.9	19.1	21.9	25.2	27.8	30.3			
RES-H&C share	18.9	19.0	25.5	29.8	34.4	37.7	39.4			
RES-E share	30.9	28.7	32.2	33.0	35.8	40.6	45.8			
RES-T share (based on ILUC formula)	1.0	0.8	3.2	6.1	10.1	12.0	16.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	49	47	45	67	70	60	68	-0.7	4.5	-0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	109	86	111	106	108	115	121	0.2	-0.3	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.8	4.7	6.1	6.4	7.5	8.2	8.5	5.0	2.1	1.3
as % of GDP	13.3	13.8	16.5	17.1	18.4	18.3	17.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Spain: EUCO27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual %	% Change			
Population (in million)	40	43	46	46	46	45	44	1.5	-0.2	-0.3		
GDP (in 000 M€13)	893	1048	1093	1094	1207	1327	1447	2.0	1.0	1.8		
Gross Inland Consumption (ktoe)	123642	144223	129868	124582	125174	115653	107723	0.5	-0.4	-1.5		
Solids	20938	20566	7906	15768	15759	10153	2019	-9.3	7.1	-18.6		
Oil	63967	70457	60436	53990	50092	47251	44102	-0.8	-1.9	-1.3		
Natural gas	15305	29886	31162	25155	25422	20091	20897	7.4	-2.0	-1.9		
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0		
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4		
Renewable energy forms	7005	8587	15090	15611	19348	23439	26166	8.0	2.5	3.1		
Energy Branch Consumption	6259	6666	7878	7994	7433	6499	5958	2.3	-0.6	-2.2		
Non-Energy Uses	9407	8362	7046	5744	6094	6266	6359	-2.8	-1.4	0.4		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	31478	30047	34166	33100	36688	38897	40817	0.8	0.7	1.1		
Solids	7966	6265	3296	2973	2892	1054	176	-8.4	-1.3	-24.4		
Oil	228	167	124	377	365	345	361	-5.9	11.4	-0.1		
Natural gas	234	185	78	42	47	53	62	-10.4	-4.9	2.7		
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0		
Renewable energy sources	7005	8587	14677	15536	19212	23272	26046	7.7	2.7	3.1		
Hydro	2430	1582	3638	2853	2862	2877	2882	4.1	-2.4	0.1		
Biomass & Waste	4131	5113	6183	6934	9587	9603	9494	4.1	4.5	-0.1		
Wind	406	1821	3807	4443	4844	5622	7242	25.1	2.4	4.1		
Solar and others	33	65	1035	1288	1895	5110	6356	41.3	6.2	12.9		
Geothermal	5	7	16	18	24	60	71	11.5	4.3	11.4		
Net Imports (ktoe)	99342	123832	106084	100729	97836	86088	76334	0.7	-0.8	-2.5		
Solids	12840	14418	6726	12795	12868	9099	1843	-6.3	6.7	-17.7		
Oil	70653	79281	68704	62860	58995	56057	52680	-0.3	-1.5	-1.1		
Crude oil and Feedstocks	59023	60650	56496	66666	63040	59830	56367	-0.4	1.1	-1.1		
Oil products	11631	18630	12208	-3806	-4045	-3773	-3687	0.5	0.0	-0.9		
Natural gas	15467	30248	30950	25113	25458	20219	21326	7.2	-1.9	-1.8		
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4		
Import Dependency (%)	76.6	81.4	76.8	75.3	72.7	68.9	65.2					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	220921	289445	298320	275292	284520	282246	287431	3.0	-0.5	0.1		
Nuclear energy	62206	57539	61990	58066	58066	57757	57521	0.0	-0.7	-0.1		
Solids	79094	84047	25493	57621	57933	34085	4141	-10.7	8.6	-23.2		
Oil (including refinery gas)	22578	24420	16562	4988	566	1702	1602	-3.1	-28.7	11.0		
Gas (including derived gases)	21942	80725	95840	53218	56378	29818	32728	15.9	-5.2	-5.3		
Biomass-waste	2100	3104	4674	4514	5972	7989	9527	8.3	2.5	4.8		
Hydro (pumping excluded)	28256	18393	42304	33174	33273	33455	33512	4.1	-2.4	0.1		
Wind	4727	21176	44271	51665	56322	65378	84213	25.1	2.4	4.1		
Solar	17	41	6423	12046	16011	52062	64186	80.6	9.6	14.9		
Geothermal and other renewables	1	0	763	0	0	0	0	105.9	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	52405	73568	99270	104515	104566	121934	127810	6.6	0.5	2.0		
Nuclear energy	7869	7869	7845	7399	7399	7399	7399	0.0	-0.6	0.0		
Renewable energy	17760	25774	41432	46783	51047	72142	83473	8.8	2.1	5.0		
Hydro (pumping excluded)	15542	15796	16086	16632	16795	16795	16795	0.3	0.4	0.0		
Wind	2206	9918	20693	23025	24977	27875	33763	25.1	1.9	3.1		
Solar	12	60	4653	7126	9275	27472	32915	81.5	7.1	13.5		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	26776	39924	49994	50333	46120	42393	36938	6.4	-0.8	-2.2		
of which cogeneration units	4570	6597	3382	3809	5535	3882	4299	-3.0	5.0	-2.5		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	11556	11359	10389	10316	9333	7378	3968	-1.1	-1.1	-8.2		
Gas fired	4713	17647	29569	31333	30271	29749	28105	20.2	0.2	-0.7		
Oil fired	10028	10043	8964	7496	4752	3422	2951	-1.1	-6.1	-4.7		
Biomass-waste fired	478	876	1072	1188	1764	1844	1915	8.4	5.1	0.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.9	43.1	33.1	28.9	29.9	25.7	25.2					
Efficiency of gross thermal power generation (%)	40.8	46.7	48.9	42.5	42.6	40.1	44.9					
% of gross electricity from CHP	9.2	4.0	7.4	9.7	17.2	10.3	14.5					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	44.0	34.6	53.8	57.9	59.6	76.8	86.6					
Fuel Inputs to Thermal Power Generation (ktoe)	26472	35403	25226	24328	24394	15778	9187	-0.5	-0.3	-9.3		
Solids	18245	17623	5551	13703	13694	8128	849	-11.2	9.4	-24.3		
Oil (including refinery gas)	4455	5249	3391	948	133	403	380	-2.7	-27.7	11.0		
Gas (including derived gases)	3075	11140	14839	8684	9267	5290	5802	17.0	-4.6	-4.6		
Biomass & Waste	697	1391	1435	994	1300	1958	2155	7.5	-1.0	5.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	79871	79435	78129	80766	79064	76167	72757	-0.2	0.1	-0.8		
Refineries	60685	61323	58480	63161	60993	58364	55215	-0.4	0.4	-1.0		
Biofuels and hydrogen production	70	256	1412	1419	2065	1935	1997	35.0	3.9	-0.3		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	19115	17857	18237	16187	16006	15868	15546	-0.5	-1.3	-0.3		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Spain: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	476	535	542	561	609	661	713	1.3	1.2	1.6
Public road transport	50	53	51	52	53	55	56	0.1	0.5	0.5
Private cars and motorcycles	310	346	352	354	371	397	424	1.3	0.5	1.3
Rail	25	28	29	29	37	44	51	1.2	2.5	3.4
Aviation ⁽³⁾	89	106	109	124	145	164	179	2.1	2.9	2.1
Inland navigation	2	2	2	2	2	2	2	0.8	1.4	1.5
Freight transport activity (Gtkm)	180	265	227	228	247	264	281	2.3	0.9	1.3
Heavy goods and light commercial vehicles	138	217	190	191	206	219	232	3.2	0.8	1.2
Rail	12	12	9	10	12	13	15	-2.3	2.3	2.5
Inland navigation	31	36	28	28	30	32	34	-1.1	0.7	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	33084	39797	37180	35033	34500	33588	33207	1.2	-0.7	-0.4
Public road transport	1354	1408	1319	1329	1327	1311	1287	-0.3	0.1	-0.3
Private cars and motorcycles	18655	20608	19876	18098	16551	15068	14499	0.6	-1.8	-1.3
Heavy goods and light commercial vehicles	6486	9874	8641	8122	8379	8374	8577	2.9	-0.3	0.2
Rail	708	1029	899	772	874	976	1051	2.4	-0.3	1.9
Aviation	4486	5323	5389	6005	6612	7046	6932	1.9	2.1	0.5
Inland navigation	1395	1555	1057	707	757	813	861	-2.7	-3.3	1.3
By transport activity										
Passenger transport	25151	27727	26960	25730	24845	23834	23167	0.7	-0.8	-0.7
Freight transport	7933	12069	10220	9303	9655	9754	10040	2.6	-0.6	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	3.8	4.1	6.1	6.0	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	114235	135861	122822	118838	119080	109387	101364	0.7	-0.3	-1.6
Final Energy Demand	79885	97754	89072	85314	86290	82400	79692	1.1	-0.3	-0.8
by sector										
Industry	25368	30967	21435	21275	22242	21462	20747	-1.7	0.4	-0.7
Energy intensive industries	17349	20338	13379	13268	14007	13267	12602	-2.6	0.5	-1.1
Other industrial sectors	8020	10628	8056	8008	8235	8194	8145	0.0	0.2	-0.1
Residential	12000	15132	16920	15550	15515	14568	13610	3.5	-0.9	-1.3
Tertiary	9287	11712	13526	13441	14017	12766	12110	3.8	0.4	-1.5
Transport ⁽⁵⁾	33230	39944	37192	35048	34516	33605	33225	1.1	-0.7	-0.4
by fuel										
Solids	1775	1712	1261	1123	1307	1294	493	-3.4	0.4	-9.3
Oil	46297	53449	46775	43129	40290	37496	34583	0.1	-1.5	-1.5
Gas	12141	17978	14645	14743	14328	13200	13535	1.9	-0.2	-0.6
Electricity	16205	20827	21049	20057	21312	21629	22117	2.7	0.1	0.4
Heat (from CHP and District Heating)	0	0	0	8	117	297	576	0.0	0.0	17.2
Renewable energy forms	3469	3788	5343	6252	8926	8437	8274	4.4	5.3	-0.8
Other	0	0	0	3	10	46	114	0.0	1431.5	27.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	139	138	119	114	104	87	74	-1.5	-1.4	-3.3
Industry (Energy on Value added, index 2000=100)	100	114	87	87	83	75	67	-1.4	-0.5	-2.2
Residential (Energy on Private Income, index 2000=100)	100	106	115	103	94	80	68	1.4	-2.1	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	108	110	107	101	83	72	1.0	-0.9	-3.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	46	42	38	34	30	27	-1.1	-2.2	-2.4
Freight transport (toe/Mtkm)	44	46	45	41	39	37	36	0.3	-1.4	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	398.8	447.7	364.3	356.5	341.7	288.7	236.9	-0.9	-0.6	-3.6
of which ETS sectors (2013 scope) GHG emissions	216.2	146.4	146.4	157.9	157.5	122.5	85.6	0.7	-5.9	
of which ESD sectors (2013 scope) GHG emissions	231.5	218.0	198.6	184.2	166.2	151.3		-1.7	-2.0	
CO ₂ Emissions (energy related)	291.6	347.3	272.6	271.0	259.0	214.4	172.7	-0.7	-0.5	-4.0
Power generation/District heating	98.8	117.7	70.3	81.2	79.8	48.9	20.1	-3.4	1.3	-12.9
Energy Branch	13.4	13.5	16.2	16.1	14.3	12.5	11.6	1.9	-1.2	-2.1
Industry	50.4	59.2	42.3	39.8	39.5	35.5	29.9	-1.7	-0.7	-2.7
Residential	17.1	20.9	20.5	16.5	13.6	12.1	9.9	1.9	-4.0	-3.2
Tertiary	13.2	16.5	15.0	15.5	13.9	10.8	9.0	1.3	-0.7	-4.3
Transport	98.7	119.5	108.3	101.9	97.8	94.6	92.2	0.9	-1.0	-0.6
CO ₂ Emissions (non energy and non land use related)	26.2	29.5	21.8	17.7	18.8	18.6	15.8	-1.8	-1.5	-1.7
Non-CO ₂ GHG emissions	81.1	71.0	69.9	67.7	64.0	55.6	48.4	-1.5	-0.9	-2.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	134.6	151.1	123.0	120.3	115.3	97.4	79.9	-0.9	-0.6	-3.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.45	0.41	0.24	0.29	0.28	0.17	0.07	-6.2	1.7	-13.1
Final energy demand (t of CO ₂ /toe)	2.25	2.21	2.09	2.04	1.91	1.86	1.77	-0.7	-0.9	-0.8
Industry	1.99	1.91	1.97	1.87	1.77	1.65	1.44	-0.1	-1.1	-2.0
Residential	1.42	1.38	1.21	1.06	0.88	0.83	0.72	-1.6	-3.2	-1.9
Tertiary	1.43	1.41	1.11	1.15	0.99	0.84	0.74	-2.5	-1.1	-2.9
Transport	2.97	2.99	2.91	2.91	2.83	2.82	2.78	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	8.1	8.4	13.8	15.4	21.0	26.6	31.1			
RES-H&C share	11.0	9.4	12.6	16.1	22.5	24.0	26.4			
RES-E share	16.6	19.1	29.8	36.9	38.5	55.0	65.7			
RES-T share (based on ILUC formula)	0.6	1.3	5.1	0.8	10.2	12.6	17.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	58	62	75	90	98	91	83	2.5	2.7	-1.6
Average Price of Electricity in Final demand sectors (€13/MWh)	105	101	149	173	173	167	167	3.5	1.5	-0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	74.3	101.3	120.1	122.2	144.9	152.8	164.0	4.9	1.9	1.3
as % of GDP	8.3	9.7	11.0	11.2	12.0	11.5	11.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Sweden: EUCO27			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	9	9	9	10	10	11	11	0.5	0.9	0.8	
GDP (in 000 ME13)	296	337	366	404	448	497	552	2.2	2.1	2.1	
Gross Inland Consumption (ktoe)	48898	50993	50783	47002	45934	45293	44503	0.4	-1.0	-0.3	
Solids	2452	2629	2492	2263	1983	1737	1259	0.2	-2.3	-4.4	
Oil	15377	14136	14199	11663	10838	9750	8805	-0.8	-2.7	-2.1	
Natural gas	816	886	1484	679	3063	2473	2215	6.2	7.5	-3.2	
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0	
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9	
Renewable energy forms	15066	15308	17512	19146	19615	20854	21960	1.5	1.1	1.1	
Energy Branch Consumption	1141	1326	1469	1414	1366	1309	1301	2.6	-0.7	-0.5	
Non-Energy Uses	3143	2460	2113	2183	2281	2374	2424	-3.9	0.8	0.6	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30052	34233	32685	33372	31501	32674	33630	0.8	-0.4	0.7	
Solids	162	211	238	210	86	94	0	4.0	-9.7	-100.0	
Oil	0	0	0	0	0	0	0	7.8	-100.0	0.0	
Natural gas	40	44	18	0	0	0	0	-7.6	-100.0	0.0	
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0	
Renewable energy sources	15066	15308	17512	18801	19223	20389	21438	1.5	0.9	1.1	
Hydro	6757	6260	5709	6203	6158	6083	6079	-1.7	0.8	-0.1	
Biomass & Waste	8264	8961	11490	11434	11785	11875	12275	3.4	0.3	0.4	
Wind	39	81	301	1147	1249	2374	2976	22.6	15.3	9.1	
Solar and others	5	6	11	17	31	54	103	7.4	10.9	12.8	
Geothermal	0	0	0	0	0	2	6	0.0	0.0	33.5	
Net Imports (ktoe)	20436	19460	19294	15820	16751	15047	13422	-0.6	-1.4	-2.2	
Solids	2409	2556	2548	2054	1897	1643	1259	0.6	-2.9	-4.0	
Oil	16849	16698	15102	13853	13108	12072	10975	-1.1	-1.4	-1.8	
Crude oil and Feedstocks	21606	19369	19139	15905	15022	13906	12856	-1.2	-2.4	-1.5	
Oil products	-4757	-2671	-4038	-2052	-1914	-1834	-1881	-1.6	-7.2	-0.2	
Natural gas	776	843	1466	679	3111	2581	2595	6.6	7.8	-1.8	
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9	
Import Dependency (%)	40.7	36.8	36.6	32.2	34.7	31.5	28.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	145231	158365	148460	160491	173151	177853	185524	0.2	1.6	0.7	
Nuclear energy	57316	72377	57828	57851	49379	49379	49738	0.1	-1.6	0.1	
Solids	1706	1169	1770	1540	1118	733	642	0.4	-4.5	-5.4	
Oil (including refinery gas)	1533	1379	1774	249	326	193	123	1.5	-15.6	-9.3	
Gas (including derived gases)	1292	1342	3782	471	15535	11010	9376	11.3	15.2	-4.9	
Biomass-waste	4342	8357	13397	14846	20591	18120	20283	11.9	4.4	-0.2	
Hydro (pumping excluded)	78584	72803	66398	72128	71601	70735	70687	-1.7	0.8	-0.1	
Wind	457	936	3502	13335	14526	27608	34600	22.6	15.3	9.1	
Solar	1	2	8	69	75	75	75	21.5	24.9	0.0	
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	34594	33587	36947	39676	37495	41804	44059	0.7	0.1	1.6	
Nuclear energy	10122	9532	9532	9532	6949	6949	6949	-0.6	-3.1	0.0	
Renewable energy	16718	16799	18654	22501	23533	27761	29946	1.1	2.4	2.4	
Hydro (pumping excluded)	16506	16302	16624	16395	16938	16938	16938	0.1	0.2	0.0	
Wind	209	493	2019	6025	6507	10735	12920	25.5	12.4	7.1	
Solar	3	4	11	81	88	88	88	13.9	23.1	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	7754	7256	8761	7643	7013	7094	7164	1.2	-2.2	0.2	
of which cogeneration units	4940	3488	5100	4504	6277	6233	6004	0.3	2.1	-0.4	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	337	348	356	356	136	136	128	0.5	-9.2	-0.6	
Gas fired	547	469	1168	1168	3223	3251	3251	7.9	10.7	0.1	
Oil fired	4472	3974	3963	2958	836	836	836	-1.2	-14.4	0.0	
Biomass-waste fired	2398	2465	3274	3161	2818	2871	2949	3.2	-1.5	0.5	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	52.5	44.9	45.1	51.4	47.5	46.9				
Efficiency of gross thermal power generation (%)	21.3	23.0	27.3	25.6	41.0	36.7	36.9				
% of gross electricity from CHP	5.9	6.7	12.5	10.7	21.4	16.2	14.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	96.9	97.5	95.1	98.6	90.2	93.3	94.5				
Fuel Inputs to Thermal Power Generation (ktoe)	3582	4575	6518	5747	7872	7046	7086	6.2	1.9	-1.0	
Solids	462	508	597	566	266	188	156	2.6	-7.8	-5.2	
Oil (including refinery gas)	530	317	431	70	93	62	41	-2.0	-14.2	-7.7	
Gas (including derived gases)	508	591	998	225	2488	1826	1575	7.0	9.6	-4.5	
Biomass & Waste	2084	3158	4491	4886	5026	4970	5313	8.0	1.1	0.6	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	40980	42243	39786	34628	31703	30814	29811	-0.3	-2.2	-0.6	
Refineries	22901	20082	21039	16927	16160	15190	14232	-0.8	-2.6	-1.3	
Biofuels and hydrogen production	0	134	376	733	817	876	1061	0.0	8.1	2.6	
District heating	1564	1525	1735	1424	1349	1367	1281	1.0	-2.5	-0.5	
Derived gases, cokeries etc.	16516	20501	16636	15543	13376	13380	13237	0.1	-2.2	-0.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Sweden: EUQ27		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	142	148	151	160	167	175	186	0.7	1.0	1.1
Public road transport	9	9	9	9	9	10	11	-1.0	0.9	1.2
Private cars and motorcycles	102	108	109	114	116	120	125	0.7	0.7	0.7
Rail	10	11	13	15	16	18	20	2.8	2.1	1.9
Aviation ⁽³⁾	14	13	15	17	18	20	23	0.3	2.2	2.4
Inland navigation	6	6	6	5	6	7	7	-0.3	0.2	1.4
Freight transport activity (Gtkm)	70	78	81	81	90	98	105	1.5	1.1	1.6
Heavy goods and light commercial vehicles	43	47	45	46	49	52	54	0.4	1.1	1.0
Rail	19	22	23	24	28	31	35	1.9	1.6	2.3
Inland navigation	7	9	13	11	13	15	16	5.6	0.4	2.1
Energy demand in transport (ktoe) ⁽⁴⁾	8192	8609	8620	8260	7898	7369	6987	0.5	-0.9	-1.2
Public road transport	189	179	184	187	193	204	211	-0.3	0.5	0.9
Private cars and motorcycles	4879	5236	5250	4890	4398	3788	3374	0.7	-1.8	-2.6
Heavy goods and light commercial vehicles	1740	1959	1951	1921	1943	1908	1902	1.2	0.0	-0.2
Rail	299	246	208	232	264	286	310	-3.6	2.4	1.6
Aviation	928	846	840	945	1001	1077	1076	-1.0	1.8	0.7
Inland navigation	156	142	188	85	98	106	115	1.8	-6.3	1.6
<i>By transport activity</i>										
Passenger transport	6165	6361	6387	6089	5670	5151	4748	0.4	-1.2	-1.8
Freight transport	2027	2248	2234	2171	2229	2218	2240	1.0	0.0	0.0
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.7	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	1.6	4.7	9.2	10.7	12.3	15.0			
ENERGY EFFICIENCY										
Primary energy consumption	45755	48533	48670	44819	43653	42918	42079	0.6	-1.1	-0.4
Final Energy Demand	33561	33492	34077	31885	31932	31374	30342	0.2	-0.6	-0.5
<i>by sector</i>										
Industry	12854	12464	12205	11531	12077	12061	11820	-0.5	-0.1	-0.2
Energy intensive industries	9198	9252	9141	8370	8744	8572	8244	-0.1	-0.4	-0.6
Other industrial sectors	3656	3212	3064	3161	3334	3490	3576	-1.8	0.8	0.7
Residential	7300	7305	7557	7197	7049	7110	6768	0.3	-0.7	-0.4
Tertiary	5214	5114	5720	4897	4908	4834	4766	0.9	-1.5	-0.3
Transport ⁽⁵⁾	8192	8609	8595	8260	7898	7369	6987	0.5	-0.8	-1.2
<i>by fuel</i>										
Solids	1114	1346	1202	1122	1131	932	541	0.8	-0.6	-7.1
Oil	11861	11256	10038	8856	8008	6895	5965	-1.7	-2.2	-2.9
Gas	673	765	728	677	798	894	903	0.8	0.9	1.2
Electricity	11068	11238	11283	11102	11601	12045	12356	0.2	0.3	0.6
Heat (from CHP and District Heating)	3550	4174	5141	4420	4454	4441	4148	3.8	-1.4	-0.7
Renewable energy forms	5294	4714	5685	5705	5937	6155	6358	0.7	0.4	0.7
Other	0	0	0	3	3	12	72	0.0	0.0	36.0
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	165	151	139	116	103	91	81	-1.7	-3.0	-2.4
Industry (Energy on Value added, index 2000=100)	100	76	70	62	59	54	49	-3.5	-1.7	-1.9
Residential (Energy on Private Income, index 2000=100)	100	90	84	71	62	55	47	-1.7	-3.0	-2.8
Tertiary (Energy on Value added, index 2000=100)	100	89	91	70	63	55	49	-0.9	-3.7	-2.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	41	41	39	35	31	27	23	-0.5	-2.2	-3.0
Freight transport (toe/Mtkm)	29	29	28	27	25	23	21	-0.5	-1.1	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	71.6	69.0	65.1	55.7	56.7	49.7	42.5	-0.9	-1.4	-2.8
of which ETS sectors (2013 scope) GHG emissions	25.9	25.6	19.9	23.7	20.4	16.8			-0.8	-3.4
of which ESD sectors (2013 scope) GHG emissions	43.0	39.5	35.8	33.0	29.3	25.8			-1.8	-2.4
CO₂ Emissions (energy related)	52.2	52.1	49.0	40.6	42.2	36.0	30.2	-0.6	-1.5	-3.3
Power generation/District heating	7.7	7.7	9.1	4.4	8.6	6.9	5.9	1.7	-0.5	-3.7
Energy Branch	2.0	1.9	2.0	2.1	1.8	1.7	0.4	0.4	-1.0	-0.9
Industry	11.9	13.3	10.5	10.1	9.6	7.6	5.0	-1.2	-1.0	-6.3
Residential	3.0	1.5	0.4	0.2	0.2	0.2	0.2	-17.9	-6.6	-2.3
Tertiary	4.5	3.2	2.9	1.7	1.4	0.8	0.7	-4.2	-6.8	-7.4
Transport	23.2	24.6	24.1	22.0	20.5	18.7	16.8	0.4	-1.6	-2.0
CO₂ Emissions (non energy and non land use related)	3.2	3.2	3.7	3.4	3.4	3.2	2.7	1.5	-0.8	-2.1
Non-CO₂ GHG emissions	16.2	13.6	12.3	11.7	11.1	10.5	9.6	-2.7	-1.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	97.8	94.2	89.0	76.1	77.5	67.9	58.1	-0.9	-1.4	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.04	0.04	0.04	0.02	0.04	0.03	0.03	0.6	-1.2	-4.1
Final energy demand (t of CO ₂ /toe)	1.27	1.27	1.11	1.07	0.99	0.87	0.74	-1.3	-1.1	-2.9
Industry	0.93	1.07	0.86	0.87	0.79	0.63	0.42	-0.7	-0.9	-6.1
Residential	0.41	0.20	0.05	0.03	0.03	0.03	0.02	-18.2	-5.9	-1.9
Tertiary	0.86	0.62	0.51	0.35	0.29	0.17	0.14	-5.1	-5.4	-7.1
Transport	2.83	2.86	2.80	2.66	2.60	2.53	2.40	-0.1	-0.7	-0.8
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	38.6	40.3	46.8	56.8	56.7	62.0	66.4			
RES-H&C share	48.7	52.4	60.9	72.7	68.9	75.4	80.3			
RES-E share	51.7	51.6	56.6	67.3	69.2	73.2	76.4			
RES-T share (based on ILUC formula)	4.8	5.7	8.9	18.7	22.3	27.2	36.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	57	51	57	63	62	56	59	-0.1	0.9	-0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	83	107	144	142	141	141	145	5.7	-0.2	0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	31.7	39.3	46.2	43.5	49.1	52.8	56.6	3.9	0.6	1.4
as % of GDP	10.7	11.6	12.6	10.8	11.0	10.6	10.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							United Kingdom: EUCO27						
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change		
Population (in million)	59	60	63	65	67	69	71	0.6	0.7	0.5			
GDP (in 000 M€13)	1538	1780	1810	1976	2120	2247	2423	1.6	1.6	1.3			
Gross Inland Consumption (ktoe)	230560	233992	212234	199641	186172	176274	170476	-0.8	-1.3	-0.9			
Solids	36516	37737	30761	30896	13013	8229	4640	-1.7	-8.2	-9.8			
Oil	81031	84449	72986	71030	65631	60209	55345	-1.0	-1.1	-1.7			
Natural gas	87399	85473	85050	67578	64727	61224	51851	-0.3	-2.7	-2.2			
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5			
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7			
Renewable energy forms	2453	4564	7179	12764	26086	31586	33850	11.3	13.8	2.6			
Energy Branch Consumption	14909	16092	13761	10879	9615	8684	7919	-0.8	-3.5	-1.9			
Non-Energy Uses	11330	11213	7524	8461	8861	8853	8819	-4.0	1.6	0.0			
SECURITY OF SUPPLY													
Production (incl.recovery of products) (ktoe)	268546	204420	147634	115064	108551	98687	96088	-5.8	-3.0	-1.2			
Solids	18658	11899	10751	6067	3607	3116	1915	-5.4	-10.3	-6.1			
Oil	127939	87930	63788	48199	40958	32894	26231	-6.7	-4.3	-4.4			
Natural gas	97554	79397	51468	34247	26825	22639	15914	-6.2	-6.3	-5.1			
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5			
Renewable energy sources	2453	4141	5598	10759	21787	26178	28253	8.6	14.6	2.6			
Hydro	437	423	307	477	453	457	458	-3.5	4.0	0.1			
Biomass & Waste	1922	3437	4314	6434	11786	15281	16630	8.4	10.6	3.5			
Wind	81	250	875	2969	8204	8822	9453	26.8	25.1	1.4			
Solar and others	11	30	101	878	1341	1606	1684	24.5	29.5	2.3			
Geothermal	1	1	1	1	3	11	28	0.0	13.4	25.6			
Net imports (ktoe)	-39220	31596	61239	87711	80825	80749	77546	0.0	2.8	-0.4			
Solids	14454	27222	16045	24829	9406	5114	2725	1.0	-5.2	-11.7			
Oil	-45582	-2738	11181	25966	27840	30400	32071	0.0	9.6	1.4			
Crude oil and Feedstocks	-39093	4558	13213	20985	23649	26640	28819	0.0	6.0	2.0			
Oil products	-6489	-7296	-2032	4981	4192	3760	3252	-11.0	0.0	-2.5			
Natural gas	-9311	5973	32205	33331	37938	38662	36135	0.0	1.7	-0.5			
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7			
Import Dependency (%)	-16.9	13.4	28.5	43.3	42.7	45.0	44.7						
ELECTRICITY													
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	374375	395425	378558	357131	372018	378746	401130	0.1	-0.2	0.8			
Nuclear energy	85063	81618	62140	64689	62974	59946	107051	-3.1	0.1	5.4			
Solids	119950	134637	107694	96298	29386	12099	3676	-1.1	-12.2	-18.8			
Oil (including refinery gas)	8446	5339	4804	4252	3298	2497	2471	-5.5	-3.7	-2.8			
Gas (including derived gases)	150427	154339	176759	117631	115488	118703	92211	1.6	-4.2	-2.2			
Biomass-waste	4455	11658	13373	26283	51007	68361	71241	11.6	14.3	3.4			
Hydro (pumping excluded)	5086	4922	3568	5550	5273	5318	5323	-3.5	4.0	0.1			
Wind	947	2904	10180	34520	95394	102586	109914	26.8	25.1	1.4			
Solar	1	8	41	7899	8985	8985	8985	42.7	71.6	0.0			
Geothermal and other renewables	0	0	-1	8	212	252	258	15.7	0.0	2.0			
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0			
Net Generation Capacity (MW _e)	78130	82074	88395	92944	120146	112412	116749	1.2	3.1	-0.3			
Nuclear energy	12086	11376	10027	9374	8884	7811	13107	-1.9	-1.2	4.0			
Renewable energy	1900	3077	7128	25020	46309	48652	50944	14.1	20.6	1.0			
Hydro (pumping excluded)	1485	1501	1637	1693	1744	1744	1744	1.0	0.6	0.0			
Wind	412	1565	5396	13603	33421	35745	38035	29.3	20.0	1.3			
Solar	2	11	94	9721	11043	11043	11043	47.0	61.1	0.0			
Other renewables (tidal etc.)	1	0	1	4	102	119	122	0.0	58.7	1.9			
Thermal power	64144	67621	71240	58550	64952	55950	52698	1.1	-0.9	-2.1			
of which cogeneration units	5794	5440	6102	5053	5517	5592	14739	0.5	-1.0	10.3			
of which CCS units	0	0	0	0	833	833	1233	0.0	0.0	4.0			
Solids fired	27533	26230	25549	18735	11149	2323	501	-0.7	-8.0	-26.7			
Gas fired	24512	29106	33292	33953	35330	35248	33909	3.1	0.6	-0.4			
Oil fired	9696	9323	9064	2227	1235	1135	1091	-0.7	-18.1	-1.2			
Biomass-waste fired	2403	2961	3335	3634	17238	17244	17196	3.3	17.9	0.0			
Hydrogen plants	0	0	0	0	0	0	0	0.0	-100.0	0.0			
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0			
Avg. Load factor of net power capacity ⁽²⁾ (%)	52.3	52.5	46.8	41.7	34.0	37.0	37.6						
Efficiency of gross thermal power generation (%)	41.1	42.1	43.6	41.3	45.0	46.1	45.5						
% of gross electricity from CHP	6.1	6.8	6.2	5.4	5.0	4.4	4.8						
% of electricity from CCS	0.0	0.0	0.0	0.0	1.4	1.5	2.6						
% of carbon free (RES, nuclear) gross electricity generation	25.5	25.6	23.6	38.9	60.2	64.8	75.5						
Fuel Inputs to Thermal Power Generation (ktoe)	59321	62482	59738	50947	38076	37607	32031	0.1	-4.4	-1.7			
Solids	28425	29812	23816	23961	7148	2974	779	-1.8	-11.3	-19.9			
Oil (including refinery gas)	1453	1060	789	920	737	559	553	-5.9	-0.7	-2.8			
Gas (including derived gases)	28139	28415	31452	20339	19239	19263	15063	1.1	-4.8	-2.4			
Biomass & Waste	1305	3194	3681	5727	10952	14811	15636	10.9	11.5	3.6			
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0			
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0			
Fuel Input to other conversion processes	118459	115207	97492	88112	83383	77394	82419	-1.9	-1.6	-0.1			
Refineries	88821	88399	75162	65526	61285	56631	52408	-1.7	-2.0	-1.6			
Biofuels and hydrogen production	0	80	1130	1361	2134	2008	1973	0.0	6.6	-0.8			
District heating	15	14	13	13	11	15	9	-0.9	-2.2	-1.9			
Derived gases, cokeries etc.	29623	26714	21187	21212	19953	18740	28029	-3.3	-0.6	3.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							United Kingdom: EUQ27				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
							Annual % Change				
TRANSPORT											
Passenger transport activity (Gpkm)	822	872	849	878	934	968	1016	0.3	1.0	0.8	
Public road transport	49	44	46	46	47	48	49	-0.5	0.2	0.4	
Private cars and motorcycles	644	673	649	659	702	721	753	0.1	0.8	0.7	
Rail	47	53	66	76	80	87	93	3.5	2.0	1.5	
Aviation ⁽³⁾	77	97	83	90	100	107	115	0.7	1.8	1.5	
Inland navigation	6	6	5	5	6	6	6	-0.3	0.8	1.0	
Freight transport activity (Gtkm)	237	248	216	242	252	263	275	-0.9	1.6	0.9	
Heavy goods and light commercial vehicles	183	183	164	187	194	202	211	-1.1	1.7	0.8	
Rail	18	21	19	22	23	24	26	0.3	2.1	1.3	
Inland navigation	36	43	33	34	35	37	39	-0.9	0.6	1.1	
Energy demand in transport (ktoe) ⁽⁴⁾	52386	55501	51470	52014	49619	46522	44390	-0.2	-0.4	-1.1	
Public road transport	559	499	515	511	505	496	480	-0.8	-0.2	-0.5	
Private cars and motorcycles	29150	30049	29058	27657	25132	22309	21025	0.0	-1.4	-1.8	
Heavy goods and light commercial vehicles	9809	9612	8396	9457	9035	8998	8701	-1.5	0.7	-0.4	
Rail	821	988	966	1108	1158	1212	1264	1.6	1.8	0.9	
Aviation	11115	13069	11650	12400	12873	12557	11931	0.5	1.0	-0.8	
Inland navigation	933	1282	884	881	916	949	989	-0.5	0.4	0.8	
By transport activity											
Passenger transport	41504	44033	41640	40984	38952	35814	33904	0.0	-0.7	-1.4	
Freight transport	10882	11467	9830	11030	10667	10708	10485	-1.0	0.8	-0.2	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.2	2.6				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	2.2	2.7	4.5	5.2	5.5				
ENERGY EFFICIENCY											
Primary energy consumption	219230	222779	204710	191181	177311	167422	161659	-0.7	-1.4	-0.9	
Final Energy Demand	153236	152728	142723	138484	135335	128504	120611	-0.7	-0.5	-1.1	
by sector											
Industry	36930	33388	26923	25432	25513	23394	20741	-3.1	-0.5	-2.0	
Energy intensive industries	19392	16472	12350	11464	11280	9732	7870	-4.4	-0.9	-3.5	
Other industrial sectors	17537	16916	14573	13968	14233	13662	12871	-1.8	-0.2	-1.0	
Residential	43034	44151	44715	40936	39868	39215	36966	0.4	-1.1	-0.8	
Tertiary	20377	19686	19633	20101	20335	19373	18515	-0.4	0.4	-0.9	
Transport ⁽⁵⁾	52895	55503	51452	52014	49619	46522	44390	-0.3	-0.4	-1.1	
by fuel											
Solids	5954	4530	4133	4583	3841	3121	1852	-3.6	-0.7	-7.0	
Oil	63674	65851	59524	58175	53052	48220	43742	-0.7	-1.1	-1.9	
Gas	52180	50380	47246	43853	42450	39666	35230	-1.0	-1.1	-1.8	
Electricity	28360	29998	28286	27707	28978	29352	30700	0.0	0.2	0.6	
Heat (from CHP and District Heating)	2439	1268	1266	1255	1338	1434	1495	-6.3	0.6	1.1	
Renewable energy forms	630	702	2268	2885	5579	6306	6990	13.7	9.4	2.3	
Other	0	0	0	26	97	404	602	-100.0	0.0	20.0	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	150	131	117	101	88	78	70	-2.4	-2.8	-2.2	
Industry (Energy on Value added, index 2000=100)	100	93	79	71	68	60	51	-2.3	-1.5	-2.8	
Residential (Energy on Private Income, index 2000=100)	100	87	87	75	68	63	55	-1.4	-2.4	-2.2	
Tertiary (Energy on Value added, index 2000=100)	100	81	77	71	67	60	52	-2.6	-1.5	-2.4	
Passenger transport (toe/Mpkm) ⁽⁶⁾	38	36	35	33	29	25	22	-0.8	-1.9	-2.5	
Freight transport (toe/Mtkm)	46	46	46	46	42	41	38	-0.1	-0.7	-1.0	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	720.6	727.6	636.4	585.9	475.9	424.4	353.2	-1.2	-2.9	-2.9	
of which ETS sectors (2013 scope) GHG emissions		314.0	273.9	244.9	164.7	140.0	103.6		-5.0	-4.5	
of which ESD sectors (2013 scope) GHG emissions		413.6	362.5	341.0	311.3	284.3	249.6		-1.5	-2.2	
CO2 Emissions (energy related)	568.2	573.4	518.3	477.6	376.4	332.9	276.3	-0.9	-3.1	-3.0	
Power generation/District heating	194.2	199.6	178.4	155.5	78.7	62.0	37.5	-0.8	-7.9	-7.1	
Energy Branch	31.3	35.2	29.4	20.9	18.4	16.2	13.7	-0.6	-4.5	-2.9	
Industry	77.4	67.5	52.1	49.5	46.2	38.4	27.1	-3.9	-1.2	-5.2	
Residential	82.6	80.4	83.1	74.7	68.8	66.5	59.2	0.1	-1.9	-1.5	
Tertiary	27.0	25.3	24.8	25.3	22.6	18.7	15.7	-0.9	-0.9	-3.6	
Transport	155.6	165.4	150.6	151.7	141.7	131.2	123.1	-0.3	-0.6	-1.4	
CO2 Emissions (non energy and non land use related)	20.8	21.0	15.6	17.7	18.7	17.9	15.8	-2.8	1.8	-1.7	
Non-CO2 GHG emissions	131.6	133.2	102.5	90.5	80.9	73.6	61.0	-2.5	-2.3	-2.8	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	88.0	88.8	77.7	71.5	58.1	51.8	43.1	-1.2	-2.9	-2.9	
Carbon Intensity indicators											
Electricity and Steam production (t of CO2/MWh)	0.48	0.49	0.45	0.42	0.20	0.16	0.09	-0.6	-7.8	-7.9	
Final energy demand (t of CO2/toe)	2.24	2.22	2.18	2.18	2.06	1.98	1.87	-0.3	-0.5	-1.0	
Industry	2.10	2.02	1.93	1.95	1.81	1.64	1.31	-0.8	-0.7	-3.2	
Residential	1.92	1.82	1.86	1.82	1.73	1.70	1.60	-0.3	-0.7	-0.7	
Tertiary	1.32	1.29	1.26	1.26	1.11	0.97	0.85	-0.5	-1.3	-2.7	
Transport	2.94	2.98	2.93	2.92	2.86	2.82	2.77	-0.1	-0.2	-0.3	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.9	1.4	3.3	6.9	14.7	17.6	20.0				
RES-H&C share	0.8	0.8	1.8	3.4	7.0	8.2	10.9				
RES-E share	2.6	4.1	7.4	19.3	41.1	46.9	47.0				
RES-T share (based on ILUC formula)	0.1	0.2	3.0	6.0	11.4	16.3	20.5				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	42	49	59	95	114	116	115	3.4	6.9	0.0	
Average Price of Electricity in Final demand sectors (€13/MWh)	124	91	129	166	170	179	180	0.3	2.8	0.6	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	159.7	179.7	203.0	231.0	252.6	270.5	1.5	2.5	1.6	
as % of GDP	10.1	9.0	9.9	10.3	10.9	11.2	11.2				

Source: PRIMES

- (1) For years 2000 to 2010, total gross electricity by source as reported in this table and total gross electricity generation reported as part of the energy balances, slightly differ because of differences in the respective statistical sources
- (2) Electricity generated over maximum potential generation based on net power capacity
- (3) Excluding international extra-EU aviation.
- (4) Excluding pipeline transport and other non-specified transport.
- (5) Including pipeline transport and other non-specified transport.
- (6) Calculated by taking into account domestic, international intra-EU flights, and extra-EU flights for aviation.
- (7) Including the part of electricity and heat generated from renewables
- (8) Excluding payments for auctioned emission allowances and disutilities (if applicable)

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are mainly based on EUROSTAT and on the publications "EU Energy in Figures" of the Directorate General for Energy and "EU Transport in Figures" of the Directorate General for Mobility and Transport. Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight or passenger transport, which are measured in tonnes of oil equivalent per million tonne-km and in tonnes of oil equivalent per million passenger-km, respectively. For modelling purposes, some assumptions had to be made for calculating air and maritime transport performance and allocating it by MS. The transport volumes (number of passengers and tonnes) and distance matrices have been used for this purpose. By assumption, 50% of the calculated transport performance is allocated to the origin country and 50% to the destination country. The same "50%-50%" principle allocation applies to the EFTA countries and the candidate countries. For the international extra-EU activity, where the corresponding partner is outside EU-28 and is not an EFTA or candidate country, 100% of transport performance is allocated to the declaring EU MS country. These assumptions are used only for modelling purposes and shall be considered as model estimates and not as official data.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Units

toe: tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ (Gigajoule)
ktoe: 1000 toe
MW: Megawatt or 10^6 watt
MWh: megawatt-hour or 10^6 watt-hours
GWh: gigawatt-hour or 10^9 watt-hours
t: metric tonnes, or 1000 kilogrammes
Mt: Million metric tonnes
km: kilometre
pkm: passenger-kilometre (one passenger transported a distance of one kilometre)
tkm: tonne-kilometre (one tonne transported a distance of one kilometre)
Gpkm: Giga passenger-kilometre, or 10^9 passenger-kilometre
Gtkm: Giga tonne-kilometre, or 10^9 tonne-kilometre

Appendix I.b: EUCO30 scenario - Summary energy balances, emissions and indicators

SUMMARY ENERGY BALANCE AND INDICATORS (A)								EU28: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	484	492	500	505	510	513	516	0.3	0.2	0.1
GDP (in 000 M€13)	11231	12351	12895	13427	14550	15585	16682	1.4	1.2	1.4
Gross Inland Consumption (ktoe)	172688	182472	1760315	1666601	1641602	1558106	1438410	0.2	-0.7	-1.3
Solids	321292	318127	282994	277891	252239	214984	170255	-1.3	-1.1	-3.9
Oil	660025	677021	612954	579805	545058	505154	463058	-0.7	-1.2	-1.6
Natural gas	396144	445263	447394	387731	385493	368879	316706	1.2	-1.5	-1.9
Nuclear	243841	257516	236562	213043	188974	174739	185077	-0.3	-2.2	-0.2
Electricity	2030	1412	712	1761	1247	523	-43	-9.9	5.8	0.0
Renewable energy forms	103557	125383	179699	206370	268591	293828	303357	5.7	4.1	1.2
Energy Branch Consumption	86261	91922	86455	81624	75828	69045	63810	0.0	-1.3	-1.7
Non-Energy Uses	113106	116080	110230	106709	112514	116557	117073	-0.3	0.2	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	944996	903986	835772	758584	758694	725855	697616	-1.2	-1.0	-0.8
Solids	214596	196030	164837	148196	135621	119391	96369	-2.6	-1.9	-3.4
Oil	173901	135553	100408	78529	69707	57624	47471	-5.3	-3.6	-3.8
Natural gas	209436	190771	159948	118438	106361	91866	76235	-2.7	-4.0	-3.3
Nuclear	243841	257516	236562	213043	188974	174739	185077	-0.3	-2.2	-0.2
Renewable energy sources	103222	124116	174017	200379	258031	282235	292465	5.4	4.0	1.3
Hydro	30703	26859	32312	31167	32357	32376	32685	0.5	0.0	0.1
Biomass & Waste	65583	85060	119573	132613	164909	169837	168080	6.2	3.3	0.3
Wind	1913	6058	12836	23588	39813	48236	59454	21.0	12.0	4.1
Solar and others	436	827	3775	11001	17737	28015	33844	24.1	16.7	6.7
Geothermal	4587	5312	5521	2009	3214	3771	5681	1.9	-5.3	5.9
Net Imports (ktoe)	826349	979676	955004	962880	939110	889964	800723	1.5	-0.2	-1.6
Solids	98320	125363	111814	129695	116618	95593	73887	1.3	0.4	-4.5
Oil	532226	597491	558847	556140	530803	503252	470293	0.5	-0.5	-1.2
Crude oil and Feedstocks	514686	578712	537586	515210	492843	467726	440251	0.4	-0.9	-1.1
Oil products	17540	18779	21261	40930	37960	35527	30042	1.9	6.0	-2.3
Natural gas	193432	254054	278015	269292	279881	279003	245695	3.7	0.1	-1.3
Electricity	2030	1412	712	1761	1247	523	-43	-9.9	5.8	0.0
Import Dependency (%)	46.7	52.3	52.8	55.9	55.3	55.1	53.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3005548	3289991	3332773	3251302	3373985	3443495	3413078	1.0	0.1	0.1
Nuclear energy	944993	997699	916610	867402	772986	717746	768931	-0.3	-1.7	-0.1
Solids	933855	965565	830393	846836	773030	649979	506561	-1.2	-0.7	-4.1
Oil (including refinery gas)	181296	142772	86899	34609	21897	17378	12418	-7.1	-12.9	-5.5
Gas (including derived gases)	514267	705961	798645	568028	589115	594721	449159	4.5	-3.0	-2.7
Biomass-waste	46401	87831	145814	188857	214585	264929	289277	12.1	3.9	3.0
Hydro (pumping excluded)	357072	312372	375785	362408	376248	376461	380061	0.5	0.0	0.1
Wind	22254	70455	149278	274278	462942	560889	691327	21.0	12.0	4.1
Solar	117	1458	22502	103798	154722	252475	305613	69.1	21.3	7.0
Geothermal and other renewables	5293	5878	6847	7086	8461	8916	9732	2.6	2.1	1.4
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	683507	739589	858628	965588	1031397	1072929	1125077	2.3	1.9	0.9
Nuclear energy	139595	136829	132606	120798	114204	105051	109905	-0.5	-1.5	-0.4
Renewable energy	128990	162194	238638	366738	475366	570590	666441	6.3	7.1	3.3
Hydro (pumping excluded)	115841	119177	122922	127470	131613	132231	133433	0.6	0.7	0.1
Wind	12730	40485	85701	141580	207269	238725	284924	21.0	9.2	3.2
Solar	178	2292	29774	97443	135999	198944	237047	66.9	16.4	5.7
Other renewables (tidal etc.)	241	240	241	244	486	690	1036	0.0	7.3	7.9
Thermal power	414922	440565	487384	478053	441827	397288	358731	1.6	-1.0	-2.1
of which cogeneration units	92439	107819	107430	112502	85055	92493	93387	1.5	-2.3	0.9
of which CCS units	0	0	0	0	833	1083	1483	0.0	0.0	5.9
Solids fired	194525	185353	180110	176559	146219	117702	99374	-0.8	-2.1	-3.8
Gas fired	123821	163333	215485	219628	211332	205210	189355	5.7	-0.2	-1.1
Oil fired	83315	74582	69295	53085	31444	20711	15307	-1.8	-7.6	-6.9
Biomass-waste fired	12657	16610	21719	27908	51788	52622	53652	5.5	9.1	0.4
Hydrogen plants	0	0	13	13	13	13	13	0.0	0.3	0.0
Geothermal heat	604	687	762	860	1030	1030	1030	2.4	3.1	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.5	48.1	42.1	36.5	35.6	35.1	33.3			
Efficiency of gross thermal power generation (%)	37.2	38.1	38.6	40.2	40.5	40.6	40.4			
% of gross electricity from CHP	11.3	12.5	12.6	12.2	10.4	10.7	10.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.2	0.2	0.4			
% of carbon free (RES, nuclear) gross electricity generation	45.8	44.9	48.5	55.5	59.0	63.3	71.6			
Fuel Inputs to Thermal Power Generation (ktoe)	388346	430899	416477	351894	340752	324989	269287	0.7	-2.0	-2.3
Solids	223608	229335	197694	200223	178375	149115	116154	-1.2	-1.0	-4.2
Oil (including refinery gas)	40868	32485	20566	7340	5031	4435	3410	-6.6	-13.1	-3.8
Gas (including derived gases)	105105	137667	151968	100069	99800	102452	78186	3.8	-4.1	-2.4
Biomass & Waste	14651	26766	41420	43077	55615	67055	69605	11.0	3.0	2.3
Geothermal heat	4114	4645	4828	1184	1932	1932	1932	1.6	-8.8	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1067893	1101207	997999	908897	859404	805110	771784	-0.7	-1.5	-1.1
Refineries	735106	756042	667606	609584	582733	548467	511369	-1.0	-1.4	-1.3
Biofuels and hydrogen production	709	3279	13086	16149	20765	19470	19408	33.8	4.7	-0.7
District heating	15899	17445	19101	16261	16212	14872	13528	1.9	-1.6	-1.8
Derived gases, cokeries etc.	316179	324441	298206	266904	239695	222300	227479	-0.6	-2.2	-0.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								EU28, EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	5964	6295	6449	6735	7157	7491	7864	0.8	1.0	0.9
Public road transport	549	541	528	546	569	585	598	-0.4	0.8	0.5
Private cars and motorcycles	4466	4721	4843	5001	5254	5418	5625	0.8	0.8	0.7
Rail	450	464	499	540	599	669	734	1.0	1.8	2.1
Aviation ⁽³⁾	458	528	539	608	692	773	858	1.7	2.5	2.2
Inland navigation	42	42	40	40	43	46	48	-0.3	0.6	1.1
Freight transport activity (Gtkm)	2295	2612	2556	2704	2981	3216	3457	1.1	1.5	1.5
Heavy goods and light commercial vehicles	1589	1853	1809	1915	2109	2258	2414	1.3	1.5	1.4
Rail	405	416	394	428	482	538	595	-0.3	2.0	2.1
Inland navigation	300	343	354	361	390	419	448	1.7	1.0	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	341525	364526	359402	358062	350304	332707	321621	0.5	-0.3	-0.9
Public road transport	8775	8725	8834	9040	9257	9251	9132	0.1	0.5	-0.1
Private cars and motorcycles	206270	212102	211618	204765	189780	168987	157395	0.3	-1.1	-1.9
Heavy goods and light commercial vehicles	67279	79273	76918	78507	81587	82259	82943	1.3	0.6	0.2
Rail	8168	7668	7129	7395	7897	8456	8891	-1.4	1.0	1.2
Aviation	44876	49959	49230	53303	56436	58111	57349	0.9	1.4	0.2
Inland navigation	6156	6798	5673	5051	5346	5643	5912	-0.8	-0.6	1.0
By transport activity										
Passenger transport	266294	275041	273897	271237	259782	240909	228584	0.3	-0.5	-1.3
Freight transport	75231	89484	85505	86825	90522	91798	93037	1.3	0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.9	3.7	4.6	6.1	6.5	6.6			
ENERGY EFFICIENCY										
Primary energy consumption	1613782	1708642	1650085	1559891	1529088	1441550	1321337	0.2	-0.8	-1.4
Final Energy Demand	1129427	1186370	1155879	1133457	1134845	1075010	987097	0.2	-0.2	-1.4
by sector										
Industry	330627	327576	283437	284538	294521	283115	267903	-1.5	0.4	-0.9
Energy intensive industries	215899	215115	182721	182407	188494	178666	165322	-1.7	0.3	-1.3
Other industrial sectors	114728	112461	100716	102131	106027	104448	102581	-1.3	0.5	-0.3
Residential	288564	307594	313829	299747	299090	281619	242783	0.8	-0.5	-2.1
Tertiary	166677	183368	196770	188333	188041	174657	151925	1.7	-0.5	-2.1
Transport ⁽⁵⁾	343558	367831	361842	360838	353193	335620	324487	0.5	-0.2	-0.8
by fuel										
Solids	61977	53988	50512	47694	45606	40563	30646	-2.0	-1.0	-3.9
Oil	487065	502509	455207	437598	404640	365668	327630	-0.7	-1.2	-2.1
Gas	267588	281191	273366	265878	263988	246335	220897	0.2	-0.3	-1.8
Electricity	217644	239548	244471	241010	251711	258075	255856	1.2	0.3	0.2
Heat (from CHP and District Heating)	46044	52425	52875	49062	50683	49867	46952	1.4	-0.4	-0.8
Renewable energy forms	49109	56708	79448	92104	117843	112858	102280	4.9	4.0	-1.4
Other	0	0	0	111	375	1644	2836	0.0	0.0	22.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	154	148	137	124	113	100	86	-1.2	-1.9	-2.7
Industry (Energy on Value added, index 2000=100)	100	93	80	77	75	68	61	-2.2	-0.6	-2.0
Residential (Energy on Private Income, index 2000=100)	100	97	94	87	79	69	55	-0.6	-1.7	-3.5
Tertiary (Energy on Value added, index 2000=100)	100	99	100	91	83	72	58	0.0	-1.8	-3.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	39	37	36	33	30	26	23	-0.8	-1.8	-2.4
Freight transport (toe/Mtkm)	33	34	33	32	30	29	27	0.2	-1.0	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	5326.4	5349.2	4875.0	4583.4	4277.7	3901.0	3408.9	-0.9	-1.3	-2.2
of which ETS sectors (2013 scope) GHG emissions		2501.2	2175.1	2016.6	1890.4	1706.3	1424.0	-1.4	-2.8	
of which ESD sectors (2013 scope) GHG emissions		2847.9	2699.9	2566.7	2387.2	2194.7	1984.9	-1.2	-1.8	
CO2 Emissions (energy related)	3992.2	4127.1	3782.3	3524.1	3283.2	2950.8	2509.6	-0.5	-1.4	-2.7
Power generation/District heating	1406.3	1486.8	1344.0	1177.9	1068.8	945.9	735.4	-0.5	-2.3	-3.7
Energy Branch	167.3	170.7	155.2	148.5	132.4	117.5	107.6	-0.7	-1.6	-2.1
Industry	691.0	634.1	511.8	505.7	493.7	430.7	358.0	-3.0	-0.4	-3.2
Residential	468.0	484.2	466.9	422.7	385.1	350.8	288.9	0.0	-1.9	-2.8
Tertiary	257.9	271.6	267.9	245.8	221.8	183.8	145.5	0.4	-1.9	-4.1
Transport	1001.7	1079.8	1036.6	1023.4	981.8	922.1	874.2	0.3	-0.5	-1.2
CO2 Emissions (non energy and non land use related)	277.3	282.4	237.3	238.8	248.0	243.3	235.8	-1.5	0.4	-0.5
Non-CO2 GHG emissions	1057.0	939.6	855.4	820.5	746.1	706.9	663.6	-2.1	-1.4	-1.2
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	92.5	92.9	84.7	79.6	74.3	67.8	59.2	-0.9	-1.3	-2.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.39	0.37	0.33	0.30	0.26	0.23	0.18	-1.6	-2.3	-3.6
Final energy demand (t of CO2/toe)	2.14	2.08	1.98	1.94	1.83	1.76	1.69	-0.8	-0.7	-0.8
Industry	2.09	1.94	1.81	1.78	1.68	1.52	1.34	-1.5	-0.7	-2.2
Residential	1.62	1.57	1.49	1.41	1.29	1.25	1.19	-0.9	-1.4	-0.8
Tertiary	1.55	1.48	1.36	1.31	1.18	1.05	0.96	-1.3	-1.4	-2.1
Transport	2.92	2.94	2.86	2.84	2.78	2.75	2.69	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.5	8.7	12.4	16.1	21.1	24.1	27.1			
RES-H&C share	9.0	10.3	14.0	17.4	22.4	24.3	26.3			
RES-E share	13.3	14.8	19.7	28.2	35.5	42.0	48.7			
RES-T share (based on ILUC formula)	0.9	1.7	5.2	6.9	11.2	14.4	19.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	57	65	85	94	92	90	2.1	3.7	-0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	0	117	136	144	153	159	161	0.0	1.2	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1055.8	1282.5	1467.9	1505.9	1794.4	1925.7	2100.2	3.4	2.0	1.6
as % of GDP	9.4	10.4	11.4	11.2	12.3	12.4	12.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Austria: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	8	8	8	9	9	9	9	0.4	0.5	0.5
GDP (in 000 M€13)	257	279	298	316	345	373	406	1.5	1.5	1.5
Gross Inland Consumption (ktoe)	28996	34373	34604	32934	33427	32145	29772	1.8	-0.3	-1.2
Solids	3597	4000	3365	3333	3405	2917	2568	-0.7	0.1	-2.8
Oil	12173	14448	12833	12275	11719	10840	9921	0.5	-0.9	-1.7
Natural gas	6519	8159	8215	6454	7662	7175	5622	2.3	-0.7	-3.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Renewable energy forms	6825	7537	9991	9810	10203	10878	11358	3.9	0.2	1.1
Energy Branch Consumption	1306	1566	1504	1594	1501	1369	1261	1.4	0.0	-1.7
Non-Energy Uses	1718	1717	1850	2037	2202	2332	2364	0.7	1.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9776	10012	12114	11277	11469	11353	11380	2.2	-0.5	-0.1
Solids	293	0	0	0	0	0	0	-51.8	-100.0	0.0
Oil	1092	1003	1036	813	673	343	111	-0.5	-4.2	-16.5
Natural gas	1533	1404	1486	1270	1141	667	441	-0.3	-2.6	-9.1
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	6859	7605	9592	9195	9654	10343	10828	3.4	0.1	1.2
Hydro	3597	3154	3299	3527	3698	3811	3851	-0.9	1.1	0.4
Biomass & Waste	3169	4214	5914	5018	5152	5115	4733	6.4	-1.4	-0.8
Wind	6	114	178	340	382	550	1131	40.8	8.0	11.5
Solar and others	63	93	168	260	359	782	986	10.3	7.9	10.6
Geothermal	25	30	35	49	64	85	128	3.4	6.3	7.2
Net Imports (ktoe)	18970	24517	21577	21656	21958	20791	18391	1.3	0.2	-1.8
Solids	3019	3971	3358	3333	3405	2917	2568	1.1	0.1	-2.8
Oil	10850	13204	11510	11462	11045	10498	9810	0.6	-0.4	-1.2
Crude oil and Feedstocks	7791	8100	7011	8001	7806	7636	7318	-1.1	1.1	-0.6
Oil products	3059	5104	4499	3461	3239	2861	2491	3.9	-3.2	-2.6
Natural gas	5253	7153	6115	5184	6521	6507	5181	1.5	0.6	-2.3
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Import Dependency (%)	65.4	71.3	62.4	65.8	65.7	64.7	61.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	59874	64066	67933	59622	71852	75909	77318	1.3	0.6	0.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	5727	7165	4918	4194	4929	3026	1946	-1.5	0.0	-8.9
Oil (including refinery gas)	1702	1641	1273	208	215	71	67	-2.9	-16.3	-11.0
Gas (including derived gases)	8864	14347	16137	6774	14518	12161	5797	6.2	-1.1	-8.8
Biomass-waste	1675	2882	5088	2592	3563	4451	4316	11.8	-3.5	1.9
Hydro (pumping excluded)	41836	36677	38363	41014	42999	44319	44776	-0.9	1.1	0.4
Wind	67	1331	2064	3958	4443	6397	13146	40.9	8.0	11.5
Solar	3	21	88	871	1174	5472	7259	38.2	29.5	20.0
Geothermal and other renewables	0	2	2	11	11	11	11	0.0	21.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	17911	19092	21503	22989	23327	27511	31341	1.8	0.8	3.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	11668	12440	13841	16437	17371	22046	26200	1.7	2.3	4.2
Hydro (pumping excluded)	11613	11632	12706	13149	13699	13702	13812	0.9	0.8	0.1
Wind	50	778	981	2412	2583	3457	5888	34.7	10.2	8.6
Solar	5	30	154	876	1090	4887	6501	40.9	21.6	19.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6243	6652	7662	6552	5956	5465	5140	2.1	-2.5	-1.5
of which cogeneration units	2632	3253	3157	3004	3052	2904	3396	1.8	-0.3	1.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1887	1660	1359	873	802	777	777	-3.2	-5.1	-0.3
Gas fired	2816	3389	4512	4074	3559	3344	3021	4.8	-2.3	-1.6
Oil fired	1260	1145	1139	971	815	483	423	-1.0	-3.3	-6.4
Biomass-waste fired	280	456	650	633	778	860	918	8.8	1.8	1.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	2	1	2	2	2	2	0.0	7.2	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	36.8	36.7	35.1	28.4	33.8	30.4	27.4			
Efficiency of gross thermal power generation (%)	39.9	41.3	41.3	39.7	43.9	39.5	33.3			
% of gross electricity from CHP	10.4	15.4	15.4	17.7	22.8	17.5	12.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	72.8	63.9	67.1	81.3	72.6	79.9	89.9			
Fuel Inputs to Thermal Power Generation (ktoe)	3877	5421	5713	2988	4552	4295	3134	4.0	-2.2	-3.7
Solids	1216	1507	1019	908	1069	671	555	-1.8	0.5	-6.3
Oil (including refinery gas)	278	262	176	60	69	23	22	-4.5	-8.9	-10.8
Gas (including derived gases)	1961	2836	2868	1406	2572	2406	1282	3.9	-1.1	-6.7
Biomass & Waste	421	814	1649	604	833	1185	1265	14.6	-6.6	4.3
Geothermal heat	0	2	1	10	10	10	10	0.0	23.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	11349	11946	11472	12554	11800	11029	10216	0.1	0.3	-1.4
Refineries	8865	9275	8040	9141	8769	8228	7636	-1.0	0.9	-1.4
Biofuels and hydrogen production	16	50	495	571	443	419	416	41.2	-1.1	-0.6
District heating	558	613	869	678	635	592	531	4.5	-3.1	-1.8
Derived gases, cokeries etc.	1910	2009	2068	2164	1953	1790	1633	0.8	-0.6	-1.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Austria: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	96	101	107	112	119	126	132	1.1	1.1	1.0
Public road transport	9	9	10	10	10	11	11	0.4	0.7	0.6
Private cars and motorcycles	68	72	75	78	80	84	87	1.0	0.7	0.7
Rail	12	13	15	16	18	20	22	1.9	2.2	1.7
Aviation ⁽³⁾	6	7	8	9	10	11	12	2.0	2.6	2.2
Inland navigation	0	0	0	0	0	0	0	-0.6	0.6	1.2
Freight transport activity (Gtkm)	50	54	61	65	70	75	80	2.0	1.3	1.3
Heavy goods and light commercial vehicles	31	33	39	43	46	48	51	2.3	1.6	1.1
Rail	17	19	20	20	22	24	26	1.8	0.9	1.7
Inland navigation	2	2	2	2	3	3	3	-0.3	0.9	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	6787	8815	8507	8480	8017	7510	7235	2.3	-0.6	-1.0
Public road transport	92	97	101	103	106	107	106	0.9	0.5	0.0
Private cars and motorcycles	4520	5616	5043	4708	4260	3782	3479	1.1	-1.7	-2.0
Heavy goods and light commercial vehicles	1290	2135	2387	2622	2589	2520	2508	6.3	0.8	-0.3
Rail	267	242	247	249	264	274	278	-0.8	0.7	0.5
Aviation	591	679	707	776	773	801	836	1.8	0.9	0.8
Inland navigation	28	45	22	23	24	26	27	-2.1	0.8	1.1
By transport activity										
Passenger transport	5260	6438	5894	5634	5192	4745	4480	1.1	-1.3	-1.5
Freight transport	1527	2377	2613	2846	2825	2764	2755	5.5	0.8	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	6.0	6.9	5.8	6.1	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	27277	32657	32754	30897	31225	29813	27408	1.8	-0.5	-1.3
Final Energy Demand	23692	28185	28423	28425	28024	26789	24909	1.8	-0.1	-1.2
by sector										
Industry	7283	8825	9195	9724	9944	9636	9298	2.4	0.8	-0.7
Energy intensive industries	5321	6148	6212	6588	6652	6348	6040	1.6	0.7	-1.0
Other industrial sectors	1962	2676	2983	3136	3291	3288	3258	4.3	1.0	-0.1
Residential	6332	6828	6797	6669	6517	6197	5295	0.7	-0.4	-2.1
Tertiary	3070	3449	3686	3285	3261	3165	2814	1.8	-1.2	-1.5
Transport ⁽⁵⁾	7007	9082	8744	8746	8301	7791	7501	2.2	-0.5	-1.0
by fuel										
Solids	1403	1466	1169	1135	1188	1225	1035	-1.8	0.2	-1.4
Oil	9818	12084	10539	9934	9319	8420	7562	0.7	-1.2	-2.1
Gas	4464	5125	5259	5142	5136	4722	4265	1.7	-0.2	-1.8
Electricity	4432	5013	5358	5436	5791	6003	6144	1.9	0.8	0.6
Heat (from CHP and District Heating)	1020	1353	1832	2008	1902	1947	1782	6.0	0.4	-0.6
Renewable energy forms	2555	3145	4266	4769	4683	4448	4080	5.3	0.9	-1.4
Other	0	0	0	2	5	22	41	0.0	0.0	22.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	113	123	116	104	97	86	74	0.3	-1.8	-2.6
Industry (Energy on Value added, index 2000=100)	100	111	108	109	104	95	86	0.8	-0.4	-1.9
Residential (Energy on Private Income, index 2000=100)	100	100	93	85	77	67	53	-0.7	-1.9	-3.6
Tertiary (Energy on Value added, index 2000=100)	100	103	101	85	77	68	56	0.1	-2.7	-3.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	54	47	43	37	31	28	0.1	-2.6	-2.7
Freight transport (toe/Mtkm)	30	44	43	44	40	37	35	3.4	-0.5	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.1	96.8	89.0	82.8	82.2	74.6	65.3	0.3	-0.8	-2.3
of which ETS sectors (2013 scope) GHG emissions		38.3	35.2	32.8	34.4	30.4	25.5		-0.3	-2.9
of which ESD sectors (2013 scope) GHG emissions		58.4	53.7	50.0	47.8	44.1	39.8		-1.2	-1.8
CO ₂ Emissions (energy related)	65.6	78.6	71.5	65.7	65.8	58.8	50.6	0.9	-0.8	-2.6
Power generation/District heating	12.5	17.0	15.1	11.2	14.0	12.1	9.0	1.9	-0.7	-4.4
Energy Branch	3.3	3.7	3.8	4.1	3.6	3.2	3.0	1.3	-0.3	-2.0
Industry	16.8	18.5	17.6	17.7	17.2	15.3	13.1	0.5	-0.2	-2.7
Residential	8.9	8.6	7.7	6.8	6.4	5.5	4.4	-1.5	-1.9	-3.5
Tertiary	3.9	4.4	3.2	2.0	1.8	1.6	1.1	-1.8	-5.8	-4.3
Transport	20.2	26.5	24.1	23.9	22.8	21.1	20.0	1.8	-0.6	-1.3
CO ₂ Emissions (non energy and non land use related)	4.6	5.0	5.4	5.3	5.3	5.2	5.2	1.6	-0.3	-0.2
Non-CO2 GHG emissions	15.8	13.2	12.1	11.7	11.1	10.5	9.5	-2.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	108.2	121.6	111.8	104.0	103.3	93.7	82.0	0.3	-0.8	-2.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.21	0.17	0.13	0.15	0.12	0.09	-0.3	-1.2	-4.7
Final energy demand (t of CO ₂ /toe)	2.10	2.06	1.85	1.77	1.72	1.62	1.55	-1.3	-0.7	-1.0
Industry	2.31	2.10	1.92	1.82	1.73	1.59	1.41	-1.9	-1.0	-2.0
Residential	1.41	1.26	1.13	1.02	0.98	0.89	0.84	-2.2	-1.4	-1.5
Tertiary	1.26	1.27	0.88	0.60	0.55	0.49	0.41	-3.6	-4.6	-2.8
Transport	2.88	2.91	2.76	2.73	2.74	2.71	2.67	-0.4	0.0	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	24.6	23.6	30.5	34.5	35.2	37.8	42.3			
RES-H&C share	20.4	22.0	29.7	37.0	36.3	35.7	38.0			
RES-E share	66.9	62.4	65.7	68.0	68.5	76.9	87.1			
RES-T share (based on ILUC formula)	6.8	4.8	10.9	11.4	12.6	16.1	22.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	68	68	69	58	65	71	73	0.0	-0.5	1.2
Average Price of Electricity in Final demand sectors (€13/MWh)	130	115	143	131	140	150	150	0.9	-0.2	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	21.8	28.6	32.9	32.2	38.6	42.5	46.4	4.2	1.6	1.9
as % of GDP	8.5	10.2	11.0	10.2	11.2	11.4	11.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Belgium: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	11	11	12	12	13	0.6	0.9	0.9
GDP (in 000 M€13)	324	350	372	385	414	443	479	1.4	1.1	1.5
Gross Inland Consumption (ktoe)	59302	59008	61346	54681	54714	49891	46060	0.3	-1.1	-1.7
Solids	7922	5081	3673	3205	2007	2011	1706	-7.4	-5.9	-1.6
Oil	24136	24721	24699	23472	21985	20957	19670	0.2	-1.2	-1.1
Natural gas	13369	14728	16999	14941	14143	16727	15230	2.4	-1.8	0.7
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Renewable energy forms	1081	1658	3560	4242	6206	6786	7020	12.7	5.7	1.2
Energy Branch Consumption	2366	2403	2246	2406	2216	2117	2047	-0.5	-0.1	-0.8
Non-Energy Uses	6739	7516	8541	8464	8523	8620	8538	2.4	0.0	0.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	13607	13718	15356	10620	14086	7319	6398	1.2	-0.9	-7.6
Solids	206	57	0	0	0	0	0	-97.1	-100.0	0.0
Oil	0	6	-7	-14	-14	-14	-13	1692.2	7.2	-0.3
Natural gas	2	0	0	0	0	0	0	0.0	-100.0	0.0
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Renewable energy sources	977	1377	2996	3725	5468	6092	6411	11.9	6.2	1.6
Hydro	40	25	27	31	32	46	49	-3.8	1.7	4.5
Biomass & Waste	931	1327	2793	2944	3956	3917	3777	11.6	3.5	-0.5
Wind	1	20	111	431	1032	1500	1755	54.9	25.0	5.5
Solar and others	1	3	60	313	441	617	804	50.7	22.0	6.2
Geothermal	3	3	4	6	7	12	27	3.0	5.7	13.6
Net Imports (ktoe)	50502	53396	53753	52611	49707	51996	49472	0.6	-0.8	0.0
Solids	7220	5150	3591	3205	2007	2011	1706	-6.7	-5.7	-1.6
Oil	29527	32605	32752	32035	31031	29938	28269	1.0	-0.5	-0.9
Crude oil and Feedstocks	34177	32251	31004	27409	27190	26837	26138	-1.0	-1.3	-0.4
Oil products	-4650	354	1749	4626	3841	3101	2131	0.0	8.2	-5.7
Natural gas	13278	14817	16791	14941	14190	17183	16433	2.4	-1.7	1.5
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Import Dependency (%)	78.1	80.1	78.0	83.2	77.9	87.7	88.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	82773	85709	93764	69728	73960	70099	69135	1.3	-2.3	-0.7
Nuclear energy	48157	47595	47944	28180	35207	5071	0	0.0	-3.0	-100.0
Solids	12916	8199	4190	2975	195	288	42	-10.6	-26.4	-14.3
Oil (including refinery gas)	797	1740	406	96	674	696	717	-6.5	5.2	0.6
Gas (including derived gases)	19091	25143	33178	23812	18269	36274	34930	5.7	-5.8	6.7
Biomass-waste	1336	2516	5882	5914	3236	4047	5142	16.0	-5.8	4.7
Hydro (pumping excluded)	460	288	312	365	368	530	571	-3.8	1.7	4.5
Wind	16	227	1292	5009	11998	17441	20401	55.1	25.0	5.5
Solar	0	1	560	3376	4013	5750	7332	0.0	21.8	6.2
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	14674	14867	17071	18515	20996	22771	25202	1.5	2.1	1.8
Nuclear energy	5921	5921	5921	3907	5055	3041	0	0.0	-1.6	-100.0
Renewable energy	117	274	1934	5560	8494	11861	14471	32.4	15.9	5.5
Hydro (pumping excluded)	103	105	118	119	119	166	177	1.4	0.1	4.1
Wind	14	167	912	2229	4558	6253	7386	51.8	17.5	4.9
Solar	0	2	904	3212	3818	5443	6907	0.0	15.5	6.1
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	8636	8672	9216	9048	7447	7869	10731	0.7	-2.1	3.7
of which cogeneration units	1112	1893	2575	1552	655	1351	1241	8.8	-12.8	6.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2290	1450	1184	825	43	43	16	-6.4	-28.2	-9.7
Gas fired	4392	5201	6468	6799	6270	6805	9687	3.9	-0.3	4.4
Oil fired	1581	1494	836	646	266	249	218	-6.2	-10.8	-2.0
Biomass-waste fired	373	527	727	777	868	773	811	6.9	1.8	-0.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	61.5	63.0	60.3	41.2	38.8	34.3	30.8			
Efficiency of gross thermal power generation (%)	41.4	42.1	44.8	44.7	44.3	47.0	50.8			
% of gross electricity from CHP	6.5	8.5	16.0	17.4	8.0	17.6	17.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	60.4	59.1	59.7	61.4	74.1	46.8	48.4			
Fuel Inputs to Thermal Power Generation (ktoe)	7090	7677	8386	6315	4339	7561	6917	1.7	-6.4	4.8
Solids	2629	1833	936	761	47	66	9	-9.8	-25.8	-15.8
Oil (including refinery gas)	180	411	57	29	223	230	237	-10.8	14.6	0.6
Gas (including derived gases)	3790	4612	5671	4111	2949	5966	5165	4.1	-6.3	5.8
Biomass & Waste	492	821	1722	1414	1120	1298	1506	13.4	-4.2	3.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	54711	52964	50595	41255	42565	34977	32832	-0.8	-1.7	-2.6
Refineries	38602	37483	35454	31882	31692	31387	30643	-0.8	-1.1	-0.3
Biofuels and hydrogen production	0	0	352	341	870	790	759	0.0	9.5	-1.4
District heating	45	29	6	15	19	17	21	-18.1	11.8	1.4
Derived gases, cokeries etc.	16064	15452	14782	9016	9983	2783	1409	-0.8	-3.8	-17.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Belgium: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	137	145	154	158	169	176	185	1.2	1.0	0.9
Public road transport	13	18	17	18	18	18	18	2.7	0.2	0.1
Private cars and motorcycles	107	109	115	117	126	129	135	0.8	0.9	0.6
Rail	9	10	12	12	13	15	16	3.1	1.2	2.3
Aviation ⁽³⁾	8	8	9	10	12	13	15	0.9	2.5	2.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.4	1.4
Freight transport activity (Gtkm)	70	65	63	66	76	84	92	-1.1	1.8	2.0
Heavy goods and light commercial vehicles	55	48	46	47	54	60	64	-1.7	1.5	1.8
Rail	8	8	7	8	9	11	13	-0.3	2.1	3.4
Inland navigation	8	9	9	12	13	14	15	2.2	2.9	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	9747	9972	10593	10179	9998	9774	9719	0.8	-0.6	-0.3
Public road transport	158	204	292	290	287	281	271	6.4	-0.2	-0.6
Private cars and motorcycles	4815	4463	5177	4757	4252	3778	3592	0.7	-1.9	-1.7
Heavy goods and light commercial vehicles	2857	3618	3413	3397	3632	3744	3831	1.8	0.6	0.5
Rail	184	186	177	181	210	237	262	-0.4	1.7	2.2
Aviation	1530	1281	1382	1389	1443	1545	1555	-1.0	0.4	0.8
Inland navigation	204	219	152	164	176	189	208	-2.9	1.5	1.7
<i>By transport activity</i>										
Passenger transport	6608	6016	6932	6518	6070	5702	5524	0.5	-1.3	-0.9
Freight transport	3139	3956	3661	3660	3928	4072	4195	1.6	0.7	0.7
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.9	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	3.4	3.4	9.1	9.3	9.2			
ENERGY EFFICIENCY										
Primary energy consumption	52563	51491	52805	46217	46191	41270	37542	0.0	-1.3	-2.1
Final Energy Demand	37766	36705	37534	36239	36431	34877	32674	-0.1	-0.3	-1.1
<i>by sector</i>										
Industry	14218	11775	11688	11055	11229	10657	10176	-1.9	-0.4	-1.0
Energy intensive industries	10700	9088	8641	8013	8027	7657	7256	-2.1	-0.7	-1.0
Other industrial sectors	3518	2686	3047	3042	3202	3000	2920	-1.4	0.5	-0.9
Residential	8974	9299	9266	9230	9329	9068	7760	0.3	0.1	-1.8
Tertiary	4827	5658	5982	5722	5825	5326	4969	2.2	-0.3	-1.6
Transport ⁽⁵⁾	9747	9973	10598	10232	10049	9827	9769	0.8	-0.5	-0.3
<i>by fuel</i>										
Solids	3403	2019	1621	1505	1358	1262	1041	-7.2	-1.8	-2.6
Oil	16661	16586	15314	14610	13000	11935	10801	-0.8	-1.6	-1.8
Gas	10010	10009	11147	10465	10564	10170	9433	1.1	-0.5	-1.1
Electricity	6667	6896	7163	7033	7244	7411	7613	0.7	0.1	0.5
Heat (from CHP and District Heating)	492	428	640	567	607	667	712	2.7	-0.5	1.6
Renewable energy forms	533	767	1650	2058	3636	3337	2942	12.0	8.2	-2.1
Other	0	0	0	3	23	94	130	0.0	0.0	19.1
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	183	168	165	142	132	112	96	-1.0	-2.2	-3.1
Industry (Energy on Value added, index 2000=100)	100	82	88	81	77	69	62	-1.3	-1.3	-2.2
Residential (Energy on Private Income, index 2000=100)	100	98	90	84	78	70	55	-1.1	-1.4	-3.5
Tertiary (Energy on Value added, index 2000=100)	100	107	105	97	91	78	67	0.5	-1.4	-3.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	43	38	39	35	30	27	24	-1.1	-2.5	-2.1
Freight transport (toe/Mtkm)	45	61	58	55	52	48	45	2.6	-1.1	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	154.0	148.3	136.1	127.3	112.0	113.4	102.8	-1.2	-1.9	-0.9
of which ETS sectors (2013 scope) GHG emissions		70.1	58.6	52.1	42.8	49.0	44.3		-3.1	0.3
of which ESD sectors (2013 scope) GHG emissions		78.3	77.6	75.2	69.2	64.4	58.5		-1.1	-1.7
CO₂ Emissions (energy related)	122.7	114.2	106.4	97.8	84.6	88.0	79.4	-1.4	-2.3	-0.6
Power generation/District heating	25.1	24.0	20.4	15.8	9.0	17.9	15.8	-2.0	-7.9	5.8
Energy Branch	4.9	4.4	3.9	4.6	4.0	3.8	3.7	-2.3	0.4	-0.9
Industry	34.5	24.8	22.1	19.7	18.4	16.0	14.1	-4.4	-1.8	-2.6
Residential	20.3	20.5	18.9	18.4	16.9	16.1	13.2	-0.7	-1.1	-2.4
Tertiary	8.7	10.6	10.2	9.5	9.0	7.8	6.7	1.6	-1.3	-2.9
Transport	29.2	29.9	30.9	29.7	27.4	26.5	25.9	0.6	-1.2	-0.6
CO₂ Emissions (non energy and non land use related)	8.1	13.3	9.5	10.2	9.9	9.1	8.2	1.6	0.4	-1.8
Non-CO₂ GHG emissions	23.2	20.9	20.2	19.3	17.5	16.2	15.2	-1.3	-1.4	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.5	98.7	90.6	84.7	74.6	75.4	68.4	-1.2	-1.9	-0.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.26	0.20	0.20	0.11	0.22	0.20	-3.5	-5.8	6.2
Final energy demand (t of CO ₂ /toe)	2.45	2.34	2.19	2.14	1.97	1.90	1.83	-1.1	-1.1	-0.7
Industry	2.43	2.11	1.89	1.79	1.63	1.50	1.39	-2.5	-1.4	-1.6
Residential	2.26	2.21	2.04	2.00	1.81	1.78	1.70	-1.0	-1.2	-0.6
Tertiary	1.80	1.87	1.71	1.66	1.55	1.46	1.36	-0.5	-1.0	-1.3
Transport	2.99	3.00	2.91	2.91	2.72	2.70	2.65	-0.3	-0.7	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	5.6	8.6	14.0	16.0	17.4			
RES-H&C share	1.9	3.4	6.1	8.5	13.9	13.8	13.5			
RES-E share	1.1	2.4	7.1	15.2	20.0	28.3	33.5			
RES-T share (based on ILUC formula)	0.0	0.1	4.1	4.6	10.1	13.0	17.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	49	59	86	105	116	113	3.2	6.0	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	128	116	139	141	146	157	162	0.9	0.5	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	32.9	35.9	48.6	47.3	58.9	64.4	71.9	4.0	1.9	2.0
as % of GDP	10.2	10.3	13.1	12.3	14.2	14.5	15.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Bulgaria: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	8	8	7	7	7	7	6	-1.0	-0.7	-0.7
GDP (in 000 M€13)	25	33	38	40	45	50	53	4.1	1.8	1.7
Gross Inland Consumption (ktoe)	18523	19754	17770	16469	16338	15365	14390	-0.4	-0.8	-1.3
Solids	6433	6895	6887	5983	5643	4494	3557	0.7	-2.0	-4.5
Oil	4068	4725	3888	3732	3543	3447	3250	-0.5	-0.9	-0.9
Natural gas	2931	2804	2300	2118	2120	1845	1636	-2.4	-0.8	-2.6
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0
Electricity	-397	-652	-726	-1011	-914	-916	-852	6.2	2.3	-0.7
Renewable energy forms	788	1156	1465	1870	2170	2719	3022	6.4	4.0	3.4
Energy Branch Consumption	905	911	1032	907	859	757	696	1.3	-1.8	-2.1
Non-Energy Uses	980	851	422	427	498	571	605	-8.1	1.7	2.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9867	10629	10531	9856	10684	10271	10193	0.7	0.1	-0.5
Solids	4295	4178	4942	4055	4625	3654	3269	1.4	-0.7	-3.4
Oil	68	58	61	17	20	25	29	-1.2	-10.7	3.9
Natural gas	12	384	59	125	128	129	137	17.0	8.0	0.7
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0
Renewable energy sources	792	1182	1512	1883	2135	2686	2983	6.7	3.5	3.4
Hydro	230	373	435	350	373	364	363	6.6	-1.5	-0.3
Biomass & Waste	562	776	975	1283	1485	1516	1475	5.7	4.3	-0.1
Wind	0	0	59	98	102	386	647	0.0	5.7	20.3
Solar and others	0	0	12	118	140	389	469	0.0	28.4	12.9
Geothermal	0	33	33	34	36	31	30	0.0	0.9	-1.8
Net Imports (ktoe)	8544	9276	7075	6717	5800	5255	4370	-1.9	-2.0	-2.8
Solids	2258	2553	1700	1928	1017	840	288	-2.8	-5.0	-11.8
Oil	3944	4943	4025	3820	3668	3581	3382	0.2	-0.9	-0.8
Crude oil and Feedstocks	5228	6145	5916	6308	5991	5717	5383	1.2	0.1	-1.1
Oil products	-1284	-1202	-1891	-2489	-2322	-2136	-2000	3.9	2.1	-1.5
Natural gas	2742	2458	2131	1993	1993	1718	1511	-2.5	-0.7	-2.7
Electricity	-397	-652	-726	-1011	-914	-916	-852	6.2	2.3	-0.7
Import Dependency (%)	46.0	46.7	39.6	40.5	35.2	33.8	30.0			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	40646	43972	46017	48846	48695	48087	46654	1.2	0.6	-0.4
Nuclear energy	18178	18653	15249	15662	15326	15326	15326	-1.7	0.1	0.0
Solids	16941	18458	22606	23317	22602	17818	13678	2.9	0.0	-4.9
Oil (including refinery gas)	661	606	393	440	70	0	0	-5.1	-15.8	-100.0
Gas (including derived gases)	2178	1896	1967	3035	3865	2277	1428	-1.0	7.0	-9.5
Biomass-waste	15	17	49	54	164	389	459	12.6	12.8	10.8
Hydro (pumping excluded)	2673	4337	5057	4065	4332	4235	4218	6.6	-1.5	-0.3
Wind	0	5	681	1144	1183	4487	7520	0.0	5.7	20.3
Solar	0	0	15	1129	1152	3553	4024	0.0	54.2	13.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	10471	10635	9943	11968	11802	13366	14451	-0.5	1.7	2.0
Nuclear energy	3610	2765	1920	1920	1920	1920	1920	-6.1	0.0	0.0
Renewable energy	1016	1992	2697	4081	4110	6982	8259	10.3	4.3	7.2
Hydro (pumping excluded)	1016	1984	2184	2338	2338	2338	2338	8.0	0.7	0.0
Wind	0	8	488	691	703	1900	2852	0.0	3.7	15.0
Solar	0	0	25	1052	1069	2744	3069	0.0	45.6	11.1
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	5845	5878	5326	5967	5771	4464	4272	-0.9	0.8	-3.0
of which cogeneration units	1129	1191	1017	1814	1695	1730	1214	-1.0	5.2	-3.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5100	5100	4703	5313	4809	3492	3381	-0.8	0.2	-3.5
Gas fired	689	737	607	626	909	877	790	-1.3	4.1	-1.4
Oil fired	57	42	13	13	2	2	2	-13.6	-18.4	0.0
Biomass-waste fired	0	0	3	15	51	94	99	0.0	32.3	6.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	39.9	42.8	47.7	42.3	43.3	38.4	34.8			
Efficiency of gross thermal power generation (%)	28.4	27.0	28.5	36.8	39.0	38.3	37.2			
% of gross electricity from CHP	7.8	6.1	8.0	12.0	12.6	9.3	9.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	51.3	52.3	45.7	45.1	45.5	58.2	67.6			
Fuel Inputs to Thermal Power Generation (ktoe)	5986	6689	7553	6282	5884	4598	3598	2.4	-2.5	-4.8
Solids	4928	5817	6610	5466	5204	4159	3277	3.0	-2.4	-4.5
Oil (including refinery gas)	171	174	219	110	17	0	0	2.5	-22.6	-100.0
Gas (including derived gases)	884	697	720	692	625	349	218	-2.0	-1.4	-10.0
Biomass & Waste	3	2	4	15	38	91	104	1.4	25.9	10.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12213	13505	11285	10638	10378	10093	9752	-0.8	-0.8	-0.6
Refineries	5310	6421	6041	6617	6290	6016	5665	1.3	0.4	-1.0
Biofuels and hydrogen production	0	0	13	106	188	181	187	0.0	30.2	-0.1
District heating	324	368	304	96	98	105	111	-0.6	-10.7	1.3
Derived gases, cokeries etc.	6579	6717	4927	3819	3801	3791	3789	-2.9	-2.6	0.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Bulgaria: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	48	56	65	72	76	80	84	3.2	1.4	1.1
Public road transport	15	14	11	11	11	11	12	-3.1	0.6	0.4
Private cars and motorcycles	28	36	48	53	54	57	58	5.7	1.3	0.7
Rail	4	3	3	3	4	4	4	-2.5	1.7	1.9
Aviation ⁽³⁾	2	4	4	5	6	8	10	8.8	4.9	4.5
Inland navigation	0	0	0	0	0	0	0	-1.8	0.9	1.3
Freight transport activity (Gtkm)	11	16	18	20	22	25	26	5.7	2.0	1.7
Heavy goods and light commercial vehicles	5	11	9	10	11	12	13	7.0	2.0	1.2
Rail	6	5	3	3	4	4	5	-5.7	1.9	2.4
Inland navigation	0	1	6	6	7	8	9	34.4	2.0	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	1841	2682	2719	2837	2879	2836	2807	4.0	0.6	-0.3
Public road transport	399	362	262	263	270	267	263	-4.1	0.3	-0.3
Private cars and motorcycles	956	1389	1581	1628	1559	1433	1363	5.2	-0.1	-1.3
Heavy goods and light commercial vehicles	305	652	590	646	699	718	707	6.8	1.7	0.1
Rail	78	69	52	44	49	53	56	-4.0	-0.6	1.3
Aviation	101	201	182	207	244	301	349	6.1	3.0	3.7
Inland navigation	3	10	53	49	58	65	68	34.5	0.9	1.7
<i>By transport activity</i>										
Passenger transport	1473	1965	2034	2106	2082	2012	1987	3.3	0.2	-0.5
Freight transport	369	718	685	731	796	824	820	6.4	1.5	0.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	3.8	6.6	6.5	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	17543	18903	17348	16042	15840	14794	13785	-0.1	-0.9	-1.4
Final Energy Demand	9106	10184	8843	9205	9463	9306	8910	-0.3	0.7	-0.6
<i>by sector</i>										
Industry	3967	4037	2561	2709	2775	2800	2794	-4.3	0.8	0.1
Energy intensive industries	3124	3161	1789	1929	1918	1892	1865	-5.4	0.7	-0.3
Other industrial sectors	843	876	772	780	857	909	929	-0.9	1.0	0.8
Residential	2155	2117	2246	2307	2374	2308	2065	0.4	0.6	-1.4
Tertiary	972	1128	1174	1179	1268	1206	1099	1.9	0.8	-1.4
Transport ⁽⁵⁾	2013	2903	2862	3011	3046	2993	2952	3.6	0.6	-0.3
<i>by fuel</i>										
Solids	879	979	414	487	415	314	261	-7.3	0.0	-4.5
Oil	3026	3712	3125	3134	3045	2959	2776	0.3	-0.3	-0.9
Gas	1681	1565	1058	1052	1078	1037	983	-4.5	0.2	-0.9
Electricity	2085	2211	2331	2382	2505	2543	2548	1.1	0.7	0.2
Heat (from CHP and District Heating)	880	939	960	841	864	900	853	0.9	-1.0	-0.1
Renewable energy forms	555	778	956	1309	1556	1552	1482	5.6	5.0	-0.5
Other	0	0	0	0	0	2	6	0.0	0.0	32.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	733	599	472	415	362	308	269	-4.3	-2.6	-2.9
Industry (Energy on Value added, index 2000=100)	100	68	37	39	35	32	30	-9.4	-0.6	-1.7
Residential (Energy on Private Income, index 2000=100)	100	72	67	67	58	51	42	-3.9	-1.4	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	91	81	76	71	61	52	-2.1	-1.3	-3.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	34	30	28	26	24	22	0.0	-1.3	-1.7
Freight transport (toe/Mtkm)	35	44	37	37	36	34	31	0.7	-0.5	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	64.4	67.0	61.2	55.6	51.0	44.7	39.5	-0.5	-1.8	-2.5
of which ETS sectors (2013 scope) GHG emissions	39.4	35.6	30.0	28.3	23.0	18.7	18.7	-2.3	-4.0	
of which ESD sectors (2013 scope) GHG emissions	27.6	25.6	25.6	22.7	21.7	20.8	20.8	-1.2	-0.8	
CO₂ Emissions (energy related)	44.3	49.1	45.9	40.1	38.0	32.1	27.0	0.4	-1.9	-3.4
Power generation/District heating	24.6	27.9	31.2	25.1	23.7	18.6	14.5	2.4	-2.7	-4.8
Energy Branch	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.8	-1.8	-1.5
Industry	10.6	9.8	3.7	4.0	3.9	3.6	3.1	-10.0	0.6	-2.4
Residential	1.4	1.2	1.0	1.0	0.7	0.5	0.4	-3.1	-4.0	-5.1
Tertiary	1.2	1.1	0.8	0.7	0.7	0.6	0.4	-4.0	-1.5	-4.4
Transport	5.7	8.3	8.3	8.4	8.3	8.2	8.0	3.7	0.1	-0.4
CO₂ Emissions (non energy and non land use related)	3.5	4.0	3.0	3.0	3.1	3.2	3.2	-1.5	0.4	0.5
Non-CO₂ GHG emissions	16.7	14.0	12.3	12.5	9.8	9.4	9.3	-3.0	-2.2	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	58.5	60.9	55.6	50.5	46.3	40.6	35.9	-0.5	-1.8	-2.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.46	0.49	0.51	0.41	0.39	0.31	0.25	1.2	-2.8	-4.4
Final energy demand (t of CO ₂ /toe)	2.07	2.01	1.55	1.53	1.44	1.38	1.33	-2.8	-0.8	-0.7
Industry	2.67	2.43	1.44	1.47	1.41	1.28	1.10	-6.0	-0.2	-2.5
Residential	0.63	0.58	0.44	0.41	0.28	0.21	0.19	-3.5	-4.5	-3.7
Tertiary	1.24	0.97	0.69	0.61	0.54	0.48	0.40	-5.8	-2.3	-3.0
Transport	2.85	2.88	2.88	2.80	2.73	2.73	2.70	0.1	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.6	9.1	14.1	18.7	21.1	26.6	31.0			
RES-H&C share	10.5	14.1	25.2	30.8	34.0	35.4	38.3			
RES-E share	4.0	8.5	12.3	17.4	18.1	34.1	44.5			
RES-T share (based on ILUC formula)	0.3	0.4	1.1	5.4	9.9	10.8	13.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	55	58	68	69	75	77	0.8	1.8	1.2
Average Price of Electricity in Final demand sectors (€13/MWh)	44	56	75	89	106	128	131	5.4	3.5	2.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	5.2	7.4	9.5	10.5	12.9	14.5	16.9	6.2	3.0	2.8
as % of GDP	20.7	22.3	25.3	26.5	28.5	29.1	31.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Croatia: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	4	4	4	4	4	-0.4	-0.3	-0.3
GDP (in 000 M€13)	36	45	46	45	49	52	55	2.4	0.5	1.3
Gross Inland Consumption (ktoe)	7793	8888	8561	8018	8230	7723	7142	0.9	-0.4	-1.4
Solids	431	683	683	751	696	309	291	4.7	0.2	-8.3
Oil	3929	4490	3699	3414	3230	3055	2797	-0.6	-1.3	-1.4
Natural gas	2210	2370	2632	2144	2473	2373	1936	1.8	-0.6	-2.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Renewable energy forms	880	906	1138	1195	1417	1638	1708	2.6	2.2	1.9
Energy Branch Consumption	821	825	745	726	707	597	577	-1.0	-0.5	-2.0
Non-Energy Uses	656	675	596	514	529	536	535	-0.9	-1.2	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3580	3799	4222	3368	3650	3609	3409	1.7	-1.4	-0.7
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	1345	1029	767	466	461	436	390	-5.5	-5.0	-1.7
Natural gas	1355	1865	2215	1431	1537	1311	1103	5.0	-3.6	-3.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	880	906	1240	1471	1652	1862	1916	3.5	2.9	1.5
Hydro	505	545	716	533	544	549	550	3.6	-2.7	0.1
Biomass & Waste	375	360	500	859	1021	988	923	2.9	7.4	-1.0
Wind	0	1	12	56	56	113	186	0.0	16.6	12.7
Solar and others	0	0	5	16	23	205	242	0.0	16.0	26.5
Geothermal	0	0	7	7	8	8	15	0.0	1.3	7.1
Net Imports (ktoe)	4134	5208	4461	4657	4588	4122	3740	0.8	0.3	-2.0
Solids	478	624	699	751	696	309	291	3.9	-0.1	-8.3
Oil	2406	3583	2980	2955	2776	2625	2413	2.2	-0.7	-1.4
Crude oil and Feedstocks	3952	4334	3647	2979	2838	2744	2594	-0.8	-2.5	-0.9
Oil products	-1546	-751	-667	-24	-62	-119	-181	-8.1	-21.2	11.3
Natural gas	905	562	476	713	937	1062	833	-6.2	7.0	-1.2
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Import Dependency (%)	52.9	58.4	52.1	58.0	55.7	53.3	52.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	10684	12354	13999	11996	14110	14647	13633	2.7	0.1	-0.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	1551	2328	2385	2671	2695	914	868	4.4	1.2	-10.7
Oil (including refinery gas)	1687	1855	560	77	25	281	212	-10.4	-26.7	23.9
Gas (including derived gases)	1571	1814	2553	2232	4063	3490	1632	5.0	4.8	-8.7
Biomass-waste	1	14	33	98	285	310	299	41.9	24.1	0.5
Hydro (pumping excluded)	5874	6333	8329	6200	6324	6387	6392	3.6	-2.7	0.1
Wind	0	10	139	650	650	1309	2158	0.0	16.7	12.7
Solar	0	0	0	68	68	1957	2072	0.0	0.0	40.8
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	3786	3945	4216	4884	4894	6320	6743	1.1	1.5	3.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2079	2066	2220	2668	2668	4284	4853	0.7	1.9	6.2
Hydro (pumping excluded)	2079	2060	2141	2190	2190	2190	2190	0.3	0.2	0.0
Wind	0	6	79	423	423	721	1211	0.0	18.3	11.1
Solar	0	0	0	55	55	1373	1453	0.0	0.0	38.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1707	1879	1996	2216	2226	2036	1890	1.6	1.1	-1.6
of which cogeneration units	558	515	486	298	596	888	656	-1.4	2.1	1.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	311	311	311	311	656	656	656	0.0	7.7	0.0
Gas fired	781	919	1031	1706	1396	1196	1090	2.8	3.1	-2.4
Oil fired	615	646	649	185	150	157	111	0.5	-13.6	-2.9
Biomass-waste fired	0	3	5	13	24	27	33	0.0	17.3	3.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	31.0	34.4	36.6	27.3	32.1	26.1	22.8			
Efficiency of gross thermal power generation (%)	33.1	34.9	37.5	44.0	47.5	44.1	38.4			
% of gross electricity from CHP	16.8	0.0	14.3	15.5	19.0	17.6	17.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	55.0	51.5	60.7	58.5	51.9	68.0	80.1			
Fuel Inputs to Thermal Power Generation (ktoe)	1249	1479	1269	993	1279	973	674	0.2	0.1	-6.2
Solids	357	537	532	612	568	207	226	4.1	0.7	-8.8
Oil (including refinery gas)	395	447	120	14	8	78	63	-11.3	-23.4	22.6
Gas (including derived gases)	497	490	611	350	648	627	320	2.1	0.6	-6.8
Biomass & Waste	0	4	7	17	55	61	64	36.6	23.2	1.6
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	5394	5327	4409	3555	3568	3434	3218	-2.0	-2.1	-1.0
Refineries	5299	5210	4304	3414	3268	3150	2959	-2.1	-2.7	-1.0
Biofuels and hydrogen production	0	0	3	70	223	201	181	0.0	56.1	-2.0
District heating	83	104	97	70	74	72	65	1.6	-2.7	-1.2
Derived gases, cokeries etc.	12	13	4	1	2	10	12	-10.0	-5.6	17.7

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Croatia: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	27	31	34	36	39	41	43	2.5	1.4	1.0
Public road transport	3	3	3	3	4	4	4	-0.3	1.0	0.6
Private cars and motorcycles	21	25	27	28	30	31	33	2.4	1.2	0.9
Rail	2	2	2	2	3	3	3	2.7	1.3	0.8
Aviation ⁽³⁾	1	1	2	3	3	3	4	12.0	3.7	2.6
Inland navigation	0	0	0	0	0	0	0	212.2	1.1	1.7
Freight transport activity (Gtkm)	4	12	12	12	14	15	16	10.2	1.5	1.6
Heavy goods and light commercial vehicles	3	9	8	8	10	10	11	12.1	1.5	1.7
Rail	2	3	3	3	3	3	3	3.9	1.4	1.4
Inland navigation	0	0	1	1	1	1	1	30.9	1.4	1.0
Energy demand in transport (ktoe) ⁽⁴⁾	1544	1921	2068	2074	2133	2058	2016	3.0	0.3	-0.6
Public road transport	41	39	61	63	66	66	65	3.9	0.8	-0.1
Private cars and motorcycles	1192	1192	1332	1324	1319	1220	1161	1.1	-0.1	-1.3
Heavy goods and light commercial vehicles	161	508	479	465	510	520	529	11.5	0.6	0.4
Rail	46	52	50	48	52	53	55	0.8	0.5	0.5
Aviation	76	98	108	134	144	154	161	3.6	2.9	1.1
Inland navigation	29	33	38	39	43	45	47	2.8	1.3	0.8
By transport activity										
Passenger transport	1329	1340	1514	1535	1542	1454	1401	1.3	0.2	-1.0
Freight transport	215	581	554	540	591	604	616	9.9	0.7	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.1	3.5	10.7	10.5	9.9			
ENERGY EFFICIENCY										
Primary energy consumption	7138	8213	7965	7504	7701	7188	6606	1.1	-0.3	-1.5
Final Energy Demand	5371	6343	6347	6190	6299	6057	5645	1.7	-0.1	-1.1
by sector										
Industry	1378	1563	1366	1394	1388	1306	1241	-0.1	0.2	-1.1
Energy intensive industries	847	907	752	745	734	673	620	-1.2	-0.2	-1.7
Other industrial sectors	531	656	614	649	654	633	621	1.5	0.6	-0.5
Residential	1666	1922	1893	1784	1778	1722	1502	1.3	-0.6	-1.7
Tertiary	781	935	1018	934	996	967	882	2.7	-0.2	-1.2
Transport ⁽⁵⁾	1547	1923	2070	2078	2137	2062	2020	3.0	0.3	-0.6
by fuel										
Solids	74	146	150	139	127	102	65	7.3	-1.6	-6.5
Oil	2683	3108	2902	2754	2564	2376	2143	0.8	-1.2	-1.8
Gas	1009	1236	1288	1170	1227	1203	1121	2.5	-0.5	-0.9
Electricity	1018	1240	1364	1317	1393	1398	1387	3.0	0.2	0.0
Heat (from CHP and District Heating)	213	258	246	226	239	249	234	1.4	-0.3	-0.2
Renewable energy forms	375	356	397	582	747	719	682	0.6	6.5	-0.9
Other	0	0	0	1	2	10	13	0.0	0.0	18.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	214	196	184	179	168	149	129	-1.5	-0.9	-2.6
Industry (Energy on Value added, index 2000=100)	100	97	88	93	86	78	71	-1.3	-0.2	-1.9
Residential (Energy on Private Income, index 2000=100)	100	91	88	84	76	69	56	-1.2	-1.5	-3.0
Tertiary (Energy on Value added, index 2000=100)	100	97	99	95	91	83	70	-0.1	-0.8	-2.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	41	43	41	38	34	31	-1.2	-1.3	-2.0
Freight transport (toe/Mtkm)	48	49	47	45	43	41	38	-0.2	-0.8	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	26.3	30.7	28.5	25.4	25.0	22.2	20.1	0.8	-1.3	-2.2
of which ETS sectors (2013 scope) GHG emissions		12.7	10.8	9.7	10.0	8.1	6.9		-0.8	-3.6
of which ESD sectors (2013 scope) GHG emissions		17.9	17.7	15.7	14.9	14.1	13.1		-1.7	-1.3
CO ₂ Emissions (energy related)	17.0	20.2	18.6	17.0	17.0	14.6	12.7	0.9	-0.9	-2.9
Power generation/District heating	4.1	5.1	4.3	3.5	4.0	2.7	1.9	0.3	-0.5	-7.1
Energy Branch	2.0	2.0	1.8	1.7	1.7	1.4	1.4	-1.0	-0.5	-2.2
Industry	2.9	3.5	2.8	2.9	2.7	2.3	1.8	-0.2	-0.5	-3.7
Residential	1.9	2.4	2.1	1.7	1.7	1.6	1.3	1.0	-2.1	-2.7
Tertiary	1.5	1.5	1.4	1.2	1.2	1.1	1.0	-0.6	-1.6	-2.1
Transport	4.5	5.7	6.2	6.0	5.7	5.4	5.3	3.1	-0.8	-0.7
CO ₂ Emissions (non energy and non land use related)	2.6	3.1	2.5	2.4	2.6	2.4	2.3	-0.3	0.1	-0.8
Non-CO2 GHG emissions	6.7	7.4	7.4	5.9	5.4	5.2	5.0	0.9	-3.1	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	74.2	86.5	80.4	71.5	70.4	62.6	56.6	0.8	-1.3	-2.2
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.30	0.32	0.25	0.23	0.23	0.15	0.11	-2.1	-0.5	-6.9
Final energy demand (t of CO ₂ /toe)	2.01	2.06	1.97	1.90	1.79	1.73	1.67	-0.2	-1.0	-0.7
Industry	2.09	2.23	2.08	2.08	1.94	1.78	1.49	-0.1	-0.7	-2.6
Residential	1.15	1.24	1.12	0.95	0.96	0.94	0.87	-0.3	-1.5	-1.0
Tertiary	1.89	1.57	1.37	1.26	1.19	1.15	1.09	-3.2	-1.4	-0.9
Transport	2.94	2.97	2.97	2.88	2.65	2.64	2.62	0.1	-1.1	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	14.8	12.8	14.3	18.5	21.2	25.8	29.1			
RES-H&C share	13.0	10.9	13.1	18.0	18.7	20.6	24.5			
RES-E share	36.2	32.8	34.2	39.1	38.8	53.4	59.5			
RES-T share (based on ILUC formula)	1.2	0.9	1.1	5.1	10.0	12.8	15.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	83	75	67	59	67	80	85	-2.1	0.1	2.3
Average Price of Electricity in Final demand sectors (€13/MWh)	96	84	109	110	122	131	134	1.3	1.1	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	4.4	5.9	7.6	7.5	9.0	10.3	11.6	5.5	1.7	2.5
as % of GDP	12.2	12.9	16.4	16.8	18.5	19.8	20.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Cyprus: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	1	1	1	1	1	1	1	1.7	0.9	0.3
GDP (in 000 M€13)	14	16	18	16	19	21	22	2.8	0.2	1.9
Gross Inland Consumption (ktoe)	2412	2539	2740	2157	2149	2004	1907	1.3	-2.4	-1.2
Solids	33	36	17	0	0	0	0	-6.5	-53.4	-12.4
Oil	2334	2446	2611	1995	1346	1208	1137	1.1	-6.4	-1.7
Natural gas	0	0	0	0	558	517	490	0.0	0.0	-1.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	0	0	0	0	0	0	0	0.0	0.0	-22.4
Renewable energy forms	46	57	112	162	245	279	280	9.4	8.1	1.3
Energy Branch Consumption	54	22	19	17	15	8	7	-9.7	-2.4	-7.4
Non-Energy Uses	86	73	85	38	42	44	44	-0.1	-7.0	0.6
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	44	51	89	137	195	2042	2859	7.2	8.2	30.8
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0
Natural gas	0	0	0	0	0	1810	2623	0.0	0.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	44	51	89	137	195	231	236	7.2	8.2	1.9
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0
Biomass & Waste	9	10	24	28	37	46	47	10.5	4.3	2.4
Wind	0	0	3	21	36	36	40	0.0	29.7	0.9
Solar and others	36	41	61	86	118	144	144	5.6	6.8	2.0
Geothermal	0	0	1	2	4	5	5	0.0	18.6	1.9
Net Imports (ktoe)	2565	2843	2945	2243	2197	228	-667	1.4	-2.9	0.0
Solids	33	43	11	0	0	0	0	-10.4	-51.4	-12.4
Oil	2531	2794	2910	2218	1587	1468	1398	1.4	-5.9	-1.3
Crude oil and Feedstocks	1160	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	1371	2794	2910	2218	1587	1468	1398	7.8	-5.9	-1.3
Natural gas	0	0	0	0	561	-1288	-2108	0.0	0.0	0.0
Electricity	0	0	0	0	0	0	0	0.0	0.0	0.0
Import Dependency (%)	98.6	100.7	100.8	94.3	91.8	10.0	-30.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3370	4376	5322	4573	4933	5171	5022	4.7	-0.8	0.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	3370	4376	5249	4086	435	22	22	4.5	-22.0	-25.7
Gas (including derived gases)	0	0	0	0	3441	3719	3409	0.0	0.0	-0.1
Biomass-waste	0	0	35	45	59	109	133	0.0	5.4	8.4
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0
Wind	0	0	31	248	422	422	462	0.0	29.8	0.9
Solar	0	0	6	195	576	899	996	0.0	58.4	5.6
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	983	1119	1498	1755	1980	2169	2228	4.3	2.8	1.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	0	0	89	292	554	715	773	0.0	20.1	3.4
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0
Wind	0	0	82	158	216	216	229	0.0	10.2	0.6
Solar	0	0	7	135	338	499	544	0.0	47.4	4.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	983	1119	1409	1462	1426	1455	1455	3.7	0.1	0.2
of which cogeneration units	0	5	22	2	2	1	2	0.0	-21.7	1.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0
Gas fired	0	0	0	0	34	514	514	0.0	0.0	31.3
Oil fired	983	1119	1406	1452	1382	930	930	3.6	-0.2	-3.9
Biomass-waste fired	0	0	3	10	10	10	11	0.0	12.7	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	37.2	42.1	38.9	28.5	27.4	26.7	25.3			
Efficiency of gross thermal power generation (%)	32.9	34.9	38.4	48.0	51.9	61.8	60.3			
% of gross electricity from CHP	0.0	0.3	1.0	1.7	1.6	1.0	0.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	1.4	10.6	21.4	27.7	31.7			
Fuel Inputs to Thermal Power Generation (ktoe)	881	1077	1182	741	653	536	508	3.0	-5.8	-2.5
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	881	1077	1178	731	82	0	0	2.9	-23.4	-100.0
Gas (including derived gases)	0	0	0	0	558	516	487	0.0	0.0	-1.3
Biomass & Waste	0	0	4	10	13	20	21	0.0	12.6	4.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1178	0	15	17	41	37	32	-35.4	10.5	-2.5
Refineries	1178	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	15	17	41	36	31	0.0	10.5	-2.6
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	0	0	0	0	0	0	1	0.0	0.0	16.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Cyprus: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	12	14	15	15	18	20	22	1.9	2.3	1.9
Public road transport	1	1	1	1	1	1	1	1.4	0.8	0.2
Private cars and motorcycles	4	5	6	6	7	7	7	4.0	0.9	0.7
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	7	8	7	8	10	12	14	0.5	3.6	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	1	1	1	1	1	1	1	-1.6	0.7	1.3
Heavy goods and light commercial vehicles	1	1	1	1	1	1	1	-1.6	0.7	1.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	860	982	1050	916	962	945	934	2.0	-0.9	-0.3
Public road transport	32	35	37	37	38	37	35	1.5	0.3	-0.6
Private cars and motorcycles	373	444	577	490	483	428	383	4.5	-1.8	-2.3
Heavy goods and light commercial vehicles	173	197	152	125	126	126	127	-1.3	-1.8	0.1
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	282	306	284	263	316	354	389	0.1	1.1	2.1
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	687	785	898	791	836	819	807	2.7	-0.7	-0.4
Freight transport	173	197	152	125	126	126	127	-1.3	-1.8	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.5	1.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.4	1.8	4.2	3.9	3.3			
ENERGY EFFICIENCY										
Primary energy consumption	2326	2466	2655	2118	2108	1960	1864	1.3	-2.3	-1.2
Final Energy Demand	1650	1834	1926	1700	1761	1728	1637	1.6	-0.9	-0.7
by sector										
Industry	445	320	235	202	204	198	191	-6.2	-1.4	-0.7
Energy intensive industries	240	221	171	141	145	145	148	-3.3	-1.7	0.2
Other industrial sectors	205	98	63	61	59	53	43	-11.1	-0.6	-3.2
Residential	211	322	333	323	315	298	258	4.7	-0.5	-2.0
Tertiary	134	209	309	259	279	287	253	8.7	-1.0	-0.9
Transport ⁽⁵⁾	860	983	1050	916	962	945	934	2.0	-0.9	-0.3
by fuel										
Solids	32	36	17	0	0	0	0	-6.4	-53.4	-12.4
Oil	1317	1403	1384	1226	1222	1164	1093	0.5	-1.2	-1.1
Gas	0	0	0	0	0	1	3	0.0	0.0	20.1
Electricity	258	341	420	360	390	417	404	5.0	-0.7	0.4
Heat (from CHP and District Heating)	0	0	0	1	1	1	1	0.0	25.5	-2.4
Renewable energy forms	42	54	105	114	146	145	133	9.6	3.4	-0.9
Other	0	0	0	0	0	1	2	-100.0	0.0	26.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	175	157	151	131	115	97	85	-1.5	-2.6	-3.0
Industry (Energy on Value added, index 2000=100)	100	70	56	57	53	48	43	-5.6	-0.7	-2.1
Residential (Energy on Private Income, index 2000=100)	100	129	114	116	102	88	71	1.3	-1.1	-3.5
Tertiary (Energy on Value added, index 2000=100)	100	133	166	151	142	132	106	5.2	-1.5	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	50	51	53	44	38	33	30	0.5	-3.2	-2.4
Freight transport (toe/Mtkm)	129	135	133	109	104	97	92	0.3	-2.5	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	11.3	10.4	10.3	8.2	7.3	6.8	6.7	-0.9	-3.4	-0.9
of which ETS sectors (2013 scope) GHG emissions		6.0	5.7	4.1	3.5	3.2	3.3		-4.9	-0.5
of which ESD sectors (2013 scope) GHG emissions		4.4	4.5	4.2	3.8	3.6	3.3		-1.8	-1.2
CO ₂ Emissions (energy related)	7.2	8.0	8.1	6.1	5.3	4.8	4.5	1.2	-4.1	-1.6
Power generation/District heating	2.8	3.5	3.8	2.4	1.6	1.2	1.1	2.9	-8.4	-3.1
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.0
Industry	1.4	1.0	0.6	0.6	0.5	0.5	0.4	-7.6	-1.6	-2.5
Residential	0.2	0.5	0.4	0.3	0.3	0.2	0.2	4.7	-2.4	-6.2
Tertiary	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.0	-1.9	-3.9
Transport	2.6	3.0	3.1	2.7	2.8	2.7	2.7	1.8	-1.2	-0.3
CO ₂ Emissions (non energy and non land use related)	0.9	0.9	0.6	0.5	0.6	0.6	0.7	-3.5	-0.5	1.4
Non-CO2 GHG emissions	3.2	1.5	1.6	1.6	1.4	1.4	1.5	-6.9	-1.5	0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	179.4	166.0	163.7	131.1	115.6	108.8	106.0	-0.9	-3.4	-0.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.85	0.80	0.71	0.52	0.32	0.23	0.23	-1.7	-7.7	-3.3
Final energy demand (t of CO ₂ /toe)	2.57	2.45	2.24	2.22	2.14	2.07	2.06	-1.3	-0.5	-0.3
Industry	3.16	3.11	2.70	2.73	2.64	2.48	2.20	-1.6	-0.2	-1.8
Residential	1.11	1.44	1.11	1.04	0.91	0.77	0.59	0.0	-1.9	-4.3
Tertiary	0.00	0.43	0.69	0.73	0.63	0.53	0.47	0.0	-0.9	-3.0
Transport	3.02	3.00	2.95	2.94	2.86	2.87	2.88	-0.2	-0.3	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.9	3.1	5.9	9.1	14.9	17.6	19.4			
RES-H&C share	7.9	10.0	18.2	21.8	24.3	27.3	30.6			
RES-E share	0.0	0.0	1.4	10.6	21.4	27.7	31.7			
RES-T share (based on ILUC formula)	0.0	0.0	2.0	1.3	10.3	11.0	11.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	114	115	154	84	112	109	114	3.1	-3.1	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	132	146	181	204	198	183	189	3.2	0.9	-0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.1	1.9	2.5	2.4	3.0	3.3	3.7	8.1	2.0	1.8
as % of GDP	8.3	12.0	13.7	14.8	16.3	16.0	16.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Czech Republic: EUCO30				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
	Annual % Change										
Population (in million)	10	10	10	11	11	11	11	0.2	0.2	0.1	
GDP (in 000 M€13)	112	137	157	165	181	197	216	3.4	1.4	1.8	
Gross Inland Consumption (ktoe)	41097	45124	44681	41122	40993	40622	36811	0.8	-0.9	-0.5	
Solids	21643	20248	18364	15061	14940	14366	13494	-1.6	-2.0	-1.0	
Oil	7881	9899	9306	8965	8810	8513	8370	1.7	-0.5	-0.5	
Natural gas	7500	7703	8070	7797	7179	7120	6044	0.7	-1.2	-1.7	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Renewable energy forms	1429	1955	2980	3521	3857	4439	4802	7.6	2.6	2.2	
Energy Branch Consumption	1768	1796	2068	1808	1763	1735	1690	1.6	-1.6	-0.4	
Non-Energy Uses	2093	2948	2783	2447	2583	2691	2747	2.9	-0.7	0.6	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30536	32861	31570	27296	27870	28589	27728	0.3	-1.2	-0.1	
Solids	25049	23570	20730	16524	16883	17013	15838	-1.9	-2.0	-0.6	
Oil	386	591	290	223	222	210	190	-2.8	-2.7	-1.6	
Natural gas	169	154	202	191	181	171	160	1.8	-1.1	-1.2	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Renewable energy sources	1426	2142	3101	3560	3786	4396	4742	8.1	2.0	2.3	
Hydro	151	205	240	208	218	211	228	4.7	-0.9	0.4	
Biomass & Waste	1275	1933	2770	3106	3234	3674	3640	8.1	1.6	1.2	
Wind	0	2	29	44	65	184	543	76.2	8.5	23.6	
Solar and others	0	3	62	202	266	324	324	0.0	15.7	2.0	
Geothermal	0	0	0	0	2	3	7	0.0	0.0	13.2	
Net Imports (ktoe)	9414	12641	11447	13826	13123	12033	11083	2.0	1.4	-1.7	
Solids	-4721	-3270	-2968	-1463	-1944	-2647	-2344	-4.5	-4.1	1.9	
Oil	7512	9649	8974	8742	8588	8303	8180	1.8	-0.4	-0.5	
Crude oil and Feedstocks	5596	7730	7837	6115	6049	5907	5855	3.4	-2.6	-0.3	
Oil products	1916	1919	1137	2627	2539	2396	2325	-5.1	8.4	-0.9	
Natural gas	7482	7535	6846	7606	6998	6948	5883	-0.9	0.2	-1.7	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Import Dependency (%)	22.9	28.0	25.6	33.6	32.0	29.6	28.6				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	72911	81931	85319	82069	80218	82860	85373	1.6	-0.6	0.6	
Nuclear energy	13590	24728	27998	27596	27596	27596	27594	7.5	-0.1	0.0	
Solids	52752	49522	47113	41095	42446	40190	37645	-1.1	-1.0	-1.2	
Oil (including refinery gas)	372	326	159	231	0	0	0	-8.1	-100.0	0.0	
Gas (including derived gases)	3907	4215	4121	5853	3561	5415	5083	0.5	-1.5	3.6	
Biomass-waste	531	739	2188	2214	1099	2600	3566	15.2	-6.7	12.5	
Hydro (pumping excluded)	1758	2380	2789	2421	2541	2449	2655	4.7	-0.9	0.4	
Wind	1	21	335	508	759	2142	6310	78.9	8.5	23.6	
Solar	0	0	615	2149	2214	2466	2518	0.0	13.7	1.3	
Geothermal and other renewables	0	0	1	0	2	2	2	0.0	9.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	13990	16314	17995	18816	18573	19526	20788	2.5	0.3	1.1	
Nuclear energy	1958	4006	4006	4006	4006	4006	4006	7.4	0.0	0.0	
Renewable energy	953	1043	2989	3628	3816	4570	6436	12.1	2.5	5.4	
Hydro (pumping excluded)	952	1020	1049	1080	1080	1085	1129	1.0	0.3	0.4	
Wind	1	22	213	282	408	923	2690	70.9	6.7	20.8	
Solar	0	1	1727	2266	2328	2563	2617	0.0	3.0	1.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	11079	11265	11000	11182	10751	10949	10346	-0.1	-0.2	-0.4	
of which cogeneration units	3733	5199	4792	3852	3973	3148	2703	2.5	-1.9	-3.8	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9823	9935	9571	9656	9487	9414	8798	-0.3	-0.1	-0.8	
Gas fired	1097	1110	1176	1220	935	1211	1067	0.7	-2.3	1.3	
Oil fired	140	140	117	134	72	64	64	-1.8	-4.7	-1.2	
Biomass-waste fired	19	80	136	171	258	260	418	21.7	6.6	5.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	55.0	52.9	50.0	46.3	45.8	45.1	43.9				
Efficiency of gross thermal power generation (%)	31.4	30.0	30.3	31.9	32.8	32.1	32.2				
% of gross electricity from CHP	17.9	16.8	14.2	17.4	19.4	15.7	14.0				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	21.8	34.0	39.8	42.5	42.6	45.0	50.0				
Fuel Inputs to Thermal Power Generation (ktoe)	15744	15702	15219	13299	12354	12911	12378	-0.3	-2.1	0.0	
Solids	13945	14025	13445	10677	11109	10898	10367	-0.4	-1.9	-0.7	
Oil (including refinery gas)	311	161	78	59	0	0	0	-12.9	-100.0	0.0	
Gas (including derived gases)	1236	1292	1134	1938	959	1290	1157	-0.9	-1.7	1.9	
Biomass & Waste	253	224	562	626	284	721	852	8.3	-6.6	11.6	
Geothermal heat	0	0	0	0	2	2	2	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	15035	19758	20049	17183	17041	16826	16503	2.9	-1.6	-0.3	
Refineries	6151	8144	8337	6497	6445	6301	6231	3.1	-2.5	-0.3	
Biofuels and hydrogen production	62	3	231	285	594	530	520	14.1	9.9	-1.3	
District heating	975	916	787	650	692	690	565	-2.1	-1.3	-2.0	
Derived gases, cokeries etc.	7846	10696	10693	9751	9311	9305	9186	3.1	-1.4	-0.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Czech Republic, EU CO30			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	103	112	108	113	124	135	146	0.5	1.4	1.6
Public road transport	16	16	17	17	19	20	21	0.5	0.9	1.3
Private cars and motorcycles	67	72	67	68	75	81	86	0.0	1.1	1.4
Rail	15	15	16	18	20	22	24	0.1	2.6	1.9
Aviation ⁽³⁾	5	10	9	9	11	12	14	5.6	2.3	2.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	46	49	48	50	55	59	64	0.3	1.4	1.6
Heavy goods and light commercial vehicles	29	34	34	35	38	41	43	1.7	1.1	1.4
Rail	17	15	14	15	17	19	20	-2.4	2.1	1.9
Inland navigation	0	0	0	0	0	0	0	-7.0	1.1	2.1
Energy demand in transport (ktoe) ⁽⁴⁾	4252	5983	6121	6178	6304	6042	5985	3.7	0.3	-0.5
Public road transport	233	296	379	385	401	408	414	5.0	0.6	0.3
Private cars and motorcycles	2563	3389	3394	3319	3295	2989	2844	2.8	-0.3	-1.5
Heavy goods and light commercial vehicles	1038	1753	1810	1914	1996	1987	2015	5.7	1.0	0.1
Rail	216	197	193	211	235	248	264	-1.1	2.0	1.2
Aviation	197	343	341	345	373	406	443	5.6	0.9	1.7
Inland navigation	5	5	4	4	4	4	5	-2.2	-0.7	1.9
By transport activity										
Passenger transport	3107	4132	4229	4175	4214	3956	3866	3.1	0.0	-0.9
Freight transport	1145	1850	1892	2003	2090	2085	2119	5.1	1.0	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	1.5	0.0	3.8	4.7	9.7	9.2	9.2			
ENERGY EFFICIENCY										
Primary energy consumption	39004	42175	41899	38675	38410	37931	36063	0.7	-0.9	-0.6
Final Energy Demand	24798	26026	24853	24635	25286	24465	22957	0.0	0.2	-1.0
by sector										
Industry	10129	9681	7933	7883	8106	7919	7777	-2.4	0.2	-0.4
Energy intensive industries	6420	6748	5015	5079	5067	4910	4687	-2.4	0.1	-0.8
Other industrial sectors	3709	2934	2919	2804	3039	3008	3090	-2.4	0.4	0.2
Residential	6150	6345	6665	6340	6582	6413	5542	0.8	-0.1	-1.7
Tertiary	4151	3904	3979	4098	4141	3931	3487	-0.4	0.4	-1.7
Transport ⁽⁵⁾	4368	6095	6276	6315	6457	6202	6151	3.7	0.3	-0.5
by fuel										
Solids	5134	3769	2424	2616	2238	1867	1563	-7.2	-0.8	-3.5
Oil	5322	6817	6541	6366	6151	5760	5522	2.1	-0.6	-1.1
Gas	6491	6741	6662	6128	6320	6018	5397	0.3	-0.5	-1.6
Electricity	4246	4754	4919	5012	5280	5490	5640	1.5	0.7	0.7
Heat (from CHP and District Heating)	2624	2478	2249	2102	2277	2356	2147	-1.5	0.1	-0.6
Renewable energy forms	981	1467	2058	2411	3017	2959	2658	7.7	3.9	-1.3
Other	0	0	0	1	2	15	30	-100.0	0.0	30.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	366	329	285	250	227	207	180	-2.5	-2.3	-2.3
Industry (Energy on Value added, index 2000=100)	100	69	44	43	40	37	33	-7.8	-0.9	-2.0
Residential (Energy on Private Income, index 2000=100)	100	87	80	75	70	61	47	-2.2	-1.4	-3.8
Tertiary (Energy on Value added, index 2000=100)	100	82	76	73	67	58	47	-2.7	-1.3	-3.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	35	36	34	31	27	24	2.2	-1.5	-2.5
Freight transport (toe/Mtkm)	25	38	40	40	38	35	33	4.8	-0.4	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	153.1	150.6	140.8	128.6	121.6	117.3	108.9	-0.8	-1.5	-1.1
of which ETS sectors (2013 scope) GHG emissions		87.1	79.4	68.7	65.9	65.3	61.2		-1.9	-0.7
of which ESD sectors (2013 scope) GHG emissions		63.6	61.4	59.9	55.8	52.0	47.7		-1.0	-1.6
CO ₂ Emissions (energy related)	125.7	124.3	114.6	102.9	99.2	95.7	88.9	-0.9	-1.4	-1.1
Power generation/District heating	66.8	66.2	63.2	52.9	51.8	51.7	48.6	-0.6	-2.0	-0.6
Energy Branch	2.6	2.2	3.1	2.7	2.6	2.5	2.4	1.6	-1.8	-0.5
Industry	28.3	24.7	17.5	17.1	15.7	14.4	12.8	-4.7	-1.1	-2.0
Residential	8.8	8.4	8.3	7.8	7.5	6.9	6.1	-0.6	-0.9	-2.2
Tertiary	6.8	4.9	4.9	4.8	4.7	3.8	3.0	-3.3	-0.4	-4.2
Transport	12.4	17.8	17.6	17.6	17.0	16.3	16.0	3.6	-0.4	-0.6
CO ₂ Emissions (non energy and non land use related)	5.6	5.3	4.8	5.2	5.3	5.1	5.0	-1.7	1.1	-0.5
Non-CO2 GHG emissions	21.7	21.1	21.5	20.5	17.1	16.4	14.9	-0.1	-2.3	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	77.5	76.3	71.3	65.1	61.6	59.4	55.1	-0.8	-1.5	-1.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.60	0.55	0.52	0.46	0.45	0.44	0.42	-1.4	-1.4	-0.8
Final energy demand (t of CO ₂ /toe)	2.27	2.15	1.94	1.92	1.78	1.69	1.65	-1.6	-0.9	-0.7
Industry	2.79	2.55	2.21	2.17	1.94	1.82	1.64	-2.3	-1.3	-1.6
Residential	1.43	1.33	1.24	1.24	1.14	1.07	1.09	-1.4	-0.8	-0.5
Tertiary	1.63	1.26	1.22	1.18	1.13	0.97	0.87	-2.9	-0.8	-2.6
Transport	2.85	2.92	2.81	2.79	2.63	2.63	2.60	-0.1	-0.7	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	6.1	9.5	11.9	13.6	15.5	17.8			
RES-H&C share	5.9	9.1	12.6	15.5	17.3	19.4	21.0			
RES-E share	3.4	3.8	7.5	10.3	9.0	12.7	19.4			
RES-T share (based on ILUC formula)	1.8	0.3	4.4	5.5	10.2	10.6	11.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	60	83	83	89	81	2.0	3.3	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	66	83	142	128	132	134	132	7.9	-0.8	0.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	14.7	20.3	28.4	27.5	32.1	35.2	39.1	6.8	1.2	2.0
as % of GDP	13.1	14.8	18.1	16.7	17.7	17.9	18.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Denmark: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (In million)	5	5	6	6	6	6	6	0.4	0.4	0.5
GDP (in 000 M€13)	233	248	247	256	289	321	350	0.6	1.6	1.9
Gross Inland Consumption (ktoe)	19733	19553	20040	16820	16817	15883	15140	0.2	-1.7	-1.0
Solids	3985	3713	3809	1860	1678	898	570	-0.5	-7.9	-10.2
Oil	9101	8063	7568	6738	6246	5741	5213	-1.8	-1.9	-1.8
Natural gas	4465	4413	4435	3680	2642	2458	2160	-0.1	-5.0	-2.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Renewable energy forms	2124	3246	4326	3795	5635	6080	6832	7.4	2.7	1.9
Energy Branch Consumption	1121	1205	1132	911	890	740	615	0.1	-2.4	-3.6
Non-Energy Uses	301	289	263	283	313	339	346	-1.3	1.8	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	27958	30781	22915	15259	15896	13603	11862	-2.0	-3.6	-2.9
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil	18465	18464	12040	8158	7711	6408	4420	-4.2	-4.4	-5.4
Natural gas	7428	9397	7356	4188	3858	2455	1790	-0.1	-6.2	-7.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	2065	2920	3520	2913	4327	4739	5652	5.5	2.1	2.7
Hydro	3	2	2	2	2	2	2	-3.6	0.2	1.1
Biomass & Waste	1688	2335	2825	1819	2823	2998	2880	5.3	0.0	0.2
Wind	365	569	672	1007	1318	1496	2033	6.3	7.0	4.4
Solar and others	8	10	16	80	100	126	177	7.2	19.9	5.9
Geothermal	1	4	5	6	85	117	560	13.8	32.6	20.7
Net Imports (ktoe)	-7370	-10130	-3257	2304	1723	3131	4183	-7.8	0.0	9.3
Solids	3783	3505	2642	1860	1678	898	570	-3.5	-4.4	-10.2
Oil	-8386	-9068	-3586	-676	-670	166	164	-8.1	-15.4	0.0
Crude oil and Feedstocks	-8783	-10933	-5033	-669	-740	67	1551	-5.4	-17.4	0.0
Oil products	397	1865	1447	-7	70	99	63	13.8	-26.1	-1.1
Natural gas	-2882	-5010	-3022	-508	-1208	20	454	0.5	-8.8	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Import Dependency (%)	-35.1	-49.9	-15.7	13.1	9.8	18.7	26.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	36053	36246	38862	26963	30692	30764	35970	0.8	-2.3	1.6
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	16673	15463	17006	6440	5408	2719	1556	0.2	-10.8	-11.7
Oil (including refinery gas)	4439	1375	774	214	7	50	48	-16.0	-37.5	21.2
Gas (including derived gases)	8774	8780	7906	4589	708	1351	1188	-1.0	-21.4	5.3
Biomass-waste	1895	3989	5340	3223	8455	8465	8743	10.9	4.7	0.3
Hydro (pumping excluded)	30	23	21	21	21	21	24	-3.5	0.2	1.1
Wind	4241	6614	7809	11709	15325	17390	23645	6.3	7.0	4.4
Solar	1	2	6	768	768	768	768	17.5	63.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	11787	13021	13419	15207	13634	13235	13699	1.3	0.2	0.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2401	3141	3818	5910	6456	6682	8352	4.7	5.4	2.6
Hydro (pumping excluded)	10	11	9	9	9	9	10	-1.0	0.0	1.1
Wind	2390	3127	3802	5064	5609	5835	7505	4.8	4.0	3.0
Solar	1	3	7	837	838	838	838	21.5	61.4	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	9386	9880	9601	9297	7179	6554	5347	0.2	-2.9	-2.9
of which cogeneration units	5578	5685	5806	7114	6188	5538	4559	0.4	0.6	-3.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5214	5061	4466	4225	2366	2090	1472	-1.5	-6.2	-4.6
Gas fired	1862	2278	2274	2274	1135	1128	788	2.0	-6.7	-3.6
Oil fired	860	860	1017	1017	492	223	217	1.7	-7.0	-7.9
Biomass-waste fired	1449	1681	1844	1781	3186	3113	2870	2.4	5.6	-1.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	33.4	30.2	31.4	19.6	24.7	25.7	29.2			
Efficiency of gross thermal power generation (%)	34.9	35.7	35.3	32.4	33.4	32.7	33.1			
% of gross electricity from CHP	52.6	52.1	49.2	53.6	46.9	39.8	30.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	17.1	29.3	33.9	58.3	80.1	86.6	92.2			
Fuel Inputs to Thermal Power Generation (ktoe)	7834	7127	7624	3838	3759	3305	2999	-0.3	-6.8	-2.2
Solids	3669	3444	3770	1696	1529	803	479	0.3	-8.6	-11.0
Oil (including refinery gas)	1354	346	221	65	2	16	16	-16.6	-39.0	25.9
Gas (including derived gases)	2112	1996	1812	1197	203	357	301	-1.5	-19.7	4.0
Biomass & Waste	699	1341	1821	880	2026	2128	2203	10.0	1.1	0.8
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	9001	8288	8139	8416	8106	7570	7305	-1.0	0.0	-1.0
Refineries	8435	7700	7175	7493	6971	6471	5965	-1.6	-0.3	-1.5
Biofuels and hydrogen production	0	0	27	277	433	364	312	0.0	32.1	-3.2
District heating	549	575	923	644	691	695	977	5.3	-2.9	3.5
Derived gases, cokeries etc.	17	13	13	3	10	39	51	-2.9	-2.2	17.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Denmark: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	75	76	78	83	90	94	99	0.4	1.3	1.0
Public road transport	7	7	7	7	8	8	8	-0.7	0.9	0.6
Private cars and motorcycles	51	51	52	54	58	59	61	0.1	1.1	0.6
Rail	6	6	7	7	8	9	10	1.8	1.7	2.3
Aviation ⁽³⁾	8	9	10	12	13	14	17	2.7	2.5	2.2
Inland navigation	3	3	3	3	3	4	4	-0.7	1.1	1.1
Freight transport activity (Gtkm)	21	22	23	25	29	31	33	0.6	2.3	1.3
Heavy goods and light commercial vehicles	18	18	18	20	23	25	26	0.2	2.5	1.3
Rail	2	2	2	2	3	3	3	1.0	1.6	1.9
Inland navigation	2	2	2	2	3	3	3	3.6	1.0	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4816	5324	5180	5009	4961	4700	4560	0.7	-0.4	-0.8
Public road transport	203	202	199	204	213	214	212	-0.2	0.7	0.0
Private cars and motorcycles	2627	2866	2828	2599	2396	2089	1950	0.7	-1.6	-2.0
Heavy goods and light commercial vehicles	864	1003	1011	971	1059	1070	1058	1.6	0.5	0.0
Rail	103	107	113	118	125	132	137	0.9	1.0	0.9
Aviation	856	955	874	960	997	1014	1017	0.2	1.3	0.2
Inland navigation	163	192	156	158	171	180	186	-0.4	0.9	0.8
By transport activity										
Passenger transport	3874	4197	4049	3915	3771	3493	3362	0.4	-0.7	-1.1
Freight transport	942	1128	1132	1094	1190	1206	1198	1.9	0.5	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	5.6	9.0	8.7	8.1			
ENERGY EFFICIENCY										
Primary energy consumption	19432	19264	19777	16536	16504	15544	14795	0.2	-1.8	-1.1
Final Energy Demand	14717	15497	15606	14800	14752	14187	13080	0.6	-0.6	-1.2
by sector										
Industry	2934	2864	2417	2568	2704	2629	2510	-1.9	1.1	-0.7
Energy intensive industries	1156	1107	849	908	933	852	778	-3.0	1.0	-1.8
Other industrial sectors	1778	1757	1569	1659	1771	1776	1731	-1.2	1.2	-0.2
Residential	4162	4453	4916	4345	4188	4069	3499	1.7	-1.6	-1.8
Tertiary	2805	2856	3094	2879	2900	2789	2511	1.0	-0.6	-1.4
Transport ⁽⁵⁾	4816	5324	5179	5009	4961	4700	4560	0.7	-0.4	-0.8
by fuel										
Solids	290	253	166	163	150	95	88	-5.4	-1.0	-5.1
Oil	7058	7293	6759	6083	5655	5137	4626	-0.4	-1.8	-2.0
Gas	1667	1708	1771	1744	1824	1678	1518	0.6	0.3	-1.8
Electricity	2791	2877	2783	2733	2836	2917	3075	0.0	0.2	0.8
Heat (from CHP and District Heating)	2255	2424	2840	2556	2494	2457	2041	2.3	-1.3	-2.0
Renewable energy forms	656	943	1287	1519	1783	1862	1676	7.0	3.3	-0.6
Other	0	0	0	3	10	40	56	-100.0	0.0	18.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	85	79	81	66	58	49	43	-0.4	-3.3	-2.9
Industry (Energy on Value added, index 2000=100)	100	101	91	94	90	80	71	-0.9	-0.1	-2.4
Residential (Energy on Private Income, index 2000=100)	100	96	102	84	71	62	48	0.2	-3.5	-3.8
Tertiary (Energy on Value added, index 2000=100)	100	96	101	91	80	69	57	0.1	-2.3	-3.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	44	46	43	39	34	30	27	-0.4	-2.2	-2.4
Freight transport (toe/Mtkm)	44	51	50	44	42	39	37	1.3	-1.7	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.7	66.3	63.9	50.5	45.7	40.0	35.8	-1.1	-3.3	-2.4
of which ETS sectors (2013 scope) GHG emissions		29.3	27.9	18.0	14.6	11.3	9.2		-6.3	-4.5
of which ESD sectors (2013 scope) GHG emissions		37.0	36.0	32.5	31.1	28.8	26.6		-1.5	-1.5
CO ₂ Emissions (energy related)	53.3	50.0	48.8	35.8	31.1	25.8	22.1	-0.9	-4.4	-3.3
Power generation/District heating	24.5	20.3	21.2	10.6	7.1	4.4	2.9	-1.4	-10.4	-8.5
Energy Branch	2.2	2.3	2.1	1.9	1.7	1.4	1.1	-0.5	-2.1	-4.3
Industry	5.4	5.1	3.9	4.1	4.1	3.5	2.7	-3.2	0.4	-4.2
Residential	3.9	3.6	3.2	2.6	2.2	2.0	1.6	-2.0	-3.7	-3.4
Tertiary	3.0	2.7	2.9	2.5	2.4	1.8	1.5	-0.3	-1.8	-4.6
Transport	14.3	15.9	15.5	14.2	13.5	12.8	12.3	0.8	-1.3	-0.9
CO ₂ Emissions (non energy and non land use related)	2.6	2.3	1.4	1.4	1.5	1.4	1.4	-6.1	1.0	-1.0
Non-CO2 GHG emissions	15.8	14.0	13.7	13.3	13.1	12.7	12.3	-1.4	-0.4	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.2	91.8	88.4	69.8	63.2	55.4	49.6	-1.1	-3.3	-2.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.36	0.28	0.26	0.17	0.11	0.07	0.05	-3.0	-8.3	-8.2
Final energy demand (t of CO ₂ /toe)	1.81	1.76	1.63	1.58	1.51	1.42	1.38	-1.0	-0.8	-0.9
Industry	1.85	1.79	1.63	1.58	1.52	1.31	1.07	-1.3	-0.7	-3.5
Residential	0.95	0.80	0.66	0.59	0.53	0.50	0.45	-3.6	-2.1	-1.7
Tertiary	1.05	0.95	0.93	0.88	0.83	0.66	0.60	-1.2	-1.2	-3.2
Transport	2.97	2.99	2.99	2.83	2.72	2.72	2.71	0.0	-0.9	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	10.5	15.6	22.0	23.9	33.9	39.5	44.5			
RES-H&C share	15.3	22.2	30.8	28.2	36.9	45.2	48.3			
RES-E share	15.0	25.0	33.1	42.0	62.7	66.5	80.8			
RES-T share (based on ILUC formula)	0.3	0.5	1.3	8.0	13.1	16.0	22.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	87	89	108	108	112	100	1.8	1.9	-0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	169	178	195	186	207	211	213	1.4	0.6	0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	18.3	21.9	23.2	20.9	25.6	28.1	31.4	2.4	1.0	2.1
as % of GDP	7.9	8.8	9.4	8.2	8.8	8.7	9.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Estonia: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	1	1	1	1	1	1	1	-0.5	-0.4	-0.5		
GDP (in 000 ME13)	11	15	15	18	20	22	24	3.6	3.0	1.6		
Gross Inland Consumption (ktoe)	4979	5622	6155	6344	6427	6261	5484	2.1	0.4	-1.6		
Solids	2968	3190	3917	3589	3673	3592	2875	2.8	-0.6	-2.4		
Oil	916	1182	1109	1065	975	891	833	1.9	-1.3	-1.6		
Natural gas	662	800	563	796	854	805	566	-1.6	4.3	-4.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0		
Renewable energy forms	513	589	847	995	1039	1070	1140	5.1	2.1	0.9		
Energy Branch Consumption	163	193	199	190	186	178	147	2.0	-0.7	-2.3		
Non-Energy Uses	180	229	90	280	295	305	309	-6.7	12.6	0.4		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	3435	4250	5467	5368	5400	5314	4618	4.8	-0.1	-1.6		
Solids	2669	3176	3943	3594	3674	3602	2883	4.0	-0.7	-2.4		
Oil	249	375	532	681	649	588	531	7.9	2.0	-2.0		
Natural gas	5	7	5	0	0	0	0	-1.7	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	512	692	988	1093	1077	1124	1204	6.8	0.9	1.1		
Hydro	0	2	2	3	3	3	3	19.1	2.1	0.0		
Biomass & Waste	512	686	962	1040	1015	1058	1090	6.5	0.5	0.7		
Wind	0	5	24	49	57	59	105	0.0	9.2	6.3		
Solar and others	0	0	0	0	2	3	6	0.0	0.0	13.2		
Geothermal	0	0	0	0	0	0	1	0.0	0.0	20.0		
Net Imports (ktoe)	1628	1489	862	1219	1262	1182	1103	-6.2	3.9	-1.3		
Solids	270	23	-22	-5	-2	-10	-8	0.0	-22.5	16.6		
Oil	786	917	760	625	555	525	506	-0.3	-3.1	-0.9		
Crude oil and Feedstocks	-125	-225	-394	-560	-524	-466	-413	12.2	2.9	-2.3		
Oil products	911	1142	1153	1185	1079	991	920	2.4	-0.7	-1.6		
Natural gas	657	792	558	796	861	818	599	-1.6	4.4	-3.6		
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0		
Import Dependency (%)	32.0	25.9	13.5	18.5	18.9	18.2	19.3					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	8513	10205	12964	10765	11312	11330	9351	4.3	-1.4	-1.9		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	7682	9302	11167	8608	9080	9057	6643	3.8	-2.0	-3.1		
Oil (including refinery gas)	56	32	41	0	0	0	0	-3.1	-100.0	0.0		
Gas (including derived gases)	757	760	712	689	658	628	516	-0.6	-0.8	-2.4		
Biomass-waste	13	35	740	859	873	921	933	49.8	1.7	0.7		
Hydro (pumping excluded)	5	22	27	33	33	33	33	18.4	2.0	0.0		
Wind	0	54	277	575	668	691	1226	0.0	9.2	6.3		
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	2912	2684	2827	2689	2275	2283	2471	-0.3	-2.1	0.8		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	2	36	114	312	343	355	521	49.8	11.6	4.3		
Hydro (pumping excluded)	2	5	6	8	8	8	8	11.6	2.9	0.0		
Wind	0	31	108	303	334	346	512	0.0	12.0	4.4		
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	2910	2648	2713	2377	1932	1928	1950	-0.7	-3.3	0.1		
of which cogeneration units	452	1604	447	438	266	254	452	-0.1	-5.1	5.4		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	2684	2411	2430	1871	1413	1413	1413	-1.0	-5.3	0.0		
Gas fired	218	224	224	362	372	364	383	0.3	5.2	0.3		
Oil fired	8	8	8	0	0	0	0	0.0	-100.0	0.0		
Biomass-waste fired	0	5	51	144	148	151	154	0.0	11.2	0.4		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	29.8	38.8	47.4	40.9	51.2	51.2	39.4					
Efficiency of gross thermal power generation (%)	30.0	33.5	34.9	34.3	34.3	33.9	33.7					
% of gross electricity from CHP	11.0	10.2	10.3	12.7	11.1	9.4	10.8					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.2	1.1	8.1	13.6	13.9	14.5	23.4					
Fuel Inputs to Thermal Power Generation (ktoe)	2442	2600	3115	2543	2661	2693	2065	2.5	-1.6	-2.5		
Solids	2199	2353	2715	2171	2287	2308	1692	2.1	-1.7	-3.0		
Oil (including refinery gas)	16	10	12	0	0	0	0	-3.0	-100.0	0.0		
Gas (including derived gases)	226	227	209	168	166	166	150	-0.8	-2.3	-1.0		
Biomass & Waste	2	10	179	205	208	218	222	55.3	1.5	0.6		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	926	1271	1523	1753	1789	1670	1503	5.1	1.6	-1.7		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	0	10	65	54	45	0.0	0.0	-3.6		
District heating	454	489	446	418	434	418	354	-0.2	-0.3	-2.0		
Derived gases, cokeries etc.	473	782	1077	1325	1290	1198	1105	8.6	1.8	-1.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Estonia: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	10	14	14	15	16	16	17	2.8	1.6	0.8
Public road transport	3	3	2	2	2	2	3	-2.4	1.5	0.5
Private cars and motorcycles	7	10	10	11	12	12	12	4.3	1.4	0.5
Rail	0	0	0	0	0	1	1	-1.3	3.0	2.6
Aviation ⁽³⁾	0	1	1	1	1	1	1	12.3	4.1	3.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.3	1.2
Freight transport activity (Gtkm)	10	13	9	10	11	12	14	-1.1	2.2	2.1
Heavy goods and light commercial vehicles	2	3	2	3	3	3	3	1.9	3.1	1.3
Rail	8	11	7	7	8	9	10	-2.0	1.9	2.4
Inland navigation	0	0	0	0	0	0	0	-6.9	1.0	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	580	766	781	811	794	732	700	3.0	0.2	-1.2
Public road transport	62	62	67	74	76	76	74	0.7	1.3	-0.2
Private cars and motorcycles	349	475	499	524	483	408	364	3.6	-0.3	-2.8
Heavy goods and light commercial vehicles	95	135	116	132	139	142	145	2.0	1.9	0.4
Rail	46	44	54	33	39	41	45	1.7	-3.2	1.5
Aviation	21	42	38	42	50	58	66	6.4	2.8	2.7
Inland navigation	7	8	8	6	7	7	7	1.2	-1.7	0.9
By transport activity										
Passenger transport	441	589	614	647	618	551	513	3.4	0.1	-1.8
Freight transport	138	178	167	164	176	181	188	1.9	0.5	0.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.0	1.3	8.2	7.8	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	4799	5394	6065	6064	6132	5956	5176	2.4	0.1	-1.7
Final Energy Demand	2434	2877	2907	3036	3090	3000	2781	1.8	0.6	-1.0
by sector										
Industry	571	718	575	713	744	740	714	0.1	2.6	-0.4
Energy intensive industries	245	273	231	294	305	302	288	-0.6	2.8	-0.6
Other industrial sectors	327	446	343	419	440	438	427	0.5	2.5	-0.3
Residential	929	890	1028	963	989	980	866	1.0	-0.4	-1.3
Tertiary	348	495	520	544	557	542	493	4.1	0.7	-1.2
Transport ⁽⁵⁾	586	774	785	816	800	738	707	3.0	0.2	-1.2
by fuel										
Solids	118	118	83	64	56	46	37	-3.4	-3.8	-4.2
Oil	772	982	941	966	860	763	698	2.0	-0.9	-2.1
Gas	177	263	207	286	328	323	247	1.6	4.7	-2.8
Electricity	431	519	594	614	653	678	697	3.3	0.9	0.7
Heat (from CHP and District Heating)	511	547	531	484	512	504	463	0.4	-0.4	-1.0
Renewable energy forms	425	447	550	622	680	683	633	2.6	2.1	-0.7
Other	0	0	0	0	0	3	7	-100.0	0.0	38.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	465	372	405	346	314	282	228	-1.4	-2.5	-3.1
Industry (Energy on Value added, index 2000=100)	100	84	67	69	66	61	55	-4.0	-0.2	-1.7
Residential (Energy on Private Income, index 2000=100)	100	63	74	58	52	47	38	-2.9	-3.4	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	104	108	93	85	75	63	0.8	-2.4	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	44	41	37	32	28	0.3	-1.7	-2.7
Freight transport (toe/Mtkm)	14	13	19	17	16	15	14	3.1	-1.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	17.0	18.2	18.8	16.5	16.7	16.3	12.7	1.0	-1.2	-2.7
of which ETS sectors (2013 scope) GHG emissions		13.0	13.8	11.3	11.9	11.9	8.8		-1.4	-3.0
of which ESD sectors (2013 scope) GHG emissions		5.1	5.0	5.1	4.7	4.4	3.9		-0.6	-1.9
CO ₂ Emissions (energy related)	14.0	15.5	16.4	14.1	14.4	14.1	10.7	1.6	-1.3	-2.9
Power generation/District heating	10.7	11.3	12.7	10.1	10.6	10.7	7.7	1.7	-1.7	-3.1
Energy Branch	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.5	3.0	-2.2
Industry	0.9	1.0	0.8	0.8	0.7	0.7	0.5	-1.8	-0.1	-4.5
Residential	0.3	0.2	0.2	0.2	0.2	0.2	0.2	-4.2	0.5	-2.6
Tertiary	0.3	0.5	0.4	0.5	0.5	0.4	0.3	2.1	1.9	-3.9
Transport	1.7	2.3	2.3	2.4	2.2	2.0	1.9	3.1	-0.6	-1.4
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.4	0.5	0.5	0.4	0.4	-6.0	3.0	-1.5
Non-CO2 GHG emissions	2.3	1.9	2.0	1.9	1.8	1.8	1.6	-1.4	-1.0	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	42.2	45.2	46.7	41.0	41.5	40.5	31.6	1.0	-1.2	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.67	0.64	0.63	0.59	0.59	0.60	0.51	-0.6	-0.6	-1.5
Final energy demand (t of CO ₂ /toe)	1.33	1.42	1.27	1.28	1.17	1.09	1.03	-0.5	-0.8	-1.3
Industry	1.58	1.43	1.31	1.07	1.01	0.93	0.66	-1.8	-2.6	-4.1
Residential	0.32	0.26	0.19	0.20	0.20	0.18	0.18	-5.2	0.9	-1.4
Tertiary	0.91	1.05	0.75	0.92	0.84	0.70	0.64	-2.0	1.2	-2.7
Transport	2.96	2.98	2.99	2.96	2.75	2.74	2.71	0.1	-0.8	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	17.9	17.4	24.6	24.2	25.9	27.0	31.2			
RES-H&C share	31.8	32.2	43.2	39.9	38.8	40.8	47.5			
RES-E share	0.2	1.1	10.4	14.4	14.9	15.3	20.8			
RES-T share (based on ILUC formula)	0.0	0.0	0.2	0.2	10.0	10.4	11.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	43	47	65	66	73	83	1.0	3.5	2.4
Average Price of Electricity in Final demand sectors (€13/MWh)	59	63	80	109	124	137	136	3.2	4.5	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.3	2.0	2.9	3.7	4.4	4.8	5.2	8.6	4.1	1.8
as % of GDP	12.0	13.5	19.3	20.0	21.4	21.6	21.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Finland: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	5	5	5	5	6	6	6	0.3	0.5	0.5
GDP (in 000 M€13)	157	179	187	188	199	210	226	1.7	0.6	1.3
Gross Inland Consumption (ktoe)	32531	34529	37124	33972	35222	34722	32037	1.3	-0.5	-0.9
Solids	5131	4936	6874	4106	4601	4182	3125	3.0	-3.9	-3.8
Oil	9342	10335	10121	9288	8368	7410	6349	0.8	-1.9	-2.7
Natural gas	3422	3598	3838	2821	2678	2837	2695	1.2	-3.5	0.1
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8
Renewable energy forms	7816	8195	9508	10767	10552	12077	13139	2.0	1.0	2.2
Energy Branch Consumption	1168	1209	1529	1577	1540	1348	1278	2.7	0.1	-1.8
Non-Energy Uses	1040	1155	1229	1157	1191	1240	1243	1.7	-0.3	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	14892	16669	17662	18108	20960	22589	21766	1.7	1.7	0.4
Solids	1088	2136	1803	1007	1111	1271	1296	5.2	-4.7	1.5
Oil	189	257	389	433	393	353	311	7.5	0.1	-2.3
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7
Renewable energy sources	7816	8273	9589	10905	10722	12231	13495	2.1	1.1	2.3
Hydro	1261	1185	1111	1350	1215	1268	1308	-1.3	0.9	0.7
Biomass & Waste	6549	7072	8451	9354	9030	10025	11207	2.6	0.7	2.2
Wind	7	15	25	198	464	913	944	14.2	33.8	7.4
Solar and others	1	1	1	2	13	23	32	10.0	26.4	8.9
Geothermal	0	0	0	0	0	1	5	0.0	0.0	40.3
Net Imports (ktoe)	18337	18979	17869	16077	14469	12332	10467	-0.3	-2.1	-3.2
Solids	3537	3341	3977	3099	3490	2911	1830	1.2	-1.3	-6.3
Oil	10357	10655	9232	9068	8178	7247	6213	-1.1	-1.2	-2.7
Crude oil and Feedstocks	11964	10713	11206	13148	11843	10664	9475	-0.7	0.6	-2.2
Oil products	-1607	-58	-1974	-4080	-3666	-3417	-3262	2.1	6.4	-1.2
Natural gas	3422	3598	3838	2821	2682	2845	2715	1.2	-3.5	0.1
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8
Import Dependency (%)	55.2	54.2	47.9	47.0	40.8	35.3	32.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	69934	70538	80591	71479	84073	98237	93438	1.4	0.4	1.1
Nuclear energy	22479	23271	22800	23137	36999	37079	28850	0.1	5.0	-2.5
Solids	12452	10998	20826	8559	11126	11979	8764	5.3	-6.1	-2.4
Oil (including refinery gas)	587	500	484	635	38	263	131	-1.9	-22.4	13.1
Gas (including derived gases)	10816	11921	11847	7771	6539	8927	8371	0.9	-5.8	2.5
Biomass-waste	8860	9891	11413	13361	9849	14613	21127	2.6	-1.5	7.9
Hydro (pumping excluded)	14660	13784	12922	15702	14123	14747	15209	-1.3	0.9	0.7
Wind	78	170	294	2307	5392	10621	10973	14.2	33.8	7.4
Solar	1	2	5	7	6	6	14	14.9	2.0	9.7
Geothermal and other renewables	1	1	0	0	0	0	0	-8.4	-96.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	16012	16586	16691	18173	19609	20651	19587	0.4	1.6	0.0
Nuclear energy	2726	2726	2726	2726	4378	4378	3398	0.0	4.8	-2.5
Renewable energy	2923	3121	3359	4289	5628	7390	7640	1.4	5.3	3.1
Hydro (pumping excluded)	2882	3035	3155	3276	3276	3371	3481	0.9	0.4	0.6
Wind	38	82	197	1001	2343	4010	4140	17.9	28.1	5.9
Solar	3	4	7	12	9	9	19	8.8	2.5	7.8
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	10363	10739	10605	11158	9604	8883	8548	0.2	-1.0	-1.2
of which cogeneration units	8280	5832	6168	6361	5443	5391	4837	-2.9	-1.2	-1.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4676	4633	4532	4340	3303	2308	1763	-0.3	-3.1	-6.1
Gas fired	2570	2481	2703	2698	2822	3110	2915	0.5	0.4	0.3
Oil fired	1519	1505	1194	1532	643	629	609	-2.4	-6.0	-0.5
Biomass-waste fired	1597	2120	2176	2589	2836	2836	3260	3.1	2.7	1.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.9	46.7	52.8	43.2	47.0	52.2	52.2			
Efficiency of gross thermal power generation (%)	39.3	36.8	36.6	34.5	34.4	35.0	36.7			
% of gross electricity from CHP	36.4	38.9	36.2	33.7	26.8	28.8	28.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	65.9	66.8	58.9	76.3	78.9	78.4	81.5			
Fuel Inputs to Thermal Power Generation (ktoe)	7166	7782	10460	7561	6888	8792	9008	3.9	-4.1	2.7
Solids	3181	2998	5098	2421	2886	2914	2041	4.8	-5.5	-3.4
Oil (including refinery gas)	122	98	99	168	12	65	32	-2.1	-18.8	9.9
Gas (including derived gases)	2119	2385	2516	1493	1280	1551	1442	1.7	-6.5	1.2
Biomass & Waste	1744	2302	2747	3480	2710	4263	5494	4.6	-0.1	7.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	21306	21544	23155	24530	26247	24165	20122	0.8	1.3	-2.6
Refineries	13059	12876	14265	15688	14227	12775	11261	0.9	0.0	-2.3
Biofuels and hydrogen production	0	0	140	334	373	339	321	0.0	10.3	-1.5
District heating	1059	1265	1600	1434	1502	1243	980	4.2	-0.6	-4.2
Derived gases, cokeries etc.	7188	7403	7149	7074	10144	9809	7559	-0.1	3.6	-2.9

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Finland: EU CO2		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	80	87	91	94	97	100	104	1.2	0.7	0.7
Public road transport	8	8	8	8	8	8	8	-0.2	0.3	0.3
Private cars and motorcycles	57	63	66	68	69	70	71	1.5	0.4	0.4
Rail	4	4	4	5	5	6	6	1.4	1.5	1.5
Aviation ⁽¹⁾	8	9	9	10	12	13	14	1.2	3.0	2.2
Inland navigation	4	4	4	4	4	4	4	-0.6	0.6	0.6
Freight transport activity (Gtkm)	42	42	42	43	46	49	53	-0.2	1.0	1.4
Heavy goods and light commercial vehicles	29	30	27	28	30	31	33	-0.5	0.8	1.2
Rail	10	10	10	10	11	12	13	-0.4	1.4	1.8
Inland navigation	3	3	5	5	5	5	6	3.0	0.8	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	4338	4624	4827	4896	4735	4448	4221	1.1	-0.2	-1.1
Public road transport	120	116	121	121	121	119	116	0.1	0.0	-0.4
Private cars and motorcycles	2334	2542	2693	2631	2399	2102	1904	1.4	-1.1	-2.3
Heavy goods and light commercial vehicles	1158	1186	1129	1145	1163	1144	1152	-0.3	0.3	-0.1
Rail	90	92	90	94	101	106	110	0.0	1.2	0.9
Aviation	469	526	619	746	785	807	762	2.8	2.4	-0.3
Inland navigation	167	163	175	159	166	172	178	0.5	-0.6	0.7
By transport activity										
Passenger transport	3086	3310	3549	3604	3416	3142	2898	1.4	-0.4	-1.6
Freight transport	1251	1314	1278	1292	1319	1307	1323	0.2	0.3	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.1	2.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.9	7.0	8.2	8.3	8.5			
ENERGY EFFICIENCY										
Primary energy consumption	31491	33375	35896	32815	34031	33481	30794	1.3	-0.5	-1.0
Final Energy Demand	24510	25239	26243	24732	24675	23046	21424	0.7	-0.6	-1.4
by sector										
Industry	12313	11922	11428	10647	10724	9889	9511	-0.7	-0.6	-1.2
Energy intensive industries	10172	9616	9017	8347	8390	7520	7138	-1.2	-0.7	-1.6
Other industrial sectors	2141	2306	2412	2299	2334	2370	2373	1.2	-0.3	0.2
Residential	4544	5053	5804	5338	5406	5006	4354	2.5	-0.7	-2.1
Tertiary	3296	3616	4169	3837	3797	3688	3325	2.4	-0.9	-1.3
Transport ⁽⁵⁾	4356	4648	4842	4910	4749	4462	4235	1.1	-0.2	-1.1
by fuel										
Solids	1109	873	843	702	691	638	494	-2.7	-2.0	-3.3
Oil	7850	8102	7619	7073	6494	5497	4545	-0.3	-1.6	-3.5
Gas	1209	1082	1012	981	984	1050	1273	-1.8	-0.3	2.6
Electricity	6507	6942	7178	6788	6893	7255	7410	1.0	-0.4	0.7
Heat (from CHP and District Heating)	3334	3972	4656	4143	4249	3824	3140	3.4	-0.9	-3.0
Renewable energy forms	4501	4268	4935	5042	5356	4759	4528	0.9	0.8	-1.7
Other	0	0	0	3	7	23	33	0.0	1586.2	17.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	207	193	199	181	177	165	142	-0.4	-1.2	-2.2
Industry (Energy on Value added, index 2000=100)	100	81	79	75	73	65	59	-2.3	-0.8	-2.1
Residential (Energy on Private Income, index 2000=100)	100	94	98	86	82	72	58	-0.2	-1.8	-3.4
Tertiary (Energy on Value added, index 2000=100)	100	100	110	100	92	84	71	0.9	-1.7	-2.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	36	36	34	32	29	26	23	-0.6	-1.5	-2.5
Freight transport (toe/Mtkm)	30	31	31	30	29	27	25	0.4	-0.6	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	73.1	71.5	78.2	61.1	58.7	53.5	45.3	0.7	-2.8	-2.6
of which ETS sectors (2013 scope) GHG emissions		37.2	43.9	30.8	31.5	29.4	23.4		-3.2	-3.0
of which ESD sectors (2013 scope) GHG emissions		34.3	34.3	30.3	27.2	24.0	22.0		-2.3	-2.1
CO2 Emissions (energy related)	58.1	57.7	65.3	48.5	47.5	42.7	34.9	1.2	-3.1	-3.0
Power generation/District heating	22.5	23.0	32.3	17.5	18.7	18.2	13.7	3.7	-5.3	-3.0
Energy Branch	2.5	2.5	2.8	3.1	2.8	2.1	1.9	1.2	0.0	-3.7
Industry	14.2	12.7	11.0	10.1	9.5	7.8	6.5	-2.5	-1.5	-3.7
Residential	2.4	2.3	1.8	1.4	1.3	1.0	0.5	-2.6	-3.5	-8.9
Tertiary	3.6	3.5	3.4	2.8	2.4	1.4	1.0	-0.6	-3.6	-8.5
Transport	12.9	13.8	14.0	13.6	13.0	12.1	11.3	0.8	-0.8	-1.4
CO2 Emissions (non energy and non land use related)	1.5	1.6	2.2	2.3	2.2	2.2	2.0	3.8	0.3	-0.9
Non-CO2 GHG emissions	13.6	12.2	10.8	10.3	9.0	8.6	8.4	-2.3	-1.8	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	101.1	98.9	108.1	84.4	81.2	73.9	62.6	0.7	-2.8	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.20	0.19	0.23	0.14	0.14	0.12	0.10	1.4	-5.3	-2.7
Final energy demand (t of CO2/toe)	1.35	1.28	1.15	1.13	1.06	0.97	0.90	-1.6	-0.8	-1.6
Industry	1.15	1.06	0.96	0.95	0.88	0.79	0.69	-1.8	-0.8	-2.5
Residential	0.52	0.45	0.32	0.26	0.24	0.20	0.12	-5.0	-2.8	-6.9
Tertiary	1.09	0.97	0.81	0.74	0.62	0.38	0.29	-2.9	-2.7	-7.2
Transport	2.97	2.97	2.89	2.77	2.73	2.70	2.66	-0.3	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	28.7	28.8	32.5	41.1	42.1	46.2	51.2			
RES-H&C share	38.2	39.1	44.4	55.2	58.0	61.3	67.8			
RES-E share	27.3	26.9	27.7	36.2	33.2	43.0	49.9			
RES-T share (based on ILUC formula)	0.8	0.9	4.3	16.3	18.9	22.3	26.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	52	55	59	95	92	88	94	1.4	4.5	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	68	80	98	122	132	139	142	3.7	3.0	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.9	20.3	25.8	27.4	32.7	35.1	38.5	4.4	2.4	1.6
as % of GDP	10.7	11.3	13.8	14.6	16.4	16.7	17.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								France: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	57	60	61	63	64	66	67	0.7	0.5	0.4
GDP (in 000 M€13)	1812	1962	2024	2091	2266	2417	2594	1.1	1.1	1.4
Gross Inland Consumption (ktoe)	257565	276646	267546	255764	248981	234571	219179	0.4	-0.7	-1.3
Solids	15048	14303	12076	8763	8537	5883	5064	-2.2	-3.4	-5.1
Oil	88937	93185	82668	79806	75201	69861	64245	-0.7	-0.9	-1.6
Natural gas	35766	41025	42540	38807	35954	32359	27422	1.7	-1.7	-2.7
Nuclear	107093	116474	110539	109294	97019	94378	94378	0.3	-1.3	-0.3
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3
Renewable energy forms	16695	16847	22365	24473	37965	37777	33615	3.0	5.4	-1.2
Energy Branch Consumption	10822	9989	9635	8309	7414	6643	6232	-1.2	-2.6	-1.7
Non-Energy Uses	16851	16704	14290	14232	14666	14892	14848	-1.6	0.3	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	129790	136271	135095	135170	136034	132974	128722	0.4	0.1	-0.6
Solids	2483	383	162	143	0	0	0	-23.9	-100.0	0.0
Oil	2023	1604	1542	1217	1122	957	902	-2.7	-3.1	-2.2
Natural gas	1505	909	646	304	294	283	272	-8.1	-7.6	-0.8
Nuclear	107093	116474	110539	109294	97019	94378	94378	0.3	-1.3	-0.3
Renewable energy sources	16688	16902	22206	24212	37599	37356	33169	2.9	5.4	-1.2
Hydro	5771	4442	5364	5476	5753	5515	5516	-0.7	0.7	-0.4
Biomass & Waste	10763	12159	15690	15780	23697	21408	16738	3.8	4.2	-3.4
Wind	7	83	855	1850	4741	5620	5627	62.6	18.7	1.7
Solar and others	21	26	118	870	3082	4429	4829	18.7	38.6	4.6
Geothermal	126	192	180	236	325	385	460	3.6	6.1	3.5
Net Imports (ktoe)	134082	144103	132149	123217	115698	104462	93425	-0.1	-1.3	-2.1
Solids	13005	13511	12192	8620	8537	5883	5064	-0.6	-3.5	-5.1
Oil	91265	95114	82886	81211	76776	71644	65971	-1.0	-0.8	-1.5
Crude oil and Feedstocks	85329	85302	65254	46552	45751	43972	41812	-2.6	-3.5	-0.9
Oil products	5936	9813	17632	34659	31024	27672	24159	11.5	5.8	-2.5
Natural gas	35779	40720	39553	38504	35714	32202	27489	1.0	-1.0	-2.6
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3
Import Dependency (%)	51.5	51.6	49.0	47.7	46.0	44.0	42.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	535965	571353	563931	584203	597270	595695	585639	0.5	0.6	-0.2
Nuclear energy	415162	451529	428521	444338	396167	385196	385062	0.3	-0.8	-0.3
Solids	27004	27515	23359	8820	9109	414	0	-1.4	-9.0	-100.0
Oil (including refinery gas)	7165	7925	5565	516	0	337	324	-2.5	-100.0	0.0
Gas (including derived gases)	15365	26254	26385	25753	23465	16004	5439	5.6	-1.2	-13.6
Biomass-waste	3559	5016	6675	10512	14131	19578	17933	6.5	7.8	2.4
Hydro (pumping excluded)	67121	51658	62388	63671	66898	64123	64140	-0.7	0.7	-0.4
Wind	77	964	9942	21517	55129	65350	65426	62.6	18.7	1.7
Solar	5	10	620	8601	31589	43495	45309	63.1	48.2	3.7
Geothermal and other renewables	507	482	476	474	782	1198	2008	-0.6	5.1	9.9
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	114543	114015	123033	127555	148953	154203	154525	0.7	1.9	0.4
Nuclear energy	64293	64053	63679	63247	61327	59493	59493	-0.1	-0.4	-0.3
Renewable energy	23570	24601	32099	40333	66684	76839	78053	3.1	7.6	1.6
Hydro (pumping excluded)	23266	23571	23779	23635	23635	23635	23635	0.2	-0.1	0.0
Wind	57	777	7050	10358	22130	25130	25150	61.9	12.1	1.3
Solar	7	13	1030	6100	20535	27504	28354	64.7	34.9	3.3
Other renewables (tidal etc.)	240	240	240	240	384	571	914	0.0	4.8	9.1
Thermal power	26680	25361	27256	23974	20942	17871	16979	0.2	-2.6	-2.1
of which cogeneration units	7013	5779	4606	10620	5925	4272	3450	-4.1	2.5	-5.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	10552	8637	7229	5385	3856	3834	3780	-3.7	-6.1	-0.2
Gas fired	4116	6055	9334	9646	9181	8963	8261	8.5	-0.2	-1.1
Oil fired	11328	9794	9643	7693	5008	1849	1701	-1.6	-6.3	-10.2
Biomass-waste fired	684	876	1049	1249	2894	3221	3233	4.4	10.7	1.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	2	3	3	3	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	51.0	54.6	50.0	50.2	44.1	42.6	41.8			
Efficiency of gross thermal power generation (%)	34.9	33.3	30.0	39.7	38.7	35.7	31.8			
% of gross electricity from CHP	3.0	2.4	2.8	2.4	1.8	1.7	1.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	90.8	89.2	90.2	94.0	94.5	97.2	99.0			
Fuel Inputs to Thermal Power Generation (ktoe)	13278	17328	17887	9873	10382	8761	6406	3.0	-5.3	-4.7
Solids	6559	6402	4717	2258	2322	94	0	-3.2	-6.8	-100.0
Oil (including refinery gas)	1242	2160	1639	135	0	111	107	2.8	-79.3	267.2
Gas (including derived gases)	4002	6298	8178	4941	3917	3157	1442	7.4	-7.1	-9.5
Biomass & Waste	1476	2469	3352	2529	4127	5383	4842	8.5	2.1	1.6
Geothermal heat	0	0	0	10	15	15	15	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	205144	211862	191250	166425	153115	148637	146035	-0.7	-2.2	-0.5
Refineries	90823	88392	73306	49009	48039	46118	43854	-2.1	-4.1	-0.9
Biofuels and hydrogen production	325	651	2397	2746	3118	2941	2907	22.1	2.7	-0.7
District heating	312	448	608	546	574	581	457	6.9	-0.6	-2.2
Derived gases, cokeries etc.	113684	122371	114938	114124	101384	98996	98818	0.1	-1.2	-0.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								France: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	950	998	1033	1091	1169	1210	1265	0.8	1.2	0.8
Public road transport	42	42	50	55	60	63	65	1.7	1.9	0.8
Private cars and motorcycles	754	801	811	850	901	916	942	0.7	1.1	0.4
Rail	81	90	101	107	119	131	144	2.1	1.7	1.9
Aviation ⁽³⁾	69	62	68	76	86	97	110	-0.1	2.3	2.5
Inland navigation	3	3	3	3	3	4	4	-0.8	0.7	1.3
Freight transport activity (Gtkm)	412	409	392	413	470	519	575	-0.5	1.8	2.0
Heavy goods and light commercial vehicles	311	319	296	310	356	391	433	-0.5	1.9	2.0
Rail	58	41	30	37	42	50	59	-6.3	3.5	3.4
Inland navigation	43	49	66	66	71	77	83	4.4	0.8	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	50360	50194	49347	50154	49937	47528	45976	-0.2	0.1	-0.8
Public road transport	536	519	595	654	705	718	717	1.0	1.7	0.2
Private cars and motorcycles	31157	31368	31602	31615	29848	26460	24321	0.1	-0.6	-2.0
Heavy goods and light commercial vehicles	10961	10554	9424	9543	10233	10574	11029	-1.5	0.8	0.8
Rail	1134	980	932	1017	1082	1156	1224	-1.9	1.5	1.2
Aviation	6088	6291	6294	6827	7535	8046	8075	0.3	1.8	0.7
Inland navigation	483	481	500	499	535	573	609	0.4	0.7	1.3
<i>By transport activity</i>										
Passenger transport	38753	38887	39197	39839	38861	36026	33933	0.1	-0.1	-1.3
Freight transport	11607	11307	10150	10316	11076	11502	12043	-1.3	0.9	0.8
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.4	3.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.7	1.3	4.9	5.6	6.5	6.7	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	240713	259943	253256	241532	234314	219679	204331	0.5	-0.8	-1.4
Final Energy Demand	154639	160337	155397	155251	156477	145065	131343	0.0	0.1	-1.7
<i>by sector</i>										
Industry	36670	34356	28478	30330	31258	29901	29016	-2.5	0.9	-0.7
Energy intensive industries	20906	20576	16506	17590	18018	16903	16247	-2.3	0.9	-1.0
Other industrial sectors	15764	13780	11972	12740	13241	12998	12769	-2.7	1.0	-0.4
Residential	42153	45931	45463	44159	45108	40101	32715	0.8	-0.1	-3.2
Tertiary	25209	29569	31792	30270	29809	27143	23215	2.3	-0.6	-2.5
Transport ⁽⁵⁾	50607	50482	49664	50492	50302	47920	46397	-0.2	0.1	-0.8
<i>by fuel</i>										
Solids	5775	5218	4547	4076	4176	3591	2898	-2.4	-0.8	-3.6
Oil	72503	71421	64647	63583	58931	53626	48274	-1.1	-0.9	-2.0
Gas	30907	33744	32430	32675	30984	28619	25594	0.5	-0.5	-1.9
Electricity	33096	36352	38185	37788	38972	39111	38518	1.4	0.2	-0.1
Heat (from CHP and District Heating)	3236	4163	3525	3658	3385	3246	2830	0.9	-0.4	-1.8
Renewable energy forms	9123	9439	12064	13458	19984	16704	12918	2.8	5.2	-4.3
Other	0	0	0	12	46	168	311	0.0	0.0	21.1
Energy intensity indicators										
Gross Int. Cons./GDP (toe/€13)	142	141	132	122	110	97	84	-0.7	-1.8	-2.6
Industry (Energy on Value added, index 2000=100)	100	89	78	80	77	70	64	-2.5	-0.1	-1.7
Residential (Energy on Private Income, index 2000=100)	100	98	91	86	80	67	50	-0.9	-1.3	-4.5
Tertiary (Energy on Value added, index 2000=100)	100	108	110	101	91	78	62	1.0	-1.8	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	34	33	32	30	27	24	21	-0.7	-1.6	-2.5
Freight transport (toe/Mtkm)	28	28	26	25	24	22	21	-0.9	-0.9	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	585.3	552.1	512.0	482.2	444.4	401.9	363.7	-1.3	-1.4	-2.0
of which ETS sectors (2013 scope) GHG emissions	173.2	147.3	131.7	125.4	110.1	99.3	99.3	-1.6	-2.3	
of which ESD sectors (2013 scope) GHG emissions	378.8	364.7	350.4	319.0	291.8	264.4	264.4	-1.3	-1.9	
CO₂ Emissions (energy related)	388.3	394.4	360.0	332.5	307.6	272.0	240.3	-0.8	-1.6	-2.4
Power generation/District heating	46.7	53.6	48.1	26.7	22.4	13.2	8.9	0.3	-7.4	-8.9
Energy Branch	19.9	16.3	15.0	13.6	11.5	10.2	9.5	-2.7	-2.6	-2.0
Industry	74.6	67.0	54.1	59.9	57.6	50.6	45.3	-3.2	0.6	-2.4
Residential	59.3	64.8	57.2	51.5	43.6	38.7	30.1	-0.4	-2.7	-3.6
Tertiary	39.8	44.4	44.7	38.9	33.3	28.7	23.1	1.1	-2.9	-3.6
Transport	148.0	148.1	140.9	141.9	139.2	130.6	123.5	-0.5	-0.1	-1.2
CO₂ Emissions (non energy and non land use related)	28.9	28.5	25.7	25.6	26.6	24.8	22.4	-1.2	0.4	-1.7
Non-CO₂ GHG emissions	168.1	129.2	126.3	124.1	110.1	105.1	101.0	-2.8	-1.4	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	104.5	98.6	91.4	86.1	79.3	71.8	65.0	-1.3	-1.4	-2.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.08	0.09	0.08	0.04	0.04	0.02	0.01	-0.3	-7.9	-8.6
Final energy demand (t of CO ₂ /toe)	2.08	2.02	1.91	1.88	1.75	1.71	1.69	-0.8	-0.9	-0.3
Industry	2.03	1.95	1.90	1.97	1.84	1.69	1.56	-0.7	-0.3	-1.6
Residential	1.41	1.41	1.26	1.17	0.97	0.96	0.92	-1.1	-2.6	-0.5
Tertiary	1.58	1.50	1.41	1.29	1.12	1.06	0.99	-1.2	-2.3	-1.1
Transport	2.92	2.93	2.84	2.81	2.77	2.73	2.66	-0.3	-0.2	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	9.5	9.5	12.5	15.5	23.6	25.2	24.9			
RES-H&C share	12.4	12.3	15.8	19.4	30.0	30.3	29.0			
RES-E share	14.7	13.7	14.9	19.8	31.5	36.4	37.2			
RES-T share (based on ILUC formula)	1.4	2.0	6.3	7.7	10.2	12.8	16.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	61	58	57	90	93	82	71	-0.7	5.1	-2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	108	100	109	123	145	147	151	0.0	2.9	0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	176.3	196.0	216.7	273.9	281.7	293.5	2.4	3.4	0.7
as % of GDP	8.5	9.0	9.7	10.4	12.1	11.7	11.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Germany: EU CO30			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	82	83	82	81	81	80	80	0.0	-0.1	-0.1	
GDP (in 000 M€13)	2370	2442	2608	2790	2973	3126	3251	1.0	1.3	0.9	
Gross Inland Consumption (ktoe)	342337	341916	332974	322609	308843	289116	257367	-0.3	-0.7	-1.8	
Solids	84802	81952	78824	78036	77902	75306	61781	-0.7	-0.1	-2.3	
Oil	130980	121460	111798	111688	102697	92867	83080	-1.6	-0.8	-2.1	
Natural gas	71878	77782	75905	74011	68467	67443	60352	0.5	-1.0	-1.3	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0	
Renewable energy forms	10665	19054	31477	39195	50745	52115	50852	11.4	4.9	0.0	
Energy Branch Consumption	14566	14384	13378	13631	12247	11511	10265	-0.8	-0.9	-1.8	
Non-Energy Uses	25064	24662	22582	24685	25861	26629	26415	-1.0	1.4	0.2	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	135549	137356	129648	120921	110002	98961	86427	-0.4	-1.6	-2.4	
Solids	60629	56484	45906	42340	37288	35882	27420	-2.7	-2.1	-3.0	
Oil	4680	5782	4754	4964	3809	2919	2234	0.2	-2.2	-5.2	
Natural gas	15825	14334	11113	10749	9888	8242	6142	-3.5	-1.2	-4.7	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Renewable energy sources	10665	18695	31618	39043	50544	51918	50631	11.5	4.8	0.0	
Hydro	1869	1689	1802	1925	1936	2024	2080	-0.4	0.7	0.7	
Biomass & Waste	7876	14249	24988	27662	32666	32031	26943	12.2	2.7	-1.9	
Wind	804	2341	3250	5689	9411	9693	11361	15.0	11.2	1.9	
Solar and others	116	371	1493	3575	5506	7095	8744	29.1	13.9	4.7	
Geothermal	0	46	86	192	1026	1075	1503	0.0	28.1	3.9	
Net Imports (ktoe)	204709	208118	201696	204465	201837	193227	174155	-0.1	0.0	-1.5	
Solids	21663	25972	31644	35695	40614	39424	34360	3.9	2.5	-1.7	
Oil	125918	120239	109834	109501	101825	92888	83794	-1.4	-0.8	-1.9	
Crude oil and Feedstocks	101441	111039	91612	87783	82375	75983	69823	-1.0	-1.1	-1.6	
Oil products	24477	9200	18222	21718	19451	16905	13971	-2.9	0.7	-3.3	
Natural gas	56865	61940	61645	63262	58639	59334	54458	0.8	-0.5	-0.7	
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0	
Import Dependency (%)	59.4	60.4	60.1	62.8	64.7	66.1	66.8				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	572313	615800	626583	645692	598175	617515	591550	0.9	-0.5	-0.1	
Nuclear energy	169606	163055	140556	96916	34469	0	0	-1.9	-13.1	-100.0	
Solids	296687	288142	262896	272895	273974	271826	221108	-1.2	0.4	-2.1	
Oil (including refinery gas)	4785	11997	8741	1079	941	2111	2071	6.2	-20.0	8.2	
Gas (including derived gases)	59970	83608	100912	92761	72056	99077	86202	5.3	-3.3	1.8	
Biomass-waste	10121	20849	42975	58761	35367	45061	45573	15.6	-1.9	2.6	
Hydro (pumping excluded)	21732	19638	20953	22378	22506	23539	24188	-0.4	0.7	0.7	
Wind	9352	27229	37793	66153	109427	112710	132102	15.0	11.2	1.9	
Solar	60	1283	11727	34612	48465	62223	79337	69.3	15.2	5.1	
Geothermal and other renewables	0	-1	30	137	969	969	969	0.0	41.4	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114373	123973	154603	189032	207113	206309	220659	3.1	3.0	0.6	
Nuclear energy	21644	20656	20656	12188	6907	0	0	-0.5	-10.4	-100.0	
Renewable energy	11040	25641	50141	90293	120216	132008	156882	16.3	9.1	2.7	
Hydro (pumping excluded)	4831	5210	5407	5590	5592	5802	5930	1.1	0.3	0.6	
Wind	6095	18375	27180	44946	61821	60536	69449	16.1	8.6	1.2	
Solar	114	2056	17554	39757	52803	65670	81503	65.5	11.6	4.4	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	81689	77676	83806	86551	79990	74300	63777	0.3	-0.5	-2.2	
of which cogeneration units	14369	20840	24554	17078	6200	10977	11485	5.5	-12.9	6.4	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	50924	48087	47789	52819	49170	44016	36711	-0.6	0.3	-2.9	
Gas fired	21336	21671	26890	25178	21891	21578	18752	2.3	-2.0	-1.5	
Oil fired	8066	5686	5688	5028	1674	1457	1247	-3.4	-11.5	-2.9	
Biomass-waste fired	1363	2232	3432	3501	7084	7079	6896	9.7	7.5	-0.3	
Hydrogen plants	0	0	0	1	1	1	1	0.0	0.0	0.0	
Geothermal heat	0	0	8	24	170	170	170	0.0	35.8	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	53.3	53.0	43.5	36.8	31.2	32.4	29.2				
Efficiency of gross thermal power generation (%)	37.8	38.6	39.4	40.5	37.6	39.2	40.3				
% of gross electricity from CHP	10.6	12.6	13.2	12.8	6.2	10.9	12.4				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	36.8	37.7	40.5	43.2	42.0	39.6	47.7				
Fuel Inputs to Thermal Power Generation (ktoe)	84562	90075	90587	90286	87566	91934	75919	0.7	-0.3	-1.4	
Solids	67101	65740	59687	61356	60916	59777	47701	-1.2	0.2	-2.4	
Oil (including refinery gas)	1411	1427	855	236	311	683	669	-4.9	-9.6	8.0	
Gas (including derived gases)	12891	17808	19955	16546	12444	17095	14809	4.5	-4.6	1.8	
Biomass & Waste	3158	5100	10066	12030	13061	13546	11907	12.3	2.6	-0.9	
Geothermal heat	0	0	24	118	834	834	834	0.0	42.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	180304	187908	163048	142875	120379	102985	95229	-1.0	-3.0	-2.3	
Refineries	119420	125092	103238	98875	92816	85646	78636	-1.4	-1.1	-1.6	
Biofuels and hydrogen production	237	1859	2884	3011	2833	2650	2753	28.4	-0.2	-0.3	
District heating	1198	3942	4754	4043	3515	3023	2557	14.8	-3.0	-3.1	
Derived gases, cokeries etc.	59450	57015	52171	36947	21216	11666	11283	-1.3	-8.6	-6.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Germany: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	1066	1099	1130	1187	1208	1238	1267	0.6	0.7	0.5
Public road transport	69	67	62	63	67	67	68	-1.1	0.8	0.2
Private cars and motorcycles	850	876	905	942	949	959	973	0.6	0.5	0.2
Rail	90	92	100	111	115	128	138	1.1	1.4	1.8
Aviation ⁽³⁾	55	62	61	69	75	81	86	1.1	2.0	1.4
Inland navigation	2	2	2	2	2	3	3	-0.8	1.0	1.5
Freight transport activity (Gtkm)	493	545	592	619	682	720	762	1.9	1.4	1.1
Heavy goods and light commercial vehicles	342	385	422	439	486	511	539	2.1	1.4	1.0
Rail	83	95	107	116	126	135	144	2.6	1.6	1.4
Inland navigation	68	65	63	65	70	74	79	-0.7	1.1	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	65101	59797	58145	59791	56095	51666	48691	-1.1	-0.4	-1.4
Public road transport	1047	897	803	815	836	821	798	-2.6	0.4	-0.5
Private cars and motorcycles	42176	37675	35607	35814	31214	26889	24419	-1.7	-1.3	-2.4
Heavy goods and light commercial vehicles	12303	11057	11325	11780	12340	12100	12108	-0.8	0.9	-0.2
Rail	1947	1580	1414	1496	1455	1519	1525	-3.2	0.3	0.5
Aviation	7345	8265	8719	9601	9944	10013	9503	1.7	1.3	-0.5
Inland navigation	283	323	278	285	307	324	338	-0.2	1.0	1.0
By transport activity										
Passenger transport	51841	47805	45951	47113	42807	38575	35558	-1.2	-0.7	-1.8
Freight transport	13261	11992	12194	12678	13288	13091	13133	-0.8	0.9	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.4	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.4	3.2	5.1	5.2	5.3	6.0	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	317273	317254	310393	297924	282982	262486	230972	-0.2	-0.9	-2.0
Final Energy Demand	219889	218456	219721	217308	213297	198123	178732	0.0	-0.3	-1.8
by sector										
Industry	57570	59093	60563	62096	65050	62382	57965	0.5	0.7	-1.1
Energy intensive industries	39345	40705	42170	43510	45828	43744	39789	0.7	0.8	-1.4
Other industrial sectors	18225	18389	18393	18586	19222	18638	18176	0.1	0.4	-0.6
Residential	63072	63498	62442	58726	57392	52683	45579	-0.1	-0.8	-2.3
Tertiary	34239	35302	38222	36396	34480	31126	26256	1.1	-1.0	-2.7
Transport ⁽⁵⁾	65109	60563	58494	60090	56375	51932	48932	-1.1	-0.4	-1.4
by fuel										
Solids	10958	8238	9379	9284	9907	9556	8033	-1.5	0.5	-2.1
Oil	99738	90309	83168	82419	73177	62938	53941	-1.8	-1.3	-3.0
Gas	56064	55136	56501	56368	55488	49565	45127	0.1	-0.2	-2.0
Electricity	41570	44907	45781	44880	45869	48238	46200	1.0	0.0	0.1
Heat (from CHP and District Heating)	6831	10751	11268	9856	9768	9597	9251	5.1	-1.4	-0.5
Renewable energy forms	4828	9116	13625	14468	18994	17787	15473	10.9	3.4	-2.0
Other	0	0	0	32	94	442	707	0.0	0.0	22.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	144	140	128	116	104	92	79	-1.2	-2.0	-2.7
Industry (Energy on Value added, index 2000=100)	100	96	93	90	90	83	75	-0.7	-0.3	-1.8
Residential (Energy on Private Income, index 2000=100)	100	99	94	83	76	65	54	-0.6	-2.2	-3.4
Tertiary (Energy on Value added, index 2000=100)	100	98	98	87	77	66	53	-0.2	-2.4	-3.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	37	33	32	28	24	21	-2.2	-1.7	-2.7
Freight transport (toe/Mtkm)	27	22	21	20	19	18	17	-2.6	-0.6	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	1076.8	1015.8	957.1	943.5	892.1	835.8	722.7	-1.2	-0.7	-2.1
of which ETS sectors (2013 scope) GHG emissions	543.7	505.7	510.9	495.7	484.7	411.6		-0.2	-1.8	
of which ESD sectors (2013 scope) GHG emissions	472.1	451.3	432.6	396.4	351.1	311.0		-1.3	-2.4	
CO ₂ Emissions (energy related)	852.1	825.2	787.8	777.7	733.3	684.7	583.1	-0.8	-0.7	-2.3
Power generation/District heating	330.6	344.9	324.5	317.5	303.6	309.3	253.7	-0.2	-0.7	-1.8
Energy Branch	28.1	26.2	23.5	25.8	22.0	19.6	18.0	-1.8	-0.6	-2.0
Industry	130.2	115.3	115.3	112.8	114.8	99.9	86.4	-1.2	0.0	-2.8
Residential	119.4	110.8	104.3	98.0	87.9	76.3	65.9	-1.3	-1.7	-2.8
Tertiary	58.5	55.9	56.3	55.4	47.9	37.6	28.4	-0.4	-1.6	-5.1
Transport	185.3	172.2	163.8	168.2	157.0	142.1	130.6	-1.2	-0.4	-1.8
CO ₂ Emissions (non energy and non land use related)	63.7	61.6	55.6	56.8	58.4	57.1	53.8	-1.4	0.5	-0.8
Non-CO ₂ GHG emissions	161.0	128.9	113.7	109.1	100.4	94.0	85.7	-3.4	-1.2	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	85.5	80.6	76.0	74.9	70.8	66.4	57.4	-1.2	-0.7	-2.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.50	0.46	0.42	0.41	0.42	0.42	0.36	-1.7	-0.1	-1.6
Final energy demand (t of CO ₂ /toe)	2.24	2.08	2.00	2.00	1.91	1.80	1.74	-1.1	-0.5	-0.9
Industry	2.26	1.95	1.90	1.82	1.76	1.60	1.49	-1.7	-0.8	-1.7
Residential	1.89	1.74	1.67	1.67	1.53	1.45	1.45	-1.2	-0.9	-0.6
Tertiary	1.71	1.58	1.47	1.52	1.39	1.21	1.08	-1.5	-0.6	-2.5
Transport	2.85	2.84	2.80	2.80	2.79	2.74	2.67	-0.2	-0.1	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.6	6.7	10.5	13.5	18.6	20.9	23.1			
RES-H&C share	4.2	6.7	9.6	10.6	17.6	19.3	18.6			
RES-E share	6.1	10.5	18.1	29.5	34.9	37.6	45.6			
RES-T share (based on ILUC formula)	0.8	4.2	6.9	8.8	10.4	15.4	21.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	51	62	86	106	103	100	3.7	5.6	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	132	171	164	160	169	176	177	2.2	0.3	0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	225.6	285.4	302.7	290.0	344.0	362.1	390.7	3.0	1.3	1.3
as % of GDP	9.5	11.7	11.6	10.4	11.6	11.6	12.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Greece: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	11	11	11	11	11	10	10	0.3	-0.5	-0.6
GDP (in 000 M€13)	190	231	232	200	207	213	225	2.0	-1.1	0.8
Gross Inland Consumption (ktoe)	28292	31410	28725	26055	25189	22006	18658	0.2	-1.3	-3.0
Solids	9038	8944	7863	6765	5643	3564	2341	-1.4	-3.3	-8.4
Oil	16085	18119	14974	12997	12142	10608	8959	-0.7	-2.1	-3.0
Natural gas	1705	2354	3235	2979	3779	3374	2195	6.6	1.6	-5.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Renewable energy forms	1466	1668	2163	2714	3225	4215	4980	4.0	4.1	4.4
Energy Branch Consumption	1634	1820	1839	1906	1779	1561	1414	1.2	-0.3	-2.3
Non-Energy Uses	719	761	1108	824	847	842	835	4.4	-2.7	-0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	10012	10326	9461	9027	8358	7364	7018	-0.6	-1.2	-1.7
Solids	8222	8538	7315	6430	5346	3339	2200	-1.2	-3.1	-8.5
Oil	282	101	132	75	73	70	68	-7.3	-5.7	-0.8
Natural gas	42	18	8	0	0	0	0	-15.8	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1466	1668	2006	2521	2940	3954	4751	3.2	3.9	4.9
Hydro	318	431	641	506	508	477	480	7.3	-2.3	-0.6
Biomass & Waste	1009	1015	919	1157	1348	1385	1324	-0.9	3.9	-0.2
Wind	39	109	233	330	448	1114	1629	19.7	6.7	13.8
Solar and others	99	101	197	514	621	961	1300	7.1	12.2	7.7
Geothermal	2	12	16	16	15	17	18	25.9	-0.4	1.8
Net Imports (ktoe)	22151	23498	21712	20057	19815	17571	14601	-0.2	-0.9	-3.0
Solids	769	364	401	335	297	225	141	-6.3	-2.9	-7.2
Oil	19695	20476	17433	15950	15019	13394	11666	-1.2	-1.5	-2.5
Crude oil and Feedstocks	20596	19488	20633	24349	23253	21620	19963	0.0	1.2	-1.5
Oil products	-900	988	-3200	-8399	-8235	-8227	-8297	13.5	9.9	0.1
Natural gas	1689	2332	3231	2979	3813	3446	2382	6.7	1.7	-4.6
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Import Dependency (%)	69.5	68.6	69.1	69.0	70.3	70.5	67.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	53425	59427	57367	54082	58235	55995	51015	0.7	0.2	-1.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	34313	35543	30797	26751	23068	14753	9351	-1.1	-2.8	-8.6
Oil (including refinery gas)	8885	9207	6089	4847	5122	2384	129	-3.7	-1.7	-30.8
Gas (including derived gases)	5920	8171	9830	8817	13840	11443	3861	5.2	3.5	-12.0
Biomass-waste	163	222	319	195	382	679	932	6.9	1.8	9.3
Hydro (pumping excluded)	3693	5017	7460	5880	5901	5552	5577	7.3	-2.3	-0.6
Wind	451	1266	2714	3834	5207	12953	18939	19.7	6.7	13.8
Solar	0	1	158	3757	4715	8232	12227	0.0	40.4	10.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	11212	13208	15889	19208	19724	23624	27010	3.5	2.2	3.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	3298	3598	4715	8146	9363	14164	18412	3.6	7.1	7.0
Hydro (pumping excluded)	3072	3106	3215	3389	3579	3579	3579	0.5	1.1	0.0
Wind	226	491	1298	2152	2637	5265	7157	19.1	7.3	10.5
Solar	0	1	202	2605	3147	5320	7675	0.0	31.6	9.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7914	9610	11174	11062	10361	9460	8598	3.5	-0.8	-1.8
of which cogeneration units	195	3051	588	284	309	311	337	11.7	-6.2	0.9
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4454	4754	4312	3923	3050	3120	2865	-0.3	-3.4	-0.6
Gas fired	1157	2203	4189	5062	5306	5273	4738	13.7	2.4	-1.1
Oil fired	2302	2625	2618	2022	1824	834	733	1.3	-3.6	-8.7
Biomass-waste fired	1	28	55	55	180	232	262	50.5	12.6	3.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	50.3	47.7	38.3	29.6	31.5	25.9	21.0			
Efficiency of gross thermal power generation (%)	36.9	37.0	37.5	38.6	41.4	42.9	39.5			
% of gross electricity from CHP	2.1	7.8	4.3	3.0	3.4	3.0	3.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	8.1	10.9	18.6	25.3	27.8	49.0	73.8			
Fuel Inputs to Thermal Power Generation (ktoe)	11492	12344	10787	9041	8813	5863	3111	-0.6	-2.0	-9.9
Solids	8170	8694	7567	6558	5451	3402	2243	-0.8	-3.2	-8.5
Oil (including refinery gas)	1978	1992	1278	1005	1071	505	43	-4.3	-1.8	-27.6
Gas (including derived gases)	1280	1605	1863	1435	2209	1813	637	3.8	1.7	-11.7
Biomass & Waste	64	52	79	43	83	144	188	2.2	0.4	8.6
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	22570	21629	22585	24150	24045	22488	20910	0.0	0.6	-1.4
Refineries	22508	21536	22462	23941	23760	22193	20597	0.0	0.6	-1.4
Biofuels and hydrogen production	0	0	124	207	279	277	288	0.0	8.4	0.3
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	62	93	0	2	7	18	26	-95.7	1750.5	14.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Greece: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	129	153	161	164	172	176	183	2.2	0.7	0.6
Public road transport	22	22	21	21	22	23	23	-0.3	0.6	0.4
Private cars and motorcycles	67	90	105	106	108	107	108	4.7	0.2	0.1
Rail	3	3	3	3	3	4	4	-0.2	1.0	1.8
Aviation ⁽³⁾	30	31	24	26	32	35	40	-2.2	2.8	2.3
Inland navigation	7	7	7	7	7	8	8	-0.1	0.2	0.6
Freight transport activity (Gtkm)	38	34	37	37	39	41	42	-0.1	0.5	0.7
Heavy goods and light commercial vehicles	28	24	30	30	32	33	34	0.8	0.5	0.7
Rail	0	1	1	1	1	1	1	3.7	0.8	1.1
Inland navigation	9	9	6	6	7	7	7	-3.6	0.5	0.9
Energy demand in transport (ktoe) ⁽⁴⁾	7286	8174	8147	7472	7249	6838	6473	1.1	-1.2	-1.1
Public road transport	423	438	403	403	408	402	387	-0.5	0.1	-0.5
Private cars and motorcycles	3327	4435	4483	4018	3693	3240	2852	3.0	-1.9	-2.6
Heavy goods and light commercial vehicles	1668	1426	1601	1480	1486	1452	1407	-0.4	-0.7	-0.5
Rail	49	46	24	22	23	24	24	-6.8	-0.3	0.3
Aviation	1325	1181	919	936	1016	1086	1156	-3.6	1.0	1.3
Inland navigation	495	648	717	612	622	635	647	3.8	-1.4	0.4
<i>By transport activity</i>										
Passenger transport	5530	6460	6297	5784	5547	5166	4837	1.3	-1.3	-1.4
Freight transport	1756	1714	1850	1688	1701	1673	1636	0.5	-0.8	-0.4
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	2.8	3.9	4.3	4.7			
ENERGY EFFICIENCY										
Primary energy consumption	27573	30650	27617	25230	24342	21164	17823	0.0	-1.3	-3.1
Final Energy Demand	18676	20958	19197	17486	17108	16003	14318	0.3	-1.1	-1.8
<i>by sector</i>										
Industry	4450	4161	3672	3224	3303	3198	2900	-1.9	-1.1	-1.3
Energy intensive industries	2737	2588	2427	2157	2193	2095	1807	-1.2	-1.0	-1.9
Other industrial sectors	1714	1573	1245	1067	1110	1103	1092	-3.1	-1.1	-0.2
Residential	4502	5510	4615	4351	4280	3927	3255	0.2	-0.8	-2.7
Tertiary	2426	3100	2752	2426	2264	2026	1676	1.3	-1.9	-3.0
Transport ⁽⁵⁾	7297	8188	8158	7484	7262	6852	6488	1.1	-1.2	-1.1
<i>by fuel</i>										
Solids	891	458	302	208	192	162	98	-10.3	-4.4	-6.5
Oil	12744	14413	12110	10307	9460	8583	7520	-0.5	-2.4	-2.3
Gas	257	586	982	1018	1030	1025	1002	14.3	0.5	-0.3
Electricity	3710	4377	4568	4397	4595	4402	4002	2.1	0.1	-1.4
Heat (from CHP and District Heating)	28	49	46	44	50	56	59	5.2	0.8	1.7
Renewable energy forms	1046	1076	1191	1510	1774	1754	1598	1.3	4.1	-1.0
Other	0	0	0	2	7	21	38	0.0	0.0	17.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	149	136	124	130	122	103	83	-1.8	-0.2	-3.7
Industry (Energy on Value added, index 2000=100)	100	88	101	99	97	92	80	0.1	-0.4	-1.9
Residential (Energy on Private Income, index 2000=100)	100	99	80	88	88	79	63	-2.2	1.0	-3.2
Tertiary (Energy on Value added, index 2000=100)	100	101	86	88	79	69	54	-1.5	-0.9	-3.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	40	40	37	33	30	27	24	-0.9	-2.1	-2.1
Freight transport (toe/Mtkm)	46	51	50	45	43	41	39	0.7	-1.4	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	133.3	139.6	121.4	105.7	96.7	78.9	63.9	-0.9	-2.3	-4.1
of which ETS sectors (2013 scope) GHG emissions		77.2	64.9	57.3	53.0	39.2	28.5		-2.0	-6.0
of which ESD sectors (2013 scope) GHG emissions		62.4	56.5	48.4	43.6	39.7	35.4		-2.6	-2.1
CO₂ Emissions (energy related)	98.4	106.4	92.1	79.6	73.0	56.5	42.3	-0.7	-2.3	-5.3
Power generation/District heating	52.1	55.6	47.9	40.9	37.1	23.7	13.4	-0.8	-2.5	-9.7
Energy Branch	3.1	3.4	3.6	3.9	3.5	3.3	3.0	1.6	-0.1	-1.7
Industry	10.4	8.9	7.2	6.2	5.9	5.2	4.1	-3.7	-1.9	-3.6
Residential	7.6	9.9	6.7	5.0	4.3	3.8	2.9	-1.3	-4.2	-4.0
Tertiary	3.4	4.3	2.8	1.8	1.2	1.0	0.7	-2.1	-8.0	-5.6
Transport	21.8	24.4	24.0	21.7	20.9	19.6	18.3	1.0	-1.4	-1.3
CO₂ Emissions (non energy and non land use related)	8.9	9.6	6.6	6.8	6.7	6.9	7.5	-2.9	0.1	1.1
Non-CO₂ GHG emissions	26.1	23.6	22.6	19.3	16.9	15.4	14.0	-1.4	-2.9	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.1	129.9	113.0	98.4	90.0	73.4	59.5	-0.9	-2.3	-4.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.97	0.93	0.83	0.75	0.63	0.42	0.26	-1.6	-2.7	-8.6
Final energy demand (t of CO ₂ /toe)	2.32	2.26	2.12	1.99	1.89	1.85	1.82	-0.9	-1.1	-0.4
Industry	2.35	2.13	1.96	1.91	1.79	1.64	1.42	-1.8	-0.9	-2.3
Residential	1.69	1.79	1.45	1.16	1.01	0.96	0.88	-1.5	-3.5	-1.4
Tertiary	1.41	1.38	1.01	0.76	0.53	0.47	0.40	-3.3	-6.2	-2.7
Transport	2.99	2.98	2.94	2.90	2.87	2.86	2.83	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.2	7.0	9.7	14.4	18.5	25.8	34.3			
RES-H&C share	13.6	12.8	17.4	24.8	30.1	33.2	36.9			
RES-E share	7.2	8.2	12.3	22.4	25.8	46.6	71.5			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	1.4	10.2	12.3	18.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	60	63	72	85	97	102	99	1.9	3.0	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	74	78	108	124	137	149	157	3.8	2.4	1.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	15.2	20.2	26.7	26.6	31.4	33.2	35.3	5.8	1.6	1.2
as % of GDP	8.0	8.7	11.5	13.3	15.1	15.6	15.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Hungary: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	10	10	10	10	10	10	10	-0.2	-0.2	-0.1
GDP (in 000 M€13)	83	102	101	107	117	131	145	1.9	1.5	2.2
Gross Inland Consumption (ktoe)	25298	27611	25811	23493	24250	24559	24040	0.2	-0.6	-0.1
Solids	3850	3031	2730	2635	2123	1423	1147	-3.4	-2.5	-6.0
Oil	6964	7115	6699	6271	6313	6372	6335	-0.4	-0.6	0.0
Natural gas	9657	12094	9816	7786	8576	6770	6103	0.2	-1.3	-3.3
Nuclear	3672	3585	4078	3666	3677	6045	6528	1.1	-1.0	5.9
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Renewable energy forms	859	1251	2042	1931	2700	3122	3237	9.0	2.8	1.8
Energy Branch Consumption	1164	1062	1095	1029	949	928	922	-0.6	-1.4	-0.3
Non-Energy Uses	1587	2169	1974	2275	2502	2826	3079	2.2	2.4	2.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	11598	10372	11065	10244	9897	10950	11394	-0.5	-1.1	1.4
Solids	2893	1748	1593	1794	1366	669	634	-5.8	-1.5	-7.4
Oil	1699	1457	1150	795	619	277	193	-3.8	-6.0	-11.0
Natural gas	2475	2331	2235	1857	1199	520	489	-1.0	-6.0	-8.6
Nuclear	3672	3585	4078	3666	3677	6045	6528	1.1	-1.0	5.9
Renewable energy sources	859	1251	2010	2132	3037	3440	3549	8.9	4.2	1.6
Hydro	15	17	16	20	20	20	20	0.6	2.1	0.0
Biomass & Waste	758	1145	1844	1905	2659	2605	2416	9.3	3.7	-1.0
Wind	0	1	46	50	77	183	211	0.0	5.3	10.7
Solar and others	0	2	6	9	45	209	234	0.0	23.5	17.8
Geothermal	86	87	99	148	237	423	669	1.4	9.1	11.0
Net Imports (ktoe)	13956	17421	14988	13249	14352	13610	12647	0.7	-0.4	-1.3
Solids	1087	1299	1143	841	757	755	513	0.5	-4.0	-3.8
Oil	5291	5780	5637	5476	5694	6095	6142	0.6	0.1	0.8
Crude oil and Feedstocks	5887	5988	5806	5273	5500	5915	5999	-0.1	-0.5	0.9
Oil products	-596	-208	-169	203	194	180	143	-11.9	0.0	-3.0
Natural gas	7283	9808	7726	5929	7377	6250	5614	0.6	-0.5	-2.7
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Import Dependency (%)	55.2	63.1	58.1	56.4	59.2	55.4	52.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	35191	35756	37371	27859	33191	35948	36294	0.6	-1.2	0.9
Nuclear energy	14180	13834	15761	15087	15024	24706	26683	1.1	-0.5	5.9
Solids	9590	7023	6234	6436	5072	2310	2187	-4.2	-2.0	-8.1
Oil (including refinery gas)	4404	455	490	52	0	0	0	-19.7	-100.0	0.0
Gas (including derived gases)	6719	12502	11714	3383	9570	2503	735	5.7	-2.0	-22.6
Biomass-waste	120	1730	2449	2015	2241	2344	2069	35.2	-0.9	-0.8
Hydro (pumping excluded)	178	202	188	232	232	232	232	0.5	2.1	0.0
Wind	0	10	534	585	890	2133	2450	0.0	5.2	10.7
Solar	0	0	1	32	97	1656	1873	0.0	55.6	34.5
Geothermal and other renewables	0	0	0	38	65	65	65	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	8589	8297	8292	7495	7094	9862	11218	-0.4	-1.5	4.7
Nuclear energy	1920	1920	1920	1960	1960	3221	4482	0.0	0.2	8.6
Renewable energy	48	66	348	431	640	2661	3049	21.9	6.3	16.9
Hydro (pumping excluded)	48	49	53	57	57	57	57	1.0	0.7	0.0
Wind	0	17	293	329	477	1040	1226	0.0	5.0	9.9
Solar	0	0	2	45	106	1564	1766	0.0	48.7	32.5
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6621	6311	6024	5103	4495	3980	3687	-0.9	-2.9	-2.0
of which cogeneration units	1464	2047	1862	1144	1575	1025	992	2.4	-1.7	-4.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1747	1380	1155	1137	691	425	414	-4.1	-5.0	-5.0
Gas fired	4160	4622	4605	3496	3385	3134	2858	1.0	-3.0	-1.7
Oil fired	602	176	91	91	11	11	5	-17.2	-19.2	-7.3
Biomass-waste fired	112	133	173	349	356	358	358	4.4	7.5	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	30	52	52	52	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	42.9	45.7	47.7	39.3	50.4	39.4	35.0			
Efficiency of gross thermal power generation (%)	29.8	32.8	34.1	37.3	40.5	34.8	29.5			
% of gross electricity from CHP	13.5	19.1	19.6	14.4	13.8	9.1	6.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	41.1	44.1	50.7	64.6	55.9	86.6	92.0			
Fuel Inputs to Thermal Power Generation (ktoe)	6009	5692	5265	2752	3597	1785	1475	-1.3	-3.7	-8.5
Solids	2755	1924	1646	1611	1288	599	569	-5.0	-2.4	-7.9
Oil (including refinery gas)	1052	155	138	15	0	0	0	-18.4	-100.0	0.0
Gas (including derived gases)	2140	3079	2704	657	1600	456	236	2.4	-5.1	-17.4
Biomass & Waste	61	534	777	436	653	674	614	28.9	-1.7	-0.6
Geothermal heat	0	0	0	32	56	56	56	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12946	13165	14441	12781	12803	15152	15581	1.1	-1.2	2.0
Refineries	7638	8118	8427	6997	7084	7165	7134	1.0	-1.7	0.1
Biofuels and hydrogen production	0	3	175	182	348	322	322	0.0	7.1	-0.8
District heating	471	627	474	648	634	621	826	0.1	3.0	2.7
Derived gases, cokeries etc.	4837	4417	5365	4954	4737	7044	7300	1.0	-1.2	4.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Hungary, EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	80	84	84	86	95	103	110	0.5	1.3	1.5
Public road transport	19	18	16	17	18	18	19	-1.3	0.8	0.7
Private cars and motorcycles	47	51	54	54	60	64	68	1.4	1.1	1.1
Rail	12	12	10	11	12	14	16	-1.8	2.1	2.3
Aviation ⁽³⁾	2	4	4	4	5	6	8	5.9	3.0	5.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	27	35	34	35	38	42	46	2.3	1.1	1.9
Heavy goods and light commercial vehicles	17	24	23	23	24	26	28	2.7	0.7	1.6
Rail	9	9	9	10	11	12	14	0.0	2.1	2.6
Inland navigation	1	2	2	2	3	3	3	10.4	1.0	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	3309	4308	4341	3958	4116	4104	4164	2.8	-0.5	0.1
Public road transport	339	361	335	346	353	351	346	-0.1	0.5	-0.2
Private cars and motorcycles	1805	2191	2208	2035	2070	1974	1922	2.0	-0.6	-0.7
Heavy goods and light commercial vehicles	763	1341	1418	1214	1274	1282	1321	6.4	-1.1	0.4
Rail	171	154	150	152	172	193	208	-1.3	1.3	1.9
Aviation	230	261	230	207	243	300	362	0.0	0.6	4.1
Inland navigation	1	1	1	4	4	4	5	3.1	14.6	1.6
By transport activity										
Passenger transport	2449	2877	2826	2642	2730	2696	2705	1.4	-0.3	-0.1
Freight transport	860	1431	1515	1316	1386	1408	1458	5.8	-0.9	0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	4.1	4.7	8.8	8.5	8.6			
ENERGY EFFICIENCY										
Primary energy consumption	23711	25442	23837	21219	21747	21733	20962	0.1	-0.9	-0.4
Final Energy Demand	16139	18218	16596	15895	16139	15546	14455	0.3	-0.3	-1.1
by sector										
Industry	3513	3369	2890	3081	2999	3106	3068	-1.9	0.4	0.2
Energy intensive industries	2517	2267	1854	1941	1848	1870	1757	-3.0	0.0	-0.5
Other industrial sectors	996	1102	1036	1141	1151	1236	1311	0.4	1.1	1.3
Residential	5603	6464	5740	5253	5260	4921	4356	0.2	-0.9	-1.9
Tertiary	3712	4072	3625	3566	3726	3380	2836	-0.2	0.3	-2.7
Transport ⁽⁵⁾	3311	4313	4341	3995	4155	4138	4195	2.7	-0.4	0.1
by fuel										
Solids	665	690	481	501	370	379	182	-3.2	-2.6	-6.8
Oil	4218	4904	4638	4261	4174	3996	3812	1.0	-1.0	-0.9
Gas	6503	7852	6261	5868	5787	5328	4844	-0.4	-0.8	-1.8
Electricity	2531	2780	2941	2977	3096	3254	3220	1.5	0.5	0.4
Heat (from CHP and District Heating)	1447	1308	1090	985	1007	903	895	-2.8	-0.8	-1.2
Renewable energy forms	774	683	1184	1301	1701	1671	1481	4.3	3.7	-1.4
Other	0	0	0	1	5	15	21	0.0	0.0	15.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	305	271	257	219	207	188	166	-1.7	-2.1	-2.2
Industry (Energy on Value added, index 2000=100)	100	74	64	63	56	52	47	-4.4	-1.2	-1.8
Residential (Energy on Private Income, index 2000=100)	100	90	87	77	71	59	47	-1.4	-2.0	-3.9
Tertiary (Energy on Value added, index 2000=100)	100	90	81	75	71	58	44	-2.0	-1.3	-4.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	33	32	30	27	25	23	0.8	-1.7	-1.7
Freight transport (toe/Mtkm)	32	41	45	38	37	34	32	3.5	-2.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	79.8	76.9	67.7	59.4	55.7	47.4	43.4	-1.6	-1.9	-2.5
of which ETS sectors (2013 scope) GHG emissions		30.6	25.6	19.8	19.5	13.5	12.1		-2.7	-4.7
of which ESD sectors (2013 scope) GHG emissions		46.3	42.1	39.6	36.2	33.9	31.3		-1.5	-1.4
CO ₂ Emissions (energy related)	55.0	56.4	49.0	41.5	40.5	32.8	29.4	-1.1	-1.9	-3.2
Power generation/District heating	22.1	18.3	16.0	10.5	10.9	5.0	4.3	-3.2	-3.8	-8.9
Energy Branch	1.5	1.2	1.5	1.6	1.4	1.3	1.2	-0.3	-0.6	-1.2
Industry	6.8	6.7	5.3	5.8	4.9	4.6	3.7	-2.4	-0.8	-2.9
Residential	8.8	10.7	8.6	7.3	7.0	6.6	5.7	-0.2	-2.1	-2.0
Tertiary	6.1	6.7	5.2	5.2	5.2	4.3	3.5	-1.6	-0.1	-4.0
Transport	9.7	12.7	12.3	11.2	11.2	11.0	11.0	2.4	-1.0	-0.1
CO ₂ Emissions (non energy and non land use related)	4.5	4.9	3.7	4.4	4.8	5.0	5.1	-1.9	2.5	0.8
Non-CO2 GHG emissions	20.3	15.6	15.0	13.5	10.4	9.6	8.9	-3.0	-3.6	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.3	81.2	71.5	62.7	58.8	50.1	45.8	-1.6	-1.9	-2.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.34	0.31	0.26	0.23	0.10	0.09	-2.7	-2.7	-9.2
Final energy demand (t of CO ₂ /toe)	1.94	2.02	1.90	1.85	1.75	1.70	1.65	-0.2	-0.8	-0.6
Industry	1.92	2.00	1.84	1.87	1.64	1.49	1.20	-0.4	-1.1	-3.1
Residential	1.57	1.66	1.50	1.39	1.33	1.33	1.31	-0.4	-1.2	-0.2
Tertiary	1.65	1.65	1.44	1.45	1.39	1.26	1.22	-1.4	-0.3	-1.3
Transport	2.92	2.94	2.83	2.81	2.69	2.67	2.63	-0.3	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.8	4.5	8.6	10.0	13.2	15.4	16.2			
RES-H&C share	7.6	6.0	11.1	13.4	17.1	19.1	20.7			
RES-E share	0.6	4.4	7.1	6.7	7.9	13.9	14.8			
RES-T share (based on ILUC formula)	0.0	0.3	4.7	6.0	10.0	10.6	11.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	48	60	67	76	71	79	92	3.5	0.5	2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	78	107	132	113	130	140	165	5.4	-0.2	2.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	11.2	16.1	20.3	18.0	22.2	25.2	29.0	6.1	0.9	2.7
as % of GDP	13.5	15.9	20.2	16.7	18.9	19.3	20.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Ireland: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	5	5	5	5	5	1.9	0.8	0.0
GDP (in 000 M€13)	130	165	165	183	208	225	245	2.4	2.3	1.6
Gross Inland Consumption (ktoe)	14425	15265	15191	14208	14447	14116	13079	0.5	-0.5	-1.0
Solids	2601	2664	1979	2028	1844	1569	1076	-2.7	-0.7	-5.2
Oil	8145	8589	7818	6926	6744	6470	6090	-0.4	-1.5	-1.0
Natural gas	3436	3470	4683	4016	4013	4011	3457	3.1	-1.5	-1.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Renewable energy forms	235	366	671	1152	1983	2213	2580	11.1	11.4	2.7
Energy Branch Consumption	254	300	243	250	206	199	174	-0.4	-1.7	-1.7
Non-Energy Uses	675	516	341	360	405	441	449	-6.6	1.7	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	2159	1647	1843	2031	1944	2147	2513	-1.6	0.5	2.6
Solids	965	820	981	740	0	1	1	0.2	-56.5	13.8
Oil	0	0	0	44	0	0	0	0.0	0.0	13.8
Natural gas	958	461	233	231	233	233	229	-13.2	0.0	-0.2
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	235	366	628	1016	1710	1913	2283	10.3	10.5	2.9
Hydro	73	54	52	62	66	65	65	-3.4	2.6	-0.2
Biomass & Waste	141	216	327	420	651	810	820	8.8	7.1	2.3
Wind	21	96	242	520	935	950	1286	27.7	14.5	3.2
Solar and others	0	1	8	13	58	87	109	54.0	22.6	6.6
Geothermal	0	0	0	0	0	1	3	0.0	0.0	20.7
Net Imports (ktoe)	12370	13765	13215	12285	12611	12085	10688	0.7	-0.5	-1.6
Solids	1681	1886	945	1288	1844	1568	1075	-5.6	6.9	-5.3
Oil	8203	8694	7706	6991	6852	6583	6197	-0.6	-1.2	-1.0
Crude oil and Feedstocks	3016	3166	2987	2873	2873	2690	2479	-0.1	-0.4	-1.5
Oil products	5186	5527	4718	4118	3979	3893	3717	-0.9	-1.7	-0.7
Natural gas	2478	3010	4480	3784	3781	3781	3242	6.1	-1.7	-1.5
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Import Dependency (%)	84.9	89.6	86.5	85.8	86.6	84.9	81.0			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	23673	25626	28425	26857	31143	32144	32281	1.8	0.9	0.4
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	8587	8839	6384	6793	6070	5291	3557	-2.9	-0.5	-5.2
Oil (including refinery gas)	4638	3340	605	15	3	15	6	-18.4	-41.0	7.3
Gas (including derived gases)	9263	11574	17705	12617	12731	14131	11891	6.7	-3.2	-0.7
Biomass-waste	95	130	317	660	682	887	1097	12.8	8.0	4.9
Hydro (pumping excluded)	846	631	599	721	771	760	760	-3.4	2.6	-0.2
Wind	244	1112	2815	6049	10869	11044	14954	27.7	14.5	3.2
Solar	0	0	0	1	16	16	16	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	4452	5930	8091	9091	9685	9113	9860	6.2	1.8	0.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	355	751	1611	2724	4222	4275	5506	16.3	10.1	2.7
Hydro (pumping excluded)	236	234	237	237	258	258	258	0.0	0.8	0.0
Wind	119	517	1374	2486	3945	3999	5230	27.7	11.1	2.9
Solar	0	0	0	1	19	19	19	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	4097	5179	6480	6366	5464	4838	4354	4.7	-1.7	-2.2
of which cogeneration units	77	240	285	264	63	266	278	14.0	-14.0	16.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1369	1387	1213	1186	842	842	842	-1.2	-3.6	0.0
Gas fired	1872	2625	4081	3969	3624	3472	3138	8.1	-1.2	-1.4
Oil fired	842	1124	1143	1143	801	326	173	3.1	-3.5	-14.2
Biomass-waste fired	14	43	43	69	197	198	200	11.4	16.6	0.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	57.4	47.1	38.5	32.4	35.6	39.1	36.6			
Efficiency of gross thermal power generation (%)	40.7	43.2	46.8	47.2	47.6	47.3	47.2			
% of gross electricity from CHP	2.4	1.7	6.7	8.4	2.8	12.0	13.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	5.0	7.3	13.1	27.7	39.6	39.5	52.1			
Fuel Inputs to Thermal Power Generation (ktoe)	4775	4758	4600	3661	3518	3697	3019	-0.4	-2.6	-1.5
Solids	1930	1920	1358	1448	1344	1173	798	-3.5	-0.1	-5.1
Oil (including refinery gas)	997	769	128	4	1	4	1	-18.5	-40.4	7.4
Gas (including derived gases)	1825	2040	3039	2066	2020	2308	1962	5.2	-4.0	-0.3
Biomass & Waste	24	30	75	143	153	212	258	12.2	7.5	5.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	3341	3204	3033	3024	3133	2964	2767	-1.0	0.3	-1.2
Refineries	3341	3203	2940	2933	2926	2736	2523	-1.3	0.0	-1.5
Biofuels and hydrogen production	0	1	93	89	199	193	194	0.0	7.9	-0.3
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	0	0	0	2	8	36	49	0.0	2204.5	20.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Ireland: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	50	65	70	69	78	86	92	3.4	1.1	1.7
Public road transport	7	8	8	9	9	9	9	2.0	0.3	0.6
Private cars and motorcycles	35	45	48	46	52	58	62	3.3	0.8	1.8
Rail	1	2	2	2	2	2	2	2.7	1.0	1.0
Aviation ⁽¹⁾	6	10	10	11	14	16	17	5.2	3.1	1.9
Inland navigation	1	1	1	1	1	1	1	0.9	1.0	0.9
Freight transport activity (Gtkm)	12	17	11	12	14	15	17	-0.9	2.4	2.5
Heavy goods and light commercial vehicles	11	17	10	11	13	15	17	-0.5	2.4	2.5
Rail	0	0	0	0	0	0	0	-15.4	1.2	1.5
Inland navigation	0	0	0	0	0	0	0	-2.5	1.4	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	4082	5078	4715	4586	4762	4744	4811	1.5	0.1	0.1
Public road transport	96	101	110	111	111	113	113	1.4	0.1	0.2
Private cars and motorcycles	2206	2577	2807	2583	2525	2410	2325	2.4	-1.1	-0.8
Heavy goods and light commercial vehicles	1086	1482	967	1019	1135	1228	1343	-1.2	1.6	1.7
Rail	40	42	44	44	47	49	50	0.8	0.7	0.6
Aviation	629	857	767	809	921	921	956	2.0	1.8	0.4
Inland navigation	25	18	20	21	22	23	24	-2.1	1.0	0.8
By transport activity										
Passenger transport	2958	3559	3724	3544	3602	3489	3441	2.3	-0.3	-0.5
Freight transport	1124	1519	990	1042	1160	1255	1370	-1.3	1.6	1.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.8	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.0	2.0	4.4	4.9	5.1			
ENERGY EFFICIENCY										
Primary energy consumption	13750	14749	14850	13848	14042	13675	12630	0.8	-0.6	-1.1
Final Energy Demand	10779	12597	11957	11423	11762	11318	10690	1.0	-0.2	-1.0
by sector										
Industry	2498	2582	2146	2453	2561	2414	2290	-1.5	1.8	-1.1
Energy intensive industries	1245	1341	1023	1166	1182	1022	902	-1.9	1.4	-2.7
Other industrial sectors	1252	1241	1123	1287	1380	1392	1388	-1.1	2.1	0.1
Residential	2513	2954	3296	2823	2857	2740	2356	2.7	-1.4	-1.9
Tertiary	1684	1979	1799	1556	1577	1415	1228	0.7	-1.3	-2.5
Transport ⁽⁵⁾	4085	5082	4715	4590	4767	4749	4817	1.4	0.1	0.1
by fuel										
Solids	671	751	604	567	501	396	279	-1.0	-1.9	-5.7
Oil	7045	8204	7270	6439	6230	5925	5541	0.3	-1.5	-1.2
Gas	1200	1364	1593	1883	1928	1641	1449	2.9	1.9	-2.8
Electricity	1745	2094	2186	2107	2262	2335	2385	2.3	0.3	0.5
Heat (from CHP and District Heating)	0	0	0	1	14	36	63	0.0	0.0	15.9
Renewable energy forms	118	184	304	424	820	948	921	10.0	10.4	1.2
Other	0	0	0	2	8	36	52	0.0	1734.1	20.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	111	93	92	78	70	63	53	-1.9	-2.8	-2.6
Industry (Energy on Value added, index 2000=100)	100	85	75	80	73	64	56	-2.8	-0.3	-2.6
Residential (Energy on Private Income, index 2000=100)	100	95	98	86	75	63	48	-0.2	-2.7	-4.3
Tertiary (Energy on Value added, index 2000=100)	100	97	82	64	57	47	38	-1.9	-3.6	-4.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	51	46	46	43	38	34	31	-1.2	-1.8	-2.2
Freight transport (toe/Mtkm)	96	88	92	89	86	81	79	-0.3	-0.7	-0.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.8	73.1	65.0	63.1	61.3	59.7	55.1	-1.0	-0.6	-1.1
of which ETS sectors (2013 scope) GHG emissions		25.4	20.0	18.5	17.6	16.9	14.0		-1.2	-2.3
of which ESD sectors (2013 scope) GHG emissions		47.8	45.0	44.6	43.7	42.8	41.1		-0.3	-0.6
CO ₂ Emissions (energy related)	43.2	47.3	42.0	37.8	36.1	34.1	29.6	-0.3	-1.5	-2.0
Power generation/District heating	15.6	15.3	13.3	11.0	10.3	10.3	7.9	-1.6	-2.5	-2.6
Energy Branch	0.3	0.4	0.3	0.4	0.3	0.2	0.2	-1.3	-1.1	-1.3
Industry	5.3	5.6	3.6	3.8	3.4	2.6	2.0	-3.9	-0.5	-5.1
Residential	6.4	7.2	7.8	6.5	6.1	5.4	4.2	2.1	-2.5	-3.6
Tertiary	3.4	3.5	3.1	2.5	2.4	2.0	1.6	-0.7	-2.8	-4.0
Transport	12.3	15.3	13.9	13.6	13.8	13.6	13.7	1.3	-0.1	-0.1
CO ₂ Emissions (non energy and non land use related)	2.9	2.7	1.4	1.8	1.9	1.9	1.7	-7.0	3.1	-1.3
Non-CO2 GHG emissions	25.6	23.1	21.5	23.5	23.2	23.8	23.8	-1.7	0.8	0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.2	126.5	112.3	109.1	106.0	103.3	95.3	-1.0	-0.6	-1.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.66	0.60	0.47	0.41	0.33	0.31	0.24	-3.4	-3.5	-3.1
Final energy demand (t of CO ₂ /toe)	2.53	2.51	2.38	2.32	2.18	2.08	2.01	-0.6	-0.9	-0.8
Industry	2.13	2.16	1.66	1.56	1.33	1.09	0.88	-2.5	-2.2	-4.0
Residential	2.53	2.44	2.37	2.30	2.13	1.96	1.79	-0.7	-1.1	-1.7
Tertiary	1.99	1.77	1.74	1.63	1.50	1.39	1.28	-1.3	-1.5	-1.6
Transport	3.00	3.01	2.96	2.96	2.89	2.87	2.84	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.0	2.8	5.6	8.7	15.4	17.9	22.6			
RES-H&C share	2.4	3.5	4.5	6.1	12.0	17.1	20.6			
RES-E share	4.8	7.2	14.5	26.5	41.7	41.7	54.6			
RES-T share (based on ILUC formula)	0.0	0.0	2.4	4.3	10.0	12.3	16.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	72	75	89	92	96	92	5.9	2.1	0.0
Average Price of Electricity in Final demand sectors (€13/MWh)	117	147	158	175	178	182	178	3.0	1.2	0.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.8	13.9	15.5	15.6	18.8	20.7	22.4	4.7	1.9	1.7
as % of GDP	7.5	8.4	9.4	8.5	9.1	9.2	9.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Italy: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	57	58	59	61	62	63	64	0.4	0.5	0.3
GDP (in 000 M€13)	1564	1643	1622	1565	1675	1776	1695	0.4	0.3	1.2
Gross Inland Consumption (ktoe)	174219	187471	174761	159035	161276	150404	136294	0.0	-0.8	-1.7
Solids	12550	16461	14170	16106	18599	11535	6515	1.2	2.8	-10.0
Oil	89540	83963	69558	61171	56699	51049	45284	-2.5	-2.0	-2.2
Natural gas	57945	70651	68057	56177	59847	57212	52670	1.6	-1.3	-1.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7
Renewable energy forms	10371	12170	19180	21628	23554	27845	29072	6.3	2.1	2.1
Energy Branch Consumption	7704	10052	9539	8520	8166	7211	6495	2.2	-1.5	-2.3
Non-Energy Uses	9019	8607	9560	7050	7322	7453	7364	0.6	-2.6	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	28400	27839	29560	30750	31740	34676	35528	0.4	0.7	1.1
Solids	3	60	64	55	0	0	0	33.7	-100.0	0.0
Oil	4915	6376	5687	5142	5667	5611	5603	1.5	0.0	-0.1
Natural gas	13627	9886	6885	6760	5764	4589	3983	-6.6	-1.8	-3.6
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	9856	11516	16924	18793	20310	24476	25942	5.6	1.8	2.5
Hydro	3800	3101	4395	4138	4087	4212	4236	1.5	-0.7	0.4
Biomass & Waste	1736	3392	6670	10105	11373	12753	12674	14.4	5.5	1.1
Wind	48	202	785	1258	1260	2149	2702	32.1	4.8	7.9
Solar and others	12	30	298	2199	2500	4199	5085	37.4	23.7	7.4
Geothermal	4259	4791	4776	1092	1089	1164	1245	1.2	-13.7	1.3
Net Imports (ktoe)	152069	160241	149804	131764	133118	119451	104610	-0.1	-1.2	-2.4
Solids	13133	16367	14301	16050	18599	11535	6515	0.9	2.7	-10.0
Oil	87599	79154	67826	59509	54557	49032	43176	-2.5	-2.2	-2.3
Crude oil and Feedstocks	89451	94307	84882	68525	61695	54911	48093	-0.5	-3.1	-2.5
Oil products	-1852	-15153	-17056	-9016	-7138	-5880	-4917	24.9	-8.3	-3.7
Natural gas	47008	59840	61600	49416	54139	52752	49035	2.7	-1.3	-1.0
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7
Import Dependency (%)	86.5	84.5	84.3	81.1	80.7	77.5	74.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	269941	296840	298773	288966	317921	309161	295513	1.0	0.6	-0.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	26272	43606	39734	58856	67163	41209	21118	4.2	5.4	-10.9
Oil (including refinery gas)	85878	47124	21714	8781	7794	4655	3138	-12.8	-9.7	-8.7
Gas (including derived gases)	106398	156191	158215	110293	127583	108039	99228	4.0	-2.1	-2.5
Biomass-waste	1908	6153	11586	18671	21446	31625	33068	19.8	6.4	4.4
Hydro (pumping excluded)	44199	36067	51116	48116	47527	48981	49252	1.5	-0.7	0.4
Wind	563	2344	9126	14628	14646	24983	31417	32.1	4.8	7.9
Solar	17	31	1906	23409	25552	43458	52082	59.9	29.6	7.4
Geothermal and other renewables	4706	5324	5376	6210	6210	6210	6210	1.3	1.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	71896	82950	104920	127454	122844	126718	126245	3.9	1.6	0.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	16770	18701	26470	46375	47826	62485	70958	4.7	6.1	4.0
Hydro (pumping excluded)	16390	17036	17563	18512	18805	18805	18855	0.7	0.7	0.0
Wind	363	1635	5794	8958	8963	12305	14992	31.9	4.5	5.3
Solar	17	30	3113	18905	20057	31375	37111	68.3	20.5	6.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	55126	64249	78450	81079	75018	64232	55287	3.6	-0.4	-3.0
of which cogeneration units	6476	5888	7351	17207	16822	17038	14096	1.3	8.6	-1.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	9518	8279	9511	9511	8858	5103	5098	0.0	-0.7	-5.4
Gas fired	22819	36431	51677	52045	51358	46872	41410	8.5	-0.1	-2.1
Oil fired	21763	17998	14748	13928	8629	5984	2170	-3.8	-5.2	-12.9
Biomass-waste fired	436	870	1774	4810	5388	5488	5823	15.1	11.7	0.8
Hydrogen plants	0	0	12	12	12	12	12	0.0	0.0	0.0
Geothermal heat	590	671	728	773	773	773	773	2.1	0.6	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	40.8	39.1	31.3	24.8	28.4	26.9	26.0			
Efficiency of gross thermal power generation (%)	39.4	37.7	37.7	45.5	45.6	45.9	46.0			
% of gross electricity from CHP	8.3	9.0	11.5	15.3	15.4	11.4	11.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	19.0	16.8	26.5	38.4	36.3	50.2	58.2			
Fuel Inputs to Thermal Power Generation (ktoe)	49150	58911	53964	38349	43374	35930	30441	0.9	-2.2	-3.5
Solids	6045	10399	9484	12963	14694	8342	4279	4.6	4.5	-11.6
Oil (including refinery gas)	18954	12079	7365	1905	1674	1123	862	-9.0	-13.8	-6.4
Gas (including derived gases)	19668	29585	28966	18745	21735	18997	17451	3.9	-2.8	-2.2
Biomass & Waste	438	2270	3527	3795	4330	6527	6909	23.2	2.1	4.8
Geothermal heat	4046	4578	4623	941	941	941	941	1.3	-14.7	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	101609	106909	97409	78677	74312	67227	59806	-0.4	-2.7	-2.1
Refineries	95900	101959	91472	74873	68917	62283	55459	-0.5	-2.8	-2.1
Biofuels and hydrogen production	0	177	1419	1593	2210	1996	1867	0.0	4.5	-1.7
District heating	0	0	110	121	122	122	113	0.0	1.1	-0.8
Derived gases, cokeries etc.	5709	4773	4408	2090	3063	2826	2367	-2.6	-3.6	-2.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Italy: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	943	931	952	967	1020	1053	1088	0.1	0.7	0.6
Public road transport	93	101	102	105	107	109	110	0.9	0.5	0.3
Private cars and motorcycles	756	727	740	746	781	799	821	-0.2	0.5	0.5
Rail	55	56	54	55	63	70	77	-0.2	1.5	2.0
Aviation ⁽³⁾	34	43	51	56	63	70	75	4.3	2.2	1.7
Inland navigation	5	5	5	5	5	5	6	-0.3	0.5	1.1
Freight transport activity (Gtkm)	253	303	268	271	290	306	324	0.6	0.8	1.1
Heavy goods and light commercial vehicles	192	226	202	203	217	228	240	0.5	0.7	1.0
Rail	23	23	19	20	22	24	26	-2.0	1.7	1.6
Inland navigation	38	54	48	48	51	54	58	2.4	0.5	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	42174	44377	41220	39856	38983	36975	35658	-0.2	-0.6	-0.9
Public road transport	1061	1231	1245	1278	1309	1302	1280	1.6	0.5	-0.2
Private cars and motorcycles	27882	27505	25835	24747	23387	21162	19789	-0.8	-1.0	-1.7
Heavy goods and light commercial vehicles	7944	10062	8686	8259	8425	8441	8475	0.9	-0.3	0.1
Rail	526	492	463	487	522	560	586	-1.3	1.2	1.2
Aviation	3491	3700	3863	4073	4275	4382	4350	1.0	1.0	0.2
Inland navigation	1269	1387	1128	1012	1065	1128	1178	-1.2	-0.6	1.0
By transport activity										
Passenger transport	33399	32865	31375	30531	29429	27337	25932	-0.6	-0.6	-1.3
Freight transport	8775	11512	9844	9324	9554	9638	9725	1.2	-0.3	0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	3.5	4.1	5.8	5.7	5.5			
ENERGY EFFICIENCY										
Primary energy consumption	165200	178864	165201	151985	153954	142952	128930	0.0	-0.7	-1.8
Final Energy Demand	125579	134544	124781	122385	122433	116846	106705	-0.1	-0.2	-1.4
by sector										
Industry	40502	39858	30905	27952	28623	26977	24982	-2.7	-0.8	-1.4
Energy intensive industries	25289	25477	19382	16985	17615	16624	15092	-2.6	-1.0	-1.5
Other industrial sectors	15214	14382	11523	10966	11008	10353	9891	-2.7	-0.5	-1.1
Residential	27656	31313	31959	34859	34812	33663	29585	1.5	0.9	-1.6
Tertiary	14901	18537	20182	19017	19273	18472	15711	3.1	-0.5	-2.0
Transport ⁽⁵⁾	42519	44836	41734	40557	39726	37734	36426	-0.2	-0.5	-0.9
by fuel										
Solids	3586	3980	2910	2094	2647	2148	1250	-2.1	-0.9	-7.2
Oil	57249	59005	48733	45659	41835	37328	32495	-1.6	-1.5	-2.5
Gas	38022	40609	38499	36390	37257	37364	34441	0.1	-0.3	-0.8
Electricity	23472	25871	25736	25288	26270	25982	25071	0.9	0.2	-0.5
Heat (from CHP and District Heating)	1449	3082	3332	3592	3778	3835	3695	8.7	1.3	-0.2
Renewable energy forms	1802	1997	5570	9356	10630	10104	9596	11.9	6.7	-1.0
Other	0	0	0	6	17	84	158	0.0	0.0	24.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	111	114	108	102	96	85	72	-0.3	-1.1	-2.8
Industry (Energy on Value added, index 2000=100)	100	100	83	79	77	71	63	-1.8	-0.7	-2.0
Residential (Energy on Private Income, index 2000=100)	100	109	110	123	114	103	85	0.9	0.4	-2.8
Tertiary (Energy on Value added, index 2000=100)	100	117	126	121	114	102	82	2.3	-1.0	-3.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	33	33	30	29	26	23	21	-1.0	-1.5	-2.0
Freight transport (toe/Mtkm)	35	38	37	34	33	31	30	0.6	-1.1	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	558.5	592.5	509.9	457.0	458.6	399.3	346.3	-0.9	-1.1	-2.8
of which ETS sectors (2013 scope) GHG emissions		261.5	213.8	172.1	188.2	148.1	120.8		-1.3	-4.3
of which ESD sectors (2013 scope) GHG emissions		331.0	296.1	284.8	270.4	251.2	225.5		-0.9	-1.8
CO ₂ Emissions (energy related)	432.5	470.4	404.2	354.7	361.3	308.5	260.7	-0.7	-1.1	-3.2
Power generation/District heating	137.1	158.5	135.9	106.9	122.0	86.5	65.5	-0.1	-1.1	-6.0
Energy Branch	15.9	18.4	16.4	14.1	12.9	11.2	10.2	0.4	-2.4	-2.3
Industry	78.0	72.5	49.5	42.3	42.6	37.3	29.9	-4.5	-1.5	-3.5
Residential	53.4	59.9	53.6	51.4	49.7	48.1	40.1	0.0	-0.8	-2.1
Tertiary	24.4	29.3	30.2	26.0	25.5	23.6	19.0	2.2	-1.7	-2.9
Transport	123.7	131.8	118.6	114.0	108.7	101.8	96.1	-0.4	-0.9	-1.2
CO ₂ Emissions (non energy and non land use related)	28.6	30.8	24.1	21.1	21.8	21.6	21.5	-1.7	-1.0	-0.1
Non-CO2 GHG emissions	97.3	91.3	81.6	81.2	75.5	69.2	64.1	-1.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	106.3	112.8	97.1	87.0	87.3	76.0	65.9	-0.9	-1.1	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.47	0.45	0.38	0.31	0.32	0.23	0.18	-2.0	-1.7	-5.4
Final energy demand (t of CO ₂ /toe)	2.23	2.18	2.02	1.91	1.85	1.80	1.73	-1.0	-0.9	-0.6
Industry	1.93	1.82	1.60	1.51	1.49	1.38	1.20	-1.8	-0.7	-2.2
Residential	1.93	1.91	1.68	1.48	1.43	1.43	1.35	-1.4	-1.6	-0.5
Tertiary	1.64	1.58	1.50	1.37	1.32	1.28	1.21	-0.9	-1.2	-0.9
Transport	2.91	2.94	2.84	2.81	2.74	2.70	2.64	-0.2	-0.4	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	5.8	10.5	18.2	19.8	24.0	28.7			
RES-H&C share	2.9	4.6	10.4	20.1	22.3	24.9	31.2			
RES-E share	15.7	16.3	20.1	33.6	32.5	44.9	51.9			
RES-T share (based on ILUC formula)	0.6	1.1	5.0	7.1	10.6	13.3	17.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	66	77	90	86	93	99	100	3.2	0.4	0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	140	130	153	152	157	167	172	0.9	0.3	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	134.7	151.9	164.9	170.7	190.0	203.1	223.8	2.0	1.4	1.6
as % of GDP	8.6	9.2	10.2	10.9	11.3	11.4	11.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Latvia: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	2	2	2	2	2	2	2	-1.2	-1.0	-1.4
GDP (in 000 M€13)	13	20	19	23	27	29	31	3.6	3.5	1.7
Gross Inland Consumption (ktoe)	3864	4592	4629	4341	4528	4651	4296	1.8	-0.2	-0.5
Solids	132	82	109	84	72	46	29	-1.9	-4.1	-8.8
Oil	1295	1487	1521	1464	1433	1391	1277	1.6	-0.6	-1.1
Natural gas	1092	1358	1462	867	923	1139	800	3.0	-4.5	-1.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6
Renewable energy forms	1191	1481	1463	1758	1956	1998	2022	2.1	3.0	0.3
Energy Branch Consumption	39	42	48	33	36	40	30	2.1	-2.9	-1.8
Non-Energy Uses	75	97	73	105	127	143	147	-0.3	5.7	1.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	1411	1868	1979	2228	2482	2509	2520	3.4	2.3	0.2
Solids	16	3	2	1	0	0	0	-17.4	-100.0	0.0
Oil	2	7	2	0	0	0	0	1.1	-100.0	0.0
Natural gas	0	0	0	0	0	0	0	2.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1393	1858	1975	2228	2482	2509	2520	3.6	2.3	0.2
Hydro	242	286	303	248	272	272	272	2.2	-1.1	0.0
Biomass & Waste	1150	1568	1668	1972	2155	2179	2124	3.8	2.6	-0.1
Wind	0	4	4	8	54	55	122	30.2	29.1	8.5
Solar and others	0	0	0	0	1	2	2	0.0	0.0	4.4
Geothermal	0	0	0	0	0	0	0	0.0	0.0	10.6
Net Imports (ktoe)	2361	3097	2220	2456	2406	2511	2153	-0.6	0.8	-1.1
Solids	61	77	112	84	72	46	29	6.3	-4.4	-8.8
Oil	1235	1783	1671	1807	1788	1749	1625	3.1	0.7	-1.0
Crude oil and Feedstocks	87	4	2	0	0	0	0	-31.8	-100.0	0.0
Oil products	1148	1779	1669	1807	1788	1749	1625	3.8	0.7	-1.0
Natural gas	1113	1434	903	867	928	1151	830	-2.1	0.3	-1.1
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6
Import Dependency (%)	61.0	63.9	45.5	52.4	49.2	50.0	46.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	4136	4906	6627	5587	6679	8073	7283	4.8	0.1	0.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	78	0	2	78	108	88	66	-30.7	49.0	-4.8
Oil (including refinery gas)	107	6	2	0	0	0	0	-32.8	-100.0	0.0
Gas (including derived gases)	1128	1486	2988	2023	2119	3384	1686	10.2	-3.4	-2.3
Biomass-waste	0	41	66	511	662	798	955	0.0	25.9	3.7
Hydro (pumping excluded)	2819	3326	3520	2878	3160	3160	3160	2.2	-1.1	0.0
Wind	4	47	49	95	628	640	1416	28.5	29.1	8.5
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2089	2162	2546	2837	3101	3106	3404	2.0	2.0	0.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	1515	1562	1606	1652	1872	1873	2140	0.6	1.5	1.3
Hydro (pumping excluded)	1513	1536	1576	1589	1589	1589	1589	0.4	0.1	0.0
Wind	2	26	30	62	281	283	549	31.1	25.1	6.9
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	574	600	940	1185	1229	1232	1265	5.1	2.7	0.3
of which cogeneration units	254	586	870	1026	1028	1079	1110	13.1	1.7	0.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	23	2	21	21	21	21	21	-0.9	0.0	0.0
Gas fired	522	572	893	1098	1098	1090	1090	5.5	2.1	-0.1
Oil fired	27	15	15	15	15	15	15	-5.4	0.0	0.0
Biomass-waste fired	2	10	10	50	95	105	138	17.8	24.9	3.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.2	23.3	27.2	20.9	23.1	28.0	23.3			
Efficiency of gross thermal power generation (%)	20.7	21.9	32.3	45.9	45.5	45.6	37.1			
% of gross electricity from CHP	31.4	30.7	45.0	38.6	33.9	45.5	29.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.3	69.6	54.9	62.4	66.7	57.0	76.0			
Fuel Inputs to Thermal Power Generation (ktoe)	545	602	815	490	546	806	627	4.1	-3.9	1.4
Solids	53	1	9	13	17	14	10	-15.9	6.4	-5.1
Oil (including refinery gas)	84	19	10	0	0	0	0	-19.3	-100.0	0.0
Gas (including derived gases)	408	562	767	360	384	595	371	6.5	-6.7	-0.3
Biomass & Waste	0	22	29	117	144	197	245	0.0	17.4	5.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	570	479	383	344	425	408	365	-3.9	1.1	-1.5
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	3	27	37	89	73	67	0.0	12.6	-2.7
District heating	569	476	356	307	336	333	294	-4.6	-0.6	-1.3
Derived gases, cokeries etc.	1	0	0	0	0	2	4	-95.3	1788.1	29.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Latvia: EU CO2		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	15	17	18	18	20	21	22	1.5	1.0	1.2
Public road transport	2	3	2	2	2	3	3	-0.2	0.7	0.4
Private cars and motorcycles	12	12	13	13	14	14	15	0.8	0.7	0.7
Rail	1	1	1	1	1	1	1	-1.2	1.8	3.0
Aviation ⁽³⁾	0	1	2	2	2	3	4	20.4	2.2	3.6
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	15	24	21	24	26	30	33	3.1	2.2	2.4
Heavy goods and light commercial vehicles	2	4	4	4	5	5	6	5.8	2.2	1.6
Rail	13	20	17	20	21	24	27	2.6	2.2	2.5
Inland navigation	0	0	0	0	0	0	0	179.2	1.5	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	746	1064	1200	1158	1194	1187	1144	4.9	-0.1	-0.4
Public road transport	51	67	68	65	66	67	67	2.9	-0.3	0.1
Private cars and motorcycles	502	603	673	613	590	531	472	3.0	-1.3	-2.2
Heavy goods and light commercial vehicles	89	242	260	255	292	314	314	11.2	1.2	0.8
Rail	76	94	76	87	91	101	110	0.1	1.8	1.9
Aviation	27	59	118	132	148	166	172	15.9	2.3	1.5
Inland navigation	0	0	5	6	7	8	8	0.0	3.5	1.2
By transport activity										
Passenger transport	582	729	861	811	805	765	713	4.0	-0.7	-1.2
Freight transport	163	335	340	347	389	422	431	7.6	1.4	1.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.3	2.3	3.3	7.6	6.6	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	3789	4495	4556	4237	4401	4508	4148	1.9	-0.3	-0.6
Final Energy Demand	3254	4018	4120	4104	4246	4203	3878	2.4	0.3	-0.9
by sector										
Industry	576	699	774	912	989	1014	975	3.0	2.5	-0.1
Energy intensive industries	229	282	305	277	305	302	268	2.9	0.0	-1.3
Other industrial sectors	348	417	469	635	684	712	708	3.0	3.9	0.3
Residential	1327	1504	1389	1286	1299	1262	1102	0.5	-0.7	-1.6
Tertiary	602	749	756	744	761	737	653	2.3	0.1	-1.5
Transport ⁽⁵⁾	749	1067	1201	1162	1197	1190	1147	4.8	0.0	-0.4
by fuel										
Solids	62	74	94	70	54	32	18	4.2	-5.4	-10.3
Oil	1056	1323	1446	1355	1306	1248	1129	3.2	-1.0	-1.4
Gas	329	508	498	391	437	458	424	4.2	-1.3	-0.3
Electricity	385	493	534	568	621	657	681	3.3	1.5	0.9
Heat (from CHP and District Heating)	598	603	575	524	569	564	502	-0.4	-0.1	-1.2
Renewable energy forms	824	1018	973	1194	1258	1241	1116	1.7	2.6	-1.2
Other	0	0	0	0	0	3	7	0.0	0.0	35.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	293	235	246	189	171	159	137	-1.8	-3.6	-2.2
Industry (Energy on Value added, index 2000=100)	100	87	102	98	93	86	79	0.2	-1.0	-1.6
Residential (Energy on Private Income, index 2000=100)	100	74	67	51	45	39	32	-4.0	-3.9	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	83	82	67	59	52	43	-2.0	-3.2	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	37	41	44	41	37	33	28	1.7	-1.8	-2.7
Freight transport (toe/Mtkm)	11	14	16	14	15	14	13	4.4	-0.8	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.5	11.3	12.3	10.6	10.1	10.3	9.0	1.6	-1.9	-1.2
of which ETS sectors (2013 scope) GHG emissions		3.1	3.6	2.4	2.5	3.0	2.2		-3.7	-1.4
of which ESD sectors (2013 scope) GHG emissions		8.2	8.7	8.3	7.6	7.3	6.8		-1.3	-1.1
CO2 Emissions (energy related)	6.8	7.7	8.3	6.5	6.4	6.7	5.4	2.0	-2.6	-1.7
Power generation/District heating	2.6	2.2	2.4	1.2	1.2	1.6	0.9	-0.9	-6.6	-2.6
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.0	1.1	1.0	0.8	0.8	0.7	0.5	0.0	-2.9	-3.7
Residential	0.3	0.4	0.6	0.4	0.4	0.4	0.3	6.5	-2.2	-2.6
Tertiary	0.7	0.8	0.8	0.7	0.7	0.6	0.5	2.1	-1.8	-2.6
Transport	2.2	3.2	3.5	3.4	3.3	3.3	3.1	4.9	-0.6	-0.6
CO2 Emissions (non energy and non land use related)	0.2	0.2	0.5	0.7	0.7	0.7	0.7	10.4	2.8	0.0
Non-CO2 GHG emissions	3.5	3.3	3.4	3.4	3.0	2.9	2.8	-0.1	-1.3	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	39.5	42.5	46.3	40.0	38.1	38.7	33.8	1.6	-1.9	-1.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.21	0.17	0.16	0.09	0.09	0.11	0.07	-2.2	-6.4	-2.4
Final energy demand (t of CO2/toe)	1.29	1.37	1.45	1.30	1.23	1.19	1.16	1.1	-1.6	-0.6
Industry	1.80	1.55	1.34	0.85	0.78	0.71	0.54	-2.9	-5.2	-3.6
Residential	0.22	0.29	0.40	0.35	0.34	0.31	0.31	6.0	-1.5	-1.0
Tertiary	1.14	1.10	1.12	0.98	0.92	0.84	0.83	-0.2	-1.9	-1.1
Transport	2.93	2.97	2.93	2.90	2.76	2.76	2.70	0.0	-0.6	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	33.5	32.4	30.5	37.5	40.3	42.0	46.5			
RES-H&C share	40.1	43.0	40.9	51.2	51.7	55.4	61.0			
RES-E share	52.7	43.0	42.1	46.2	53.3	51.4	59.9			
RES-T share (based on ILUC formula)	2.1	1.5	3.5	5.2	10.2	12.2	18.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	107	86	93	77	85	92	109	-1.4	-0.9	2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	57	66	107	102	115	125	133	6.5	0.7	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.0	3.4	5.1	4.4	5.1	5.8	6.8	10.0	0.1	2.8
as % of GDP	14.8	17.3	27.0	19.0	19.4	19.9	21.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Lithuania: EUO30			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	4	3	3	3	3	3	2	-1.1	-1.0	-1.8
GDP (in 000 M€13)	19	27	29	35	40	42	43	4.4	3.3	0.7
Gross Inland Consumption (ktoe)	7063	8711	6787	6651	6565	6392	6301	-0.4	-0.3	0.5
Solids	91	185	213	254	197	138	96	8.8	-0.8	-6.9
Oil	2125	2710	2502	2432	2367	2256	1996	1.6	-0.6	-1.7
Natural gas	2064	2477	2492	2122	2092	2241	1565	1.9	-1.7	-2.9
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Renewable energy forms	675	881	1065	1249	1341	1363	1348	4.7	2.3	0.1
Energy Branch Consumption	610	853	743	680	612	595	577	2.0	-1.9	-0.6
Non-Energy Uses	662	804	714	717	793	788	759	0.8	1.1	-0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3269	3900	1318	1358	1472	1485	3479	-8.7	1.1	9.0
Solids	12	20	9	19	7	8	8	-3.0	-2.1	1.3
Oil	352	267	125	77	77	73	68	-9.9	-4.7	-1.2
Natural gas	0	0	0	0	0	0	0	4.2	-100.0	0.0
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Renewable energy sources	682	900	1185	1262	1388	1405	1393	5.7	1.6	0.0
Hydro	29	39	46	38	38	38	38	4.7	-2.0	0.0
Biomass & Waste	653	858	1114	1158	1276	1181	1147	5.5	1.4	-1.1
Wind	0	0	19	60	60	163	163	0.0	12.0	10.6
Solar and others	0	0	0	5	8	7	11	0.0	0.0	3.2
Geothermal	0	3	5	1	6	15	35	0.0	3.1	18.9
Net Imports (ktoe)	4247	5026	5668	5454	5257	5076	3592	2.9	-0.7	-3.7
Solids	80	174	196	235	190	131	88	9.4	-0.3	-7.4
Oil	2223	2622	2607	2516	2451	2345	2085	1.6	-0.6	-1.6
Crude oil and Feedstocks	4760	9029	9339	9639	9124	8588	7936	7.0	-0.2	-1.4
Oil products	-2537	-6408	-6732	-7123	-6672	-6242	-5851	10.3	-0.1	-1.3
Natural gas	2065	2493	2485	2122	2096	2249	1578	1.9	-1.7	-2.8
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Import Dependency (%)	59.4	56.8	81.8	80.1	78.1	77.4	50.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	11121	14415	4994	5066	5985	8078	13836	-7.7	1.8	8.7
Nuclear energy	8419	10337	0	0	0	0	9377	-100.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	655	401	647	182	0	0	0	-0.1	-100.0	0.0
Gas (including derived gases)	1707	3217	3436	3028	4060	4896	1180	7.2	1.7	-11.6
Biomass-waste	0	7	147	657	725	782	880	0.0	17.3	1.9
Hydro (pumping excluded)	340	451	540	440	440	440	440	4.7	-2.0	0.0
Wind	0	2	224	695	695	1896	1896	0.0	12.0	10.6
Solar	0	0	0	64	64	64	64	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	5539	4135	2878	3443	2422	2919	3850	-6.3	-1.7	4.7
Nuclear energy	2880	1440	0	0	0	0	1117	-100.0	0.0	0.0
Renewable energy	103	118	249	614	614	1243	1243	9.2	9.4	7.3
Hydro (pumping excluded)	103	117	116	116	116	116	116	1.2	0.0	0.0
Wind	0	1	133	424	424	1053	1053	0.0	12.3	9.5
Solar	0	0	0	74	74	74	74	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2556	2577	2629	2829	1808	1676	1490	0.3	-3.7	-1.9
of which cogeneration units	650	1038	1100	1799	576	1093	744	5.4	-6.3	2.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	3	3	0	0	0	0	0	-100.0	0.0	0.0
Gas fired	1736	1781	1822	1992	1519	1519	1348	0.5	-1.8	-1.2
Oil fired	817	793	770	770	200	48	0	-0.6	-12.6	-55.4
Biomass-waste fired	0	0	37	67	90	109	142	0.0	9.3	4.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.1	36.5	18.3	15.0	26.4	29.9	38.9			
Efficiency of gross thermal power generation (%)	22.0	25.1	28.4	36.6	47.0	45.2	27.3			
% of gross electricity from CHP	15.5	15.5	34.6	45.5	51.0	44.0	10.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	78.8	74.9	18.2	36.6	32.2	39.4	91.5			
Fuel Inputs to Thermal Power Generation (ktoe)	924	1240	1282	909	875	1081	650	3.3	-3.7	-2.9
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil (including refinery gas)	200	178	100	49	0	0	0	-6.7	-100.0	0.0
Gas (including derived gases)	723	1057	1117	725	712	860	377	4.4	-4.4	-6.2
Biomass & Waste	1	5	65	135	163	221	273	59.7	9.7	5.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	7911	12651	9987	10232	9878	9355	10602	2.4	-0.1	0.7
Refineries	5032	9415	9446	9704	9277	8810	8160	6.5	-0.2	-1.3
Biofuels and hydrogen production	0	3	45	59	113	101	93	0.0	9.7	-2.0
District heating	656	520	496	468	488	444	337	-2.7	-0.2	-3.6
Derived gases, cokeries etc.	2223	2713	0	0	0	1	2011	0.0	0.0	154.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Lithuania: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	30	40	38	39	41	43	44	2.3	1.0	0.7
Public road transport	3	4	3	3	3	3	3	-0.2	0.6	0.2
Private cars and motorcycles	26	35	33	34	36	37	38	2.4	0.8	0.6
Rail	1	0	0	0	1	1	1	-4.8	3.4	1.7
Aviation ⁽³⁾	0	1	1	2	2	2	2	14.6	4.2	2.5
Inland navigation	0	0	0	0	0	0	0	0.4	1.4	0.8
Freight transport activity (Gtkm)	11	17	19	20	24	26	27	5.3	2.6	1.3
Heavy goods and light commercial vehicles	2	4	5	6	7	7	7	9.1	2.8	0.5
Rail	9	12	13	14	17	19	20	4.2	2.5	1.6
Inland navigation	0	0	0	0	0	0	0	0.4	1.7	0.7
Energy demand in transport (ktoe) ⁽⁴⁾	1054	1413	1521	1582	1630	1574	1473	3.7	0.7	-1.0
Public road transport	40	51	40	41	41	41	39	0.0	0.3	-0.4
Private cars and motorcycles	705	845	919	881	871	802	721	2.7	-0.5	-1.9
Heavy goods and light commercial vehicles	204	387	443	517	555	559	547	8.1	2.3	-0.1
Rail	76	79	65	67	78	80	80	-1.5	1.8	0.3
Aviation	27	46	49	69	79	85	78	6.1	4.9	-0.1
Inland navigation	3	5	6	6	7	7	7	7.2	1.3	0.5
By transport activity										
Passenger transport	777	947	1013	998	998	934	846	2.7	-0.2	-1.6
Freight transport	277	466	508	584	632	639	627	6.2	2.2	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.2	3.0	3.8	7.0	6.6	6.5			
ENERGY EFFICIENCY										
Primary energy consumption	6401	7907	6073	5934	5772	5603	6142	-0.5	-0.5	0.6
Final Energy Demand	3767	4601	4763	4996	5032	4786	4214	2.4	0.6	-1.8
by sector										
Industry	780	987	898	1172	1184	1192	1074	1.4	2.8	-1.0
Energy intensive industries	363	436	486	689	694	694	617	3.0	3.6	-1.2
Other industrial sectors	416	551	412	483	489	498	457	-0.1	1.7	-0.7
Residential	1368	1509	1599	1498	1436	1318	1082	1.6	-1.1	-2.8
Tertiary	563	672	720	718	757	677	564	2.5	0.5	-2.9
Transport ⁽⁵⁾	1057	1433	1546	1608	1656	1599	1494	3.9	0.7	-1.0
by fuel										
Solids	82	177	208	238	180	120	77	9.8	-1.4	-8.2
Oil	1356	1616	1613	1664	1693	1595	1428	1.7	0.5	-1.7
Gas	363	519	567	649	600	606	495	4.6	0.6	-1.9
Electricity	533	686	717	832	893	884	850	3.0	2.2	-0.5
Heat (from CHP and District Heating)	827	905	922	870	910	896	738	1.1	-0.1	-2.1
Renewable energy forms	605	698	738	743	757	683	624	2.0	0.3	-1.9
Other	0	0	0	0	0	1	3	0.0	0.0	30.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	374	317	234	191	164	151	161	-4.6	-3.5	-0.2
Industry (Energy on Value added, index 2000=100)	100	80	66	74	69	66	60	-4.1	0.4	-1.4
Residential (Energy on Private Income, index 2000=100)	100	72	76	59	50	43	34	-2.7	-4.2	-3.6
Tertiary (Energy on Value added, index 2000=100)	100	88	87	72	65	54	45	-1.3	-2.9	-3.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	26	23	27	25	24	21	19	0.3	-1.2	-2.3
Freight transport (toe/Mtkm)	25	27	27	29	26	24	23	0.9	-0.3	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.8	24.8	23.0	21.3	19.5	18.9	16.0	1.5	-1.6	-1.9
of which ETS sectors (2013 scope) GHG emissions		11.7	9.4	7.8	7.0	7.2	5.1		-2.9	-3.1
of which ESD sectors (2013 scope) GHG emissions		13.2	13.6	13.4	12.5	11.7	10.9		-0.8	-1.3
CO ₂ Emissions (energy related)	10.3	12.4	12.3	11.4	10.7	10.5	8.0	1.8	-1.4	-2.9
Power generation/District heating	4.0	4.0	3.7	2.4	2.1	2.5	1.1	-0.8	-5.4	-6.3
Energy Branch	1.1	1.7	1.6	1.5	1.4	1.3	1.1	3.8	-1.4	-2.0
Industry	1.1	1.3	1.2	1.5	1.4	1.4	1.0	0.7	2.2	-3.6
Residential	0.5	0.6	0.8	0.8	0.6	0.4	0.4	3.7	-2.6	-4.8
Tertiary	0.5	0.6	0.6	0.6	0.6	0.4	0.3	2.2	-0.6	-5.8
Transport	3.1	4.2	4.5	4.6	4.6	4.4	4.1	3.7	0.2	-1.2
CO ₂ Emissions (non energy and non land use related)	1.5	3.1	2.8	2.3	2.4	2.3	2.1	6.0	-1.4	-1.5
Non-CO2 GHG emissions	8.0	9.3	7.9	7.6	6.4	6.2	6.0	0.0	-2.1	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	41.1	51.5	47.7	44.1	40.4	39.3	33.2	1.5	-1.6	-1.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.14	0.21	0.14	0.12	0.13	0.05	2.3	-5.5	-8.8
Final energy demand (t of CO ₂ /toe)	1.39	1.47	1.48	1.50	1.43	1.40	1.37	0.6	-0.3	-0.5
Industry	1.38	1.35	1.29	1.31	1.21	1.19	0.93	-0.7	-0.6	-2.6
Residential	0.40	0.43	0.50	0.51	0.42	0.33	0.34	2.1	-1.6	-2.1
Tertiary	0.88	0.84	0.86	0.82	0.77	0.64	0.56	-0.3	-1.1	-3.0
Transport	2.94	2.94	2.89	2.87	2.76	2.76	2.72	-0.2	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	15.7	17.0	19.7	22.8	24.1	25.4	27.9			
RES-H&C share	26.1	30.4	33.2	36.7	38.3	37.1	43.4			
RES-E share	4.0	3.8	7.4	15.6	15.4	25.5	26.5			
RES-T share (based on ILUC formula)	0.1	0.3	3.5	4.7	10.2	10.9	11.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	57	174	124	110	110	112	8.7	-4.5	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	64	73	112	104	120	137	159	5.7	0.6	2.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.7	4.0	5.6	5.9	7.1	7.9	8.5	7.6	2.5	1.8
as % of GDP	14.2	14.4	19.3	16.8	17.9	18.6	20.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Luxembourg: EUCO30				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (In million)	0	0	1	1	1	1	1	1.5	2.5	2.2	
GDP (in 000 M€13)	32	38	41	45	52	60	68	2.6	2.3	2.8	
Gross Inland Consumption (ktoe)	3654	4800	4642	4616	4725	4770	4745	2.4	0.2	0.0	
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.2	
Oil	2320	3160	2869	2908	2862	2793	2838	2.2	0.0	-0.1	
Natural gas	671	1176	1197	1031	1044	1141	1033	6.0	-1.4	-0.1	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Renewable energy forms	64	106	160	245	391	417	436	9.6	9.4	1.1	
Energy Branch Consumption	26	30	50	51	55	60	72	6.9	0.9	2.7	
Non-Energy Uses	55	29	33	39	42	45	47	-5.1	2.5	1.1	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	64	111	122	148	265	294	306	6.7	8.1	1.5	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil	0	0	0	0	0	0	0	11.5	-100.0	0.0	
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	64	111	122	148	265	294	306	6.7	8.1	1.5	
Hydro	11	8	9	9	9	10	13	-1.4	0.2	3.0	
Biomass & Waste	51	97	105	119	186	205	178	7.5	5.9	-0.4	
Wind	2	5	5	7	43	42	48	7.4	24.8	1.1	
Solar and others	0	2	3	13	27	37	67	0.0	25.2	9.7	
Geothermal	0	0	0	0	0	0	0	0.0	0.0	14.9	
Net Imports (ktoe)	3639	4671	4503	4468	4461	4476	4439	2.2	-0.1	0.0	
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.2	
Oil	2368	3141	2852	2908	2862	2793	2838	1.9	0.0	-0.1	
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil products	2368	3141	2852	2908	2862	2793	2838	1.9	0.0	-0.1	
Natural gas	671	1176	1197	1031	1044	1141	1033	6.0	-1.4	-0.1	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Import Dependency (%)	99.6	97.3	97.0	96.8	94.4	93.8	93.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	422	3348	3230	2762	3276	3886	4139	22.6	0.1	2.4	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	0	1	1	0	3	3	3	0.0	11.2	0.0	
Gas (including derived gases)	215	3107	2916	2304	2365	2948	2846	29.8	-2.1	1.9	
Biomass-waste	56	76	129	158	175	210	235	8.7	3.1	3.0	
Hydro (pumping excluded)	124	94	108	110	110	114	149	-1.4	0.2	3.0	
Wind	27	52	55	78	501	491	560	7.4	24.7	1.1	
Solar	0	17	21	112	121	121	346	0.0	19.2	11.0	
Geothermal and other renewables	0	1	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	163	574	597	702	971	949	1239	13.8	5.0	2.5	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	47	93	107	212	467	454	759	8.6	15.9	5.0	
Hydro (pumping excluded)	33	34	34	34	34	35	46	0.3	0.0	3.1	
Wind	14	35	44	58	302	288	323	12.1	21.2	0.7	
Solar	0	24	29	120	131	131	390	0.0	16.2	11.6	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	116	481	490	490	504	496	481	15.5	0.3	-0.5	
of which cogeneration units	63	101	121	229	181	128	152	6.7	4.1	-1.8	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0	
Gas fired	103	468	469	469	469	457	442	16.4	0.0	-0.6	
Oil fired	5	5	4	1	2	2	2	-2.3	-7.8	0.0	
Biomass-waste fired	9	9	17	20	34	37	37	7.1	7.1	0.8	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.9	66.2	61.4	44.1	38.0	46.1	37.6				
Efficiency of gross thermal power generation (%)	24.3	47.5	47.4	50.5	50.0	48.5	49.1				
% of gross electricity from CHP	17.7	10.1	9.6	23.3	16.0	8.0	8.6				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	49.1	7.2	9.7	16.6	27.7	24.1	31.2				
Fuel Inputs to Thermal Power Generation (ktoe)	96	576	553	419	438	561	540	19.1	-2.3	2.1	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	1	0	0	0	0	0	0	-100.0	0.0	0.0	
Gas (including derived gases)	66	544	520	383	392	503	484	22.8	-2.8	2.1	
Biomass & Waste	29	32	33	36	46	57	56	1.5	3.2	2.2	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1	3	46	113	152	152	167	57.2	12.7	0.9	
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biofuels and hydrogen production	0	1	42	108	147	146	161	0.0	13.4	0.9	
District heating	1	2	4	5	5	5	5	23.1	2.3	-0.8	
Derived gases, cokeries etc.	0	0	0	0	0	1	2	0.0	0.0	16.4	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Luxembourg, EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	7	8	9	9	10	12	13	1.6	2.0	2.2
Public road transport	1	1	1	1	1	1	1	4.2	1.7	1.3
Private cars and motorcycles	6	6	7	7	8	9	10	1.5	2.0	2.2
Rail	0	0	0	0	0	1	1	0.4	3.1	2.8
Aviation ⁽³⁾	1	1	1	1	1	1	1	-0.5	2.4	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	3	3	3	3	4	5	5	0.8	3.6	1.9
Heavy goods and light commercial vehicles	2	2	2	3	3	4	4	2.8	4.1	1.7
Rail	1	0	0	0	0	0	1	-6.5	1.9	3.2
Inland navigation	0	0	0	0	0	0	0	-0.5	0.9	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	1914	2781	2604	2697	2759	2725	2827	3.1	0.6	0.2
Public road transport	60	92	106	115	122	123	127	5.9	1.4	0.4
Private cars and motorcycles	1153	1521	1341	1311	1216	1124	1172	1.5	-1.0	-0.4
Heavy goods and light commercial vehicles	364	721	709	818	956	975	985	6.9	3.0	0.3
Rail	12	11	13	14	16	18	20	0.8	1.9	2.2
Aviation	321	432	431	435	445	482	520	3.0	0.3	1.6
Inland navigation	4	3	4	3	3	3	3	-1.0	-1.8	1.5
By transport activity										
Passenger transport	1535	2046	1880	1863	1785	1731	1821	2.0	-0.5	0.2
Freight transport	379	735	724	834	974	994	1006	6.7	3.0	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.6	4.0	5.4	5.4	5.4			
ENERGY EFFICIENCY										
Primary energy consumption	3599	4771	4609	4576	4683	4725	4698	2.5	0.2	0.0
Final Energy Demand	3505	4477	4327	4382	4468	4436	4400	2.1	0.3	-0.2
by sector										
Industry	714	754	739	585	589	559	495	0.4	-2.2	-1.7
Energy intensive industries	583	598	601	438	432	396	332	0.3	-3.2	-2.6
Other industrial sectors	130	156	139	148	157	163	163	0.6	1.3	0.3
Residential	468	525	508	498	521	546	501	0.8	0.3	-0.4
Tertiary	409	418	477	601	599	606	577	1.5	2.3	-0.4
Transport ⁽⁵⁾	1914	2781	2604	2697	2759	2725	2827	3.1	0.6	0.2
by fuel										
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.2
Oil	2261	3106	2835	2869	2820	2749	2791	2.3	-0.1	-0.1
Gas	605	631	675	645	652	637	549	1.1	-0.4	-1.7
Electricity	497	529	568	557	599	647	677	1.4	0.5	1.2
Heat (from CHP and District Heating)	13	75	74	80	75	78	70	19.2	0.2	-0.7
Renewable energy forms	22	59	108	181	277	290	283	17.2	9.9	0.2
Other	0	0	0	0	1	3	12	0.0	0.0	34.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	115	126	113	103	91	80	70	-0.1	-2.1	-2.7
Industry (Energy on Value added, index 2000=100)	100	101	133	100	92	78	63	2.9	-3.7	-3.7
Residential (Energy on Private Income, index 2000=100)	100	103	93	90	83	76	61	-0.7	-1.1	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	85	86	98	84	74	61	-1.5	-0.1	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	204	244	209	188	161	139	132	0.3	-2.5	-2.0
Freight transport (toe/Mtkm)	139	268	247	245	234	218	201	5.9	-0.5	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.7	14.1	13.3	12.9	12.8	12.7	12.5	2.2	-0.4	-0.3
of which ETS sectors (2013 scope) GHG emissions		4.2	3.8	3.5	3.4	3.7	3.5		-1.0	0.3
of which ESD sectors (2013 scope) GHG emissions		9.9	9.5	9.5	9.4	9.0	8.9		-0.2	-0.5
CO ₂ Emissions (energy related)	8.9	12.6	11.8	11.4	11.3	11.2	11.0	2.9	-0.4	-0.2
Power generation/District heating	0.2	1.3	1.2	0.9	0.9	1.2	1.1	22.6	-2.8	2.1
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.2	1.1	1.0	0.8	0.8	0.6	0.5	-2.0	-2.8	-4.8
Residential	1.1	1.2	1.1	1.1	1.0	1.0	0.9	0.5	-1.1	-0.9
Tertiary	0.6	0.5	0.6	0.7	0.6	0.6	0.5	-0.6	0.6	-2.8
Transport	5.8	8.4	7.8	7.9	7.9	7.8	8.0	3.1	0.2	0.1
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.6	0.5	0.5	0.5	0.4	-2.1	-1.1	-1.7
Non-CO2 GHG emissions	1.1	0.9	1.0	1.0	1.0	1.0	1.0	-0.9	0.1	-0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	80.3	106.5	100.3	97.4	96.3	95.6	93.7	2.2	-0.4	-0.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.30	0.30	0.25	0.22	0.25	0.23	0.7	-2.9	0.3
Final energy demand (t of CO ₂ /toe)	2.49	2.52	2.43	2.40	2.32	2.26	2.25	-0.2	-0.5	-0.3
Industry	1.71	1.47	1.36	1.39	1.28	1.14	0.93	-2.3	-0.6	-3.1
Residential	2.29	2.28	2.22	2.14	1.93	1.85	1.84	-0.3	-1.4	-0.5
Tertiary	1.59	1.25	1.28	1.23	1.08	0.98	0.85	-2.1	-1.6	-2.4
Transport	3.01	3.04	2.99	2.92	2.88	2.86	2.84	-0.1	-0.4	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.8	1.4	2.9	5.0	8.2	8.9	9.3			
RES-H&C share	1.4	3.6	4.8	6.4	12.3	14.7	15.0			
RES-E share	2.1	3.2	3.8	6.1	12.0	11.4	15.0			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	7.5	10.1	10.8	11.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	87	63	78	82	96	95	100	-1.1	2.1	0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	108	119	110	116	122	132	138	0.1	1.1	1.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.0	4.4	4.6	4.7	5.9	6.4	7.4	4.3	2.5	2.4
as % of GDP	9.5	11.5	11.2	10.4	11.4	10.8	10.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Malta: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	0	0	0	0	0	0	0	0	0.9	0.6	0.4	
GDP (in 000 M€13)	6	6	7	8	8	9	10	1.8	2.1	1.9		
Gross Inland Consumption (ktoe)	802	972	908	675	744	720	677	1.3	-2.0	-0.9		
Solids	0	0	0	0	0	0	0	0.0	0.0	-11.4		
Oil	802	972	903	579	342	332	313	1.2	-9.3	-0.9		
Natural gas	0	0	0	0	338	314	281	0.0	0.0	-1.8		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Renewable energy forms	0	1	5	21	49	57	66	0.0	25.7	2.9		
Energy Branch Consumption	10	2	10	6	5	4	4	0.5	-7.2	-3.3		
Non-Energy Uses	0	20	9	11	12	12	12	0.0	3.4	-0.2		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	0	1	4	16	38	46	59	0.0	24.3	4.6		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	0	1	4	16	38	46	59	0.0	24.3	4.6		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	0	0	1	3	1	2	3	0.0	9.5	8.5		
Wind	0	0	0	0	0	0	1	0.0	0.0	0.0		
Solar and others	0	1	4	13	36	44	55	0.0	25.6	4.3		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	3.0		
Net Imports (ktoe)	1458	1630	2362	2099	2095	2097	2091	4.9	-1.2	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	-11.4		
Oil	1458	1630	2361	2019	1719	1730	1669	4.9	-3.1	-0.3		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	1458	1630	2361	2019	1719	1730	1669	4.9	-3.1	-0.3		
Natural gas	0	0	0	0	349	340	398	0.0	0.0	1.3		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Import Dependency (%)	100.3	100.0	99.0	99.2	98.2	97.8	97.2					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	1917	2240	2115	1402	2477	2600	2475	1.0	1.6	0.0		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1917	2240	2113	1293	0	0	0	1.0	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	2143	2224	1992	0.0	0.0	-0.7		
Biomass-waste	0	0	0	6	8	11	18	0.0	0.0	8.3		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	6	0.0	0.0	0.0		
Solar	0	0	0	103	326	366	459	0.0	0.0	3.5		
Geothermal and other renewables	0	0	2	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	577	577	579	541	786	945	894	0.0	3.1	1.3		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	2	60	185	212	268	0.0	57.2	3.8		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	4	0.0	0.0	0.0		
Solar	0	0	2	60	185	212	264	0.0	57.2	3.6		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	577	577	577	481	601	733	626	0.0	0.4	0.4		
of which cogeneration units	0	0	0	1	1	1	1	0.0	0.0	-5.4		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	238	478	478	0.0	0.0	7.2		
Oil fired	577	577	577	479	361	253	144	0.0	-4.6	-8.8		
Biomass-waste fired	0	0	0	2	2	2	3	0.0	0.0	4.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	35.6	43.8	39.3	28.2	35.1	30.8	31.1					
Efficiency of gross thermal power generation (%)	35.4	29.3	31.7	45.4	54.6	60.9	61.2					
% of gross electricity from CHP	0.0	0.0	0.0	0.4	0.3	0.3	0.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	0.1	7.7	13.5	14.5	19.5					
Fuel Inputs to Thermal Power Generation (ktoe)	465	658	573	246	339	315	282	2.1	-5.1	-1.8		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	465	658	573	245	0	0	0	2.1	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	337	314	281	0.0	0.0	-1.8		
Biomass & Waste	0	0	0	1	1	1	1	0.0	0.0	0.3		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	0	0	1	3	7	7	6	0.0	23.3	-2.6		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	1	3	7	7	6	0.0	23.3	-2.6		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	0	0.0	0.0	21.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Malta: EUO30		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5	5	5	6	7	7	8	1.2	2.2	1.2
Public road transport	0	0	1	1	1	1	1	1	0.8	0.5
Private cars and motorcycles	2	2	2	2	2	2	2	2.0	0.5	0.3
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation ⁽³⁾	2	2	3	3	4	4	5	0.7	3.8	1.8
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Freight transport activity (Gtkm)	0	0	0	0	0	0	0	0	0.3	1.3
Heavy goods and light commercial vehicles	0	0	0	0	0	0	0	0	0.3	1.3
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	268	242	255	256	270	268	264	-0.5	0.6	-0.2
Public road transport	12	13	12	12	12	11	11	-0.3	-0.2	-0.7
Private cars and motorcycles	97	105	110	109	102	90	83	1.2	-0.7	-2.1
Heavy goods and light commercial vehicles	36	37	31	31	34	35	37	-1.5	0.7	0.9
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation	122	87	102	105	122	131	134	-1.8	1.8	0.9
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
By transport activity										
Passenger transport	232	205	224	225	236	233	227	-0.4	0.5	-0.4
Freight transport	36	37	31	31	34	35	37	-1.5	0.7	0.9
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.4	1.2	2.7	2.6	2.1			
ENERGY EFFICIENCY										
Primary energy consumption	802	952	899	664	732	707	665	1.2	-2.0	-1.0
Final Energy Demand	483	478	476	501	546	551	525	-0.1	1.4	-0.4
by sector										
Industry	83	74	48	51	52	52	53	-5.4	0.8	0.3
Energy intensive industries	13	19	8	8	8	8	8	-4.8	-0.1	0.0
Other industrial sectors	70	55	40	44	44	44	45	-5.5	0.9	0.4
Residential	76	77	80	85	101	103	95	0.5	2.4	-0.6
Tertiary	55	85	94	108	124	128	114	5.4	2.8	-0.9
Transport ⁽⁵⁾	268	242	255	256	270	268	264	-0.5	0.6	-0.2
by fuel										
Solids	0	0	0	0	0	0	0	0.0	0.0	-11.4
Oil	348	309	316	323	330	319	301	-1.0	0.4	-0.9
Gas	0	0	0	0	0	0	0	0.0	0.0	9.3
Electricity	135	168	155	166	196	207	199	1.4	2.4	0.2
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0.0	0.0	-0.8
Renewable energy forms	0	1	5	11	20	24	24	0.0	14.2	2.0
Other	0	0	0	0	0	0	0	0.0	0.0	32.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	142	162	134	89	89	78	67	-0.6	-4.0	-2.8
Industry (Energy on Value added, index 2000=100)	100	116	74	73	67	63	60	-2.9	-1.0	-1.2
Residential (Energy on Private Income, index 2000=100)	100	93	89	91	97	88	73	-1.1	0.9	-2.8
Tertiary (Energy on Value added, index 2000=100)	100	137	123	125	130	121	97	2.1	0.5	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	40	39	37	33	30	28	-1.3	-1.8	-1.6
Freight transport (toe/Mtkm)	139	135	116	113	110	107	102	-1.7	-0.6	-0.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	2.8	3.3	3.1	2.1	2.1	2.0	1.8	1.0	-3.9	-1.6
of which ETS sectors (2013 scope) GHG emissions		2.4	2.1	1.1	1.2	1.1	1.1		-6.0	-0.9
of which ESD sectors (2013 scope) GHG emissions		1.0	1.0	1.0	0.9	0.8	0.7		-0.4	-2.5
CO ₂ Emissions (energy related)	2.5	3.0	2.8	1.8	1.8	1.7	1.6	0.9	-4.4	-1.3
Power generation/District heating	1.5	2.1	1.8	0.8	0.8	0.7	0.7	2.1	-8.1	-1.8
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-9.7	0.3	-5.1
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.2	2.4	-3.9
Tertiary	0.0	0.0	0.1	0.1	0.1	0.1	0.0	6.2	-0.7	-2.5
Transport	0.8	0.7	0.8	0.8	0.8	0.8	0.8	-0.5	0.3	-0.3
CO ₂ Emissions (non energy and non land use related)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-17.5	1.7
Non-CO2 GHG emissions	0.3	0.3	0.3	0.3	0.3	0.3	0.2	1.6	-0.5	-3.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	127.9	150.8	141.1	95.1	94.6	88.9	80.9	1.0	-3.9	-1.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.78	0.95	0.87	0.56	0.32	0.28	0.27	1.1	-9.6	-1.8
Final energy demand (t of CO ₂ /toe)	2.17	1.94	1.99	1.93	1.80	1.74	1.72	-0.9	-1.0	-0.5
Industry	1.55	1.43	0.97	1.00	0.93	0.83	0.53	-4.6	-0.4	-5.4
Residential	1.02	0.80	0.86	0.91	0.86	0.71	0.62	-1.7	0.0	-3.3
Tertiary	0.67	0.40	0.72	0.73	0.51	0.46	0.43	0.7	-3.4	-1.6
Transport	3.00	3.00	2.99	2.96	2.92	2.92	2.91	0.0	-0.2	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.0	0.1	1.0	6.0	11.7	13.6	16.3			
RES-H&C share	0.0	1.0	7.0	17.5	23.9	30.7	36.3			
RES-E share	0.0	0.0	0.1	4.8	12.5	13.5	18.1			
RES-T share (based on ILUC formula)	0.0	0.0	0.5	4.2	10.0	10.6	10.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	78	111	173	117	90	96	99	8.4	-6.3	1.0
Average Price of Electricity in Final demand sectors (€13/MWh)	75	84	201	177	170	165	161	10.4	-1.7	-0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	0.4	0.5	0.8	0.8	1.1	1.2	1.3	8.2	2.3	2.0
as % of GDP	6.8	8.9	12.5	11.2	12.7	13.0	12.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Netherlands: EUO30			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
							Annual % Change			
Population (in million)	16	16	17	17	17	17	18	0.4	0.3	0.2
GDP (in 000 M€13)	537	573	613	620	668	706	738	1.3	0.9	1.0
Gross Inland Consumption (ktoe)	75572	81469	86612	83760	83464	80879	75268	1.4	-0.4	-1.0
Solids	7852	8195	7596	9274	7935	7821	6519	-0.3	0.4	-1.9
Oil	28245	32464	34649	34892	34337	33320	31835	2.1	-0.1	-0.8
Natural gas	35009	35334	39309	33859	30925	30591	27288	1.2	-2.4	-1.2
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0
Renewable energy forms	1827	2872	3796	3906	9236	8903	9235	7.6	9.3	0.0
Energy Branch Consumption	5353	6336	5088	5606	5436	5000	4729	-0.5	0.7	-1.4
Non-Energy Uses	10491	13013	17582	13895	14823	15341	15345	5.3	-1.7	0.3
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	57555	62220	70219	51471	52976	45575	38024	2.0	-2.8	-3.3
Solids	7	8	6	0	0	0	0	-2.0	-100.0	0.0
Oil	2405	2328	1985	1381	1414	956	738	-1.9	-3.3	-6.3
Natural gas	52203	56276	63534	44126	40614	33886	26025	2.0	-4.4	-4.4
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4
Renewable energy sources	1926	2577	3671	5009	9993	9742	10271	6.7	10.5	0.3
Hydro	12	8	9	9	9	9	9	-3.0	-0.1	0.1
Biomass & Waste	1831	2371	3282	4236	7003	6617	6912	6.0	7.9	-0.1
Wind	71	178	343	618	2394	2416	2416	17.0	21.4	0.1
Solar and others	11	21	29	123	546	623	783	9.8	34.1	3.7
Geothermal	0	0	8	24	41	77	150	0.0	18.2	14.0
Net Imports (ktoe)	33759	37076	30549	47678	45866	51372	54431	-1.0	4.1	1.7
Solids	7998	8312	9228	9274	7935	7821	6519	1.4	-1.5	-1.9
Oil	41425	47836	45167	48901	48021	47838	46841	0.9	0.6	-0.2
Crude oil and Feedstocks	61018	61724	60676	53468	50689	48102	45600	-0.1	-1.8	-1.1
Oil products	-19594	-13888	-15508	-4567	-2668	-264	1241	-2.3	-16.1	0.0
Natural gas	-17191	-20941	-24211	-10267	-9410	-2702	2686	3.5	-9.0	0.0
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0
Import Dependency (%)	38.0	37.7	30.4	48.1	46.4	53.0	58.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	89631	100219	118140	107587	123368	133670	129824	2.8	0.4	0.5
Nuclear energy	3926	3997	3969	3907	3907	4047	4047	0.1	-0.2	0.4
Solids	24276	23500	22588	29437	23818	25280	21904	-0.7	0.5	-0.8
Oil (including refinery gas)	2641	2262	1253	799	0	57	57	-7.2	-100.0	0.0
Gas (including derived gases)	54606	61588	77566	56701	46790	58795	56342	3.6	-4.9	1.9
Biomass-waste	3203	6683	8606	8343	15903	12286	13969	10.4	6.3	-1.3
Hydro (pumping excluded)	142	88	105	100	104	105	105	-3.0	-0.1	0.1
Wind	829	2067	3993	7185	27842	28096	28096	17.0	21.4	0.1
Solar	8	34	60	1113	5003	5003	5304	22.2	55.5	0.6
Geothermal and other renewables	0	0	0	0	0	0	0	12.8	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	21048	21728	25072	30866	38388	37228	34253	1.8	4.4	-1.1
Nuclear energy	485	485	485	485	485	485	485	0.0	0.0	0.0
Renewable energy	497	1312	2362	4706	15781	15858	16205	16.9	20.9	0.3
Hydro (pumping excluded)	37	37	37	37	37	37	37	0.0	0.0	0.0
Wind	447	1224	2237	3431	10158	10235	10235	17.5	16.3	0.1
Solar	13	51	88	1238	5586	5586	5933	21.1	51.4	0.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	20066	19931	22225	25674	22122	20885	17563	1.0	0.0	-2.3
of which cogeneration units	7372	7162	9300	8515	2413	5275	6599	2.4	-12.6	10.6
of which CCS units	0	0	0	0	0	250	250	0.0	0.0	0.0
Solids fired	4394	4394	4394	6975	5388	5054	4429	0.0	2.1	-1.9
Gas fired	14667	14529	16575	17356	14403	13497	10812	1.2	-1.4	-2.8
Oil fired	490	218	218	204	77	77	66	-7.8	-9.9	-1.6
Biomass-waste fired	514	790	1037	1138	2254	2257	2257	7.3	8.1	0.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	50.5	52.1	38.3	35.5	39.5	41.8			
Efficiency of gross thermal power generation (%)	41.6	41.4	44.5	45.4	43.6	44.2	44.9			
% of gross electricity from CHP	37.6	29.4	33.2	37.8	16.9	24.1	33.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	1.4	1.6			
% of carbon free (RES, nuclear) gross electricity generation	9.0	12.8	14.2	19.2	42.8	37.1	39.7			
Fuel Inputs to Thermal Power Generation (ktoe)	17516	19517	21244	18047	17050	18754	17688	1.9	-2.2	0.4
Solids	4998	4958	4669	6490	4858	5156	4423	-0.7	0.4	-0.9
Oil (including refinery gas)	634	553	342	177	0	20	20	-6.0	-80.0	276.4
Gas (including derived gases)	10671	11953	13773	9489	7746	9966	9647	2.6	-5.6	2.2
Biomass & Waste	1213	2052	2460	1892	4446	3612	3599	7.3	6.1	-2.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	86454	91417	68924	63771	61735	59430	56823	-2.2	-1.1	-0.8
Refineries	82233	86869	64188	58847	56691	55012	52681	-2.4	-1.2	-0.7
Biofuels and hydrogen production	0	0	230	579	484	474	507	0.0	7.7	0.5
District heating	398	436	499	366	338	320	299	2.3	-3.8	-1.2
Derived gases, cokeries etc.	3824	4113	4007	3979	4222	3624	3336	0.5	0.5	-2.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Netherlands: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	184	195	183	191	200	210	219	-0.1	0.9	0.9
Public road transport	11	12	12	13	13	14	14	0.8	0.9	0.6
Private cars and motorcycles	143	152	138	141	146	152	157	-0.4	0.6	0.7
Rail	16	17	17	19	21	23	24	0.5	2.1	1.6
Aviation ⁽³⁾	13	14	15	17	18	21	22	1.1	2.4	1.9
Inland navigation	1	1	1	1	1	1	1	0.1	1.1	1.3
Freight transport activity (Gtkm)	94	100	106	111	121	129	135	1.3	1.3	1.1
Heavy goods and light commercial vehicles	48	51	54	55	61	64	66	1.2	1.3	0.8
Rail	5	6	6	6	7	8	8	2.7	1.5	1.8
Inland navigation	41	42	47	50	53	57	61	1.2	1.3	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	14297	15197	14986	14817	14205	13472	12810	0.5	-0.5	-1.0
Public road transport	212	224	260	267	270	267	261	2.1	0.4	-0.3
Private cars and motorcycles	8007	8288	8206	7708	6904	6165	5704	0.2	-1.7	-1.9
Heavy goods and light commercial vehicles	2184	2594	2715	2594	2740	2740	2700	2.2	0.1	-0.1
Rail	184	172	182	189	204	216	224	-0.1	1.1	0.9
Aviation	3382	3712	3463	3821	3834	3812	3633	0.2	1.0	-0.5
Inland navigation	328	207	159	239	253	271	287	-7.0	4.8	1.3
By transport activity										
Passenger transport	11703	12265	11985	11861	11077	10319	9677	0.2	-0.8	-1.3
Freight transport	2594	2933	3001	2957	3128	3153	3133	1.5	0.4	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	0.9	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	4.0	3.6	4.0	4.4			
ENERGY EFFICIENCY										
Primary energy consumption	65081	68457	69030	69864	68642	65538	59943	0.6	-0.1	-1.3
Final Energy Demand	50505	51654	51835	50854	50361	47144	42872	0.3	-0.3	-1.6
by sector										
Industry	14804	14814	12208	12815	13613	12452	11910	-1.9	1.1	-1.3
Energy intensive industries	10277	10532	8224	8734	9332	8542	8272	-2.2	1.3	-1.2
Other industrial sectors	4527	4281	3984	4082	4281	3909	3639	-1.3	0.7	-1.6
Residential	10299	10143	11518	10892	10520	10259	8844	1.1	-0.9	-1.7
Tertiary	11104	11499	13124	12329	12022	10961	9309	1.7	-0.9	-2.5
Transport ⁽⁵⁾	14297	15198	14985	14817	14205	13472	12810	0.5	-0.5	-1.0
by fuel										
Solids	1330	1515	1270	1402	1592	1558	1054	-0.5	2.3	-4.0
Oil	16505	17382	16113	15746	14870	13631	12457	-0.2	-0.8	-1.8
Gas	21011	20346	22378	21405	20317	17783	15041	0.6	-1.0	-3.0
Electricity	8408	8986	9189	9034	9568	9679	9400	0.9	0.4	-0.2
Heat (from CHP and District Heating)	2893	2981	2106	2038	2150	2270	2300	-3.1	0.2	0.7
Renewable energy forms	358	444	780	1223	1836	2127	2452	8.1	8.9	2.9
Other	0	0	0	8	27	95	168	-100.0	0.0	20.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	141	142	141	135	125	115	102	0.0	-1.2	-2.0
Industry (Energy on Value added, index 2000=100)	100	96	75	75	74	64	59	-2.9	-0.2	-2.3
Residential (Energy on Private Income, index 2000=100)	100	94	106	98	87	79	64	0.6	-1.9	-3.0
Tertiary (Energy on Value added, index 2000=100)	100	96	101	94	85	73	59	0.1	-1.7	-3.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	40	37	32	27	24	-0.4	-2.4	-2.7
Freight transport (toe/Mtkm)	28	29	28	27	26	25	23	0.2	-0.9	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	222.8	221.6	216.9	209.7	193.0	183.9	166.4	-0.3	-1.2	-1.5
of which ETS sectors (2013 scope) GHG emissions		103.3	95.6	95.8	85.0	84.5	76.3		-1.2	-1.1
of which ESD sectors (2013 scope) GHG emissions		118.2	121.4	113.8	107.9	99.4	90.1		-1.2	-1.8
CO ₂ Emissions (energy related)	168.5	175.7	175.0	171.3	155.8	147.5	130.3	0.4	-1.2	-1.8
Power generation/District heating	51.9	55.5	57.7	54.3	43.6	47.5	43.3	1.1	-2.8	-0.1
Energy Branch	11.1	12.3	8.8	10.4	9.9	8.7	7.9	-2.3	1.2	-2.2
Industry	26.6	26.5	22.9	26.6	27.6	22.7	18.7	-1.5	1.9	-3.8
Residential	18.9	17.9	20.6	19.1	17.5	16.5	13.4	0.9	-1.6	-2.6
Tertiary	17.5	18.3	21.1	18.7	16.6	14.1	11.4	1.9	-2.4	-3.7
Transport	42.4	45.3	43.9	42.3	40.6	38.1	35.6	0.4	-0.8	-1.3
CO ₂ Emissions (non energy and non land use related)	7.1	8.8	8.6	8.5	8.8	8.9	8.8	2.0	0.3	0.0
Non-CO2 GHG emissions	47.3	37.0	33.3	29.9	28.3	27.5	27.2	-3.4	-1.6	-0.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.0	98.4	96.4	93.2	85.7	81.7	73.9	-0.3	-1.2	-1.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.40	0.38	0.37	0.38	0.28	0.28	0.26	-0.6	-3.0	-0.6
Final energy demand (t of CO ₂ /toe)	2.09	2.09	2.09	2.10	2.03	1.94	1.85	0.0	-0.3	-0.9
Industry	1.80	1.79	1.87	2.07	2.03	1.83	1.57	0.4	0.8	-2.6
Residential	1.84	1.77	1.79	1.75	1.66	1.61	1.52	-0.2	-0.8	-0.9
Tertiary	1.58	1.59	1.61	1.51	1.38	1.28	1.23	0.2	-1.5	-1.2
Transport	2.97	2.98	2.93	2.86	2.86	2.83	2.78	-0.1	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	3.9	5.2	13.1	14.0	16.2			
RES-H&C share	1.5	2.1	2.9	2.9	7.8	9.4	11.6			
RES-E share	2.6	6.3	9.7	12.9	38.1	34.8	37.3			
RES-T share (based on ILUC formula)	0.1	0.2	3.1	9.3	10.8	13.2	16.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	65	73	84	90	93	2.7	2.5	1.1
Average Price of Electricity in Final demand sectors (€13/MWh)	118	130	129	120	137	145	152	0.9	0.6	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	47.8	60.9	67.3	65.0	77.8	83.5	91.0	3.5	1.5	1.6
as % of GDP	8.9	10.6	11.0	10.5	11.6	11.8	12.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Poland: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	38	38	38	38	38	38	37	0.0	0.1	-0.2
GDP (in 000 M€13)	253	294	371	425	492	559	623	3.9	2.9	2.4
Gross Inland Consumption (ktoe)	88648	92226	100730	101934	105480	104097	99116	1.3	0.5	-0.6
Solids	56291	54612	54608	53011	50223	45912	40284	-0.3	-0.8	-2.2
Oil	19037	21696	25747	25895	26611	25397	24097	3.1	0.3	-1.0
Natural gas	9964	12237	12807	13159	16188	17565	18759	2.5	2.4	1.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-548	-962	-116	6	64	167	79	-14.4	0.0	2.3
Renewable energy forms	3905	4643	7684	9863	12394	15056	15897	7.0	4.9	2.5
Energy Branch Consumption	6664	6104	6095	6243	6141	5446	5203	-0.9	0.1	-1.6
Non-Energy Uses	4357	4573	4961	5545	6359	7000	7377	1.3	2.5	1.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	79590	78592	67394	70900	70324	65973	61456	-1.6	0.4	-1.3
Solids	71299	68857	55381	55586	51984	44588	36878	-2.5	-0.6	-3.4
Oil	1062	1143	1063	1539	1581	1535	1489	0.0	4.0	-0.6
Natural gas	3317	3887	3696	3947	4585	4871	7250	1.1	2.2	4.7
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3912	4705	7254	9829	12173	14979	15838	6.4	5.3	2.7
Hydro	181	189	251	206	209	217	252	3.3	-1.8	1.9
Biomass & Waste	3728	4493	6838	8749	10861	12451	12262	6.3	4.7	1.2
Wind	0	12	143	832	984	2060	2665	80.0	21.3	10.5
Solar and others	0	0	8	22	82	203	328	0.0	25.5	14.9
Geothermal	3	11	13	21	38	48	331	16.1	11.0	24.1
Net Imports (ktoe)	8773	15932	31567	31285	35447	38443	38003	13.7	1.2	0.7
Solids	-16353	-13039	-2814	-2575	-1761	1323	3406	-16.1	-4.6	0.0
Oil	19067	21466	25187	24607	25318	24173	22927	2.8	0.1	-1.0
Crude oil and Feedstocks	17616	17893	22965	24633	24826	23369	21793	2.7	0.8	-1.3
Oil products	1451	3573	2222	-26	491	805	1133	4.4	-14.0	8.7
Natural gas	6607	8531	8874	9213	11607	12703	11533	3.0	2.7	-0.1
Electricity	-548	-962	-116	6	64	167	79	-14.4	0.0	2.3
Import Dependency (%)	9.9	17.2	31.3	30.6	33.5	36.8	38.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	143174	155359	157089	162367	177172	187448	197979	0.9	1.2	1.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	135888	142161	136592	137628	142011	132047	123305	0.1	0.4	-1.4
Oil (including refinery gas)	1916	2757	2892	9	0	470	470	4.2	-100.0	0.0
Gas (including derived gases)	2961	6573	6689	2968	9780	15868	21657	8.5	3.9	8.3
Biomass-waste	298	1532	6332	9667	11450	12519	17637	35.7	6.1	4.4
Hydro (pumping excluded)	2106	2201	2920	2397	2427	2523	2929	3.3	-1.8	1.9
Wind	5	135	1664	9669	11437	23954	30992	78.7	21.3	10.5
Solar	0	0	0	29	67	67	988	0.0	0.0	30.9
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	30310	31721	33411	38260	33674	38105	42936	1.0	0.1	2.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	821	1036	2044	6084	6756	12458	16553	9.6	12.7	9.4
Hydro (pumping excluded)	817	915	936	949	949	981	1079	1.4	0.1	1.3
Wind	4	121	1108	5100	5728	11398	14328	75.5	17.9	9.6
Solar	0	0	0	35	79	79	1146	0.0	0.0	30.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	29489	30685	31367	32176	26918	25647	26383	0.6	-1.5	-0.2
of which cogeneration units	9354	8313	8693	6564	6346	7883	7947	-0.7	-3.1	2.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	28214	28608	29158	28543	23058	20775	19347	0.3	-2.3	-1.7
Gas fired	764	1548	1592	1659	1710	2635	4663	7.6	0.7	10.6
Oil fired	396	396	396	398	171	162	155	0.0	-8.1	-0.9
Biomass-waste fired	115	133	221	1574	1980	2074	2217	6.8	24.5	1.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.0	51.1	48.8	44.3	55.2	52.1	49.1			
Efficiency of gross thermal power generation (%)	33.1	33.9	34.2	35.2	37.4	37.1	38.3			
% of gross electricity from CHP	16.1	16.8	17.6	18.2	20.8	18.9	17.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	1.7	2.5	6.9	13.4	14.3	20.8	26.5			
Fuel Inputs to Thermal Power Generation (ktoe)	36625	38771	38341	36695	37537	37281	36613	0.5	-0.2	-0.2
Solids	35247	36349	34345	33735	33116	31259	29306	-0.3	-0.4	-1.2
Oil (including refinery gas)	245	184	171	2	0	154	154	-3.5	-74.4	286.6
Gas (including derived gases)	1032	1805	2179	913	1961	2945	3631	7.8	-1.0	6.4
Biomass & Waste	102	434	1645	2046	2460	2923	3523	32.1	4.1	3.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	32964	31279	38702	40301	40617	37734	34031	1.6	0.5	-1.8
Refineries	18969	18975	24192	27120	27440	25986	24376	2.5	1.3	-1.2
Biofuels and hydrogen production	0	49	887	1100	1396	1380	1304	0.0	4.6	-0.7
District heating	4179	3465	3716	3183	3579	3269	3139	-1.2	-0.4	-1.3
Derived gases, cokeries etc.	9816	8789	9908	8898	8203	7098	5212	0.1	-1.9	-4.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Poland: EU CO ₂		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	225	233	268	302	344	373	406	1.7	2.6	1.7
Public road transport	59	49	42	44	46	48	49	-3.4	1.1	0.6
Private cars and motorcycles	134	156	194	223	254	270	290	3.8	2.7	1.3
Rail	29	23	22	24	31	38	46	-2.5	3.2	4.3
Aviation ⁽³⁾	3	5	9	11	13	16	20	12.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	-0.9	2.0	2.0
Freight transport activity (Gtkm)	114	140	170	201	228	258	287	4.0	3.0	2.4
Heavy goods and light commercial vehicles	59	90	121	150	167	188	208	7.4	3.3	2.3
Rail	54	50	49	51	61	70	79	-1.0	2.2	2.6
Inland navigation	1	0	0	0	0	0	0	-16.7	2.7	3.1
Energy demand in transport (ktoe) ⁽⁴⁾	9830	12265	17459	18691	19785	19373	19215	5.9	1.3	-0.3
Public road transport	654	581	610	632	668	681	674	-0.7	0.9	0.1
Private cars and motorcycles	6314	7213	9660	10120	10620	9780	9362	4.3	1.0	-1.3
Heavy goods and light commercial vehicles	2041	3678	6307	6957	7373	7667	7767	11.9	1.6	0.5
Rail	541	469	372	366	426	470	524	-3.7	1.4	2.1
Aviation	274	319	508	613	693	771	884	6.4	3.1	2.5
Inland navigation	6	5	3	3	4	4	4	-7.4	2.3	2.3
By transport activity										
Passenger transport	7317	8170	10823	11407	12035	11298	10998	4.0	1.1	-0.9
Freight transport	2514	4095	6636	7283	7750	8075	8217	10.2	1.6	0.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	0.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	5.2	6.0	7.2	7.3	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	84291	87654	95769	96389	99120	97098	91740	1.3	0.3	-0.8
Final Energy Demand	55260	58986	67070	68144	71648	70399	66656	2.0	0.7	-0.7
by sector										
Industry	18504	16147	14193	16600	17433	18038	17627	-2.6	2.1	0.1
Energy intensive industries	13031	10951	9372	10814	11127	11092	10321	-3.2	1.7	-0.7
Other industrial sectors	5473	5196	4821	5786	6306	6946	7305	-1.3	2.7	1.5
Residential	17193	19454	22501	20556	21377	20471	18271	2.7	-0.5	-1.6
Tertiary	9644	10846	12664	12057	12781	12244	11273	2.8	0.1	-1.2
Transport ⁽⁵⁾	9919	12539	17712	18930	20058	19646	19485	6.0	1.3	-0.3
by fuel										
Solids	13215	12285	14494	13387	11200	9625	7178	0.9	-2.5	-4.4
Oil	15500	17844	20727	21289	21511	19984	18646	2.9	0.4	-1.4
Gas	7574	8780	9468	9673	11129	11242	11342	2.3	1.6	0.2
Electricity	8482	9064	10238	11011	12270	13362	14121	1.9	1.8	1.4
Heat (from CHP and District Heating)	6886	7056	6547	6063	6917	6626	6905	-0.5	0.6	0.0
Renewable energy forms	3602	3957	5596	6721	8620	9549	8413	4.5	4.4	-0.2
Other	0	0	0	1	1	11	51	0.0	0.0	44.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	350	313	272	240	214	186	159	-2.5	-2.4	-2.9
Industry (Energy on Value added, index 2000=100)	100	64	36	36	32	28	25	-9.7	-1.3	-2.5
Residential (Energy on Private Income, index 2000=100)	100	98	93	74	66	55	44	-0.8	-3.4	-4.0
Tertiary (Energy on Value added, index 2000=100)	100	100	100	83	76	64	53	0.0	-2.7	-3.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	32	34	39	36	34	29	26	2.0	-1.5	-2.6
Freight transport (toe/Mtkm)	22	29	39	36	34	31	29	5.9	-1.4	-1.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO ₂ eq.)	400.5	403.1	411.9	407.8	399.7	377.3	350.3	0.3	-0.3	-1.3
of which ETS sectors (2013 scope) GHG emissions		222.2	210.3	208.8	206.0	195.3	180.2		-0.2	-1.3
of which ESD sectors (2013 scope) GHG emissions		180.9	201.6	199.0	193.8	182.0	170.1		-0.4	-1.3
CO ₂ Emissions (energy related)	303.3	307.5	320.7	311.8	306.8	286.6	261.5	0.6	-0.4	-1.6
Power generation/District heating	167.4	171.0	165.6	157.9	158.3	151.8	141.5	-0.1	-0.5	-1.1
Energy Branch	10.2	7.7	8.5	9.7	9.1	7.8	7.4	-1.8	0.7	-2.1
Industry	51.9	36.9	30.4	34.9	31.8	28.4	22.8	-5.2	0.4	-3.3
Residential	27.4	35.5	44.9	37.8	34.7	30.6	25.8	5.1	-2.6	-2.9
Tertiary	18.4	20.7	21.9	19.1	18.1	14.7	11.8	1.7	-1.9	-4.2
Transport	28.0	35.8	49.3	52.4	54.8	53.3	52.3	5.8	1.1	-0.5
CO ₂ Emissions (non energy and non land use related)	22.3	20.8	20.2	22.9	25.4	26.1	26.8	-1.0	2.3	0.5
Non-CO ₂ GHG emissions	75.0	74.7	71.0	73.2	67.5	64.6	62.1	-0.5	-0.5	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.4	84.9	86.8	85.9	84.2	79.5	73.8	0.3	-0.3	-1.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.71	0.69	0.67	0.65	0.59	0.55	0.49	-0.6	-1.2	-1.8
Final energy demand (t of CO ₂ /toe)	2.27	2.18	2.19	2.12	1.95	1.80	1.69	-0.4	-1.2	-1.4
Industry	2.81	2.28	2.14	2.10	1.83	1.57	1.29	-2.6	-1.6	-3.4
Residential	1.59	1.83	2.00	1.84	1.62	1.50	1.41	2.3	-2.1	-1.4
Tertiary	1.91	1.91	1.73	1.59	1.42	1.20	1.05	-1.0	-2.0	-3.0
Transport	2.82	2.85	2.79	2.77	2.73	2.71	2.68	-0.1	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.5	6.9	9.2	11.8	15.1	18.3	19.5			
RES-H&C share	9.6	10.2	11.6	13.8	19.1	22.4	22.6			
RES-E share	1.6	2.7	6.6	13.4	14.3	20.7	26.5			
RES-T share (based on ILUC formula)	0.2	0.7	6.1	7.5	10.1	10.7	11.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	38	40	49	67	73	82	86	2.6	4.1	1.6
Average Price of Electricity in Final demand sectors (€13/MWh)	77	93	128	121	132	142	144	5.2	0.3	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	34.0	46.3	66.0	71.1	92.9	108.4	123.0	6.9	3.5	2.9
as % of GDP	13.4	15.7	17.8	16.7	18.9	19.4	19.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Portugal: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	10	10	11	10	10	10	10	0.3	-0.4	-0.4
GDP (in 000 M€13)	169	176	181	174	187	204	217	0.7	0.4	1.5
Gross Inland Consumption (ktoe)	25285	27475	24205	22983	21351	20729	18437	-0.4	-1.2	-1.5
Solids	3805	3349	1658	3347	808	9	4	-8.0	-6.9	-41.7
Oil	15475	16174	12215	10669	10383	9920	9212	-2.3	-1.6	-1.2
Natural gas	2078	3751	4489	3446	3421	3651	1879	8.0	-2.7	-5.8
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Renewable energy forms	3846	3615	5618	5327	6288	6648	6905	3.9	1.1	0.9
Energy Branch Consumption	1028	1235	1195	1416	1210	1227	1160	1.5	0.1	-0.4
Non-Energy Uses	2393	2587	1728	1470	1485	1525	1509	-3.2	-1.5	0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3891	3615	5800	5216	6157	6525	6764	4.1	0.6	0.9
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0
Natural gas	45	0	0	0	0	0	0	-96.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3846	3615	5800	5216	6157	6525	6764	4.2	0.6	0.9
Hydro	974	407	1389	820	1597	1563	1623	3.6	1.4	0.2
Biomass & Waste	2770	2967	3375	3181	3274	3467	3030	2.0	-0.3	-0.8
Wind	14	153	790	1004	1012	1013	1498	49.2	2.5	4.0
Solar and others	19	23	66	136	199	405	533	13.6	11.6	10.4
Geothermal	70	66	181	76	76	77	79	10.0	-8.3	0.4
Net Imports (ktoe)	22072	24845	18588	18330	15747	14743	12198	-1.7	-1.6	-2.5
Solids	3914	3225	1629	3347	808	9	4	-8.4	-6.8	-41.7
Oil	16039	17140	12436	11231	10931	10446	9703	-2.5	-1.3	-1.2
Crude oil and Feedstocks	12316	13795	11875	14608	14070	13381	12493	-0.4	1.7	-1.2
Oil products	3723	3345	561	-3376	-3138	-2935	-2790	-17.2	0.0	-1.2
Natural gas	2039	3893	4505	3446	3426	3663	1912	8.2	-2.7	-5.7
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Import Dependency (%)	85.1	88.6	75.1	77.8	71.9	69.3	64.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	43372	46188	53688	50192	48537	48049	45178	2.2	-1.0	-0.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	14595	15226	7100	14862	3500	0	0	-7.0	-6.8	-100.0
Oil (including refinery gas)	8421	8791	3008	769	1967	1252	610	-9.8	-4.2	-11.1
Gas (including derived gases)	7231	13606	14900	9528	8663	9622	682	7.5	-5.3	-22.4
Biomass-waste	1553	1987	2942	2936	3074	4026	3329	6.6	0.4	0.8
Hydro (pumping excluded)	11323	4731	16148	9533	18569	18170	18870	3.6	1.4	0.2
Wind	168	1773	9182	11676	11767	11781	17424	49.2	2.5	4.0
Solar	1	3	212	680	789	2990	4055	68.3	14.1	17.8
Geothermal and other renewables	80	71	196	208	208	208	208	9.4	0.6	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	10989	13461	18921	21094	21849	21674	24407	5.6	1.4	1.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	4619	6083	9036	12611	14827	16149	18974	6.9	5.1	2.5
Hydro (pumping excluded)	4535	5017	5106	7065	9183	9408	9971	1.2	6.0	0.8
Wind	83	1064	3796	5079	5113	5113	6876	46.6	3.0	3.0
Solar	1	2	134	467	531	1628	2127	63.2	14.8	14.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6370	7378	9885	8484	7022	5525	5432	4.5	-3.4	-2.5
of which cogeneration units	1676	1079	1310	1491	1783	1393	1221	-2.4	3.1	-3.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1774	1728	1728	1728	578	0	0	-0.3	-10.4	-100.0
Gas fired	1542	2477	4799	5062	4989	4131	4055	12.0	0.4	-2.1
Oil fired	2819	2915	2990	1144	783	695	669	0.6	-12.5	-1.6
Biomass-waste fired	221	244	343	521	643	671	679	4.5	6.5	0.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	14	14	25	29	29	29	29	6.0	1.5	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	43.5	37.8	31.6	26.3	24.9	24.9	20.9			
Efficiency of gross thermal power generation (%)	42.0	43.1	41.8	42.2	43.6	41.0	28.8			
% of gross electricity from CHP	10.0	11.6	11.8	17.0	22.6	13.9	10.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	30.3	18.5	53.4	49.9	70.9	77.4	97.1			
Fuel Inputs to Thermal Power Generation (ktoe)	6520	7914	5787	5770	3431	3172	1440	-1.2	-5.1	-8.3
Solids	3198	3319	1597	3329	793	0	0	-6.7	-6.8	-100.0
Oil (including refinery gas)	1683	1793	574	185	466	296	144	-10.2	-2.1	-11.1
Gas (including derived gases)	1215	2309	2775	1560	1433	1748	193	8.6	-6.4	-18.2
Biomass & Waste	356	428	662	621	664	1053	1029	6.4	0.0	4.5
Geothermal heat	69	65	180	75	75	75	75	10.1	-8.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	13004	13953	12457	15231	14686	13981	13053	-0.4	1.7	-1.2
Refineries	12555	13953	12148	14807	14260	13562	12653	-0.3	1.6	-1.2
Biofuels and hydrogen production	0	0	309	422	423	396	371	0.0	3.2	-1.3
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	449	0	0	1	4	23	29	0.0	0.0	21.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Portugal: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	105	115	116	121	125	136	145	1.0	0.8	1.5
Public road transport	12	6	6	6	6	7	7	-6.4	0.5	1.1
Private cars and motorcycles	73	87	86	86	86	93	98	1.7	0.1	1.3
Rail	5	5	5	5	6	7	8	1.4	1.7	2.3
Aviation ⁽³⁾	16	17	18	23	26	29	31	1.6	3.3	2.0
Inland navigation	0	0	0	0	0	0	0	1.0	0.9	1.3
Freight transport activity (Gtkm)	26	32	27	28	30	32	34	0.5	0.9	1.4
Heavy goods and light commercial vehicles	20	25	20	20	21	23	24	-0.4	0.9	1.3
Rail	2	2	2	2	3	3	3	0.6	1.5	2.4
Inland navigation	4	5	5	6	6	6	7	4.6	0.6	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	6636	7188	7226	6867	6637	6463	6303	0.9	-0.8	-0.5
Public road transport	237	135	129	129	128	133	142	-5.9	0.0	1.0
Private cars and motorcycles	4590	5056	5149	4730	4385	4040	3818	1.2	-1.6	-1.4
Heavy goods and light commercial vehicles	891	1026	835	797	844	877	872	-0.6	0.1	0.3
Rail	89	67	57	50	56	57	62	-4.3	-0.3	1.1
Aviation	784	888	1012	1124	1185	1314	1366	2.6	1.6	1.4
Inland navigation	45	18	45	37	39	41	43	0.1	-1.5	1.1
By transport activity										
Passenger transport	5689	6109	6318	6007	5725	5514	5353	1.1	-1.0	-0.7
Freight transport	947	1079	908	860	911	949	949	-0.4	0.0	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	4.3	6.2	6.5	6.5	6.4			
ENERGY EFFICIENCY										
Primary energy consumption	22892	24889	22477	21513	19866	19205	16928	-0.2	-1.2	-1.6
Final Energy Demand	17919	19009	18022	16789	16804	16146	14950	0.1	-0.7	-1.2
by sector										
Industry	6323	5796	5453	5066	5136	4934	4604	-1.5	-0.6	-1.1
Energy intensive industries	4179	3889	3634	3613	3663	3516	3220	-1.4	0.1	-1.3
Other industrial sectors	2144	1907	1819	1452	1473	1418	1384	-1.6	-2.1	-0.6
Residential	2804	3224	2976	2632	2764	2604	2247	0.6	-0.7	-2.1
Tertiary	2157	2801	2368	2224	2267	2146	1797	0.9	-0.4	-2.3
Transport ⁽⁵⁾	6636	7188	7226	6867	6637	6463	6303	0.9	-0.8	-0.5
by fuel										
Solids	466	17	50	17	15	9	4	-20.0	-11.4	-13.1
Oil	10713	10812	9199	8142	7702	7323	6818	-1.5	-1.8	-1.2
Gas	873	1307	1564	1691	1800	1725	1521	6.0	1.4	-1.7
Electricity	3300	3983	4290	3865	4051	4104	3858	2.7	-0.6	-0.5
Heat (from CHP and District Heating)	134	328	338	325	363	297	411	9.7	0.7	1.2
Renewable energy forms	2434	2563	2581	2748	2868	2665	2303	0.6	1.1	-2.2
Other	0	0	0	1	4	24	35	0.0	0.0	24.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	150	156	134	132	114	101	85	-1.1	-1.6	-2.9
Industry (Energy on Value added, index 2000=100)	100	93	89	85	82	74	67	-1.2	-0.8	-2.0
Residential (Energy on Private Income, index 2000=100)	100	108	94	87	86	74	60	-0.6	-0.9	-3.6
Tertiary (Energy on Value added, index 2000=100)	100	120	94	91	86	74	58	-0.6	-0.9	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	47	46	41	37	32	29	-0.3	-2.2	-2.3
Freight transport (toe/Mtkm)	36	33	33	31	30	29	28	-0.9	-0.8	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.9	90.7	73.4	73.2	59.6	55.0	47.1	-1.7	-2.1	-2.3
of which ETS sectors (2013 scope) GHG emissions		40.6	27.7	32.3	22.0	19.3	14.6		-2.3	-4.0
of which ESD sectors (2013 scope) GHG emissions		50.1	45.7	40.9	37.7	35.6	32.5		-1.9	-1.5
CO ₂ Emissions (energy related)	61.0	64.6	49.6	50.1	38.7	34.5	28.1	-2.1	-2.4	-3.2
Power generation/District heating	21.7	24.9	14.9	18.0	8.1	5.1	0.9	-3.6	-5.9	-19.6
Energy Branch	2.5	3.1	2.5	3.1	2.6	2.8	2.6	-0.2	0.6	0.0
Industry	11.6	8.2	6.3	5.7	5.5	5.1	4.2	-5.9	-1.4	-2.7
Residential	2.0	2.3	2.6	2.0	2.0	1.8	1.6	2.5	-2.4	-2.5
Tertiary	3.4	4.4	2.4	2.0	1.7	1.5	1.2	-3.2	-3.3	-3.7
Transport	19.9	21.7	20.9	19.5	18.8	18.2	17.6	0.5	-1.1	-0.6
CO ₂ Emissions (non energy and non land use related)	6.6	7.0	5.4	6.1	6.0	6.2	6.2	-2.0	1.1	0.2
Non-CO2 GHG emissions	19.3	19.1	18.4	16.9	14.8	14.3	12.8	-0.4	-2.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	139.7	145.8	118.0	117.7	95.9	88.4	75.7	-1.7	-2.1	-2.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.50	0.25	0.32	0.15	0.09	0.02	-6.3	-5.1	-19.1
Final energy demand (t of CO ₂ /toe)	2.05	1.92	1.78	1.73	1.66	1.65	1.64	-1.4	-0.7	-0.1
Industry	1.83	1.42	1.15	1.12	1.07	1.04	0.90	-4.5	-0.8	-1.6
Residential	0.71	0.72	0.86	0.75	0.73	0.67	0.70	1.9	-1.7	-0.4
Tertiary	1.55	1.56	1.02	0.88	0.76	0.72	0.66	-4.1	-2.9	-1.4
Transport	3.00	3.01	2.89	2.84	2.83	2.82	2.79	-0.4	-0.2	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	19.1	19.4	24.3	25.3	33.4	35.8	40.8			
RES-H&C share	30.4	32.1	33.9	36.8	38.7	39.7	39.7			
RES-E share	28.3	27.7	40.7	47.4	63.8	68.8	87.3			
RES-T share (based on ILUC formula)	0.4	0.4	5.7	1.3	10.9	13.4	19.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	67	76	79	98	113	117	106	1.6	3.7	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	118	120	104	128	140	145	148	-1.3	3.0	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.8	22.3	24.4	23.5	28.5	30.9	33.9	3.8	1.6	1.7
as % of GDP	10.0	12.7	13.5	13.5	15.3	15.1	15.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Romania: EUO30			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	22	21	20	20	20	19	19	-1.0	-0.3	-0.4
GDP (in 000 M€13)	87	114	130	145	163	181	195	4.1	2.3	1.8
Gross Inland Consumption (ktoe)	36650	39207	35800	33091	34988	35466	32444	-0.2	-0.2	-0.8
Solids	7493	8788	7008	6207	6462	5013	3409	-0.7	-0.8	-6.2
Oil	9992	10286	9310	8775	8530	8397	7888	-0.7	-0.9	-0.8
Natural gas	13680	13923	10788	9688	10761	10068	7891	-2.3	0.0	-3.1
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1
Renewable energy forms	4137	5026	5891	6299	6968	7132	8457	3.6	1.7	2.0
Energy Branch Consumption	3675	4105	2839	2480	2444	2322	2100	-2.5	-1.5	-1.5
Non-Energy Uses	1883	2467	1473	1754	2001	2202	2347	-2.4	3.1	1.6
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	28465	28224	27824	26642	28345	30143	29829	-0.2	0.2	0.5
Solids	5604	5795	5904	5042	5111	3839	2416	0.5	-1.4	-7.2
Oil	6355	6226	4565	3643	3646	3657	3651	-3.3	-2.2	0.0
Natural gas	10968	9701	8619	8848	9958	9932	9730	-2.4	1.5	-0.2
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3
Renewable energy sources	4131	5070	5739	6271	6784	6966	8284	3.3	1.7	2.0
Hydro	1271	1738	1710	1386	1438	1443	1443	3.0	-1.7	0.0
Biomass & Waste	2854	3314	3980	4135	4557	4567	4663	3.4	1.4	0.2
Wind	0	0	26	557	560	636	1555	0.0	35.8	10.8
Solar and others	0	0	0	163	183	250	433	0.0	111.9	9.0
Geothermal	7	18	23	30	45	70	190	13.1	7.1	15.3
Net Imports (ktoe)	8009	10867	7827	6473	6674	5360	2656	-0.2	-1.6	-8.8
Solids	1920	2939	1234	1165	1350	1174	993	-4.3	0.9	-3.0
Oil	3437	3988	4838	5156	4915	4776	4275	3.5	0.2	-1.4
Crude oil and Feedstocks	4801	8857	6233	5504	4995	4629	4056	2.6	-2.2	-2.1
Oil products	-1364	-4870	-1395	-348	-80	147	220	0.2	-24.9	0.0
Natural gas	2712	4190	1816	839	802	136	-1837	-3.9	-7.8	0.0
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1
Import Dependency (%)	21.8	27.7	21.9	19.5	19.1	15.1	8.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	51560	59413	60619	67528	70607	75043	75231	1.6	1.5	0.6
Nuclear energy	5456	5555	11623	11890	11922	23792	23606	7.9	0.3	7.1
Solids	18926	21916	20681	21982	22416	16312	9804	0.9	0.8	-7.9
Oil (including refinery gas)	3399	1894	692	625	406	230	207	-14.7	-5.2	-6.5
Gas (including derived gases)	9001	9834	7323	8032	9915	7109	848	-2.0	3.1	-21.8
Biomass-waste	0	7	111	522	763	974	1726	0.0	21.3	8.5
Hydro (pumping excluded)	14778	20207	19883	16112	16723	16778	16779	3.0	-1.7	0.0
Wind	0	0	306	6473	6512	7397	18087	0.0	35.8	10.8
Solar	0	0	0	1891	1950	2452	4175	0.0	0.0	7.9
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	20197	19153	20120	24896	23882	23033	26066	0.0	1.7	0.9
Nuclear energy	672	672	1344	1414	1414	2828	2828	7.2	0.5	7.2
Renewable energy	6242	6289	6863	11413	11457	12108	16588	1.0	5.3	3.8
Hydro (pumping excluded)	6242	6289	6474	6645	6645	6645	6645	0.4	0.3	0.0
Wind	0	0	389	2976	2989	3390	6730	0.0	22.6	8.5
Solar	0	0	0	1792	1824	2074	3214	0.0	0.0	5.8
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	13283	12192	11913	12070	11011	8096	6649	-1.1	-0.8	-4.9
of which cogeneration units	3431	5246	4582	4234	4098	2609	2851	2.9	-1.1	-3.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	7602	7057	6643	6441	5626	3094	1909	-1.3	-1.6	-10.2
Gas fired	3728	3439	3488	4173	4114	4062	3852	-0.7	1.7	-0.7
Oil fired	1806	1691	1759	1360	1132	771	676	-0.3	-4.3	-5.0
Biomass-waste fired	147	5	23	96	139	169	213	-16.9	19.7	4.3
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.5	33.1	31.5	28.5	31.2	34.8	31.5			
Efficiency of gross thermal power generation (%)	25.3	28.0	28.6	39.2	38.9	38.7	34.1			
% of gross electricity from CHP	32.3	26.2	10.8	12.0	12.4	10.0	7.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	39.2	43.4	52.7	54.6	53.6	68.5	85.6			
Fuel Inputs to Thermal Power Generation (ktoe)	10788	10329	8675	6836	7400	5470	3174	-2.2	-1.6	-8.1
Solids	5462	6085	5929	5216	5337	3980	2550	0.8	-1.0	-7.1
Oil (including refinery gas)	1736	799	327	176	130	73	66	-15.4	-8.8	-6.5
Gas (including derived gases)	3579	3437	2399	1331	1764	1197	176	-3.9	-3.0	-20.6
Biomass & Waste	12	9	21	113	169	219	382	6.1	23.3	8.5
Geothermal heat	0	0	1	0	0	0	0	0.0	-100.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	16275	19666	15568	13664	13413	15845	15132	-0.4	-1.5	1.2
Refineries	11250	15219	11480	9680	9159	8781	8192	0.2	-2.2	-1.1
Biofuels and hydrogen production	0	0	115	273	558	521	495	0.0	17.1	-1.2
District heating	1738	825	749	702	679	623	529	-8.1	-1.0	-2.5
Derived gases, cokeries etc.	3287	3621	3223	3009	3017	5920	5916	-0.2	-0.7	7.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Romania: EU CO2		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	85	93	110	118	130	144	159	2.6	1.7	2.0
Public road transport	12	12	12	12	13	13	14	0.0	0.8	0.7
Private cars and motorcycles	54	63	78	85	92	102	112	3.9	1.7	2.0
Rail	18	15	13	13	15	16	17	-3.3	1.6	1.6
Aviation ⁽³⁾	2	3	7	8	10	12	15	15.1	3.4	4.7
Inland navigation	0	0	0	0	0	0	0	-2.5	2.1	2.6
Freight transport activity (Gtkm)	27	56	43	51	61	70	77	4.7	3.5	2.3
Heavy goods and light commercial vehicles	8	31	16	20	25	29	32	7.2	4.4	2.4
Rail	16	17	12	15	18	21	23	-2.7	3.9	2.6
Inland navigation	3	8	14	15	18	20	21	18.4	2.1	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	3336	4186	5073	5448	5725	5854	5883	4.3	1.2	0.3
Public road transport	293	260	359	373	378	379	377	2.0	0.5	0.0
Private cars and motorcycles	2082	2416	3214	3381	3371	3277	3178	4.4	0.5	-0.6
Heavy goods and light commercial vehicles	363	1182	946	1142	1356	1481	1524	10.1	3.7	1.2
Rail	357	159	222	245	274	303	322	-4.6	2.1	1.6
Aviation	128	128	272	265	298	362	426	7.8	0.9	3.6
Inland navigation	113	42	59	42	47	52	56	-6.2	-2.2	1.8
By transport activity										
Passenger transport	2648	2855	3921	4091	4130	4110	4076	4.0	0.5	-0.1
Freight transport	689	1331	1152	1356	1595	1744	1806	5.3	3.3	1.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.3	5.1	10.0	9.2	8.8			
ENERGY EFFICIENCY										
Primary energy consumption	34767	36740	34326	31337	32987	33263	30097	-0.1	-0.4	-0.9
Final Energy Demand	22772	24714	22591	23117	24597	24475	22862	-0.1	0.9	-0.7
by sector										
Industry	9296	10007	6876	7316	8142	8285	7820	-3.0	1.7	-0.4
Energy intensive industries	6510	7208	4759	4794	5392	5364	4869	-3.1	1.3	-1.0
Other industrial sectors	2787	2799	2117	2522	2750	2921	2952	-2.7	2.7	0.7
Residential	8409	7990	8102	7825	8138	7790	6883	-0.4	0.0	-1.7
Tertiary	1606	2441	2489	2468	2529	2479	2208	4.5	0.2	-1.3
Transport ⁽⁵⁾	3460	4276	5124	5507	5788	5921	5951	4.0	1.2	0.3
by fuel										
Solids	1046	1611	939	815	939	849	676	-1.1	0.0	-3.2
Oil	5526	6628	6184	6765	6596	6526	6083	1.1	0.6	-0.8
Gas	6910	7754	6189	6337	6835	6747	5753	-1.1	1.0	-1.7
Electricity	2918	3341	3553	3683	4075	4244	4391	2.0	1.4	0.7
Heat (from CHP and District Heating)	3570	2136	1650	1493	1622	1688	1608	-7.4	-0.2	-0.1
Renewable energy forms	2802	3244	4077	4023	4530	4416	4341	3.8	1.1	-0.4
Other	0	0	0	0	1	4	10	-100.0	0.0	27.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	423	343	275	229	215	196	166	-4.2	-2.5	-2.5
Industry (Energy on Value added, index 2000=100)	100	78	44	41	40	37	32	-7.8	-1.0	-2.2
Residential (Energy on Private Income, index 2000=100)	100	59	49	43	39	34	27	-6.9	-2.1	-3.5
Tertiary (Energy on Value added, index 2000=100)	100	119	114	102	92	81	66	1.4	-2.1	-3.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	31	31	35	34	32	28	25	1.3	-1.2	-2.2
Freight transport (toe/Mtkm)	25	24	27	27	26	25	24	0.5	-0.2	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	145.9	151.3	125.5	118.7	118.5	109.3	93.9	-1.5	-0.6	-2.3
of which ETS sectors (2013 scope) GHG emissions		74.8	55.8	46.9	48.7	40.3	29.3		-1.3	-5.0
of which ESD sectors (2013 scope) GHG emissions		76.5	69.6	71.8	69.7	69.0	64.6		0.0	-0.8
CO ₂ Emissions (energy related)	88.8	95.8	77.4	71.5	73.8	65.2	51.5	-1.4	-0.5	-3.5
Power generation/District heating	42.0	39.0	33.6	27.2	28.6	21.0	11.9	-2.2	-1.6	-8.4
Energy Branch	6.8	7.7	5.1	4.0	3.8	3.6	3.4	-2.8	-2.9	-1.1
Industry	21.6	25.2	14.4	14.7	15.6	14.7	11.9	-4.0	0.9	-2.7
Residential	6.6	7.3	5.8	6.5	6.9	6.9	6.0	-1.2	1.7	-1.4
Tertiary	1.9	4.2	3.6	3.5	3.5	3.3	2.6	6.7	-0.4	-2.9
Transport	9.9	12.4	14.8	15.5	15.4	15.8	15.7	4.1	0.4	0.2
CO ₂ Emissions (non energy and non land use related)	13.4	8.7	7.1	7.4	7.8	7.6	7.5	-6.1	0.8	-0.4
Non-CO2 GHG emissions	43.8	46.7	40.9	39.8	36.9	36.5	34.9	-0.7	-1.0	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	57.4	59.5	49.4	46.7	46.6	43.0	36.9	-1.5	-0.6	-2.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.42	0.39	0.30	0.30	0.21	0.12	-0.6	-2.5	-8.8
Final energy demand (t of CO ₂ /toe)	1.76	1.99	1.71	1.74	1.68	1.66	1.58	-0.3	-0.2	-0.6
Industry	2.33	2.52	2.09	2.01	1.92	1.77	1.52	-1.1	-0.8	-2.3
Residential	0.79	0.92	0.72	0.83	0.85	0.88	0.87	-0.8	1.6	0.3
Tertiary	1.17	1.70	1.44	1.42	1.37	1.31	1.17	2.2	-0.5	-1.6
Transport	2.86	2.90	2.89	2.81	2.67	2.67	2.64	0.1	-0.8	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.9	17.6	23.3	25.1	26.2	27.1	34.3			
RES-H&C share	16.1	17.9	27.4	25.9	26.4	27.6	32.2			
RES-E share	30.2	28.8	30.4	42.3	40.7	42.8	63.6			
RES-T share (based on ILUC formula)	2.3	1.9	3.8	7.5	10.2	10.6	15.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	72	70	76	75	76	74	5.0	0.7	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	52	105	90	101	109	119	126	5.7	1.9	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.9	19.1	23.0	26.7	32.5	37.0	42.8	8.8	3.5	2.8
as % of GDP	11.5	16.8	17.7	18.4	19.9	20.5	21.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovakia: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	5	5	5	5	5	5	5	0.0	0.0	-0.2
GDP (in 000 M€13)	43	55	69	76	89	102	117	4.8	2.6	2.7
Gross Inland Consumption (ktoe)	18302	19029	17864	16867	18304	18567	18260	-0.2	0.2	0.0
Solids	4278	4231	3897	3247	3103	2778	2068	-0.9	-2.3	-4.0
Oil	3415	3711	3692	3346	3437	3414	3448	0.8	-0.7	0.0
Natural gas	5777	5884	5007	4939	4977	5096	4315	-1.4	-0.1	-1.4
Nuclear	4255	4626	3819	3569	4953	5375	6616	-1.1	2.6	2.9
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Renewable energy forms	810	859	1360	1551	2037	2133	2051	5.3	4.1	0.1
Energy Branch Consumption	623	1297	963	942	936	852	823	4.5	-0.3	-1.3
Non-Energy Uses	1365	1279	1053	1597	1738	1886	2026	-2.6	5.1	1.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	6389	6684	6345	6192	7956	8089	9022	-0.1	2.3	1.3
Solids	1018	637	613	593	512	431	209	-4.9	-1.8	-8.6
Oil	165	383	387	297	264	0	0	8.9	-3.7	-100.0
Natural gas	133	126	88	120	107	73	74	-4.0	1.9	-3.6
Nuclear	4255	4626	3819	3569	4953	5375	6616	-1.1	2.6	2.9
Renewable energy sources	818	912	1438	1613	2121	2209	2123	5.8	4.0	0.0
Hydro	397	399	452	407	469	432	431	1.3	0.4	-0.8
Biomass & Waste	421	505	972	1148	1574	1644	1525	8.7	4.9	-0.3
Wind	0	1	1	1	2	36	36	0.0	16.2	31.9
Solar and others	0	0	6	51	63	70	78	0.0	26.8	2.3
Geothermal	0	8	8	6	14	28	53	0.0	5.4	14.3
Net Imports (ktoe)	11997	12428	11230	10675	10348	10478	9238	-0.7	-0.8	-1.1
Solids	3432	3739	2951	2654	2591	2347	1859	-1.5	-1.3	-3.3
Oil	3090	3274	3266	3048	3174	3414	3448	0.6	-0.3	0.8
Crude oil and Feedstocks	5720	5429	5282	5716	5602	5625	5441	-0.8	0.6	-0.3
Oil products	-2630	-2155	-2015	-2667	-2429	-2212	-1993	-2.6	1.9	-2.0
Natural gas	5707	5735	5003	4819	4871	5023	4241	-1.3	-0.3	-1.4
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Import Dependency (%)	65.5	65.3	62.9	63.3	56.5	56.4	50.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	30798	31352	27464	27068	34016	36286	37567	-1.1	2.2	1.0
Nuclear energy	16494	17727	14574	14662	20320	22049	28276	-1.2	3.4	3.4
Solids	5584	5535	3570	4121	4615	3623	1697	-4.4	2.6	-9.5
Oil (including refinery gas)	202	741	600	163	8	91	91	11.5	-34.7	26.8
Gas (including derived gases)	3871	2629	2716	1730	911	2745	230	-3.5	-10.3	-12.8
Biomass-waste	32	76	726	1129	2154	1811	1224	36.6	11.5	-5.5
Hydro (pumping excluded)	4615	4638	5255	4738	5448	5021	5017	1.3	0.4	-0.8
Wind	0	6	6	6	26	414	414	0.0	15.8	31.9
Solar	0	0	17	520	532	532	619	0.0	40.8	1.5
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	6919	7103	6715	7497	7733	8014	8792	-0.3	1.4	1.3
Nuclear energy	2707	2707	1845	1940	2820	2820	4020	-3.8	4.3	3.6
Renewable energy	1685	1601	1624	2220	2357	2712	2772	-0.4	3.8	1.6
Hydro (pumping excluded)	1685	1596	1600	1607	1719	1719	1719	-0.5	0.7	0.0
Wind	0	5	5	5	19	374	374	0.0	14.3	34.6
Solar	0	0	19	608	620	620	680	0.0	41.7	0.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2526	2795	3246	3337	2555	2482	1999	2.5	-2.4	-2.4
of which cogeneration units	618	5411	2821	1020	871	913	787	16.4	-11.1	-1.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1618	1617	1313	1274	792	711	454	-2.1	-4.9	-5.4
Gas fired	821	1067	1674	1738	1325	1327	1103	7.4	-2.3	-1.8
Oil fired	81	81	81	84	84	84	84	0.0	0.4	0.0
Biomass-waste fired	7	30	177	241	354	359	359	38.2	7.2	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.2	46.9	42.6	38.8	47.3	48.9	46.4			
Efficiency of gross thermal power generation (%)	31.4	29.0	25.6	36.3	36.9	36.5	29.1			
% of gross electricity from CHP	18.4	15.3	15.9	25.6	21.9	19.6	8.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.6	71.6	74.9	77.8	83.7	82.2	94.6			
Fuel Inputs to Thermal Power Generation (ktoe)	2656	2664	2555	1692	1790	1948	957	-0.4	-3.5	-6.1
Solids	1619	1677	1205	1089	1132	981	487	-2.9	-0.6	-8.1
Oil (including refinery gas)	31	100	293	34	3	30	30	25.4	-37.2	26.8
Gas (including derived gases)	1002	847	793	314	171	496	105	-2.3	-14.2	-4.8
Biomass & Waste	4	40	264	255	484	441	335	51.0	6.2	-3.6
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12901	13989	12558	12416	13516	13503	14398	-0.3	0.7	0.6
Refineries	5959	6398	6011	6450	6334	6123	5967	0.1	0.5	-0.6
Biofuels and hydrogen production	0	11	98	118	176	170	173	0.0	6.0	-0.1
District heating	674	718	497	367	376	378	321	-3.0	-2.8	-1.6
Derived gases, cokeries etc.	6268	6862	5952	5481	6630	6832	7937	-0.5	1.1	1.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovakia: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	37	39	36	38	45	51	57	-0.2	2.2	2.4
Public road transport	9	9	5	6	6	7	8	-5.5	2.0	2.2
Private cars and motorcycles	24	26	27	28	34	38	43	1.2	2.1	2.3
Rail	3	3	3	3	3	4	5	-2.1	2.9	3.2
Aviation ⁽³⁾	0	2	1	1	1	2	2	15.3	3.0	4.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	20	21	22	23	26	29	32	1.1	1.8	2.1
Heavy goods and light commercial vehicles	7	11	13	14	15	16	18	6.0	1.9	1.6
Rail	11	9	8	8	10	11	13	-3.2	1.8	3.0
Inland navigation	1	1	1	1	1	1	2	-1.5	1.1	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	1455	1794	2241	2205	2346	2321	2373	4.4	0.5	0.1
Public road transport	193	185	132	141	154	165	174	-3.7	1.5	1.2
Private cars and motorcycles	830	992	1194	1155	1208	1146	1161	3.7	0.1	-0.4
Heavy goods and light commercial vehicles	308	527	821	814	872	883	892	10.3	0.6	0.2
Rail	83	42	40	41	48	54	61	-7.1	1.8	2.6
Aviation	27	39	41	44	53	62	71	4.5	2.5	3.0
Inland navigation	14	7	12	10	11	12	13	-2.0	-0.4	1.4
By transport activity										
Passenger transport	1064	1223	1374	1346	1423	1381	1416	2.6	0.4	0.0
Freight transport	390	570	867	859	924	941	957	8.3	0.6	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.6	4.4	5.5	7.7	7.9	8.0			
ENERGY EFFICIENCY										
Primary energy consumption	16937	17751	16811	15270	16566	16681	16234	-0.1	-0.1	-0.2
Final Energy Demand	10980	11561	11546	11225	11660	11481	10868	0.5	0.1	-0.7
by sector										
Industry	4532	4713	4361	4420	4554	4558	4445	-0.4	0.4	-0.2
Energy intensive industries	3678	3887	3637	3655	3725	3690	3536	-0.1	0.2	-0.5
Other industrial sectors	854	826	723	765	829	868	909	-1.7	1.4	0.9
Residential	2586	2540	2312	2176	2215	2178	1899	-1.1	-0.4	-1.5
Tertiary	2407	1916	2240	2038	2160	2042	1802	-0.7	-0.4	-1.8
Transport ⁽⁵⁾	1455	2392	2633	2591	2730	2704	2723	6.1	0.4	0.0
by fuel										
Solids	1747	1572	1637	1294	1236	1171	1000	-0.6	-2.8	-2.1
Oil	1703	2184	2301	2230	2287	2204	2178	3.1	-0.1	-0.5
Gas	4698	4540	4119	4011	4082	3797	3388	-1.3	-0.1	-1.8
Electricity	1893	1965	2075	2219	2345	2507	2584	0.9	1.2	1.0
Heat (from CHP and District Heating)	619	951	851	726	813	817	701	3.2	-0.5	-1.5
Renewable energy forms	320	349	562	745	894	977	1005	5.8	4.8	1.2
Other	0	0	0	0	2	8	13	0.0	0.0	23.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	424	347	259	221	206	182	157	-4.8	-2.3	-2.7
Industry (Energy on Value added, index 2000=100)	100	61	39	37	34	30	26	-8.9	-1.5	-2.6
Residential (Energy on Private Income, index 2000=100)	100	78	59	51	44	37	28	-5.1	-2.9	-4.4
Tertiary (Energy on Value added, index 2000=100)	100	72	68	54	49	40	31	-3.8	-3.2	-4.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	31	37	35	31	27	24	2.7	-1.8	-2.5
Freight transport (toe/Mtkm)	20	27	40	37	35	32	30	7.2	-1.1	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	54.1	54.7	50.8	45.0	42.2	39.7	34.1	-0.6	-1.8	-2.1
of which ETS sectors (2013 scope) GHG emissions		29.2	24.7	20.4	18.8	17.5	13.4		-2.7	-3.3
of which ESD sectors (2013 scope) GHG emissions		25.5	26.1	24.6	23.4	22.2	20.7		-1.1	-1.2
CO ₂ Emissions (energy related)	38.7	41.6	38.7	33.6	32.2	29.9	24.6	0.0	-1.8	-2.7
Power generation/District heating	11.1	11.2	9.2	6.3	5.8	6.1	3.0	-1.8	-4.6	-6.5
Energy Branch	1.6	3.4	2.5	2.2	2.0	1.7	1.6	4.4	-2.0	-2.1
Industry	13.3	14.1	12.8	12.0	11.3	9.7	8.7	-0.4	-1.3	-2.6
Residential	4.1	3.6	3.4	2.8	2.7	2.5	2.2	-2.0	-2.2	-2.2
Tertiary	4.5	2.7	3.5	3.1	3.1	2.6	2.0	-2.5	-1.0	-4.5
Transport	4.1	6.6	7.3	7.1	7.3	7.2	7.2	5.9	0.1	-0.2
CO ₂ Emissions (non energy and non land use related)	6.7	3.9	3.2	3.5	3.5	3.5	3.5	-7.0	0.9	-0.1
Non-CO2 GHG emissions	8.7	9.1	8.9	7.8	6.4	6.3	6.0	0.2	-3.2	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	71.5	72.3	67.2	59.5	55.8	52.5	45.1	-0.6	-1.8	-2.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.27	0.25	0.23	0.17	0.13	0.13	0.06	-1.4	-5.9	-6.8
Final energy demand (t of CO ₂ /toe)	2.37	2.34	2.33	2.24	2.10	1.92	1.84	-0.2	-1.1	-1.3
Industry	2.94	2.99	2.94	2.72	2.48	2.13	1.95	0.0	-1.7	-2.4
Residential	1.60	1.40	1.47	1.30	1.22	1.17	1.14	-0.9	-1.8	-0.7
Tertiary	1.85	1.43	1.55	1.54	1.45	1.26	1.10	-1.8	-0.7	-2.7
Transport	2.82	2.77	2.77	2.74	2.69	2.67	2.64	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.3	5.8	9.0	11.7	14.2	15.5	16.5			
RES-H&C share	1.2	4.9	7.8	10.3	12.2	15.4	18.2			
RES-E share	11.9	13.5	17.8	21.7	25.9	23.2	21.0			
RES-T share (based on ILUC formula)	1.7	1.5	5.3	6.6	10.1	10.9	11.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	62	60	70	80	82	75	84	1.2	1.6	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	94	102	143	128	133	140	144	4.3	-0.7	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	7.1	8.5	11.5	11.2	13.7	15.6	17.8	4.9	1.8	2.7
as % of GDP	16.4	15.6	16.6	14.7	15.4	15.3	15.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovenia: EU CO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (In million)	2	2	2	2	2	2	2	0.3	0.2	0.0
GDP (in 000 M€13)	28	34	37	38	41	45	48	2.7	1.0	1.6
Gross Inland Consumption (ktoe)	6451	7325	7226	6776	7001	6765	6422	1.1	-0.3	-0.9
Solids	1305	1539	1451	1268	1353	1062	1087	1.1	-0.7	-2.2
Oil	2419	2580	2579	2360	2275	2076	1851	0.6	-1.2	-2.0
Natural gas	826	929	863	681	689	750	670	0.4	-2.2	-0.3
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Renewable energy forms	788	787	1054	1182	1394	1496	1527	3.0	2.8	0.9
Energy Branch Consumption	107	100	112	99	105	86	92	0.5	-0.6	-1.3
Non-Energy Uses	238	310	209	114	120	126	126	-1.3	-5.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3085	3492	3687	3441	3763	3629	3767	1.8	0.2	0.0
Solids	1062	1184	1196	1023	1127	832	941	1.2	-0.6	-1.8
Oil	1	0	0	0	0	0	0	-95.0	-100.0	0.0
Natural gas	6	3	6	3	4	11	15	0.0	-3.9	14.1
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Renewable energy sources	788	787	1025	1094	1259	1358	1382	2.7	2.1	0.9
Hydro	330	298	388	380	391	407	435	1.6	0.1	1.1
Biomass & Waste	458	489	601	632	724	742	664	2.7	1.9	-0.9
Wind	0	0	0	0	24	26	42	0.0	0.0	5.6
Solar and others	0	0	9	36	54	127	185	0.0	19.2	13.0
Geothermal	0	0	27	45	66	55	56	0.0	9.4	-1.7
Net Imports (ktoe)	3415	3855	3581	3356	3259	3157	2675	0.5	-0.9	-2.0
Solids	244	323	279	245	226	231	146	1.4	-2.1	-4.3
Oil	2466	2634	2596	2380	2295	2097	1871	0.5	-1.2	-2.0
Crude oil and Feedstocks	152	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	2314	2634	2596	2380	2295	2097	1871	1.2	-1.2	-2.0
Natural gas	820	925	857	678	685	740	656	0.4	-2.2	-0.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Import Dependency (%)	52.9	52.5	49.4	49.4	46.4	46.5	41.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	13624	15117	16248	15128	16437	16765	18105	1.8	0.1	1.0
Nuclear energy	4761	5884	5657	5421	5628	5801	5801	1.7	-0.1	0.3
Solids	4611	5271	5288	4858	5182	3907	3929	1.4	-0.2	-2.7
Oil (including refinery gas)	55	42	8	0	0	0	0	-17.5	-100.0	0.0
Gas (including derived gases)	293	339	548	14	110	436	356	6.5	-14.8	12.5
Biomass-waste	70	120	222	111	300	422	589	12.2	3.0	7.0
Hydro (pumping excluded)	3834	3461	4512	4424	4542	4735	5058	1.6	0.1	1.1
Wind	0	0	0	5	284	302	488	0.0	0.0	5.6
Solar	0	0	13	295	391	1163	1884	0.0	40.8	17.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	-100.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2955	3111	3186	3490	3886	4416	5018	0.8	2.0	2.6
Nuclear energy	700	700	700	700	700	700	700	0.0	0.0	0.0
Renewable energy	843	979	1086	1385	1773	2506	3376	2.6	5.0	6.7
Hydro (pumping excluded)	843	979	1074	1119	1220	1220	1296	2.5	1.3	0.6
Wind	0	0	0	4	200	212	337	0.0	0.0	5.3
Solar	0	0	12	262	352	1074	1743	0.0	40.2	17.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1412	1432	1400	1405	1414	1210	942	-0.1	0.1	-4.0
of which cogeneration units	648	336	333	228	213	241	238	-6.4	-4.4	1.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	923	923	792	792	792	678	632	-1.5	0.0	-2.2
Gas fired	278	284	372	470	469	391	176	3.0	2.3	-9.3
Oil fired	176	190	185	92	29	16	16	0.5	-16.9	-5.7
Biomass-waste fired	35	35	51	51	124	124	118	3.9	9.3	-0.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.4	51.9	54.5	46.4	45.3	41.4	39.5			
Efficiency of gross thermal power generation (%)	33.2	32.9	33.4	34.4	34.5	33.2	32.8			
% of gross electricity from CHP	6.4	7.3	6.9	8.9	8.5	6.2	5.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	63.6	62.6	64.0	67.8	67.8	74.1	76.3			
Fuel Inputs to Thermal Power Generation (ktoe)	1302	1508	1562	1247	1393	1234	1278	1.8	-1.1	-0.9
Solids	1215	1412	1381	1217	1301	1020	1063	1.3	-0.6	-2.0
Oil (including refinery gas)	13	9	3	0	0	0	0	-13.3	-100.0	0.0
Gas (including derived gases)	59	58	113	3	19	93	76	6.7	-16.2	14.7
Biomass & Waste	15	30	65	27	73	121	138	15.5	1.2	6.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1479	1607	1562	1481	1580	1627	1623	0.6	0.1	0.3
Refineries	171	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	46	98	145	141	145	0.0	12.3	0.0
District heating	80	89	57	61	62	56	46	-3.2	0.8	-2.8
Derived gases, cokeries etc.	1228	1518	1459	1322	1373	1431	1431	1.7	-0.6	0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovenia: EUO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	25	27	30	31	34	35	37	2.0	1.0	0.9
Public road transport	4	3	3	3	3	3	3	-1.0	0.2	0.3
Private cars and motorcycles	20	23	26	27	29	30	31	2.4	1.0	0.8
Rail	1	1	1	1	1	1	2	1.4	4.1	3.8
Aviation ⁽³⁾	0	0	0	0	0	1	1	2.0	3.3	3.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	6	11	11	12	15	18	20	5.6	3.3	2.8
Heavy goods and light commercial vehicles	4	8	8	8	10	12	13	7.9	3.1	2.1
Rail	3	3	3	4	5	6	7	1.8	3.6	4.2
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	1249	1492	1806	1838	1906	1850	1773	3.8	0.5	-0.7
Public road transport	78	71	92	94	96	95	92	1.8	0.3	-0.4
Private cars and motorcycles	1025	1047	1304	1319	1300	1191	1091	2.4	0.0	-1.7
Heavy goods and light commercial vehicles	98	323	355	370	444	487	507	13.8	2.3	1.3
Rail	24	28	26	27	33	38	43	1.0	2.2	2.7
Aviation	25	23	28	28	34	38	41	1.3	2.1	1.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
<i>By transport activity</i>										
Passenger transport	1132	1146	1430	1447	1437	1332	1233	2.4	0.1	-1.5
Freight transport	117	346	376	391	469	517	541	12.4	2.2	1.4
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.1	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.5	5.4	7.7	7.8	8.4			
ENERGY EFFICIENCY										
Primary energy consumption	6214	7016	7017	6662	6881	6640	6296	1.2	-0.2	-0.9
Final Energy Demand	4457	4897	4927	4954	5046	4874	4483	1.0	0.2	-1.2
<i>by sector</i>										
Industry	1424	1644	1273	1332	1411	1429	1329	-1.1	1.0	-0.6
Energy intensive industries	836	1028	788	890	944	944	843	-0.6	1.8	-1.1
Other industrial sectors	588	616	485	442	467	484	486	-1.9	-0.4	0.4
Residential	1077	1140	1191	1145	1100	1030	886	1.0	-0.8	-2.1
Tertiary	697	620	657	638	628	565	493	-0.6	-0.4	-2.4
Transport ⁽⁵⁾	1259	1493	1806	1839	1907	1851	1774	3.7	0.5	-0.7
<i>by fuel</i>										
Solids	90	80	47	51	52	42	24	-6.3	1.1	-7.6
Oil	2264	2409	2447	2239	2155	1952	1726	0.8	-1.3	-2.2
Gas	569	665	620	635	645	625	577	0.9	0.4	-1.1
Electricity	905	1096	1029	1098	1157	1243	1259	1.3	1.2	0.8
Heat (from CHP and District Heating)	195	196	192	197	204	204	187	-0.2	0.6	-0.9
Renewable energy forms	435	452	592	735	833	806	704	3.1	3.5	-1.7
Other	0	0	0	0	0	2	6	0.0	0.0	32.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	227	215	195	181	171	151	134	-1.5	-1.3	-2.4
Industry (Energy on Value added, index 2000=100)	100	93	70	74	72	65	56	-3.6	0.3	-2.3
Residential (Energy on Private Income, index 2000=100)	100	93	85	87	77	65	51	-1.6	-1.1	-3.9
Tertiary (Energy on Value added, index 2000=100)	100	74	70	66	59	48	39	-3.5	-1.6	-4.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	42	46	46	42	37	33	0.3	-1.0	-2.4
Freight transport (toe/Mtkm)	18	32	34	33	31	29	27	6.4	-1.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.0	20.2	19.2	17.5	17.4	15.5	14.7	0.1	-1.0	-1.7
of which ETS sectors (2013 scope) GHG emissions	8.9	8.2	7.2	7.5	6.4	6.2	6.2		-0.8	-2.0
of which ESD sectors (2013 scope) GHG emissions	11.3	11.0	10.2	9.8	9.2	8.5	8.5		-1.1	-1.5
CO₂ Emissions (energy related)	14.1	15.5	15.3	13.8	13.9	12.2	11.4	0.9	-1.0	-1.9
Power generation/District heating	5.5	6.3	6.2	5.3	5.6	4.6	4.7	1.3	-1.1	-1.8
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.9	-4.9	14.1
Industry	2.4	2.3	1.7	1.7	1.5	1.1	1.1	-3.0	-0.5	-3.9
Residential	1.3	1.5	1.2	0.9	0.8	0.7	0.6	-1.0	-4.0	-3.4
Tertiary	1.2	1.0	0.9	0.7	0.6	0.4	0.3	-3.0	-4.1	-5.4
Transport	3.7	4.4	5.3	5.2	5.3	5.0	4.7	3.8	0.0	-1.1
CO₂ Emissions (non energy and non land use related)	1.0	1.2	0.8	0.7	0.7	0.8	0.8	-1.7	-1.1	0.2
Non-CO₂ GHG emissions	3.9	3.5	3.0	3.0	2.7	2.6	2.5	-2.6	-1.0	-1.0
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.0	108.4	103.1	93.8	93.3	83.5	78.7	0.1	-1.0	-1.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.34	0.35	0.33	0.30	0.29	0.24	0.23	-0.3	-1.2	-2.4
Final energy demand (t of CO ₂ /toe)	1.91	1.88	1.85	1.72	1.64	1.56	1.50	-0.4	-1.2	-0.9
Industry	1.66	1.41	1.37	1.29	1.18	1.02	0.84	-1.9	-1.5	-3.3
Residential	1.24	1.28	1.01	0.79	0.73	0.65	0.64	-2.0	-3.2	-1.3
Tertiary	1.68	1.63	1.32	1.03	0.91	0.77	0.67	-2.4	-3.6	-3.0
Transport	2.90	2.97	2.93	2.85	2.76	2.72	2.65	0.1	-0.6	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.6	15.9	19.1	21.9	25.2	27.9	30.7			
RES-H&C share	18.9	19.0	25.5	29.8	34.4	37.6	38.4			
RES-E share	30.9	28.7	32.2	33.0	35.8	41.0	49.0			
RES-T share (based on ILUC formula)	1.0	0.8	3.2	6.1	10.1	12.3	17.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	49	47	45	67	70	60	63	-0.7	4.5	-1.1
Average Price of Electricity in Final demand sectors (€13/MWh)	109	86	111	106	108	114	115	0.2	-0.3	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.8	4.7	6.1	6.4	7.5	8.1	8.6	5.0	2.0	1.4
as % of GDP	13.3	13.8	16.5	17.1	18.4	18.2	17.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Spain: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	40	43	46	46	46	45	44	1.5	-0.2	-0.3
GDP (in 000 M€13)	893	1048	1093	1094	1207	1327	1447	2.0	1.0	1.8
Gross Inland Consumption (ktoe)	123642	144223	129868	124583	125110	114904	104565	0.5	-0.4	-1.8
Solids	20938	20566	7906	15768	15746	10156	4551	-9.3	7.1	-11.7
Oil	63967	70457	60436	53990	50052	46986	43437	-0.6	-1.9	-1.4
Natural gas	15305	29886	31162	25155	25416	19834	16204	7.4	-2.0	-4.4
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Renewable energy forms	7005	8587	15090	15611	19345	23209	25834	8.0	2.5	2.9
Energy Branch Consumption	6259	6666	7878	7994	7430	6496	5960	2.3	-0.6	-2.2
Non-Energy Uses	9407	8362	7046	5744	6094	6369	6379	-2.8	-1.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	31478	30047	34166	33101	36683	38669	40745	0.8	0.7	1.1
Solids	7966	6265	3296	2973	2889	1054	396	-8.4	-1.3	-18.0
Oil	228	167	124	377	365	345	360	-5.9	11.4	-0.1
Natural gas	234	185	78	42	47	53	58	-10.4	-4.9	2.0
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Renewable energy sources	7005	8587	14677	15536	19210	23044	25759	7.7	2.7	3.0
Hydro	2430	1582	3638	2853	2862	2877	2883	4.1	-2.4	0.1
Biomass & Waste	4131	5113	6183	6934	9585	9498	9176	4.1	4.5	-0.4
Wind	406	1821	3807	4443	4844	5622	7472	25.1	2.4	4.4
Solar and others	33	65	1035	1288	1895	4987	6153	41.3	6.2	12.5
Geothermal	5	7	16	18	24	58	76	11.5	4.3	12.1
Net Imports (ktoe)	99342	123832	106084	100729	97777	85568	73249	0.7	-0.8	-2.8
Solids	12840	14418	6726	12795	12856	9102	4156	-6.3	6.7	-10.7
Oil	70653	79281	68704	62860	58954	55793	52015	-0.3	-1.5	-1.2
Crude oil and Feedstocks	59023	60650	56496	66666	63004	59592	55783	-0.4	1.1	-1.2
Oil products	11631	18630	12208	-3806	-4050	-3800	-3769	0.5	0.0	-0.7
Natural gas	15467	30248	30950	25113	25451	19962	16637	7.2	-1.9	-4.2
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Import Dependency (%)	76.6	81.4	76.8	75.3	72.7	68.9	64.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	220921	289445	298320	275295	284460	280646	277028	3.0	-0.5	-0.3
Nuclear energy	62206	57539	61990	58066	58066	57757	57521	0.0	-0.7	-0.1
Solids	79094	84047	25493	57621	57873	34087	13082	-10.7	8.5	-13.8
Oil (including refinery gas)	22578	24420	16562	4988	566	1702	1600	-3.1	-28.7	11.0
Gas (including derived gases)	21942	80725	95840	53218	56376	29581	11437	15.9	-5.2	-14.7
Biomass-waste	2100	3104	4674	4514	5972	7982	10156	8.3	2.5	5.5
Hydro (pumping excluded)	28256	18393	42304	33177	33274	33455	33517	4.1	-2.4	0.1
Wind	4727	21176	44271	51665	56322	65378	86885	25.1	2.4	4.4
Solar	17	41	6423	12046	16011	50704	62829	80.6	9.6	14.6
Geothermal and other renewables	1	0	763	0	0	0	0	105.9	0.0	-100.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	52405	73568	99270	104515	104566	120988	127673	6.6	0.5	2.0
Nuclear energy	7869	7869	7845	7399	7399	7399	7399	0.0	-0.6	0.0
Renewable energy	17760	25774	41432	46783	51047	71195	83361	8.8	2.1	5.0
Hydro (pumping excluded)	15542	15796	16086	16632	16795	16795	16795	0.3	0.4	0.0
Wind	2206	9918	20693	23025	24977	27875	34597	25.1	1.9	3.3
Solar	12	60	4653	7126	9275	26525	31968	81.5	7.1	13.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	26776	39924	49994	50333	46121	42394	36914	6.4	-0.8	-2.2
of which cogeneration units	4570	6597	3382	6808	2989	5355	5683	-3.0	-1.2	6.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	11556	11359	10389	10316	9333	7378	3968	-1.1	-1.1	-8.2
Gas fired	4713	17647	29569	31333	30271	29749	28097	20.2	0.2	-0.7
Oil fired	10028	10043	8964	7496	4752	3422	2951	-1.1	-6.1	-4.7
Biomass-waste fired	478	876	1072	1188	1765	1845	1899	8.4	5.1	0.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.9	43.1	33.1	28.9	29.9	25.8	24.3			
Efficiency of gross thermal power generation (%)	40.8	46.7	48.9	42.5	42.6	40.1	37.9			
% of gross electricity from CHP	9.2	4.0	7.4	9.8	4.7	6.0	6.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	44.0	34.6	53.8	57.9	59.6	76.7	90.6			
Fuel Inputs to Thermal Power Generation (ktoe)	26472	35403	25226	24328	24380	15736	8228	-0.5	-0.3	-10.3
Solids	18245	17623	5561	13703	13680	8128	3139	-11.2	9.4	-13.7
Oil (including refinery gas)	4455	5249	3391	948	133	403	379	-2.7	-27.7	11.0
Gas (including derived gases)	3075	11140	14839	8684	9266	5249	2424	17.0	-4.6	-12.5
Biomass & Waste	697	1391	1435	994	1300	1956	2285	7.5	-1.0	5.8
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	79871	79435	78129	80766	79028	75897	72214	-0.2	0.1	-0.9
Refineries	60685	61323	58480	63161	60960	58106	54654	-0.4	0.4	-1.1
Biofuels and hydrogen production	70	256	1412	1419	2062	1912	1964	35.0	3.9	-0.5
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	19115	17857	18237	16187	16006	15878	15596	-0.5	-1.3	-0.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Spain: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	476	535	542	561	609	661	714	1.3	1.2	1.6
Public road transport	50	53	51	52	53	55	56	0.1	0.5	0.4
Private cars and motorcycles	310	346	352	354	372	397	425	1.3	0.5	1.3
Rail	25	28	29	29	37	44	51	1.2	2.5	3.4
Aviation ⁽¹⁾	89	106	109	124	145	164	180	2.1	2.9	2.2
Inland navigation	2	2	2	2	2	2	2	0.8	1.4	1.4
Freight transport activity (Gtkm)	180	265	227	228	247	264	281	2.3	0.9	1.3
Heavy goods and light commercial vehicles	138	217	190	191	206	219	232	3.2	0.8	1.2
Rail	12	12	9	10	12	13	15	-2.3	2.3	2.5
Inland navigation	31	36	28	28	30	32	34	-1.1	0.6	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	33084	39797	37180	35033	34459	33256	32755	1.2	-0.8	-0.5
Public road transport	1354	1408	1319	1329	1326	1308	1280	-0.3	0.1	-0.4
Private cars and motorcycles	18655	20608	19876	18098	16536	14788	14107	0.6	-1.8	-1.6
Heavy goods and light commercial vehicles	6486	9874	8641	8122	8353	8319	8481	2.9	-0.3	0.2
Rail	708	1029	899	772	874	975	1049	2.4	-0.3	1.8
Aviation	4486	5323	5389	6005	6612	7052	6978	1.9	2.1	0.5
Inland navigation	1395	1555	1057	707	757	813	859	-2.7	-3.3	1.3
<i>By transport activity</i>										
Passenger transport	25151	27727	26960	25730	24830	23558	22813	0.7	-0.8	-0.8
Freight transport	7933	12069	10220	9303	9629	9698	9942	2.6	-0.6	0.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	3.8	4.1	6.1	6.0	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	114235	135861	122822	118838	119017	108535	98186	0.7	-0.3	-1.9
Final Energy Demand	79885	97754	89072	85314	86239	81585	76561	1.1	-0.3	-1.2
<i>by sector</i>										
Industry	25368	30967	21435	21275	22232	21411	20596	-1.7	0.4	-0.8
Energy intensive industries	17349	20338	13379	13268	14005	13229	12527	-2.6	0.5	-1.1
Other industrial sectors	8020	10628	8056	8007	8227	8182	8069	0.0	0.2	-0.2
Residential	12000	15132	16920	15550	15515	14303	12264	3.5	-0.9	-2.3
Tertiary	9287	11712	13526	13441	14017	12599	10928	3.8	0.4	-2.5
Transport ⁽⁵⁾	33230	39944	37192	35048	34475	33273	32773	1.1	-0.8	-0.5
<i>by fuel</i>										
Solids	1775	1712	1261	1123	1307	1294	719	-3.4	0.4	-5.8
Oil	46297	53449	46775	43129	40251	37130	33881	0.1	-1.5	-1.7
Gas	12141	17978	14645	14743	14323	12988	12287	1.9	-0.2	-1.5
Electricity	16205	20827	21049	20057	21307	21505	21284	2.7	0.1	0.0
Heat (from CHP and District Heating)	0	0	0	8	117	296	567	0.0	0.0	17.1
Renewable energy forms	3469	3788	5343	6252	8924	8322	7690	4.4	5.3	-1.5
Other	0	0	0	3	10	50	133	0.0	1431.1	29.1
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	139	138	119	114	104	87	72	-1.5	-1.4	-3.5
Industry (Energy on Value added, index 2000=100)	100	114	87	87	83	74	66	-1.4	-0.5	-2.3
Residential (Energy on Private Income, index 2000=100)	100	106	115	103	94	78	61	1.4	-2.1	-4.1
Tertiary (Energy on Value added, index 2000=100)	100	108	110	107	101	82	65	1.0	-0.9	-4.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	46	42	38	34	29	26	-1.1	-2.2	-2.6
Freight transport (toe/Mtkm)	44	46	45	41	39	37	35	0.3	-1.5	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	398.8	447.7	364.3	356.5	341.5	291.9	245.7	-0.9	-0.6	-3.2
of which ETS sectors (2013 scope) GHG emissions		216.2	146.4	157.9	157.4	122.4	89.8		0.7	-5.5
of which ESD sectors (2013 scope) GHG emissions		231.5	218.0	198.6	184.1	169.5	155.9		-1.7	-1.7
CO₂ Emissions (energy related)	291.6	347.3	272.6	271.0	258.8	212.8	170.2	-0.7	-0.5	-4.1
Power generation/District heating	98.8	117.7	70.3	81.2	79.8	48.8	21.6	-3.4	1.3	-12.2
Energy Branch	13.4	13.5	16.2	16.1	14.3	12.5	11.6	1.9	-1.3	-2.1
Industry	50.4	59.2	42.3	39.8	39.5	35.4	30.0	-1.7	-0.7	-2.7
Residential	17.1	20.9	20.5	16.5	13.6	11.7	8.0	1.9	-4.0	-5.2
Tertiary	13.2	16.5	15.0	15.5	13.9	10.6	8.3	1.3	-0.7	-5.1
Transport	98.7	119.5	108.3	101.9	97.7	93.7	90.7	0.9	-1.0	-0.7
CO₂ Emissions (non energy and non land use related)	26.2	29.5	21.8	17.7	18.8	18.7	18.4	-1.8	-1.5	-0.2
Non-CO₂ GHG emissions	81.1	71.0	69.9	67.7	64.0	60.5	57.1	-1.5	-0.9	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	134.6	151.1	123.0	120.3	115.3	98.5	82.9	-0.9	-0.6	-3.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.45	0.41	0.24	0.29	0.28	0.17	0.08	-6.2	1.7	-12.2
Final energy demand (t of CO ₂ /toe)	2.25	2.21	2.09	2.04	1.91	1.86	1.79	-0.7	-0.9	-0.7
Industry	1.99	1.91	1.97	1.87	1.77	1.66	1.46	-0.1	-1.1	-1.9
Residential	1.42	1.38	1.21	1.06	0.88	0.81	0.65	-1.6	-3.2	-3.0
Tertiary	1.43	1.41	1.11	1.15	0.99	0.85	0.76	-2.5	-1.1	-2.7
Transport	2.97	2.99	2.91	2.91	2.83	2.82	2.77	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	8.1	8.4	13.8	15.4	21.0	26.6	32.0			
RES-H&C share	11.0	9.4	12.6	16.1	22.5	24.0	26.3			
RES-E share	16.6	19.1	29.8	36.9	38.5	54.9	68.8			
RES-T share (based on ILUC formula)	0.6	1.3	5.1	0.8	10.1	12.7	18.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	58	62	75	90	98	91	82	2.5	2.7	-1.8
Average Price of Electricity in Final demand sectors (€13/MWh)	105	101	149	173	173	167	165	3.5	1.5	-0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	74.3	101.3	120.1	122.7	144.8	151.9	164.8	4.9	1.9	1.3
as % of GDP	8.3	9.7	11.0	11.2	12.0	11.5	11.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Sweden: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (In million)	9	9	9	10	10	11	11	0.5	0.9	0.8
GDP (in 000 M€13)	296	337	366	404	448	497	552	2.2	2.1	2.1
Gross Inland Consumption (ktoe)	48898	50993	50783	47002	45916	45083	43705	0.4	-1.0	-0.5
Solids	2452	2629	2492	2263	1980	1739	1284	0.2	-2.3	-4.2
Oil	15377	14136	14199	11663	10830	9709	8712	-0.8	-2.7	-2.2
Natural gas	816	886	1484	679	3063	2502	1605	6.2	7.5	-6.3
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Renewable energy forms	15066	15308	17512	19146	19606	20655	21840	1.5	1.1	1.1
Energy Branch Consumption	1141	1326	1469	1414	1366	1317	1313	2.6	-0.7	-0.4
Non-Energy Uses	3143	2460	2113	2183	2281	2398	2436	-3.9	0.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	30052	34233	32685	33372	31494	32473	33524	0.8	-0.4	0.6
Solids	162	211	238	210	86	93	0	4.0	-9.7	-100.0
Oil	0	0	0	0	0	0	0	7.8	-100.0	0.0
Natural gas	40	44	18	0	0	0	0	-7.6	-100.0	0.0
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0
Renewable energy sources	15066	15308	17512	18801	19215	20189	21332	1.5	0.9	1.1
Hydro	6757	6260	5709	6203	6158	6083	6079	-1.7	0.8	-0.1
Biomass & Waste	8264	8961	11490	11434	11777	11651	11900	3.4	0.2	0.1
Wind	39	81	301	1147	1249	2398	3249	22.6	15.3	10.0
Solar and others	5	6	11	17	31	54	98	7.4	10.9	12.2
Geothermal	0	0	0	0	0	2	6	0.0	0.0	34.5
Net Imports (ktoe)	20436	19460	19294	15820	16741	15039	12730	-0.6	-1.4	-2.7
Solids	2409	2556	2548	2054	1894	1647	1284	0.6	-2.9	-3.8
Oil	16849	16698	15102	13853	13100	12030	10882	-1.1	-1.4	-1.8
Crude oil and Feedstocks	21606	19369	19139	15905	15015	13864	12773	-1.2	-2.4	-1.6
Oil products	-4757	-2671	-4038	-2502	-1915	-1833	-1891	-1.6	-7.2	-0.1
Natural gas	776	843	1466	679	3111	2610	1984	6.6	7.8	-4.4
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Import Dependency (%)	40.7	36.8	36.6	32.2	34.7	31.7	27.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	145231	158365	148460	160491	173114	178929	186314	0.2	1.5	0.7
Nuclear energy	57316	72377	57828	57851	49379	49379	49738	0.1	-1.6	0.1
Solids	1706	1169	1770	1540	1118	740	638	0.4	-4.5	-5.5
Oil (including refinery gas)	1533	1379	1774	249	326	190	44	1.5	-15.6	-18.2
Gas (including derived gases)	1292	1342	3782	471	15529	11256	5565	11.3	15.2	-9.8
Biomass-waste	4342	8357	13397	14846	20560	18668	21792	11.9	4.4	0.6
Hydro (pumping excluded)	78584	72803	66398	72128	71601	70735	70687	-1.7	0.8	-0.1
Wind	457	936	3502	13335	14526	27884	37776	22.6	15.3	10.0
Solar	1	2	8	69	75	75	75	21.5	24.9	0.0
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	34594	33587	36947	39676	37489	41963	45170	0.7	0.1	1.9
Nuclear energy	10122	9532	9532	9532	6949	6949	6949	-0.6	-3.1	0.0
Renewable energy	16718	16799	18654	22501	23533	27851	30941	1.1	2.4	2.8
Hydro (pumping excluded)	16506	16302	16624	16395	16938	16938	16938	0.1	0.2	0.0
Wind	209	493	2019	6025	6507	10825	13915	25.5	12.4	7.9
Solar	3	4	11	81	88	88	88	13.9	23.1	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7754	7256	8761	7643	7007	7163	7280	1.2	-2.2	0.4
of which cogeneration units	4940	3488	5100	4504	6272	6041	5510	0.3	2.1	-1.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	337	348	356	356	136	136	128	0.5	-9.2	-0.6
Gas fired	547	469	1168	1168	3222	3268	3267	7.9	10.7	0.1
Oil fired	4472	3974	3963	2958	836	836	836	-1.2	-14.4	0.0
Biomass-waste fired	2398	2465	3274	3161	2814	2924	3049	3.2	-1.5	0.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	52.5	44.9	45.1	51.4	47.6	45.9			
Efficiency of gross thermal power generation (%)	21.3	23.0	27.3	25.6	41.0	37.4	36.2			
% of gross electricity from CHP	5.9	6.7	12.5	10.7	21.3	15.5	12.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	96.9	97.5	95.1	98.6	90.2	93.2	96.6			
Fuel Inputs to Thermal Power Generation (ktoe)	3582	4575	6518	5747	7865	7088	6668	6.2	1.9	-1.6
Solids	462	508	597	566	266	189	163	2.6	-7.8	-4.8
Oil (including refinery gas)	530	317	431	70	93	61	13	-2.0	-14.3	-17.9
Gas (including derived gases)	508	591	998	225	2489	1863	969	7.0	9.6	-9.0
Biomass & Waste	2084	3158	4491	4886	5018	4974	5523	8.0	1.1	1.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	40980	42243	39786	34628	31697	30730	29500	-0.3	-2.2	-0.7
Refineries	22901	20082	21039	16927	16155	15219	14185	-0.8	-2.6	-1.3
Biofuels and hydrogen production	0	134	376	733	816	874	1070	0.0	8.1	2.7
District heating	1564	1525	1735	1424	1349	1250	992	1.0	-2.5	-3.0
Derived gases, cokeries etc.	16516	20501	16636	15543	13377	13386	13253	0.1	-2.2	-0.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Sweden: EUCO30		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	142	148	151	160	167	175	186	0.7	1.0	1.1
Public road transport	9	9	9	9	9	10	11	-1.0	0.9	1.2
Private cars and motorcycles	102	108	109	114	116	119	125	0.7	0.7	0.7
Rail	10	11	13	15	16	18	20	2.8	2.1	1.9
Aviation ⁽³⁾	14	13	15	17	18	20	23	0.3	2.2	2.4
Inland navigation	6	6	6	5	6	7	7	-0.3	0.2	1.4
Freight transport activity (Gtkm)	70	78	81	81	90	98	105	1.5	1.1	1.6
Heavy goods and light commercial vehicles	43	47	45	46	49	52	54	0.4	1.1	1.0
Rail	19	22	23	24	28	31	35	1.9	1.6	2.3
Inland navigation	7	9	13	11	13	15	16	5.6	0.4	2.1
Energy demand in transport (ktoe) ⁽⁴⁾	8192	8609	8620	8260	7890	7300	6942	0.5	-0.9	-1.3
Public road transport	189	179	184	187	193	204	211	-0.3	0.5	0.9
Private cars and motorcycles	4879	5236	5250	4890	4394	3727	3334	0.7	-1.8	-2.7
Heavy goods and light commercial vehicles	1740	1959	1951	1921	1939	1901	1893	1.2	-0.1	-0.2
Rail	299	246	208	232	264	286	309	-3.6	2.4	1.6
Aviation	928	846	840	945	1001	1077	1080	-1.0	1.8	0.8
Inland navigation	156	142	188	85	98	106	115	1.8	-6.3	1.6
By transport activity										
Passenger transport	6165	6361	6387	6089	5666	5090	4711	0.4	-1.2	-1.8
Freight transport	2027	2248	2234	2171	2225	2211	2231	1.0	0.0	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.6	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	1.6	4.7	9.2	10.7	12.4	15.0			
ENERGY EFFICIENCY										
Primary energy consumption	45755	48533	48670	44819	43635	42685	41269	0.6	-1.1	-0.6
Final Energy Demand	33561	33492	34077	31885	31918	30952	29194	0.2	-0.7	-0.9
by sector										
Industry	12854	12464	12205	11531	12072	12057	11787	-0.5	-0.1	-0.2
Energy intensive industries	9198	9252	9141	8370	8742	8582	8243	-0.1	-0.4	-0.6
Other industrial sectors	3656	3212	3064	3161	3329	3475	3544	-1.8	0.8	0.6
Residential	7300	7305	7557	7197	7048	6789	6019	0.3	-0.7	-1.6
Tertiary	5214	5114	5720	4897	4908	4805	4446	0.9	-1.5	-1.0
Transport ⁽⁵⁾	8192	8609	8595	8260	7890	7300	6942	0.5	-0.9	-1.3
by fuel										
Solids	1114	1346	1202	1122	1128	933	563	0.8	-0.6	-6.7
Oil	11861	11256	10038	8856	8001	6828	5882	-1.7	-2.2	-3.0
Gas	673	765	728	677	798	887	898	0.8	0.9	1.2
Electricity	11068	11238	11283	11102	11599	12121	12391	0.2	0.3	0.7
Heat (from CHP and District Heating)	3550	4174	5141	4420	4454	4127	3339	3.8	-1.4	-2.8
Renewable energy forms	5294	4714	5685	5705	5936	6043	6027	0.7	0.4	0.2
Other	0	0	0	3	3	13	93	0.0	0.0	39.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	165	151	139	116	102	91	79	-1.7	-3.0	-2.5
Industry (Energy on Value added, index 2000=100)	100	76	70	62	59	54	49	-3.5	-1.7	-1.9
Residential (Energy on Private Income, index 2000=100)	100	90	84	71	62	53	42	-1.7	-3.0	-3.9
Tertiary (Energy on Value added, index 2000=100)	100	89	91	70	63	55	45	-0.9	-3.7	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	41	41	39	35	31	26	23	-0.5	-2.2	-3.0
Freight transport (toe/Mtkm)	29	29	28	27	25	23	21	-0.5	-1.2	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.6	69.0	65.1	55.7	56.7	49.7	41.9	-0.9	-1.4	-3.0
of which ETS sectors (2013 scope) GHG emissions		25.9	25.6	19.9	23.7	20.6	16.0		-0.8	-3.9
of which ESD sectors (2013 scope) GHG emissions		43.0	39.5	35.8	32.9	29.1	25.9		-1.8	-2.4
CO ₂ Emissions (energy related)	52.2	52.1	49.0	40.6	42.2	35.9	28.7	-0.6	-1.5	-3.8
Power generation/District heating	7.7	7.7	9.1	4.4	8.6	7.0	4.4	1.7	-0.5	-6.5
Energy Branch	2.0	1.9	2.0	2.2	1.8	1.8	1.7	0.4	-1.0	-0.8
Industry	11.9	13.3	10.5	10.0	9.5	7.6	5.2	-1.2	-1.0	-5.8
Residential	3.0	1.5	0.4	0.2	0.2	0.2	0.1	-17.9	-6.6	-5.6
Tertiary	4.5	3.2	2.9	1.7	1.4	0.8	0.7	-4.2	-6.8	-7.5
Transport	23.2	24.6	24.1	22.0	20.5	18.5	16.6	0.4	-1.6	-2.1
CO ₂ Emissions (non energy and non land use related)	3.2	3.2	3.7	3.4	3.4	3.3	3.2	1.5	-0.8	-0.7
Non-CO2 GHG emissions	16.2	13.6	12.3	11.7	11.1	10.5	10.1	-2.7	-1.1	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	97.8	94.2	89.0	76.1	77.5	67.9	57.3	-0.9	-1.4	-3.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.04	0.04	0.04	0.02	0.04	0.03	0.02	0.6	-1.2	-6.5
Final energy demand (t of CO ₂ /toe)	1.27	1.27	1.11	1.07	0.99	0.88	0.77	-1.3	-1.1	-2.5
Industry	0.93	1.07	0.86	0.87	0.79	0.63	0.44	-0.7	-0.9	-5.6
Residential	0.41	0.20	0.05	0.03	0.03	0.02	0.02	-18.2	-5.9	-4.1
Tertiary	0.86	0.62	0.51	0.35	0.29	0.17	0.15	-5.1	-5.4	-6.6
Transport	2.83	2.86	2.80	2.66	2.60	2.53	2.38	-0.1	-0.7	-0.9
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	38.6	40.3	46.8	56.8	56.7	61.8	67.3			
RES-H&C share	48.7	52.4	60.9	72.7	68.9	74.7	80.5			
RES-E share	51.7	51.6	56.6	67.3	69.2	73.2	78.9			
RES-T share (based on ILUC formula)	4.8	5.7	8.9	18.7	22.3	27.2	39.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	57	51	57	63	62	56	58	-0.1	0.9	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	83	107	144	142	141	141	145	5.7	-0.2	0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	31.7	39.3	46.2	43.5	49.1	52.5	58.3	3.9	0.6	1.7
as % of GDP	10.7	11.6	12.6	10.8	11.0	10.6	10.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							United Kingdom: EUO30				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	59	60	63	65	67	69	71	0.6	0.7	0.5	
GDP (in 000 M€13)	1538	1780	1810	1976	2120	2247	2423	1.6	1.6	1.3	
Gross Inland Consumption (ktoe)	230560	233992	212234	199641	186123	175696	164162	-0.8	-1.3	-1.2	
Solids	36516	37737	30761	30896	13027	8226	4796	-1.7	-8.2	-9.5	
Oil	81031	84449	72986	71030	65581	59873	54622	-1.0	-1.1	-1.8	
Natural gas	87399	85473	85050	67578	64711	60962	45838	-0.3	-2.7	-3.4	
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5	
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7	
Renewable energy forms	2453	4564	7179	12764	26090	31608	34102	11.3	13.8	2.7	
Energy Branch Consumption	14909	16092	13761	10879	9614	8696	7927	-0.8	-3.5	-1.9	
Non-Energy Uses	11330	11213	7524	8461	8861	8961	8839	-4.0	1.6	0.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	268546	204420	147634	115064	108554	98685	96306	-5.8	-3.0	-1.2	
Solids	18658	11899	10751	6067	3611	3114	1981	-5.4	-10.3	-5.8	
Oil	127939	87930	63788	48199	40955	32876	26195	-6.7	-4.3	-4.4	
Natural gas	97554	79397	51468	34247	26824	22629	15715	-6.2	-6.3	-5.2	
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5	
Renewable energy sources	2453	4141	5598	10759	21790	26205	28641	8.6	14.6	2.8	
Hydro	437	423	307	477	453	457	458	-3.5	4.0	0.1	
Biomass & Waste	1922	3437	4314	6434	11789	15302	16528	8.4	10.6	3.4	
Wind	81	250	875	2969	8204	8822	9990	26.8	25.1	2.0	
Solar and others	11	30	101	878	1341	1612	1635	24.5	29.5	2.0	
Geothermal	1	1	1	1	3	11	29	0.0	13.3	26.6	
Net Imports (ktoe)	-39220	31596	61239	87711	80772	80172	71002	0.0	2.8	-1.3	
Solids	14454	27222	16045	24829	9416	5112	2817	1.0	-5.2	-11.4	
Oil	-45582	-2738	11181	25966	27793	30082	31384	0.0	9.5	1.2	
Crude oil and Feedstocks	-39093	4558	13213	20985	23616	26380	28305	0.0	6.0	1.8	
Oil products	-6489	-7296	-2032	4981	4177	3703	3079	-11.0	0.0	-3.0	
Natural gas	-9311	5973	32205	33331	37922	38410	30321	0.0	1.6	-2.2	
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7	
Import Dependency (%)	-16.9	13.4	28.5	43.3	42.7	44.8	42.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	374375	395425	378558	357130	372079	380461	389932	0.1	-0.2	0.5	
Nuclear energy	85063	81618	62140	64689	62974	59946	107051	-3.1	0.1	5.4	
Solids	119950	134637	107694	96298	29449	12099	3676	-1.1	-12.2	-18.8	
Oil (including refinery gas)	8446	5339	4804	4252	3297	2497	2471	-5.5	-3.7	-2.8	
Gas (including derived gases)	150427	154339	176759	117631	115487	120418	74629	1.6	-4.2	-4.3	
Biomass-waste	4455	11658	13373	26283	51006	68361	71379	11.6	14.3	3.4	
Hydro (pumping excluded)	5086	4922	3568	5550	5273	5318	5323	-3.5	4.0	0.1	
Wind	947	2904	10180	34520	95394	102586	116159	26.8	25.1	2.0	
Solar	1	8	41	7899	8985	8985	8985	42.7	71.6	0.0	
Geothermal and other renewables	0	0	-1	8	212	252	258	15.7	0.0	2.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	78130	82074	88395	92944	120145	111927	115349	1.2	3.1	-0.4	
Nuclear energy	12086	11376	10027	9374	8884	7811	13107	-1.9	-1.2	4.0	
Renewable energy	1900	3077	7128	25020	46309	48652	52895	14.1	20.6	1.3	
Hydro (pumping excluded)	1485	1501	1637	1693	1744	1744	1744	1.0	0.6	0.0	
Wind	412	1565	5396	13603	33421	35745	39986	29.3	20.0	1.8	
Solar	2	11	94	9721	11043	11043	11043	47.0	61.1	0.0	
Other renewables (tidal etc.)	1	0	1	4	102	119	122	0.0	58.7	1.9	
Thermal power	64144	67621	71240	58550	64952	55465	49347	1.1	-0.9	-2.7	
of which cogeneration units	5794	5440	6102	5052	5518	5389	10846	0.5	-1.0	7.0	
of which CCS units	0	0	0	0	833	833	1233	0.0	0.0	4.0	
Solids fired	27533	26230	25549	18735	11149	2323	501	-0.7	-8.0	-26.7	
Gas fired	24512	29106	33292	33953	35329	34763	30559	3.1	0.6	-1.4	
Oil fired	9696	9323	9064	2227	1235	1135	1091	-0.7	-18.1	-1.2	
Biomass-waste fired	2403	2961	3335	3634	17238	17244	17196	3.3	17.9	0.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	52.3	52.5	46.8	41.7	34.0	37.3	37.0				
Efficiency of gross thermal power generation (%)	41.1	42.1	43.6	41.3	45.0	46.1	44.4				
% of gross electricity from CHP	6.1	6.8	6.2	5.4	5.0	4.2	4.4				
% of electricity from CCS	0.0	0.0	0.0	0.0	1.4	1.5	2.5				
% of carbon free (RES, nuclear) gross electricity generation	25.5	25.6	23.6	38.9	60.2	64.5	79.3				
Fuel Inputs to Thermal Power Generation (ktoe)	59321	62482	59738	50947	38089	37910	29492	0.1	-4.4	-2.5	
Solids	28425	29812	23816	23961	7161	2974	779	-1.8	-11.3	-19.9	
Oil (including refinery gas)	1453	1060	789	920	737	559	553	-5.9	-0.7	-2.8	
Gas (including derived gases)	28139	28415	31452	20339	19239	19567	12393	1.1	-4.8	-4.3	
Biomass & Waste	1305	3194	3681	5727	10952	14811	15767	10.9	11.5	3.7	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	118459	115207	97492	88112	83350	77186	82057	-1.9	-1.6	-0.2	
Refineries	88821	88399	75162	65526	61253	56398	51937	-1.7	-2.0	-1.6	
Biofuels and hydrogen production	0	80	1130	1361	2131	1982	1949	0.0	6.6	-0.9	
District heating	15	14	13	13	11	15	9	-0.9	-2.2	-1.8	
Derived gases, cokeries etc.	29623	26714	21187	21212	19955	18792	28163	-3.3	-0.6	3.5	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							United Kingdom: EU CO2			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	822	872	849	878	935	969	1017	0.3	1.0	0.8
Public road transport	49	44	46	46	47	48	49	-0.5	0.2	0.3
Private cars and motorcycles	644	673	649	659	702	722	754	0.1	0.8	0.7
Rail	47	53	66	76	80	86	93	3.5	2.0	1.5
Aviation ⁽³⁾	77	97	83	90	100	107	116	0.7	1.8	1.5
Inland navigation	6	6	5	5	6	6	6	-0.3	0.8	1.0
Freight transport activity (Gtkm)	237	248	216	242	252	263	275	-0.9	1.6	0.9
Heavy goods and light commercial vehicles	183	183	164	187	194	203	211	-1.1	1.7	0.8
Rail	18	21	19	22	23	24	26	0.3	2.1	1.3
Inland navigation	36	43	33	34	35	37	39	-0.9	0.6	1.0
Energy demand in transport (ktoe) ⁽⁴⁾	52386	55501	51470	52014	49572	46163	43910	-0.2	-0.4	-1.2
Public road transport	559	499	515	511	505	495	478	-0.8	-0.2	-0.5
Private cars and motorcycles	29150	30049	29058	27657	25098	21963	20524	0.0	-1.5	-2.0
Heavy goods and light commercial vehicles	9809	9612	8396	9457	9021	8973	8669	-1.5	0.7	-0.4
Rail	821	988	966	1108	1158	1212	1263	1.6	1.8	0.9
Aviation	11115	13069	11650	12400	12874	12572	11987	0.5	1.0	-0.7
Inland navigation	933	1282	884	881	916	949	988	-0.5	0.4	0.8
By transport activity										
Passenger transport	41504	44033	41640	40984	38919	35481	33456	0.0	-0.7	-1.5
Freight transport	10882	11467	9830	11030	10653	10682	10454	-1.0	0.8	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.4	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	2.2	2.7	4.5	5.3	5.7			
ENERGY EFFICIENCY										
Primary energy consumption	219230	222779	204710	191181	177262	166734	155314	-0.7	-1.4	-1.3
Final Energy Demand	153236	152728	142723	138484	135279	127622	115375	-0.7	-0.5	-1.6
by sector										
Industry	36930	33388	26923	25432	25502	23380	20756	-3.1	-0.5	-2.0
Energy intensive industries	19392	16472	12350	11464	11271	9747	7853	-4.4	-0.9	-3.5
Other industrial sectors	17537	16916	14573	13968	14232	13633	12902	-1.8	-0.2	-1.0
Residential	43034	44151	44715	40936	39869	38871	33703	0.4	-1.1	-1.7
Tertiary	20377	19686	19633	20101	20336	19208	17007	-0.4	0.4	-1.8
Transport ⁽⁵⁾	52895	55503	51452	52014	49572	46163	43910	-0.3	-0.4	-1.2
by fuel										
Solids	5954	4530	4133	4583	3842	3117	1993	-3.6	-0.7	-6.4
Oil	63674	65851	59524	58175	53004	47774	42959	-0.7	-1.2	-2.1
Gas	52180	50380	47246	43853	42434	39094	31924	-1.0	-1.1	-2.8
Electricity	28360	29998	28286	27707	28981	29477	29847	0.0	0.2	0.3
Heat (from CHP and District Heating)	2439	1268	1266	1255	1339	1425	1459	-6.3	0.6	0.9
Renewable energy forms	630	702	2268	2885	5582	6281	6493	13.7	9.4	1.5
Other	0	0	0	26	97	454	701	-100.0	0.0	21.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	150	131	117	101	88	78	68	-2.4	-2.8	-2.6
Industry (Energy on Value added, index 2000=100)	100	93	79	71	68	60	51	-2.3	-1.5	-2.8
Residential (Energy on Private Income, index 2000=100)	100	87	87	75	68	63	50	-1.4	-2.4	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	81	77	71	67	59	48	-2.6	-1.5	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	38	36	35	33	29	25	22	-0.8	-1.9	-2.6
Freight transport (toe/Mtkm)	46	46	46	46	42	41	38	-0.1	-0.8	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	720.6	727.6	636.4	585.9	475.8	423.2	343.5	-1.2	-2.9	-3.2
of which ETS sectors (2013 scope) GHG emissions		314.0	273.9	244.9	164.7	140.8	98.5		-5.0	-5.0
of which ESD sectors (2013 scope) GHG emissions		413.6	362.5	341.0	311.1	282.4	245.0		-1.5	-2.4
CO2 Emissions (energy related)	568.2	573.4	518.3	477.6	376.2	331.0	261.0	-0.9	-3.2	-3.6
Power generation/District heating	194.2	199.6	178.4	155.5	78.7	62.7	31.4	-0.8	-7.9	-8.8
Energy Branch	31.3	35.2	29.4	20.9	18.4	16.2	13.9	-0.6	-4.5	-2.8
Industry	77.4	67.5	52.1	49.5	46.1	38.3	27.0	-3.9	-1.2	-5.2
Residential	82.6	80.4	83.1	74.7	68.8	65.3	53.1	0.1	-1.9	-2.6
Tertiary	27.0	25.3	24.8	25.3	22.6	18.5	14.4	-0.9	-0.9	-4.4
Transport	155.6	165.4	150.6	151.7	141.5	130.0	121.2	-0.3	-0.6	-1.5
CO2 Emissions (non energy and non land use related)	20.8	21.0	15.6	17.7	18.7	17.9	16.9	-2.8	1.8	-1.0
Non-CO2 GHG emissions	131.6	133.2	102.5	90.5	80.9	74.3	65.6	-2.5	-2.3	-2.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	88.0	88.8	77.7	71.5	58.1	51.7	41.9	-1.2	-2.9	-3.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.48	0.49	0.45	0.42	0.20	0.16	0.08	-0.6	-7.8	-9.2
Final energy demand (t of CO2/toe)	2.24	2.22	2.18	2.18	2.06	1.98	1.87	-0.3	-0.5	-1.0
Industry	2.10	2.02	1.93	1.95	1.81	1.64	1.30	-0.8	-0.7	-3.2
Residential	1.92	1.82	1.86	1.82	1.73	1.68	1.57	-0.3	-0.7	-0.9
Tertiary	1.32	1.29	1.26	1.26	1.11	0.96	0.85	-0.5	-1.3	-2.7
Transport	2.94	2.98	2.93	2.92	2.86	2.82	2.76	-0.1	-0.2	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.9	1.4	3.3	6.9	14.7	17.8	21.2			
RES-H&C share	0.8	0.8	1.8	3.4	7.0	8.4	11.0			
RES-E share	2.6	4.1	7.4	19.3	41.1	46.7	49.9			
RES-T share (based on ILUC formula)	0.1	0.2	3.0	6.0	11.4	16.9	22.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	49	59	95	114	115	114	3.4	6.9	0.0
Average Price of Electricity in Final demand sectors (€13/MWh)	124	91	129	166	170	179	179	0.3	2.8	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	159.7	179.7	203.0	230.9	252.2	276.9	1.5	2.5	1.8
as % of GDP	10.1	9.0	9.9	10.3	10.9	11.2	11.4			

Source: PRIMES

- (1) For years 2000 to 2010, total gross electricity by source as reported in this table and total gross electricity generation reported as part of the energy balances, slightly differ because of differences in the respective statistical sources
- (2) Electricity generated over maximum potential generation based on net power capacity
- (3) Excluding international extra-EU aviation.
- (4) Excluding pipeline transport and other non-specified transport.
- (5) Including pipeline transport and other non-specified transport.
- (6) Calculated by taking into account domestic, international intra-EU flights, and extra-EU flights for aviation.
- (7) Including the part of electricity and heat generated from renewables
- (8) Excluding payments for auctioned emission allowances and disutilities (if applicable)

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are mainly based on EUROSTAT and on the publications "EU Energy in Figures" of the Directorate General for Energy and "EU Transport in Figures" of the Directorate General for Mobility and Transport. Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight or passenger transport, which are measured in tonnes of oil equivalent per million tonne-km and in tonnes of oil equivalent per million passenger-km, respectively. For modelling purposes, some assumptions had to be made for calculating air and maritime transport performance and allocating it by MS. The transport volumes (number of passengers and tonnes) and distance matrices have been used for this purpose. By assumption, 50% of the calculated transport performance is allocated to the origin country and 50% to the destination country. The same "50%-50%" principle allocation applies to the EFTA countries and the candidate countries. For the international extra-EU activity, where the corresponding partner is outside EU-28 and is not an EFTA or candidate country, 100% of transport performance is allocated to the declaring EU MS country. These assumptions are used only for modelling purposes and shall be considered as model estimates and not as official data.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Units

toe: tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ (Gigajoule)
ktoe: 1000 toe
MW: Megawatt or 10^6 watt
MWh: megawatt-hour or 10^6 watt-hours
GWh: gigawatt-hour or 10^9 watt-hours
t: metric tonnes, or 1000 kilogrammes
Mt: Million metric tonnes
km: kilometre
pkm: passenger-kilometre (one passenger transported a distance of one kilometre)
tkm: tonne-kilometre (one tonne transported a distance of one kilometre)
Gpkm: Giga passenger-kilometre, or 10^9 passenger-kilometre
Gtkm: Giga tonne-kilometre, or 10^9 tonne-kilometre

Appendix I.c: EUCO+33 scenario - Summary energy balances, emissions and indicators

SUMMARY ENERGY BALANCE AND INDICATORS (A)								EU28: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	484	492	500	505	510	513	516	0.3	0.2	0.1
GDP (in 000 M€13)	11231	12351	12895	13427	14550	15585	16682	1.4	1.2	1.4
Gross Inland Consumption (ktoe)	1726888	1824722	1760315	1666601	1644373	1554443	1376889	0.2	-0.7	-1.8
Solids	321292	318127	282994	277891	258177	221742	165794	-1.3	-0.9	-4.3
Oil	660025	677021	612954	579805	545053	500879	452644	-0.7	-1.2	-1.8
Natural gas	396144	445263	447394	387731	382605	366579	283224	1.2	-1.6	-3.0
Nuclear	243841	257516	236562	213043	188974	174739	183409	-0.3	-2.2	-0.3
Electricity	2030	1412	712	1761	1246	523	-40	-9.9	5.8	0.0
Renewable energy forms	103557	125383	179699	176937	268317	289980	291859	5.7	4.1	0.8
Energy Branch Consumption	86261	91922	86455	81625	76025	69607	62940	0.0	-1.3	-1.9
Non-Energy Uses	113106	116080	110230	106709	112514	116493	116943	-0.3	0.2	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	944996	903986	835772	758584	760115	725075	681027	-1.2	-0.9	-1.1
Solids	214596	196030	164837	148196	137496	122463	94065	-2.6	-1.8	-3.7
Oil	173901	135553	100408	78599	69712	57598	47401	-5.3	-3.6	-3.8
Natural gas	209436	190771	159948	118438	106179	91809	75182	-2.7	-4.0	-3.4
Nuclear	243841	257516	236562	213043	188974	174739	183409	-0.3	-2.2	-0.3
Renewable energy sources	103222	124116	174017	200379	257753	278467	280970	5.4	4.0	0.9
Hydro	30703	26859	32312	31167	32356	32401	32615	0.5	0.0	0.1
Biomass & Waste	65583	85060	119573	132613	164822	165690	152123	6.2	3.3	0.8
Wind	1913	6058	12836	23588	39613	48223	58104	21.0	11.9	3.9
Solar and others	436	827	3775	11001	17747	28419	32680	24.1	16.7	6.3
Geothermal	4587	5312	5521	2009	3215	3734	5447	1.9	-5.3	5.4
Net Imports (ktoe)	826349	979676	955004	962880	940460	887080	755792	1.5	-0.2	-2.2
Solids	98320	125363	111814	129695	120681	99280	71728	1.3	0.8	-5.1
Oil	532226	597491	558847	556140	530793	499004	459948	0.5	-0.5	-1.4
Crude oil and Feedstocks	514686	578712	537586	515210	492826	465258	433735	0.4	-0.9	-1.3
Oil products	17540	18779	21261	40930	37967	33746	26213	1.9	6.0	-3.6
Natural gas	193432	254054	278015	269292	277175	276760	213266	3.7	0.0	-2.6
Electricity	2030	1412	712	1761	1246	523	-40	-9.9	5.8	0.0
Import Dependency (%)	46.7	52.3	52.8	55.9	55.3	55.0	52.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3005548	3289991	3332773	3251322	3376118	3517272	3340680	1.0	0.1	-0.1
Nuclear energy	944993	997699	916610	867402	772986	717746	761323	-0.3	-1.7	-0.2
Solids	933855	965565	830393	846835	796064	679049	502853	-1.2	-0.4	-4.5
Oil (including refinery gas)	181296	142772	86899	34610	21436	19937	12197	-7.1	-13.1	-5.5
Gas (including derived gases)	514267	705961	798645	566093	571124	630632	417015	4.5	-3.3	-3.1
Biomass-waste	46401	87831	145814	188810	214480	264978	281147	12.1	3.9	2.7
Hydro (pumping excluded)	357072	312372	375785	362411	376228	376758	379245	0.5	0.0	0.1
Wind	22254	70455	149278	274278	460616	560738	675630	21.0	11.9	3.9
Solar	117	1458	22502	103798	154722	258517	301537	69.1	21.3	6.9
Geothermal and other renewables	5293	5878	6847	7086	8461	8916	9732	2.6	2.1	1.4
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	683507	739589	858628	965588	1030721	1078099	1110125	2.3	1.8	0.7
Nuclear energy	139595	136829	132606	120798	114204	105051	109905	-0.5	-1.5	-0.4
Renewable energy	128990	162194	238638	366738	474650	574177	646315	6.3	7.1	3.1
Hydro (pumping excluded)	115841	119177	122922	127470	131607	132289	133259	0.6	0.7	0.1
Wind	12730	40485	85701	141580	206558	237588	279181	21.0	9.2	3.1
Solar	178	2292	29774	97443	135999	203609	232839	66.9	16.4	5.5
Other renewables (tidal etc.)	241	240	241	244	486	690	1036	0.0	7.3	7.9
Thermal power	414922	440565	487384	478053	441868	398871	353904	1.6	-1.0	-2.2
of which cogeneration units	92439	107819	107430	112070	87784	90765	84909	1.5	-2.0	-0.3
of which CCS units	0	0	0	0	833	1083	1483	0.0	0.0	5.9
Solids fired	194525	185353	180110	176559	146314	117800	99473	-0.8	-2.1	-3.8
Gas fired	123821	163333	215485	219628	211274	206852	185398	5.7	-0.2	-1.3
Oil fired	83315	74582	69295	53085	31452	20738	15308	-1.8	-7.6	-6.9
Biomass-waste fired	12657	16610	21719	27908	51785	52438	52682	5.5	9.1	0.2
Hydrogen plants	0	0	13	13	13	13	13	0.0	0.3	0.0
Geothermal heat	604	687	762	860	1030	1030	1030	2.4	3.1	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.5	48.1	42.1	36.5	35.7	35.7	33.1			
Efficiency of gross thermal power generation (%)	37.2	38.1	38.6	40.2	40.3	40.9	40.4			
% of gross electricity from CHP	11.3	12.5	12.6	12.2	10.7	10.2	9.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.2	0.2	0.4			
% of carbon free (RES, nuclear) gross electricity generation	45.8	44.9	48.5	55.5	58.9	62.2	72.1			
Fuel Inputs to Thermal Power Generation (ktoe)	388346	430899	416477	351894	343563	336871	259647	0.7	-1.9	-2.8
Solids	223608	229335	197694	200223	184184	155451	114840	-1.2	-0.7	-4.6
Oil (including refinery gas)	40868	32485	20566	7340	4926	4886	3352	-6.6	-13.3	-3.8
Gas (including derived gases)	105105	137667	151968	100069	96925	107951	72751	3.8	-4.4	-2.8
Biomass & Waste	14651	26766	41420	43077	55596	66651	66772	11.0	3.0	1.8
Geothermal heat	4114	4645	4828	1184	1932	1932	1932	1.6	-8.8	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1067893	1101207	997999	908897	859591	802445	761064	-0.7	-1.5	-1.2
Refineries	735106	756042	667606	609584	582733	545873	504508	-1.0	-1.4	-1.4
Biofuels and hydrogen production	709	3279	13086	16149	20791	19365	19301	33.8	4.7	-0.7
District heating	15899	17445	19101	16261	16231	14271	11803	1.9	-1.6	-3.1
Derived gases, cokeries etc.	316179	324441	298206	266904	239837	222936	225453	-0.6	-2.2	-0.6

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								EU28: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5964	6295	6449	6735	7158	7450	7807	0.8	1.0	0.9
Public road transport	549	541	528	546	569	586	602	-0.4	0.8	0.6
Private cars and motorcycles	4466	4721	4843	5001	5254	5372	5559	0.8	0.8	0.6
Rail	450	464	499	540	599	672	741	1.0	1.8	2.2
Aviation ⁽³⁾	458	528	539	608	693	773	856	1.7	2.5	2.1
Inland navigation	42	42	40	40	43	46	48	-0.3	0.6	1.2
Freight transport activity (Gtkm)	2295	2612	2556	2704	2982	3176	3425	1.1	1.6	1.4
Heavy goods and light commercial vehicles	1589	1853	1809	1915	2110	2202	2369	1.3	1.6	1.2
Rail	405	416	394	428	482	545	601	-0.3	2.0	2.2
Inland navigation	300	343	354	361	389	428	455	1.7	1.0	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	341525	364526	359402	358062	350359	330565	319126	0.5	-0.3	-0.9
Public road transport	8775	8725	8834	9040	9256	9267	9179	0.1	0.5	-0.1
Private cars and motorcycles	206270	212102	211618	204765	189780	168278	156263	0.3	-1.1	-1.9
Heavy goods and light commercial vehicles	67279	79273	76918	78507	81620	80748	81577	1.3	0.6	0.0
Rail	8168	7668	7129	7395	7894	8527	8968	-1.4	1.0	1.3
Aviation	44876	49959	49230	53303	56466	58019	57155	0.9	1.4	0.1
Inland navigation	6156	6798	5673	5051	5342	5726	5983	-0.8	-0.6	1.1
<i>By transport activity</i>										
Passenger transport	266294	275041	273897	271237	259811	240148	227345	0.3	-0.5	-1.3
Freight transport	75231	89484	85505	86825	90548	90417	91781	1.3	0.6	0.1
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.0	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.9	3.7	4.6	6.1	6.5	6.6			
ENERGY EFFICIENCY										
Primary energy consumption	1613782	1708642	1650085	1559892	1531859	1437949	1259946	0.2	-0.7	-1.9
Final Energy Demand	1129427	1186370	1155879	1133457	1135016	1063445	929282	0.2	-0.2	-2.0
<i>by sector</i>										
Industry	330627	327576	283437	284539	294688	283881	259099	-1.5	0.4	-1.3
Energy intensive industries	215899	215115	182721	182408	188600	179249	159647	-1.7	0.3	-1.7
Other industrial sectors	114728	112461	100716	102130	106088	104632	99452	-1.3	0.5	-0.6
Residential	288564	307594	313829	299747	298969	273742	212862	0.8	-0.5	-3.3
Tertiary	166677	183368	196770	188333	188109	172356	135401	1.7	-0.4	-3.2
Transport ⁽⁵⁾	343558	367831	361842	360838	353249	333466	321921	0.5	-0.2	-0.9
<i>by fuel</i>										
Solids	61977	53988	50512	47694	45672	40714	28147	-2.0	-1.0	-4.7
Oil	487065	502509	455207	437598	404636	360952	317755	-0.7	-1.2	-2.4
Gas	267588	281191	273366	265878	264090	238863	193375	0.2	-0.3	-3.1
Electricity	217644	239548	244471	241010	251757	263564	250471	1.2	0.3	-0.1
Heat (from CHP and District Heating)	46044	52425	52875	49062	50726	48518	40506	1.4	-0.4	-2.2
Renewable energy forms	49109	56708	79448	92104	117759	109181	96142	4.9	4.0	-2.0
Other	0	0	0	111	375	1653	2885	0.0	0.0	22.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	154	148	137	124	113	100	83	-1.2	-1.9	-3.1
Industry (Energy on Value added, index 2000=100)	100	93	80	77	75	68	59	-2.2	-0.6	-2.3
Residential (Energy on Private Income, index 2000=100)	100	97	94	87	79	67	49	-0.6	-1.7	-4.8
Tertiary (Energy on Value added, index 2000=100)	100	99	100	91	83	71	52	0.0	-1.8	-4.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	39	37	36	33	30	26	23	-0.8	-1.8	-2.4
Freight transport (toe/Mtkm)	33	34	33	32	30	28	27	0.2	-1.0	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	5326.4	5349.2	4875.0	4583.4	4295.9	3917.5	3281.4	-0.9	-1.3	-2.7
of which ETS sectors (2013 scope) GHG emissions	2501.2	2175.1	2016.7	1908.6	1755.0	1392.4		-1.3	-3.1	
of which ESD sectors (2013 scope) GHG emissions	2847.9	2699.9	2566.7	2387.4	2162.5	1889.0		-1.2	-2.3	
CO₂ Emissions (energy related)	3992.2	4127.1	3782.3	3524.1	3301.6	2962.5	2381.7	-0.5	-1.4	-3.2
Power generation/District heating	1406.3	1486.8	1344.0	1177.9	1085.9	986.7	714.6	-0.5	-2.1	-4.1
Energy Branch	167.3	170.7	155.2	148.8	132.7	118.3	106.3	-0.7	-1.6	-2.2
Industry	691.0	634.1	511.8	505.4	494.5	434.7	343.3	-3.0	-0.3	-3.6
Residential	468.0	484.2	466.9	422.7	385.0	329.2	226.5	0.0	-1.9	-5.2
Tertiary	257.9	271.6	267.9	245.8	221.6	178.2	124.7	0.4	-1.9	-5.6
Transport	1001.7	1079.8	1036.6	1023.4	981.9	915.5	866.3	0.3	-0.5	-1.2
CO₂ Emissions (non energy and non land use related)	277.3	282.4	237.3	238.8	248.2	248.1	236.1	-1.5	0.5	-0.5
Non-CO₂ GHG emissions	1057.0	939.6	855.4	820.5	746.1	706.9	663.6	-2.1	-1.4	-1.2
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	92.5	92.9	84.7	79.6	74.6	68.0	57.0	-0.9	-1.3	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.39	0.37	0.33	0.30	0.27	0.24	0.18	-1.6	-2.1	-3.7
Final energy demand (t of CO ₂ /toe)	2.14	2.08	1.98	1.94	1.84	1.75	1.68	-0.8	-0.7	-0.9
Industry	2.09	1.94	1.81	1.78	1.68	1.53	1.33	-1.5	-0.7	-2.3
Residential	1.62	1.57	1.49	1.41	1.29	1.20	1.06	-0.9	-1.4	-1.9
Tertiary	1.55	1.48	1.36	1.31	1.18	1.03	0.92	-1.3	-1.4	-2.4
Transport	2.92	2.94	2.86	2.84	2.78	2.75	2.69	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.5	8.7	12.4	16.1	21.1	24.2	28.1			
RES-H&C share	9.0	10.3	14.0	17.4	22.4	24.7	28.6			
RES-E share	13.3	14.8	19.7	28.2	35.4	41.3	48.9			
RES-T share (based on ILUC formula)	0.9	1.7	5.2	6.9	11.2	14.4	19.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	57	65	85	93	90	89	2.1	3.7	-0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	0	117	136	144	153	157	162	0.0	1.1	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1055.8	1282.5	1467.9	1505.9	1795.9	1924.7	2185.6	3.4	2.0	2.0
as % of GDP	9.4	10.4	11.4	11.2	12.3	12.3	13.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Austria: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	8	8	8	9	9	9	9	0.4	0.5	0.5
GDP (in 000 M€13)	257	279	298	316	345	373	406	1.5	1.5	1.5
Gross Inland Consumption (ktoe)	28996	34373	34604	32934	33432	31962	28449	1.8	-0.3	-1.6
Solids	3597	4000	3365	3333	3406	3013	2498	-0.7	0.1	-3.1
Oil	12173	14448	12833	12275	11719	10738	9667	0.5	-0.9	-1.9
Natural gas	6519	8159	8215	6454	7664	7063	5023	2.3	-0.7	-4.1
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Renewable energy forms	6825	7537	9991	9810	10204	10813	10957	3.9	0.2	0.7
Energy Branch Consumption	1306	1566	1504	1594	1501	1379	1249	1.4	0.0	-1.8
Non-Energy Uses	1718	1717	1850	2037	2202	2331	2362	0.7	1.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9776	10012	12114	11277	11470	11299	11024	2.2	-0.5	-0.4
Solids	293	0	0	0	0	0	0	-51.8	-100.0	0.0
Oil	1092	1003	1036	813	673	342	111	-0.5	-4.2	-16.5
Natural gas	1533	1404	1486	1270	1142	666	436	-0.3	-2.6	-9.2
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	6859	7605	9592	9195	9655	10290	10477	3.4	0.1	0.8
Hydro	3597	3154	3299	3527	3698	3812	3851	-0.9	1.1	0.4
Biomass & Waste	3169	4214	5914	5018	5153	4960	4455	6.4	-1.4	-1.4
Wind	6	114	178	340	382	656	1119	40.8	8.0	11.3
Solar and others	63	93	168	260	359	778	927	10.3	7.9	10.0
Geothermal	25	30	35	49	64	85	126	3.4	6.3	7.1
Net Imports (ktoe)	18970	24517	21577	21656	21962	20663	17425	1.3	0.2	-2.3
Solids	3019	3971	3358	3333	3406	3013	2498	1.1	0.1	-3.1
Oil	10850	13204	11510	11462	11046	10396	9556	0.6	-0.4	-1.4
Crude oil and Feedstocks	7791	8100	7011	8001	7806	7584	7183	-1.1	1.1	-0.8
Oil products	3059	5104	4499	3461	3239	2812	2374	3.9	-3.2	-3.1
Natural gas	5253	7153	6115	5184	6522	6397	4587	1.5	0.6	-3.5
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Import Dependency (%)	65.4	71.3	62.4	65.8	65.7	64.6	61.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	59874	64066	67933	59622	71847	77254	76164	1.3	0.6	0.6
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	5727	7165	4918	4194	4934	3271	2200	-1.5	0.0	-7.8
Oil (including refinery gas)	1702	1641	1273	208	215	71	67	-2.9	-16.3	-11.1
Gas (including derived gases)	8864	14347	16137	6774	14501	12148	4718	6.2	-1.1	-10.6
Biomass-waste	1675	2882	5088	2592	3570	4332	4242	11.8	-3.5	1.7
Hydro (pumping excluded)	41836	36677	38363	41013	42998	44323	44776	-0.9	1.1	0.4
Wind	67	1331	2064	3958	4443	7626	13009	40.9	8.0	11.3
Solar	3	21	88	871	1174	5472	7141	38.2	29.5	19.8
Geothermal and other renewables	0	2	2	11	11	11	11	0.0	21.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	17911	19092	21503	22989	23326	28032	31149	1.8	0.8	2.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	11668	12440	13841	16437	17371	22603	26049	1.7	2.3	4.1
Hydro (pumping excluded)	11613	11632	12706	13149	13699	13702	13812	0.9	0.8	0.1
Wind	50	778	981	2412	2583	4014	5846	34.7	10.2	8.5
Solar	5	30	154	876	1090	4887	6391	40.9	21.6	19.4
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6243	6652	7662	6552	5955	5429	5100	2.1	-2.5	-1.5
of which cogeneration units	2632	3253	3157	3003	3051	2949	3057	1.8	-0.3	0.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1887	1660	1359	873	803	777	777	-3.2	-5.1	-0.3
Gas fired	2816	3389	4512	4074	3557	3314	2992	4.8	-2.4	-1.7
Oil fired	1260	1145	1139	971	815	483	423	-1.0	-3.3	-6.4
Biomass-waste fired	280	456	650	633	778	853	906	8.8	1.8	1.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	2	1	2	2	2	2	0.0	7.2	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	36.8	36.7	35.1	28.4	33.8	30.4	27.1			
Efficiency of gross thermal power generation (%)	39.9	41.3	41.3	39.7	43.9	39.8	33.3			
% of gross electricity from CHP	10.4	15.4	15.4	17.7	22.8	17.6	10.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	72.8	63.9	67.1	81.3	72.6	79.9	90.8			
Fuel Inputs to Thermal Power Generation (ktoe)	3877	5421	5713	2988	4554	4290	2902	4.0	-2.2	-4.4
Solids	1216	1507	1019	908	1070	743	554	-1.8	0.5	-6.4
Oil (including refinery gas)	278	262	176	60	69	23	22	-4.5	-8.9	-10.8
Gas (including derived gases)	1961	2836	2868	1406	2569	2398	1090	3.9	-1.1	-8.2
Biomass & Waste	421	814	1649	604	835	1115	1226	14.6	-6.6	3.9
Geothermal heat	0	2	1	10	10	10	10	0.0	23.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	11349	11946	11472	12554	11802	10985	9953	0.1	0.3	-1.7
Refineries	8865	9275	8040	9141	8769	8175	7496	-1.0	0.9	-1.6
Biofuels and hydrogen production	16	50	495	571	445	416	412	41.2	-1.1	-0.8
District heating	558	613	869	678	635	578	451	4.5	-3.1	-3.4
Derived gases, cokeries etc.	1910	2009	2068	2164	1953	1817	1594	0.8	-0.6	-2.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Austria: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	96	101	107	112	119	126	130	1.1	1.1	0.9
Public road transport	9	9	10	10	10	11	11	0.4	0.7	0.7
Private cars and motorcycles	68	72	75	78	80	83	85	1.0	0.7	0.5
Rail	12	13	15	16	18	20	22	1.9	2.2	1.8
Aviation ⁽³⁾	6	7	8	9	10	11	12	2.0	2.6	2.2
Inland navigation	0	0	0	0	0	0	0	-0.6	0.6	1.4
Freight transport activity (Gtkm)	50	54	61	65	70	74	79	2.0	1.3	1.2
Heavy goods and light commercial vehicles	31	33	39	43	46	48	50	2.3	1.6	1.0
Rail	17	19	20	20	22	24	26	1.8	0.9	1.8
Inland navigation	2	2	2	2	3	3	3	-0.3	0.9	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	6787	8815	8507	8480	8017	7454	7152	2.3	-0.6	-1.1
Public road transport	92	97	101	103	106	107	107	0.9	0.5	0.1
Private cars and motorcycles	4520	5616	5043	4708	4260	3754	3433	1.1	-1.7	-2.1
Heavy goods and light commercial vehicles	1290	2135	2387	2622	2589	2491	2469	6.3	0.8	-0.5
Rail	267	242	247	249	264	275	282	-0.8	0.7	0.6
Aviation	591	679	707	776	773	800	833	1.8	0.9	0.7
Inland navigation	28	45	22	23	24	26	27	-2.1	0.8	1.0
By transport activity										
Passenger transport	5260	6438	5894	5634	5193	4718	4432	1.1	-1.3	-1.6
Freight transport	1527	2377	2613	2846	2825	2736	2720	5.5	0.8	-0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	6.0	6.9	5.8	6.1	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	27277	32657	32754	30897	31230	29631	26086	1.8	-0.5	-1.8
Final Energy Demand	23692	28185	28423	28425	28029	26562	23550	1.8	-0.1	-1.7
by sector										
Industry	7283	8825	9195	9724	9953	9646	8990	2.4	0.8	-1.0
Energy intensive industries	5321	6148	6212	6588	6654	6348	5782	1.6	0.7	-1.4
Other industrial sectors	1962	2676	2983	3137	3299	3298	3209	4.3	1.0	-0.3
Residential	6332	6828	6797	6669	6512	6059	4658	0.7	-0.4	-3.3
Tertiary	3070	3449	3686	3285	3263	3123	2491	1.8	-1.2	-2.7
Transport ⁽⁵⁾	7007	9082	8744	8746	8302	7734	7411	2.2	-0.5	-1.1
by fuel										
Solids	1403	1466	1169	1135	1188	1229	978	-1.8	0.2	-1.9
Oil	9818	12084	10539	9934	9319	8319	7315	0.7	-1.2	-2.4
Gas	4464	5125	5259	5142	5140	4636	3869	1.7	-0.2	-2.8
Electricity	4432	5013	5358	5436	5791	6106	6060	1.9	0.8	0.5
Heat (from CHP and District Heating)	1020	1353	1832	2008	1904	1892	1490	6.0	0.4	-2.4
Renewable energy forms	2555	3145	4266	4769	4682	4356	3794	5.3	0.9	-2.1
Other	0	0	0	2	5	24	44	0.0	0.0	23.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	113	123	116	104	97	86	71	0.3	-1.8	-3.1
Industry (Energy on Value added, index 2000=100)	100	111	108	109	104	95	84	0.8	-0.3	-2.2
Residential (Energy on Private Income, index 2000=100)	100	100	93	85	76	66	47	-0.7	-1.9	-4.8
Tertiary (Energy on Value added, index 2000=100)	100	103	101	85	77	67	50	0.1	-2.7	-4.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	54	47	43	37	31	28	0.1	-2.6	-2.7
Freight transport (toe/Mtkm)	30	44	43	44	40	37	34	3.4	-0.5	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.1	96.8	89.0	82.8	82.2	74.5	62.7	0.3	-0.8	-2.7
of which ETS sectors (2013 scope) GHG emissions		38.3	35.2	32.8	34.4	30.9	24.5		-0.3	-3.3
of which ESD sectors (2013 scope) GHG emissions		58.4	53.7	50.0	47.8	43.6	38.3		-1.2	-2.2
CO ₂ Emissions (energy related)	65.6	78.6	71.5	65.7	65.8	58.8	48.1	0.9	-0.8	-3.1
Power generation/District heating	12.5	17.0	15.1	11.2	14.0	12.4	8.5	1.9	-0.7	-4.9
Energy Branch	3.3	3.7	3.8	4.1	3.6	3.3	2.9	1.3	-0.3	-2.1
Industry	16.8	18.5	17.6	17.7	17.2	15.4	12.5	0.5	-0.2	-3.1
Residential	8.9	8.6	7.7	6.8	6.4	5.3	3.5	-1.5	-1.8	-5.8
Tertiary	3.9	4.4	3.2	2.0	1.8	1.5	1.0	-1.8	-5.8	-6.0
Transport	20.2	26.5	24.1	23.9	22.8	20.9	19.7	1.8	-0.6	-1.4
CO ₂ Emissions (non energy and non land use related)	4.6	5.0	5.4	5.3	5.3	5.2	5.2	1.6	-0.3	-0.2
Non-CO2 GHG emissions	15.8	13.2	12.1	11.7	11.1	10.5	9.5	-2.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	108.2	121.6	111.8	104.0	103.3	93.6	78.9	0.3	-0.8	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.21	0.17	0.13	0.15	0.12	0.09	-0.3	-1.2	-4.8
Final energy demand (t of CO ₂ /toe)	2.10	2.06	1.85	1.77	1.72	1.62	1.56	-1.3	-0.7	-1.0
Industry	2.31	2.10	1.92	1.82	1.73	1.60	1.39	-1.9	-1.0	-2.1
Residential	1.41	1.26	1.13	1.02	0.98	0.87	0.75	-2.2	-1.4	-2.5
Tertiary	1.26	1.27	0.88	0.60	0.54	0.48	0.38	-3.6	-4.7	-3.5
Transport	2.88	2.91	2.76	2.73	2.74	2.71	2.66	-0.4	0.0	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	24.6	23.6	30.5	34.5	35.2	38.0	43.0			
RES-H&C share	20.4	22.0	29.7	37.0	36.3	35.4	38.6			
RES-E share	66.9	62.4	65.7	68.0	68.6	77.0	87.9			
RES-T share (based on ILUC formula)	6.8	4.8	10.9	11.4	12.6	16.5	22.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	68	68	69	58	65	71	73	0.0	-0.5	1.1
Average Price of Electricity in Final demand sectors (€13/MWh)	130	115	143	131	140	149	150	0.9	-0.2	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	21.8	28.6	32.9	32.2	38.6	42.5	48.2	4.2	1.6	2.2
as % of GDP	8.5	10.2	11.0	10.2	11.2	11.4	12.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Belgium: EU CO ₂ 33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	11	11	12	12	13	0.6	0.9	0.9
GDP (in 000 M€13)	324	350	372	385	414	443	479	1.4	1.1	1.5
Gross Inland Consumption (ktoe)	59302	59008	61346	54681	54714	49586	44115	0.3	-1.1	-2.1
Solids	7922	5081	3673	3205	2007	2023	1710	-7.4	-5.9	-1.6
Oil	24136	24721	24699	23472	21994	20790	19184	0.2	-1.2	-1.4
Natural gas	13369	14728	16999	14941	14133	16625	14084	2.4	-1.8	0.0
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Renewable energy forms	1081	1658	3560	4242	6207	6738	6683	12.7	5.7	0.7
Energy Branch Consumption	2366	2403	2246	2406	2216	2125	2029	-0.5	-0.1	-0.9
Non-Energy Uses	6739	7516	8541	8464	8523	8620	8529	2.4	0.0	0.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	13607	13718	15356	10620	14087	7277	6085	1.2	-0.9	-8.1
Solids	206	57	0	0	0	0	0	-97.1	-100.0	0.0
Oil	0	6	-7	-14	-14	-13	-13	1692.2	7.2	-0.4
Natural gas	2	0	0	0	0	0	0	0.0	-100.0	0.0
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Renewable energy sources	977	1377	2996	3725	5469	6050	6098	11.9	6.2	1.1
Hydro	40	25	27	31	32	44	49	-3.8	1.7	4.5
Biomass & Waste	931	1327	2793	2944	3957	3877	3597	11.6	3.5	-0.9
Wind	1	20	111	431	1032	1536	1690	54.9	25.0	5.1
Solar and others	1	3	60	313	441	581	738	50.7	22.0	5.3
Geothermal	3	3	4	6	8	13	24	3.0	5.8	12.1
Net Imports (ktoe)	50502	53396	53753	52611	49706	51732	47820	0.6	-0.8	-0.4
Solids	7220	5150	3591	3205	2007	2023	1710	-6.7	-5.7	-1.6
Oil	29527	32605	32752	32035	31041	29771	27782	1.0	-0.5	-1.1
Crude oil and Feedstocks	34177	32251	31004	27409	27194	26758	25884	-1.0	-1.3	-0.5
Oil products	-4650	354	1749	4626	3846	3013	1898	0.0	8.2	-6.8
Natural gas	13278	14817	16791	14941	14179	17081	15288	2.4	-1.7	0.8
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Import Dependency (%)	78.1	80.1	78.0	83.2	77.9	87.7	88.7			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	82773	85709	93764	69728	73870	70948	66278	1.3	-2.4	-1.1
Nuclear energy	48157	47595	47944	28180	35207	5071	0	0.0	-3.0	-100.0
Solids	12916	8199	4190	2975	195	288	24	-10.6	-26.4	-19.0
Oil (including refinery gas)	797	1740	406	96	674	697	718	-6.5	5.2	0.6
Gas (including derived gases)	19091	25143	33178	23812	18177	37130	34062	5.7	-5.8	6.5
Biomass-waste	1336	2516	5882	5914	3238	4054	4515	16.0	-5.8	3.4
Hydro (pumping excluded)	460	288	312	365	368	515	571	-3.8	1.7	4.5
Wind	16	227	1292	5009	11998	17855	19651	55.1	25.0	5.1
Solar	0	1	560	3376	4013	5336	6737	0.0	21.8	5.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	14674	14867	17071	18515	20997	22666	23940	1.5	2.1	1.3
Nuclear energy	5921	5921	5921	3907	5055	3041	0	0.0	-1.6	-100.0
Renewable energy	117	274	1934	5560	8494	11587	13580	32.4	15.9	4.8
Hydro (pumping excluded)	103	105	118	119	119	161	177	1.4	0.1	4.1
Wind	14	167	912	2229	4558	6371	7051	51.8	17.5	4.5
Solar	0	2	904	3212	3818	5056	6352	0.0	15.5	5.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	8636	8672	9216	9048	7447	8038	10360	0.7	-2.1	3.4
of which cogeneration units	1112	1893	2575	1552	656	1461	1123	8.8	-12.8	5.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2290	1450	1184	825	43	43	16	-6.4	-28.2	-9.7
Gas fired	4392	5201	6468	6799	6270	6959	9345	3.9	-0.3	4.1
Oil fired	1581	1494	836	646	266	266	235	-6.2	-10.8	-1.2
Biomass-waste fired	373	527	727	777	868	769	764	6.9	1.8	-1.3
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	61.5	63.0	60.3	41.2	38.8	34.9	31.0			
Efficiency of gross thermal power generation (%)	41.4	42.1	44.8	44.7	44.3	47.3	50.6			
% of gross electricity from CHP	6.5	8.5	16.0	17.4	8.0	16.1	16.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	60.4	59.1	59.7	61.4	74.2	46.3	47.5			
Fuel Inputs to Thermal Power Generation (ktoe)	7090	7677	8386	6315	4325	7674	6676	1.7	-6.4	4.4
Solids	2629	1833	936	761	47	66	5	-9.8	-25.8	-20.4
Oil (including refinery gas)	180	411	57	29	223	231	238	-10.8	14.6	0.6
Gas (including derived gases)	3790	4612	5671	4111	2934	6088	5112	4.1	-6.4	5.7
Biomass & Waste	492	821	1722	1414	1121	1290	1322	13.4	-4.2	1.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	54711	52964	50595	41255	42571	34908	32542	-0.8	-1.7	-2.7
Refineries	38602	37483	35454	31882	31697	31302	30356	-0.8	-1.1	-0.4
Biofuels and hydrogen production	0	0	352	341	871	784	753	0.0	9.5	-1.5
District heating	45	29	6	15	19	20	18	-18.1	11.8	-0.5
Derived gases, cokeries etc.	16064	15452	14782	9016	9983	2803	1415	-0.8	-3.8	-17.7

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Belgium: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	137	145	154	158	169	175	184	1.2	1.0	0.8
Public road transport	13	18	17	18	18	18	18	2.7	0.2	0.2
Private cars and motorcycles	107	109	115	117	126	128	133	0.8	0.9	0.5
Rail	9	10	12	12	13	15	17	3.1	1.2	2.3
Aviation ⁽³⁾	8	8	9	10	12	13	15	0.9	2.5	2.5
Inland navigation	0	0	0	0	0	0	0	-0.3	1.4	1.5
Freight transport activity (Gtkm)	70	65	63	66	76	84	92	-1.1	1.8	1.9
Heavy goods and light commercial vehicles	55	48	46	47	54	59	64	-1.7	1.6	1.6
Rail	8	8	7	8	9	11	13	-0.3	2.1	3.5
Inland navigation	8	9	9	12	13	14	15	2.2	2.9	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	9747	9972	10593	10179	10008	9707	9655	0.8	-0.6	-0.4
Public road transport	158	204	292	290	287	282	273	6.4	-0.2	-0.5
Private cars and motorcycles	4815	4463	5177	4757	4252	3767	3577	0.7	-1.9	-1.7
Heavy goods and light commercial vehicles	2857	3618	3413	3397	3642	3687	3783	1.8	0.7	0.4
Rail	184	186	177	181	210	238	263	-0.4	1.7	2.3
Aviation	1530	1281	1382	1389	1443	1540	1549	-1.0	0.4	0.7
Inland navigation	204	219	152	164	175	192	210	-2.9	1.4	1.8
<i>By transport activity</i>										
Passenger transport	6608	6016	6932	6518	6070	5689	5506	0.5	-1.3	-1.0
Freight transport	3139	3956	3661	3660	3938	4018	4149	1.6	0.7	0.5
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.0	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	3.4	3.4	9.1	9.3	9.2			
ENERGY EFFICIENCY										
Primary energy consumption	52563	51491	52805	46217	46190	40965	35586	0.0	-1.3	-2.6
Final Energy Demand	37766	36705	37534	36239	36438	34514	30771	-0.1	-0.3	-1.7
<i>by sector</i>										
Industry	14218	11775	11688	11055	11231	10684	9820	-1.9	-0.4	-1.3
Energy intensive industries	10700	9088	8641	8013	8022	7665	6946	-2.1	-0.7	-1.4
Other industrial sectors	3518	2686	3047	3042	3209	3019	2874	-1.4	0.5	-1.1
Residential	8974	9299	9266	9230	9323	8857	6867	0.3	0.1	-3.0
Tertiary	4827	5658	5982	5722	5825	5213	4382	2.2	-0.3	-2.8
Transport ⁽⁵⁾	9747	9973	10598	10232	10059	9759	9703	0.8	-0.5	-0.4
<i>by fuel</i>										
Solids	3403	2019	1621	1505	1358	1259	1045	-7.2	-1.8	-2.6
Oil	16661	16586	15314	14610	13009	11762	10330	-0.8	-1.6	-2.3
Gas	10010	10009	11147	10465	10569	9959	8346	1.1	-0.5	-2.3
Electricity	6667	6896	7163	7033	7237	7478	7387	0.7	0.1	0.2
Heat (from CHP and District Heating)	492	428	640	567	607	665	624	2.7	-0.5	0.3
Renewable energy forms	533	767	1650	2058	3636	3296	2909	12.0	8.2	-2.2
Other	0	0	0	3	23	95	131	0.0	0.0	19.1
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	183	168	165	142	132	112	92	-1.0	-2.2	-3.5
Industry (Energy on Value added, index 2000=100)	100	82	88	81	77	69	60	-1.3	-1.3	-2.5
Residential (Energy on Private Income, index 2000=100)	100	98	90	84	78	69	49	-1.1	-1.4	-4.6
Tertiary (Energy on Value added, index 2000=100)	100	107	105	97	91	76	59	0.5	-1.4	-4.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	43	38	39	35	30	27	24	-1.1	-2.5	-2.1
Freight transport (toe/Mtkm)	45	61	58	55	52	48	45	2.6	-1.1	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	154.0	148.3	136.1	127.3	112.0	112.9	98.7	-1.2	-1.9	-1.3
of which ETS sectors (2013 scope) GHG emissions		70.1	58.6	52.1	42.8	49.6	43.8		-3.1	0.2
of which ESD sectors (2013 scope) GHG emissions		78.3	77.6	75.2	69.3	63.3	54.9		-1.1	-2.3
CO₂ Emissions (energy related)	122.7	114.2	106.4	97.8	84.6	87.3	75.3	-1.4	-2.3	-1.2
Power generation/District heating	25.1	24.0	20.4	15.8	9.0	18.1	15.6	-2.0	-7.9	5.7
Energy Branch	4.9	4.4	3.9	4.6	4.0	3.8	3.7	-2.3	0.4	-1.0
Industry	34.5	24.8	22.1	19.7	18.4	16.1	13.7	-4.4	-1.8	-2.9
Residential	20.3	20.5	18.9	18.4	16.9	15.6	10.9	-0.7	-1.1	-4.3
Tertiary	8.7	10.6	10.2	9.5	9.0	7.4	5.6	1.6	-1.3	-4.6
Transport	29.2	29.9	30.9	29.7	27.4	26.3	25.7	0.6	-1.2	-0.6
CO₂ Emissions (non energy and non land use related)	8.1	13.3	9.5	10.2	9.9	9.4	8.3	1.6	0.4	-1.8
Non-CO₂ GHG emissions	23.2	20.9	20.2	19.3	17.5	16.2	15.2	-1.3	-1.4	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.5	98.7	90.6	84.7	74.6	75.2	65.7	-1.2	-1.9	-1.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.26	0.20	0.20	0.11	0.22	0.21	-3.5	-5.8	6.7
Final energy demand (t of CO ₂ /toe)	2.45	2.34	2.19	2.14	1.97	1.89	1.82	-1.1	-1.1	-0.8
Industry	2.43	2.11	1.89	1.78	1.64	1.50	1.39	-2.5	-1.4	-1.6
Residential	2.26	2.21	2.04	2.00	1.81	1.76	1.59	-1.0	-1.2	-1.3
Tertiary	1.80	1.87	1.71	1.66	1.55	1.42	1.29	-0.5	-1.0	-1.8
Transport	2.99	3.00	2.91	2.91	2.72	2.69	2.65	-0.3	-0.7	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	5.6	8.6	14.0	16.0	17.8			
RES-H&C share	1.9	3.4	6.1	8.5	13.9	13.9	14.7			
RES-E share	1.1	2.4	7.1	15.2	20.0	28.0	32.4			
RES-T share (based on ILUC formula)	0.0	0.1	4.1	4.6	10.1	12.9	16.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	49	59	86	105	114	113	3.2	6.0	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	128	116	139	141	146	156	162	0.9	0.5	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	32.9	35.9	48.6	47.3	59.1	64.6	75.2	4.0	2.0	2.4
as % of GDP	10.2	10.3	13.1	12.3	14.3	14.6	15.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Bulgaria: EU/CO-33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	8	8	7	7	7	7	6	-1.0	-0.7	-0.7	
GDP (in 000 M€13)	25	33	38	40	45	50	53	4.1	1.8	1.7	
Gross Inland Consumption (ktoe)	18523	19754	17770	16469	16338	15356	13938	-0.4	-0.8	-1.6	
Solids	6433	6895	6887	5983	5647	4535	3468	0.7	-2.0	-4.8	
Oil	4068	4725	3888	3732	3542	3442	3230	-0.5	-0.9	-0.9	
Natural gas	2931	2804	2300	2118	2118	1857	1578	-2.4	-0.8	-2.9	
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0	
Electricity	-397	-652	-726	-1011	-914	-915	-852	6.2	2.3	-0.7	
Renewable energy forms	788	1156	1465	1870	2167	2661	2737	6.4	4.0	2.4	
Energy Branch Consumption	905	911	1032	907	859	763	697	1.3	-1.8	-2.1	
Non-Energy Uses	980	851	422	427	498	571	605	-8.1	1.7	2.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	9867	10629	10531	9856	10686	10211	9821	0.7	0.1	-0.8	
Solids	4295	4178	4942	4055	4630	3658	3201	1.4	-0.7	-3.6	
Oil	68	58	61	17	20	25	29	-1.2	-10.7	3.9	
Natural gas	12	384	59	125	128	129	137	17.0	8.0	0.7	
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0	
Renewable energy sources	792	1182	1512	1883	2133	2622	2679	6.7	3.5	2.3	
Hydro	230	373	435	350	373	364	363	6.6	-1.5	-0.3	
Biomass & Waste	562	776	975	1283	1483	1423	1235	5.7	4.3	-1.8	
Wind	0	0	59	98	102	421	604	0.0	5.7	19.5	
Solar and others	0	0	12	118	139	387	456	0.0	28.3	12.6	
Geothermal	0	33	33	34	36	27	22	0.0	0.9	-4.8	
Net Imports (ktoe)	8544	9276	7075	6717	5798	5306	4289	-1.9	-2.0	-3.0	
Solids	2258	2553	1700	1928	1017	877	267	-2.8	-5.0	-12.5	
Oil	3944	4943	4025	3820	3668	3576	3362	0.2	-0.9	-0.9	
Crude oil and Feedstocks	5228	6145	5916	6308	5990	5713	5370	1.2	0.1	-1.1	
Oil products	-1284	-1202	-1891	-2489	-2322	-2137	-2007	3.9	2.1	-1.4	
Natural gas	2742	2458	2131	1993	1992	1731	1454	-2.5	-0.7	-3.1	
Electricity	-397	-652	-726	-1011	-914	-915	-852	6.2	2.3	-0.7	
Import Dependency (%)	46.0	46.7	39.6	40.5	35.2	34.2	30.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	40646	43972	46017	48847	48716	48845	46169	1.2	0.6	-0.5	
Nuclear energy	18178	18653	15249	15662	15326	15326	15326	-1.7	0.1	0.0	
Solids	16941	18458	22606	23317	22626	18025	13674	2.9	0.0	-4.9	
Oil (including refinery gas)	661	606	393	440	70	0	0	-5.1	-15.8	-100.0	
Gas (including derived gases)	2178	1896	1967	3035	3861	2422	1452	-1.0	7.0	-9.3	
Biomass-waste	15	17	49	54	164	389	449	12.6	12.8	10.6	
Hydro (pumping excluded)	2673	4337	5057	4065	4334	4235	4218	6.6	-1.5	-0.3	
Wind	0	5	681	1144	1183	4895	7025	0.0	5.7	19.5	
Solar	0	0	15	1129	1152	3553	4024	0.0	54.2	13.3	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	10471	10635	9943	11968	11804	13439	14240	-0.5	1.7	1.9	
Nuclear energy	3610	2765	1920	1920	1920	1920	1920	-6.1	0.0	0.0	
Renewable energy	1016	1992	2697	4081	4110	7053	8047	10.3	4.3	6.9	
Hydro (pumping excluded)	1016	1984	2184	2338	2338	2338	2338	8.0	0.7	0.0	
Wind	0	8	488	691	703	1971	2640	0.0	3.7	14.1	
Solar	0	0	25	1052	1069	2744	3069	0.0	45.6	11.1	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	5845	5878	5326	5967	5773	4466	4273	-0.9	0.8	-3.0	
of which cogeneration units	1129	1191	1017	1814	1694	1601	1645	-1.0	5.2	-0.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	5100	5100	4703	5313	4812	3494	3384	-0.8	0.2	-3.5	
Gas fired	689	737	607	626	909	876	790	-1.3	4.1	-1.4	
Oil fired	57	42	13	13	2	2	2	-13.6	-18.4	0.0	
Biomass-waste fired	0	0	3	15	51	94	98	0.0	32.3	6.7	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	39.9	42.8	47.7	42.3	43.3	38.8	34.9				
Efficiency of gross thermal power generation (%)	28.4	27.0	28.5	36.8	39.0	38.4	37.8				
% of gross electricity from CHP	7.8	6.1	8.0	12.0	12.6	8.8	8.1				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	51.3	52.3	45.7	45.1	45.5	58.1	67.2				
Fuel Inputs to Thermal Power Generation (ktoe)	5986	6689	7553	6282	5888	4669	3543	2.4	-2.5	-5.0	
Solids	4928	5817	6610	5466	5208	4204	3221	3.0	-2.4	-4.7	
Oil (including refinery gas)	171	174	219	110	17	0	0	2.5	-22.6	-100.0	
Gas (including derived gases)	884	697	720	692	625	373	220	-2.0	-1.4	-9.9	
Biomass & Waste	3	2	4	15	38	91	102	1.4	26.0	10.4	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	12213	13505	11285	10638	10377	10078	9702	-0.8	-0.8	-0.7	
Refineries	5310	6421	6041	6617	6290	6011	5650	1.3	0.4	-1.1	
Biofuels and hydrogen production	0	0	13	106	188	180	186	0.0	30.2	-0.1	
District heating	324	368	304	96	98	97	82	-0.6	-10.7	-1.8	
Derived gases, cokeries etc.	6579	6717	4927	3819	3801	3790	3784	-2.9	-2.6	0.0	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Bulgaria: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	48	56	65	72	76	80	84	3.2	1.4	1.0
Public road transport	15	14	11	11	11	12	12	-3.1	0.6	0.4
Private cars and motorcycles	28	36	48	53	54	57	58	5.7	1.3	0.6
Rail	4	3	3	3	4	4	4	-2.5	1.7	1.9
Aviation ⁽³⁾	2	4	4	5	6	8	10	8.8	4.9	4.5
Inland navigation	0	0	0	0	0	0	0	-1.8	0.9	1.4
Freight transport activity (Gtkm)	11	16	18	20	22	25	26	5.7	2.0	1.7
Heavy goods and light commercial vehicles	5	11	9	10	11	12	13	7.0	2.0	1.2
Rail	6	5	3	3	4	4	5	-5.7	1.9	2.5
Inland navigation	0	1	6	6	7	8	9	34.4	2.0	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	1841	2682	2719	2837	2879	2833	2803	4.0	0.6	-0.3
Public road transport	399	362	262	263	270	268	264	-4.1	0.3	-0.2
Private cars and motorcycles	956	1389	1581	1628	1559	1431	1361	5.2	-0.1	-1.3
Heavy goods and light commercial vehicles	305	652	590	646	699	715	705	6.8	1.7	0.1
Rail	78	69	52	44	49	53	56	-4.0	-0.6	1.4
Aviation	101	201	182	207	244	301	349	6.1	3.0	3.6
Inland navigation	3	10	53	49	58	65	68	34.5	0.9	1.7
By transport activity										
Passenger transport	1473	1965	2034	2106	2082	2011	1985	3.3	0.2	-0.5
Freight transport	369	718	685	731	796	822	818	6.4	1.5	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	3.8	6.6	6.5	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	17543	18903	17348	16042	15840	14785	13333	-0.1	-0.9	-1.7
Final Energy Demand	9106	10184	8843	9205	9460	9216	8429	-0.3	0.7	-1.1
by sector										
Industry	3967	4037	2561	2709	2772	2803	2719	-4.3	0.8	-0.2
Energy intensive industries	3124	3161	1789	1929	1918	1900	1825	-5.4	0.7	-0.5
Other industrial sectors	843	876	772	780	854	903	894	-0.9	1.0	0.5
Residential	2155	2117	2246	2307	2373	2230	1779	0.4	0.6	-2.8
Tertiary	972	1128	1174	1179	1268	1194	985	1.9	0.8	-2.5
Transport ⁽⁵⁾	2013	2903	2862	3011	3046	2989	2946	3.6	0.6	-0.3
by fuel										
Solids	879	979	414	487	415	310	234	-7.3	0.0	-5.6
Oil	3026	3712	3125	3134	3045	2952	2756	0.3	-0.3	-1.0
Gas	1681	1565	1058	1052	1077	1031	928	-4.5	0.2	-1.5
Electricity	2085	2211	2331	2382	2506	2596	2510	1.1	0.7	0.0
Heat (from CHP and District Heating)	880	939	960	841	864	863	738	0.9	-1.0	-1.6
Renewable energy forms	555	778	956	1309	1553	1461	1257	5.6	5.0	-2.1
Other	0	0	0	0	0	2	6	0.0	0.0	32.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	733	599	472	415	362	307	261	-4.3	-2.6	-3.2
Industry (Energy on Value added, index 2000=100)	100	68	37	39	35	32	29	-9.4	-0.6	-2.0
Residential (Energy on Private Income, index 2000=100)	100	72	67	67	58	49	36	-3.9	-1.4	-4.7
Tertiary (Energy on Value added, index 2000=100)	100	91	81	76	71	60	46	-2.1	-1.3	-4.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	34	30	28	26	24	22	0.0	-1.3	-1.6
Freight transport (toe/Mtkm)	35	44	37	37	36	33	31	0.7	-0.5	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	64.4	67.0	61.2	55.6	51.0	44.9	39.0	-0.5	-1.8	-2.6
of which ETS sectors (2013 scope) GHG emissions		39.4	35.6	30.0	28.3	23.3	18.4		-2.3	-4.2
of which ESD sectors (2013 scope) GHG emissions		27.6	25.6	25.6	22.7	21.6	20.6		-1.2	-1.0
CO ₂ Emissions (energy related)	44.3	49.1	45.9	40.1	38.0	32.3	26.4	0.4	-1.9	-3.6
Power generation/District heating	24.6	27.9	31.2	25.1	23.7	18.8	14.2	2.4	-2.7	-5.0
Energy Branch	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.8	-1.8	-1.4
Industry	10.6	9.8	3.7	4.0	3.9	3.6	3.0	-10.0	0.6	-2.7
Residential	1.4	1.2	1.0	1.0	0.7	0.4	0.2	-3.1	-4.0	-10.2
Tertiary	1.2	1.1	0.8	0.7	0.7	0.6	0.4	-4.0	-1.5	-5.5
Transport	5.7	8.3	8.3	8.4	8.3	8.2	8.0	3.7	0.1	-0.4
CO ₂ Emissions (non energy and non land use related)	3.5	4.0	3.0	3.0	3.1	3.2	3.2	-1.5	0.4	0.4
Non-CO2 GHG emissions	16.7	14.0	12.3	12.5	9.8	9.4	9.3	-3.0	-2.2	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	58.5	60.9	55.6	50.5	46.3	40.8	35.4	-0.5	-1.8	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.46	0.49	0.51	0.41	0.39	0.31	0.25	1.2	-2.8	-4.2
Final energy demand (t of CO ₂ /toe)	2.07	2.01	1.55	1.53	1.44	1.39	1.37	-2.8	-0.8	-0.5
Industry	2.67	2.43	1.44	1.47	1.41	1.29	1.10	-6.0	-0.2	-2.5
Residential	0.63	0.58	0.44	0.41	0.28	0.19	0.13	-3.5	-4.5	-7.6
Tertiary	1.24	0.97	0.69	0.61	0.54	0.48	0.40	-5.8	-2.3	-3.0
Transport	2.85	2.88	2.88	2.80	2.73	2.73	2.70	0.1	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.6	9.1	14.1	18.7	21.0	26.3	29.5			
RES-H&C share	10.5	14.1	25.2	30.8	33.9	34.5	36.3			
RES-E share	4.0	8.5	12.3	17.4	18.1	34.5	43.7			
RES-T share (based on ILUC formula)	0.3	0.4	1.1	5.4	9.9	10.8	12.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	55	58	68	68	73	77	0.8	1.7	1.3
Average Price of Electricity in Final demand sectors (€13/MWh)	44	56	75	89	105	124	130	5.4	3.4	2.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	5.2	7.4	9.5	10.5	12.9	14.5	17.3	6.2	3.1	3.0
as % of GDP	20.7	22.3	25.3	26.5	28.5	29.1	32.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Croatia: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	4	4	4	4	4	4	4	-0.4	-0.3	-0.3
GDP (in 000 M€13)	36	45	46	45	49	52	55	2.4	0.5	1.3
Gross Inland Consumption (ktoe)	7793	8888	8561	8018	8276	7763	6757	0.9	-0.3	-2.0
Solids	431	683	683	751	852	342	298	4.7	2.2	-10.0
Oil	3929	4490	3699	3414	3230	3054	2745	-0.6	-1.3	-1.6
Natural gas	2210	2370	2632	2144	2365	2461	1680	1.8	-1.1	-3.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Renewable energy forms	880	906	1138	1195	1415	1556	1624	2.6	2.2	1.4
Energy Branch Consumption	821	825	745	726	712	609	569	-1.0	-0.5	-2.2
Non-Energy Uses	656	675	596	514	529	535	535	-0.9	-1.2	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3580	3799	4222	3368	3587	3489	3254	1.7	-1.6	-1.0
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	1345	1029	767	466	461	436	390	-5.5	-5.0	-1.7
Natural gas	1355	1865	2215	1431	1476	1279	1056	5.0	-4.0	-3.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	880	906	1240	1471	1649	1774	1808	3.5	2.9	0.9
Hydro	505	545	716	533	544	549	550	3.6	-2.7	0.1
Biomass & Waste	375	360	500	859	1019	971	849	2.9	7.4	-1.8
Wind	0	1	12	56	56	56	185	0.0	16.6	12.7
Solar and others	0	0	5	16	23	191	211	0.0	16.0	24.9
Geothermal	0	0	7	7	8	7	14	0.0	1.3	6.2
Net Imports (ktoe)	4134	5208	4461	4657	4697	4282	3510	0.8	0.5	-2.9
Solids	478	624	699	751	852	342	298	3.9	2.0	-10.0
Oil	2406	3583	2980	2955	2776	2625	2362	2.2	-0.7	-1.6
Crude oil and Feedstocks	3952	4334	3647	2979	2838	2746	2557	-0.8	-2.5	-1.0
Oil products	-1546	-751	-667	-24	-62	-122	-196	-8.1	-21.2	12.2
Natural gas	905	562	476	713	889	1183	624	-6.2	6.5	-3.5
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Import Dependency (%)	52.9	58.4	52.1	58.0	56.7	55.1	51.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	10684	12354	13999	11995	14186	14769	12778	2.7	0.1	-1.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	1551	2328	2385	2671	3441	1078	868	4.4	3.7	-12.9
Oil (including refinery gas)	1687	1855	560	77	24	283	212	-10.4	-27.0	24.3
Gas (including derived gases)	1571	1814	2553	2232	3404	4239	1079	5.0	2.9	-10.9
Biomass-waste	1	14	33	98	276	329	277	41.9	23.7	0.1
Hydro (pumping excluded)	5874	6333	8329	6199	6324	6386	6393	3.6	-2.7	0.1
Wind	0	10	139	650	650	650	2146	0.0	16.7	12.7
Solar	0	0	0	68	68	1803	1803	0.0	0.0	38.8
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	3786	3945	4216	4884	4890	5911	6525	1.1	1.5	2.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2079	2066	2220	2668	2668	3879	4643	0.7	1.9	5.7
Hydro (pumping excluded)	2079	2060	2141	2190	2190	2190	2190	0.3	0.2	0.0
Wind	0	6	79	423	423	423	1187	0.0	18.3	10.9
Solar	0	0	0	55	55	1266	1266	0.0	0.0	36.7
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1707	1879	1996	2216	2222	2032	1882	1.6	1.1	-1.6
of which cogeneration units	558	515	486	298	648	879	670	-1.4	2.9	0.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	311	311	311	311	656	656	656	0.0	7.7	0.0
Gas fired	781	919	1031	1706	1392	1192	1082	2.8	3.0	-2.5
Oil fired	615	646	649	185	150	157	111	0.5	-13.6	-2.9
Biomass-waste fired	0	3	5	13	24	27	32	0.0	17.3	2.9
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	31.0	34.4	36.6	27.3	32.1	28.0	22.1			
Efficiency of gross thermal power generation (%)	33.1	34.9	37.5	44.0	46.3	45.3	36.4			
% of gross electricity from CHP	16.8	0.0	14.3	15.5	17.4	17.2	15.7			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	55.0	51.5	60.7	58.5	51.6	62.1	83.1			
Fuel Inputs to Thermal Power Generation (ktoe)	1249	1479	1269	993	1326	1126	575	0.2	0.4	-8.0
Solids	357	537	532	612	725	240	235	4.1	3.1	-10.6
Oil (including refinery gas)	395	447	120	14	8	78	63	-11.3	-23.7	23.0
Gas (including derived gases)	497	490	611	350	540	744	217	2.1	-1.2	-8.7
Biomass & Waste	0	4	7	17	53	64	60	36.6	22.8	1.2
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	5394	5327	4409	3555	3567	3434	3174	-2.0	-2.1	-1.2
Refineries	5299	5210	4304	3414	3268	3153	2924	-2.1	-2.7	-1.1
Biofuels and hydrogen production	0	0	3	70	223	201	180	0.0	56.1	-2.1
District heating	83	104	97	70	74	71	57	1.6	-2.7	-2.5
Derived gases, cokeries etc.	12	13	4	1	2	10	12	-10.0	-5.6	17.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Croatia: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	27	31	34	36	39	41	43	2.5	1.4	1.0
Public road transport	3	3	3	3	4	4	4	-0.3	1.0	0.6
Private cars and motorcycles	21	25	27	28	30	31	33	2.4	1.2	0.8
Rail	2	2	2	2	3	3	3	2.7	1.3	0.9
Aviation ⁽³⁾	1	1	2	3	3	3	4	12.0	3.7	2.6
Inland navigation	0	0	0	0	0	0	0	212.2	1.1	1.8
Freight transport activity (Gtkm)	4	12	12	12	14	15	16	10.2	1.5	1.5
Heavy goods and light commercial vehicles	3	9	8	8	10	10	11	12.1	1.5	1.6
Rail	2	3	3	3	3	3	3	3.9	1.4	1.4
Inland navigation	0	0	1	1	1	1	1	30.9	1.4	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	1544	1921	2068	2074	2133	2054	2005	3.0	0.3	-0.6
Public road transport	41	39	61	63	66	66	65	3.9	0.8	-0.1
Private cars and motorcycles	1192	1192	1332	1324	1319	1220	1156	1.1	-0.1	-1.3
Heavy goods and light commercial vehicles	161	508	479	465	510	516	521	11.5	0.6	0.2
Rail	46	52	50	48	52	53	55	0.8	0.5	0.5
Aviation	76	98	108	134	144	154	161	3.6	2.9	1.1
Inland navigation	29	33	38	39	43	45	47	2.8	1.3	1.0
By transport activity										
Passenger transport	1329	1340	1514	1535	1542	1454	1396	1.3	0.2	-1.0
Freight transport	215	581	554	540	591	600	608	9.9	0.7	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.1	3.5	10.7	10.5	9.9			
ENERGY EFFICIENCY										
Primary energy consumption	7138	8213	7965	7504	7747	7228	6222	1.1	-0.3	-2.2
Final Energy Demand	5371	6343	6347	6190	6301	6009	5305	1.7	-0.1	-1.7
by sector										
Industry	1378	1563	1366	1394	1391	1309	1183	-0.1	0.2	-1.6
Energy intensive industries	847	907	752	745	735	675	590	-1.2	-0.2	-2.2
Other industrial sectors	531	656	614	649	656	634	594	1.5	0.7	-1.0
Residential	1666	1922	1893	1784	1777	1694	1337	1.3	-0.6	-2.8
Tertiary	781	935	1018	934	997	948	777	2.7	-0.2	-2.5
Transport ⁽⁵⁾	1547	1923	2070	2078	2137	2058	2008	3.0	0.3	-0.6
by fuel										
Solids	74	146	150	139	127	102	63	7.3	-1.6	-6.9
Oil	2683	3108	2902	2755	2564	2367	2095	0.8	-1.2	-2.0
Gas	1009	1236	1288	1170	1227	1174	979	2.5	-0.5	-2.2
Electricity	1018	1240	1364	1317	1395	1405	1322	3.0	0.2	-0.5
Heat (from CHP and District Heating)	213	258	246	226	240	246	203	1.4	-0.2	-1.7
Renewable energy forms	375	356	397	582	746	705	630	0.6	6.5	-1.7
Other	0	0	0	1	2	10	13	0.0	0.0	18.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	214	196	184	179	169	150	122	-1.5	-0.9	-3.2
Industry (Energy on Value added, index 2000=100)	100	97	88	93	87	79	68	-1.3	-0.2	-2.4
Residential (Energy on Private Income, index 2000=100)	100	91	88	84	76	68	50	-1.2	-1.6	-4.1
Tertiary (Energy on Value added, index 2000=100)	100	97	99	95	91	81	62	-0.1	-0.8	-3.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	41	43	41	38	34	31	-1.2	-1.3	-2.0
Freight transport (toe/Mtkm)	48	49	47	45	43	41	38	-0.2	-0.8	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	26.3	30.7	28.5	25.4	25.4	22.6	19.3	0.8	-1.2	-2.7
of which ETS sectors (2013 scope) GHG emissions		12.7	10.8	9.6	10.4	8.6	6.7		-0.4	-4.4
of which ESD sectors (2013 scope) GHG emissions		17.9	17.7	15.7	14.9	14.0	12.7		-1.7	-1.6
CO ₂ Emissions (energy related)	17.0	20.2	18.6	17.0	17.4	14.9	12.0	0.9	-0.7	-3.6
Power generation/District heating	4.1	5.1	4.3	3.5	4.4	3.1	1.7	0.3	0.4	-9.0
Energy Branch	2.0	2.0	1.8	1.7	1.7	1.5	1.4	-1.0	-0.5	-2.3
Industry	2.9	3.5	2.8	2.9	2.7	2.3	1.8	-0.2	-0.5	-4.2
Residential	1.9	2.4	2.1	1.7	1.7	1.6	1.1	1.0	-2.1	-4.4
Tertiary	1.5	1.5	1.4	1.2	1.2	1.1	0.8	-0.6	-1.6	-3.7
Transport	4.5	5.7	6.2	6.0	5.7	5.4	5.3	3.1	-0.8	-0.7
CO ₂ Emissions (non energy and non land use related)	2.6	3.1	2.5	2.4	2.6	2.5	2.3	-0.3	0.0	-0.9
Non-CO2 GHG emissions	6.7	7.4	7.4	5.9	5.4	5.2	5.0	0.9	-3.1	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	74.2	86.5	80.4	71.5	71.5	63.8	54.6	0.8	-1.2	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.30	0.32	0.25	0.23	0.25	0.17	0.11	-2.1	0.3	-8.1
Final energy demand (t of CO ₂ /toe)	2.01	2.06	1.97	1.90	1.79	1.73	1.68	-0.2	-1.0	-0.6
Industry	2.09	2.23	2.08	2.08	1.94	1.79	1.49	-0.1	-0.7	-2.6
Residential	1.15	1.24	1.12	0.95	0.96	0.93	0.81	-0.3	-1.5	-1.7
Tertiary	1.89	1.57	1.37	1.26	1.18	1.12	1.04	-3.2	-1.4	-1.3
Transport	2.94	2.97	2.97	2.88	2.65	2.64	2.62	0.1	-1.1	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	14.8	12.8	14.3	18.5	21.2	24.7	29.5			
RES-H&C share	13.0	10.9	13.1	18.0	18.8	20.6	25.0			
RES-E share	36.2	32.8	34.2	39.1	38.6	48.8	60.7			
RES-T share (based on ILUC formula)	1.2	0.9	1.1	5.1	10.0	12.4	16.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	83	75	67	59	66	77	85	-2.1	-0.2	2.5
Average Price of Electricity in Final demand sectors (€13/MWh)	96	84	109	110	120	129	134	1.3	1.0	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	4.4	5.9	7.6	7.5	9.0	10.3	12.0	5.5	1.7	2.9
as % of GDP	12.2	12.9	16.4	16.8	18.4	19.8	21.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Cyprus: EU/CO ₂ -33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	1	1	1	1	1	1	1	1.7	0.9	0.3	
GDP (in 000 M€13)	14	16	18	16	19	21	22	2.8	0.2	1.9	
Gross Inland Consumption (ktoe)	2412	2539	2740	2157	2149	2012	1838	1.3	-2.4	-1.5	
Solids	33	36	17	0	0	0	0	-6.5	-53.4	-13.1	
Oil	2334	2446	2611	1995	1345	1194	1108	1.1	-6.4	-1.9	
Natural gas	0	0	0	0	558	543	468	0.0	0.0	-1.8	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	0	0	0	0	0	0	0	0.0	0.0	21.9	
Renewable energy forms	46	57	112	162	245	275	263	9.4	8.1	0.7	
Energy Branch Consumption	54	22	19	17	15	8	7	-9.7	-2.4	-8.0	
Non-Energy Uses	86	73	85	38	42	44	44	-0.1	-7.0	0.6	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	44	51	89	137	195	2129	2947	7.2	8.2	31.2	
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Natural gas	0	0	0	0	0	1901	2729	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	44	51	89	137	195	228	219	7.2	8.2	1.1	
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biomass & Waste	9	10	24	28	37	45	45	10.5	4.3	2.1	
Wind	0	0	3	21	36	36	40	0.0	29.7	0.9	
Solar and others	36	41	61	86	118	142	131	5.6	6.8	1.0	
Geothermal	0	0	1	2	4	5	3	0.0	18.7	-3.5	
Net Imports (ktoe)	2565	2843	2945	2243	2197	148	-824	1.4	-2.9	0.0	
Solids	33	43	11	0	0	0	0	-10.4	-51.4	-13.1	
Oil	2531	2794	2910	2218	1586	1454	1368	1.4	-5.9	-1.5	
Crude oil and Feedstocks	1160	0	0	0	0	0	0	-100.0	0.0	0.0	
Oil products	1371	2794	2910	2218	1586	1454	1368	7.8	-5.9	-1.5	
Natural gas	0	0	0	0	561	-1353	-2237	0.0	0.0	0.0	
Electricity	0	0	0	0	0	0	0	0.0	0.0	-9.8	
Import Dependency (%)	98.6	100.7	100.8	94.3	91.8	6.5	-38.8				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3370	4376	5322	4573	4936	5283	4807	4.7	-0.8	-0.3	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	3370	4376	5249	4086	437	22	22	4.5	-22.0	-25.7	
Gas (including derived gases)	0	0	0	0	3441	3837	3269	0.0	0.0	-0.5	
Biomass-waste	0	0	35	45	59	102	124	0.0	5.4	7.7	
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wind	0	0	31	248	422	422	462	0.0	29.8	0.9	
Solar	0	0	6	195	576	899	929	0.0	58.4	4.9	
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	983	1119	1498	1755	1980	2169	2196	4.3	2.8	1.0	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	0	0	89	292	554	715	742	0.0	20.1	3.0	
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wind	0	0	82	158	216	216	229	0.0	10.2	0.6	
Solar	0	0	7	135	338	499	513	0.0	47.4	4.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	983	1119	1409	1462	1426	1455	1455	3.7	0.1	0.2	
of which cogeneration units	0	5	22	2	2	1	2	0.0	-21.7	1.1	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0	
Gas fired	0	0	0	0	34	514	514	0.0	0.0	31.3	
Oil fired	983	1119	1406	1452	1382	930	930	3.6	-0.2	-3.9	
Biomass-waste fired	0	0	3	10	10	10	11	0.0	12.7	0.1	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	37.2	42.1	38.9	28.5	27.4	27.3	24.6				
Efficiency of gross thermal power generation (%)	32.9	34.9	38.4	48.0	51.8	60.7	60.6				
% of gross electricity from CHP	0.0	0.3	1.0	1.7	1.6	1.0	0.8				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	1.4	10.6	21.4	26.9	31.5				
Fuel Inputs to Thermal Power Generation (ktoe)	881	1077	1182	741	653	561	485	3.0	-5.8	-2.9	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	881	1077	1178	731	82	0	0	2.9	-23.4	-100.0	
Gas (including derived gases)	0	0	0	0	558	542	465	0.0	0.0	-1.8	
Biomass & Waste	0	0	4	10	13	19	19	0.0	12.6	4.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1178	0	15	17	41	37	33	-35.4	10.5	-2.0	
Refineries	1178	0	0	0	0	0	0	-100.0	0.0	0.0	
Biofuels and hydrogen production	0	0	15	17	41	37	33	0.0	10.5	-2.1	
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0	
Derived gases, cokeries etc.	0	0	0	0	0	0	1	0.0	0.0	15.8	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Cyprus: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	12	14	15	15	18	20	22	1.9	2.3	1.9
Public road transport	1	1	1	1	1	1	1	1.4	0.8	0.3
Private cars and motorcycles	4	5	6	6	7	7	7	4.0	0.9	0.6
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	7	8	7	8	10	12	14	0.5	3.6	2.8
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	1	1	1	1	1	1	1	-1.6	0.7	1.3
Heavy goods and light commercial vehicles	1	1	1	1	1	1	1	-1.6	0.7	1.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	860	982	1050	916	963	946	934	2.0	-0.9	-0.3
Public road transport	32	35	37	37	38	37	36	1.5	0.3	-0.6
Private cars and motorcycles	373	444	577	490	483	428	383	4.5	-1.8	-2.3
Heavy goods and light commercial vehicles	173	197	152	125	126	126	127	-1.3	-1.8	0.1
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	282	306	284	263	316	355	388	0.1	1.1	2.1
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	687	785	898	791	836	820	807	2.7	-0.7	-0.4
Freight transport	173	197	152	125	126	126	127	-1.3	-1.8	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.5	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.4	1.8	4.2	3.9	3.3			
ENERGY EFFICIENCY										
Primary energy consumption	2326	2466	2655	2118	2107	1968	1794	1.3	-2.3	-1.6
Final Energy Demand	1650	1834	1926	1700	1760	1720	1579	1.6	-0.9	-1.1
by sector										
Industry	445	320	235	202	203	199	191	-6.2	-1.4	-0.6
Energy intensive industries	240	221	171	141	145	146	146	-3.3	-1.7	0.1
Other industrial sectors	205	98	63	61	59	53	45	-11.1	-0.8	-2.7
Residential	211	322	333	323	315	290	228	4.7	-0.5	-3.2
Tertiary	134	209	309	259	279	285	225	8.7	-1.0	-2.1
Transport ⁽⁵⁾	860	983	1050	916	963	946	934	2.0	-0.9	-0.3
by fuel										
Solids	32	36	17	0	0	0	0	-6.4	-53.4	-13.1
Oil	1317	1403	1384	1226	1221	1150	1064	0.5	-1.2	-1.4
Gas	0	0	0	0	0	1	2	0.0	0.0	17.4
Electricity	258	341	420	360	391	425	385	5.0	-0.7	-0.1
Heat (from CHP and District Heating)	0	0	0	1	1	1	1	0.0	25.5	-3.2
Renewable energy forms	42	54	105	114	146	141	123	9.6	3.4	-1.7
Other	0	0	0	0	0	1	3	-100.0	0.0	33.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	175	157	151	131	115	97	82	-1.5	-2.6	-3.4
Industry (Energy on Value added, index 2000=100)	100	70	56	57	52	48	43	-5.6	-0.7	-2.0
Residential (Energy on Private Income, index 2000=100)	100	129	114	116	102	86	63	1.3	-1.1	-4.7
Tertiary (Energy on Value added, index 2000=100)	100	133	166	151	142	130	95	5.2	-1.5	-4.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	50	51	53	44	38	33	30	0.5	-3.2	-2.4
Freight transport (toe/Mtkm)	129	135	133	109	104	97	92	0.3	-2.5	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	11.3	10.4	10.3	8.2	7.3	6.9	6.5	-0.9	-3.4	-1.1
of which ETS sectors (2013 scope) GHG emissions		6.0	5.7	4.1	3.5	3.3	3.3		-4.9	-0.6
of which ESD sectors (2013 scope) GHG emissions		4.4	4.5	4.2	3.8	3.6	3.3		-1.8	-1.5
CO ₂ Emissions (energy related)	7.2	8.0	8.1	6.1	5.3	4.8	4.4	1.2	-4.1	-1.9
Power generation/District heating	2.8	3.5	3.8	2.4	1.6	1.3	1.1	2.9	-8.4	-3.6
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.0
Industry	1.4	1.0	0.6	0.6	0.5	0.5	0.4	-7.6	-1.7	-2.5
Residential	0.2	0.5	0.4	0.3	0.3	0.2	0.1	4.7	-2.4	-11.4
Tertiary	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	-1.9	-5.4
Transport	2.6	3.0	3.1	2.7	2.8	2.7	2.7	1.8	-1.2	-0.3
CO ₂ Emissions (non energy and non land use related)	0.9	0.9	0.6	0.5	0.6	0.6	0.7	-3.5	-0.5	1.7
Non-CO2 GHG emissions	3.2	1.5	1.6	1.6	1.4	1.4	1.5	-6.9	-1.5	0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	179.4	166.0	163.7	131.1	115.6	109.5	104.0	-0.9	-3.4	-1.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.85	0.80	0.71	0.52	0.32	0.24	0.23	-1.7	-7.7	-3.3
Final energy demand (t of CO ₂ /toe)	2.57	2.45	2.24	2.22	2.13	2.06	2.08	-1.3	-0.5	-0.2
Industry	3.16	3.11	2.70	2.73	2.63	2.46	2.17	-1.6	-0.3	-1.9
Residential	1.11	1.44	1.11	1.04	0.91	0.67	0.38	0.0	-1.9	-8.5
Tertiary	0.00	0.43	0.69	0.73	0.63	0.50	0.45	0.0	-0.9	-3.3
Transport	3.02	3.00	2.95	2.94	2.86	2.87	2.87	-0.2	-0.3	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.9	3.1	5.9	9.1	14.9	17.4	19.0			
RES-H&C share	7.9	10.0	18.2	21.8	24.4	27.5	31.4			
RES-E share	0.0	0.0	1.4	10.6	21.4	26.9	31.5			
RES-T share (based on ILUC formula)	0.0	0.0	2.0	1.3	10.3	10.9	11.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	114	115	154	84	112	108	116	3.1	-3.2	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	132	146	181	204	198	182	191	3.2	0.9	-0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.1	1.9	2.5	2.5	3.1	3.3	3.8	8.1	2.1	2.1
as % of GDP	8.3	12.0	13.7	14.9	16.4	16.1	16.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Czech Republic: EU/CO-33				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	10	11	11	11	11	0.2	0.2	0.1	
GDP (in 000 M€13)	112	137	157	165	181	197	216	3.4	1.4	1.8	
Gross Inland Consumption (ktoe)	41097	45122	44681	41122	41020	40512	37322	0.8	-0.9	-0.9	
Solids	21643	20248	18364	15061	14986	14499	13317	-1.6	-2.0	-1.2	
Oil	7881	9899	9306	8965	8809	8466	8282	1.7	-0.5	-0.6	
Natural gas	7500	7703	8070	7797	7167	6926	5217	0.7	-1.2	-3.1	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Renewable energy forms	1429	1955	2980	3521	3851	4436	4404	7.6	2.6	1.4	
Energy Branch Consumption	1768	1796	2068	1808	1766	1757	1672	1.6	-1.6	-0.5	
Non-Energy Uses	2093	2948	2783	2447	2583	2671	2729	2.9	-0.7	0.5	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30536	32861	31570	27296	27911	28722	27066	0.3	-1.2	-0.3	
Solids	25049	23570	20730	16524	16931	17150	15591	-1.9	-2.0	-0.8	
Oil	386	591	290	223	222	210	189	-2.8	-2.7	-1.6	
Natural gas	169	154	202	191	181	171	158	1.8	-1.1	-1.3	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Renewable energy sources	1426	2142	3101	3560	3779	4392	4329	8.1	2.0	1.4	
Hydro	151	205	240	208	218	211	227	4.7	-0.9	0.4	
Biomass & Waste	1275	1933	2770	3106	3228	3656	3246	8.1	1.5	0.1	
Wind	0	2	29	44	65	201	534	76.2	8.5	23.4	
Solar and others	0	3	62	202	266	322	315	0.0	15.7	1.7	
Geothermal	0	0	0	0	2	3	7	0.0	0.0	13.9	
Net Imports (ktoe)	9414	12641	11447	13826	13109	11790	10256	2.0	1.4	-2.4	
Solids	-4721	-3270	-2968	-1463	-1945	-2651	-2274	-4.5	-4.1	1.6	
Oil	7512	9649	8974	8742	8587	8256	8093	1.8	-0.4	-0.6	
Crude oil and Feedstocks	5596	7730	7837	6115	6049	5880	5808	3.4	-2.6	-0.4	
Oil products	1916	1919	1137	2627	2538	2377	2285	-5.1	8.4	-1.0	
Natural gas	7482	7535	6846	7606	6986	6755	5060	-0.9	0.2	-3.2	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Import Dependency (%)	22.9	28.0	25.6	33.6	32.0	29.1	27.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	72911	81931	85319	82069	80417	83836	82911	1.6	-0.6	0.3	
Nuclear energy	13590	24728	27998	27596	27596	27596	27594	7.5	-0.1	0.0	
Solids	52752	49522	47113	41095	42673	40861	38066	-1.1	-1.0	-1.1	
Oil (including refinery gas)	372	326	159	231	0	0	0	-8.1	-100.0	0.0	
Gas (including derived gases)	3907	4215	4121	5853	3559	5390	3500	0.5	-1.5	-0.2	
Biomass-waste	531	739	2188	2214	1073	2732	2379	15.2	-6.9	8.3	
Hydro (pumping excluded)	1758	2380	2789	2421	2541	2449	2640	4.7	-0.9	0.4	
Wind	1	21	335	508	759	2340	6212	78.9	8.5	23.4	
Solar	0	0	615	2149	2214	2466	2518	0.0	13.7	1.3	
Geothermal and other renewables	0	0	1	0	2	2	2	0.0	9.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	13990	16314	17995	18816	18571	19556	20430	2.5	0.3	1.0	
Nuclear energy	1958	4006	4006	4006	4006	4006	4006	7.4	0.0	0.0	
Renewable energy	953	1043	2989	3628	3816	4606	6392	12.1	2.5	5.3	
Hydro (pumping excluded)	952	1020	1049	1080	1080	1085	1126	1.0	0.3	0.4	
Wind	1	22	213	282	408	958	2650	70.9	6.7	20.6	
Solar	0	1	1727	2266	2328	2563	2617	0.0	3.0	1.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	11079	11265	11000	11182	10749	10944	10032	-0.1	-0.2	-0.7	
of which cogeneration units	3733	5199	4792	3847	3975	3113	2458	2.5	-1.9	-4.7	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9823	9935	9571	9656	9487	9414	8798	-0.3	-0.1	-0.8	
Gas fired	1097	1110	1176	1220	935	1208	823	0.7	-2.3	-1.3	
Oil fired	140	140	117	134	72	64	64	-1.8	-4.7	-1.2	
Biomass-waste fired	19	80	136	171	256	258	347	21.7	6.5	3.1	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	55.0	52.9	50.0	46.3	45.9	45.6	43.3				
Efficiency of gross thermal power generation (%)	31.4	30.0	30.3	31.9	32.8	32.3	31.7				
% of gross electricity from CHP	17.9	16.8	14.2	17.4	19.3	15.3	13.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	21.8	34.0	39.8	42.5	42.5	44.8	49.9				
Fuel Inputs to Thermal Power Generation (ktoe)	15744	15702	15219	13299	12394	13062	11920	-0.3	-2.0	-0.4	
Solids	13945	14025	13445	10677	11155	11026	10381	-0.4	-1.8	-0.7	
Oil (including refinery gas)	311	161	78	59	0	0	0	-12.9	-100.0	0.0	
Gas (including derived gases)	1236	1292	1134	1938	959	1287	936	-0.9	-1.7	-0.2	
Biomass & Waste	253	224	562	626	278	747	602	8.3	-6.8	8.0	
Geothermal heat	0	0	0	0	2	2	2	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	15035	19758	20049	17183	17041	16793	16352	2.9	-1.6	-0.4	
Refineries	6151	8144	8337	6497	6444	6270	6180	3.1	-2.5	-0.4	
Biofuels and hydrogen production	62	3	231	285	594	527	517	14.1	9.9	-1.4	
District heating	975	916	787	650	693	676	493	-2.1	-1.3	-0.2	
Derived gases, cokeries etc.	7846	10696	10693	9751	9310	9319	9163	3.1	-1.4	-0.3	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Czech Republic: EUCO+33				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
TRANSPORT								Annual % Change			
Passenger transport activity (Gpkm)	103	112	108	113	124	135	146	0.5	1.4	1.6	
Public road transport	16	16	17	17	19	20	21	0.5	0.9	1.3	
Private cars and motorcycles	67	72	67	68	75	81	86	0.0	1.1	1.4	
Rail	15	15	16	18	20	22	24	0.1	2.6	2.0	
Aviation ⁽³⁾	5	10	9	9	11	12	14	5.6	2.3	2.7	
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0	
Freight transport activity (Gtkm)	46	49	48	50	55	59	64	0.3	1.4	1.5	
Heavy goods and light commercial vehicles	29	34	34	35	38	40	43	1.7	1.1	1.3	
Rail	17	15	14	15	17	19	21	-2.4	2.1	2.0	
Inland navigation	0	0	0	0	0	0	0	-7.0	1.1	2.2	
Energy demand in transport (ktoe) ⁽⁴⁾	4252	5983	6121	6178	6304	6018	5955	3.7	0.3	-0.6	
Public road transport	233	296	379	385	401	409	415	5.0	0.6	0.4	
Private cars and motorcycles	2563	3389	3394	3319	3295	2986	2833	2.8	-0.3	-1.5	
Heavy goods and light commercial vehicles	1038	1753	1810	1914	1996	1964	1995	5.7	1.0	0.0	
Rail	216	197	193	211	235	249	265	-1.1	2.0	1.2	
Aviation	197	343	341	345	373	406	442	5.6	0.9	1.7	
Inland navigation	5	5	4	4	4	4	5	-2.2	-0.7	2.0	
By transport activity											
Passenger transport	3107	4132	4229	4175	4214	3955	3856	3.1	0.0	-0.9	
Freight transport	1145	1850	1892	2003	2090	2063	2099	5.1	1.0	0.0	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.2				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	1.5	0.0	3.8	4.7	9.7	9.2	9.2				
ENERGY EFFICIENCY											
Primary energy consumption	39004	42175	41899	38675	38437	37841	34593	0.7	-0.9	-1.0	
Final Energy Demand	24798	26026	24853	24635	25285	24246	21633	0.0	0.2	-1.5	
by sector											
Industry	10129	9681	7933	7883	8101	7917	7509	-2.4	0.2	-0.8	
Energy intensive industries	6420	6748	5015	5079	5068	4912	4465	-2.4	0.1	-1.3	
Other industrial sectors	3709	2934	2919	2804	3033	3005	3044	-2.4	0.4	0.0	
Residential	6150	6345	6665	6340	6580	6286	4920	0.8	-0.1	-2.9	
Tertiary	4151	3904	3979	4098	4147	3865	3086	-0.4	0.4	-2.9	
Transport ⁽⁵⁾	4368	6095	6276	6315	6457	6178	6118	3.7	0.3	-0.5	
by fuel											
Solids	5134	3769	2424	2616	2239	1860	1382	-7.2	-0.8	-4.7	
Oil	5322	6817	6541	6366	6150	5733	5468	2.1	-0.6	-1.2	
Gas	6491	6741	6662	6128	6313	5848	4826	0.3	-0.5	-2.6	
Electricity	4246	4754	4919	5012	5293	5558	5455	1.5	0.7	0.3	
Heat (from CHP and District Heating)	2624	2478	2249	2102	2276	2319	1923	-1.5	0.1	-1.7	
Renewable energy forms	981	1467	2058	2411	3013	2913	2548	7.7	3.9	-1.7	
Other	0	0	0	1	2	16	31	-100.0	0.0	30.7	
Energy intensity indicators											
Gross Int. Cons./GDP (toe/M€13)	366	329	285	250	227	206	173	-2.5	-2.3	-2.7	
Industry (Energy on Value added, index 2000=100)	100	69	44	43	40	37	32	-7.8	-1.0	-2.4	
Residential (Energy on Private Income, index 2000=100)	100	87	80	75	70	60	42	-2.2	-1.4	-4.9	
Tertiary (Energy on Value added, index 2000=100)	100	82	76	73	67	57	41	-2.7	-1.3	-4.8	
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	35	36	34	31	27	24	2.2	-1.5	-2.5	
Freight transport (toe/Mtkm)	25	38	40	40	38	35	33	4.8	-0.4	-1.4	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	153.1	150.6	140.8	128.6	121.8	117.4	106.0	-0.8	-1.4	-1.4	
of which ETS sectors (2013 scope) GHG emissions		87.1	79.4	68.7	66.1	65.9	60.4	-1.8	-0.9	-0.9	
of which ESD sectors (2013 scope) GHG emissions		63.6	61.4	59.9	55.7	51.5	45.6	-1.0	-2.0	-2.0	
CO ₂ Emissions (energy related)	125.7	124.3	114.6	102.9	99.4	95.8	86.1	-0.9	-1.4	-1.4	
Power generation/District heating	66.8	66.2	63.2	52.9	52.0	52.2	48.1	-0.6	-1.9	-0.8	
Energy Branch	2.6	2.2	3.1	2.7	2.6	2.5	2.4	1.6	-1.8	-0.5	
Industry	28.3	24.7	17.5	17.0	15.7	14.5	12.3	-4.7	-1.1	-2.4	
Residential	8.8	8.4	8.3	7.8	7.5	6.7	4.9	-0.6	-0.9	-4.3	
Tertiary	6.8	4.9	4.9	4.8	4.7	3.6	2.5	-3.3	-0.4	-6.1	
Transport	12.4	17.8	17.6	17.6	17.0	16.2	15.9	3.6	-0.4	-0.7	
CO ₂ Emissions (non energy and non land use related)	5.6	5.3	4.8	5.2	5.3	5.2	5.0	-1.7	1.1	-0.5	
Non-CO2 GHG emissions	21.7	21.1	21.5	20.5	17.1	16.4	14.9	-0.1	-2.3	-1.3	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	77.5	76.3	71.3	65.1	61.7	59.4	53.7	-0.8	-1.4	-1.4	
Carbon Intensity indicators											
Electricity and Steam production (t of CO ₂ /MWh)	0.60	0.55	0.52	0.46	0.45	0.44	0.43	-1.4	-1.4	-0.5	
Final energy demand (t of CO ₂ /toe)	2.27	2.15	1.94	1.92	1.78	1.69	1.64	-1.6	-0.9	-0.8	
Industry	2.79	2.55	2.21	2.16	1.94	1.83	1.64	-2.3	-1.3	-1.6	
Residential	1.43	1.33	1.24	1.24	1.14	1.06	0.99	-1.4	-0.8	-1.4	
Tertiary	1.63	1.26	1.22	1.18	1.13	0.93	0.81	-2.9	-0.8	-3.2	
Transport	2.85	2.92	2.81	2.79	2.63	2.63	2.60	-0.1	-0.7	-0.1	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	6.1	9.5	11.9	13.6	15.5	17.8				
RES-H&C share	5.9	9.1	12.6	15.5	17.3	19.5	21.9				
RES-E share	3.4	3.8	7.5	10.3	8.9	13.0	18.3				
RES-T share (based on ILUC formula)	1.8	0.3	4.4	5.5	10.2	10.6	11.5				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	60	83	82	86	80	2.0	3.1	-0.2	
Average Price of Electricity in Final demand sectors (€13/MWh)	66	83	142	128	130	129	130	7.9	-0.9	0.0	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	14.7	20.3	28.4	27.5	32.1	35.2	40.9	6.8	1.2	2.4	
as % of GDP	13.1	14.8	18.1	16.7	17.7	17.9	19.0				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Denmark: EU CO ₂ 33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	5	5	6	6	6	6	6	0.4	0.4	0.5	
GDP (in 000 M€13)	233	248	247	256	289	321	350	0.6	1.6	1.9	
Gross Inland Consumption (ktoe)	19733	19553	20040	16820	16816	15784	14450	0.2	-1.7	-1.5	
Solids	3985	3713	3809	1860	1684	880	404	-0.5	-7.8	-13.3	
Oil	9101	8063	7568	6738	6245	5741	5153	-1.8	-1.9	-1.9	
Natural gas	4465	4413	4435	3680	2634	2418	1941	-0.1	-5.1	-3.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1	
Renewable energy forms	2124	3246	4326	3795	5637	6039	6587	7.4	2.7	1.6	
Energy Branch Consumption	1121	1205	1132	911	890	744	612	0.1	-2.4	-3.7	
Non-Energy Uses	301	289	263	283	313	339	346	-1.3	1.8	1.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	27958	30781	22915	15259	15897	13573	11648	-2.0	-3.6	-3.1	
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0	
Oil	18465	18464	12040	8158	7711	6408	4415	-4.2	-4.4	-5.4	
Natural gas	7428	9397	7356	4188	3857	2451	1769	-0.1	-6.3	-7.5	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	2065	2920	3520	2913	4329	4714	5464	5.5	2.1	2.4	
Hydro	3	2	2	2	2	2	2	-3.6	0.2	0.0	
Biomass & Waste	1688	2335	2825	1819	2825	2974	2782	5.3	0.0	-0.2	
Wind	365	569	672	1007	1318	1495	1974	6.3	7.0	4.1	
Solar and others	8	10	16	80	100	126	146	7.2	19.9	3.9	
Geothermal	1	4	5	6	85	117	560	13.8	32.6	20.7	
Net Imports (ktoe)	-7370	-10130	-3257	2304	1721	3062	3707	-7.8	0.0	8.0	
Solids	3783	3505	2642	1860	1684	880	404	-3.5	-4.4	-13.3	
Oil	-8386	-9068	-3586	-676	-671	166	1558	-8.1	-15.4	0.0	
Crude oil and Feedstocks	-8783	-10933	-5033	-669	-741	69	1523	-5.4	-17.4	0.0	
Oil products	397	1865	1447	-7	70	98	35	13.8	-26.1	-6.8	
Natural gas	-2882	-5010	-3022	-508	-1215	-15	257	0.5	-8.7	0.0	
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1	
Import Dependency (%)	-35.1	-49.9	-15.7	13.1	9.8	18.4	24.1				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	36053	36246	38862	26963	30691	30795	35000	0.8	-2.3	1.3	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	16673	15463	17006	6440	5408	2633	1306	0.2	-10.8	-13.2	
Oil (including refinery gas)	4439	1375	774	214	7	70	46	-16.0	-37.5	20.6	
Gas (including derived gases)	8774	8780	7906	4589	706	1412	1201	-1.0	-21.5	5.5	
Biomass-waste	1895	3989	5340	3223	8456	8506	8701	10.9	4.7	0.3	
Hydro (pumping excluded)	30	23	21	21	21	21	21	-3.5	0.2	0.0	
Wind	4241	6614	7809	11709	15325	17385	22958	6.3	7.0	4.1	
Solar	1	2	6	768	768	768	768	17.5	63.0	0.0	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	11787	13021	13419	15207	13634	13242	13546	1.3	0.2	-0.1	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	2401	3141	3818	5910	6456	6682	8173	4.7	5.4	2.4	
Hydro (pumping excluded)	10	11	9	9	9	9	9	-1.0	0.0	0.0	
Wind	2390	3127	3802	5064	5609	5835	7327	4.8	4.0	2.7	
Solar	1	3	7	837	838	838	838	21.5	61.4	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	9386	9880	9601	9297	7179	6561	5373	0.2	-2.9	-2.9	
of which cogeneration units	5578	5685	5806	7114	6149	5329	3598	0.4	0.6	-5.2	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	5214	5061	4466	4225	2366	2090	1472	-1.5	-6.2	-4.6	
Gas fired	1862	2278	2274	2274	1135	1135	813	2.0	-6.7	-3.3	
Oil fired	860	860	1017	1017	492	223	218	1.7	-7.0	-7.8	
Biomass-waste fired	1449	1681	1844	1781	3186	3113	2870	2.4	5.6	-1.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	33.4	30.2	31.4	19.6	24.7	25.7	28.7				
Efficiency of gross thermal power generation (%)	34.9	35.7	35.3	32.4	33.3	32.9	34.2				
% of gross electricity from CHP	52.6	52.1	49.2	53.6	46.8	39.1	27.9				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	17.1	29.3	33.9	58.3	80.1	86.6	92.7				
Fuel Inputs to Thermal Power Generation (ktoe)	7834	7127	7624	3838	3764	3294	2831	-0.3	-6.8	-2.8	
Solids	3669	3444	3770	1696	1534	785	330	0.3	-8.6	-14.2	
Oil (including refinery gas)	1354	346	221	65	2	20	15	-16.6	-39.0	25.1	
Gas (including derived gases)	2112	1996	1812	1197	202	358	301	-1.5	-19.7	4.0	
Biomass & Waste	699	1341	1821	880	2026	2131	2185	10.0	1.1	0.8	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	9001	8288	8139	8416	8104	7516	7208	-1.0	0.0	-1.2	
Refineries	8435	7700	7175	7493	6970	6473	5934	-1.6	-0.3	-1.6	
Biofuels and hydrogen production	0	0	27	277	433	366	312	0.0	32.1	-3.2	
District heating	549	575	923	644	690	638	910	5.3	-2.9	2.8	
Derived gases, cokeries etc.	17	13	13	3	10	40	52	-2.9	-2.2	17.5	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Denmark: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	75	76	78	83	90	94	99	0.4	1.3	1.0
Public road transport	7	7	7	7	8	8	8	-0.7	0.9	0.6
Private cars and motorcycles	51	51	52	54	58	59	61	0.1	1.1	0.6
Rail	6	6	7	7	8	9	10	1.8	1.7	2.3
Aviation ⁽³⁾	8	9	10	12	13	14	17	2.7	2.5	2.2
Inland navigation	3	3	3	3	3	4	4	-0.7	1.1	1.1
Freight transport activity (Gtkm)	21	22	23	25	29	31	33	0.6	2.3	1.3
Heavy goods and light commercial vehicles	18	18	18	20	23	25	26	0.2	2.5	1.2
Rail	2	2	2	2	3	3	3	1.0	1.6	1.9
Inland navigation	2	2	2	2	3	3	3	3.6	1.0	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4816	5324	5180	5009	4961	4702	4555	0.7	-0.4	-0.9
Public road transport	203	202	199	204	213	215	213	-0.2	0.7	0.0
Private cars and motorcycles	2627	2866	2828	2599	2396	2094	1950	0.7	-1.6	-2.0
Heavy goods and light commercial vehicles	864	1003	1011	971	1059	1066	1051	1.6	0.5	-0.1
Rail	103	107	113	118	125	132	137	0.9	1.0	0.9
Aviation	856	955	874	960	997	1015	1017	0.2	1.3	0.2
Inland navigation	163	192	156	158	171	181	186	-0.4	0.9	0.9
By transport activity										
Passenger transport	3874	4197	4049	3915	3771	3500	3363	0.4	-0.7	-1.1
Freight transport	942	1128	1132	1094	1190	1202	1192	1.9	0.5	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	5.6	9.0	8.8	8.1			
ENERGY EFFICIENCY										
Primary energy consumption	19432	19264	19777	16536	16503	15446	14105	0.2	-1.8	-1.6
Final Energy Demand	14717	15497	15606	14800	14751	14064	12355	0.6	-0.6	-1.8
by sector										
Industry	2934	2864	2417	2568	2704	2636	2395	-1.9	1.1	-1.2
Energy intensive industries	1156	1107	849	908	934	855	746	-3.0	1.0	-2.2
Other industrial sectors	1778	1757	1569	1659	1770	1781	1649	-1.2	1.2	-0.7
Residential	4162	4453	4916	4345	4184	3977	3156	1.7	-1.6	-2.8
Tertiary	2805	2856	3094	2879	2901	2750	2249	1.0	-0.6	-2.5
Transport ⁽⁵⁾	4816	5324	5179	5009	4961	4702	4555	0.7	-0.4	-0.9
by fuel										
Solids	290	253	166	163	150	95	74	-5.4	-1.0	-6.8
Oil	7058	7293	6759	6083	5654	5132	4568	-0.4	-1.8	-2.1
Gas	1667	1708	1771	1744	1823	1634	1323	0.6	0.3	-3.2
Electricity	2791	2877	2783	2733	2838	2957	3004	0.0	0.2	0.6
Heat (from CHP and District Heating)	2255	2424	2840	2556	2498	2368	1788	2.3	-1.3	-3.3
Renewable energy forms	656	943	1287	1519	1778	1837	1540	7.0	3.3	-1.4
Other	0	0	0	3	10	41	57	-100.0	0.0	18.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	85	79	81	66	58	49	41	-0.4	-3.3	-3.4
Industry (Energy on Value added, index 2000=100)	100	101	91	94	90	80	67	-0.9	-0.1	-2.8
Residential (Energy on Private Income, index 2000=100)	100	96	102	84	71	60	44	0.2	-3.5	-4.8
Tertiary (Energy on Value added, index 2000=100)	100	96	101	91	80	68	51	0.1	-2.3	-4.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	44	46	43	39	34	30	27	-0.4	-2.2	-2.4
Freight transport (toe/Mtkm)	44	51	50	44	42	39	37	1.3	-1.7	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.7	66.3	63.9	50.5	45.7	39.9	34.4	-1.1	-3.3	-2.8
of which ETS sectors (2013 scope) GHG emissions		29.3	27.9	18.0	14.6	11.2	8.5		-6.3	-5.3
of which ESD sectors (2013 scope) GHG emissions		37.0	36.0	32.5	31.1	28.7	26.0		-1.5	-1.8
CO ₂ Emissions (energy related)	53.3	50.0	48.8	35.8	31.1	25.7	20.7	-0.9	-4.4	-4.0
Power generation/District heating	24.5	20.3	21.2	10.6	7.1	4.3	2.2	-1.4	-10.4	-10.9
Energy Branch	2.2	2.3	2.1	1.9	1.7	1.4	1.1	-0.5	-2.1	-4.3
Industry	5.4	5.1	3.9	4.1	4.1	3.5	2.5	-3.2	0.4	-5.0
Residential	3.9	3.6	3.2	2.6	2.2	1.9	1.3	-2.0	-3.7	-5.1
Tertiary	3.0	2.7	2.9	2.5	2.4	1.8	1.3	-0.3	-1.8	-5.9
Transport	14.3	15.9	15.5	14.2	13.5	12.8	12.3	0.8	-1.3	-0.9
CO ₂ Emissions (non energy and non land use related)	2.6	2.3	1.4	1.4	1.5	1.5	1.4	-6.1	1.1	-1.0
Non-CO2 GHG emissions	15.8	14.0	13.7	13.3	13.1	12.7	12.3	-1.4	-0.4	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.2	91.8	88.4	69.8	63.3	55.2	47.7	-1.1	-3.3	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.36	0.28	0.26	0.17	0.11	0.07	0.04	-3.0	-8.3	-10.0
Final energy demand (t of CO ₂ /toe)	1.81	1.76	1.63	1.58	1.51	1.42	1.41	-1.0	-0.8	-0.7
Industry	1.85	1.79	1.63	1.58	1.52	1.31	1.03	-1.3	-0.7	-3.8
Residential	0.95	0.80	0.66	0.59	0.53	0.49	0.41	-3.6	-2.1	-2.4
Tertiary	1.05	0.95	0.93	0.88	0.83	0.65	0.58	-1.2	-1.2	-3.5
Transport	2.97	2.99	2.99	2.83	2.72	2.72	2.71	0.0	-0.9	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	10.5	15.6	22.0	23.9	34.0	39.6	45.4			
RES-H&C share	15.3	22.2	30.8	28.2	36.9	45.6	51.0			
RES-E share	15.0	25.0	33.1	42.0	62.7	66.6	80.9			
RES-T share (based on ILUC formula)	0.3	0.5	1.3	8.0	13.1	16.0	22.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	87	89	108	108	111	100	1.8	1.9	-0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	169	178	195	186	206	211	217	1.4	0.5	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	18.3	21.9	23.2	20.9	25.6	28.1	32.7	2.4	1.0	2.5
as % of GDP	7.9	8.8	9.4	8.2	8.8	8.8	9.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Estonia: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	1	1	1	1	1	1	1	-0.5	-0.4	-0.6
GDP (in 000 ME13)	11	15	15	18	20	22	24	3.6	3.0	1.6
Gross Inland Consumption (ktoe)	4979	5622	6155	6344	6432	6244	5267	2.1	0.4	-1.9
Solids	2968	3190	3917	3589	3677	3597	2847	2.8	-0.6	-2.5
Oil	916	1182	1109	1065	975	890	825	1.9	-1.3	-1.7
Natural gas	662	800	563	796	857	791	530	-1.6	4.3	-4.7
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0
Renewable energy forms	513	589	847	995	1038	1063	1016	5.1	2.1	-0.2
Energy Branch Consumption	163	193	199	190	186	179	144	2.0	-0.7	-2.6
Non-Energy Uses	180	229	90	280	295	305	308	-6.7	12.6	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3435	4250	5467	5368	5402	5308	4448	4.8	-0.1	-1.9
Solids	2669	3176	3943	3594	3678	3606	2855	4.0	-0.7	-2.5
Oil	249	375	532	681	648	586	522	7.9	2.0	-2.1
Natural gas	5	7	5	0	0	0	0	-1.7	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	512	692	988	1093	1076	1116	1070	6.8	0.9	0.0
Hydro	0	2	2	3	3	3	3	19.1	2.1	0.0
Biomass & Waste	512	686	962	1040	1014	1046	998	6.5	0.5	-0.2
Wind	0	5	24	49	57	63	64	0.0	9.2	1.0
Solar and others	0	0	0	0	2	3	6	0.0	0.0	13.6
Geothermal	0	0	0	0	0	0	1	0.0	0.0	20.4
Net Imports (ktoe)	1628	1489	862	1219	1265	1170	1076	-6.2	3.9	-1.6
Solids	270	23	-22	-5	-1	-9	-8	0.0	-25.1	20.9
Oil	786	917	760	625	555	525	506	-0.3	-3.1	-0.9
Crude oil and Feedstocks	-125	-225	-394	-560	-524	-465	-407	12.2	2.9	-2.5
Oil products	911	1142	1153	1185	1079	990	913	2.4	-0.7	-1.7
Natural gas	657	792	558	796	863	804	563	-1.6	4.5	-4.2
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0
Import Dependency (%)	32.0	25.9	13.5	18.5	19.0	18.1	19.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	8513	10205	12964	10765	11340	11405	8795	4.3	-1.3	-2.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	7682	9302	11167	8608	9101	9080	6606	3.8	-2.0	-3.2
Oil (including refinery gas)	56	32	41	0	0	0	0	-3.1	-100.0	0.0
Gas (including derived gases)	757	760	712	689	665	629	501	-0.6	-0.7	-2.8
Biomass-waste	13	35	740	859	873	927	916	49.8	1.7	0.5
Hydro (pumping excluded)	5	22	27	33	33	33	33	18.4	2.0	0.0
Wind	0	54	277	575	668	736	738	0.0	9.2	1.0
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2912	2684	2827	2689	2278	2283	2308	-0.3	-2.1	0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2	36	114	312	343	375	375	49.8	11.6	0.9
Hydro (pumping excluded)	2	5	6	8	8	8	8	11.6	2.9	0.0
Wind	0	31	108	303	334	366	366	0.0	12.0	0.9
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2910	2648	2713	2377	1935	1908	1933	-0.7	-3.3	0.0
of which cogeneration units	452	1604	447	438	266	256	418	-0.1	-5.1	4.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2684	2411	2430	1871	1417	1417	1417	-1.0	-5.3	0.0
Gas fired	218	224	224	362	370	339	363	0.3	5.2	-0.2
Oil fired	8	8	8	0	0	0	0	0.0	-100.0	0.0
Biomass-waste fired	0	5	51	144	148	152	154	0.0	11.2	0.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	29.8	38.8	47.4	40.9	51.3	51.6	39.5			
Efficiency of gross thermal power generation (%)	30.0	33.5	34.9	34.3	34.3	33.9	33.8			
% of gross electricity from CHP	11.0	10.2	10.3	12.7	11.0	9.2	11.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	0.2	1.1	8.1	13.6	13.9	14.9	19.2			
Fuel Inputs to Thermal Power Generation (ktoe)	2442	2600	3115	2543	2668	2699	2044	2.5	-1.5	-2.6
Solids	2199	2353	2715	2171	2292	2314	1679	2.1	-1.7	-3.1
Oil (including refinery gas)	16	10	12	0	0	0	0	-3.0	-100.0	0.0
Gas (including derived gases)	226	227	209	168	167	166	147	-0.8	-2.2	-1.3
Biomass & Waste	2	10	179	205	208	219	218	55.3	1.5	0.4
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	926	1271	1523	1753	1789	1660	1449	5.1	1.6	-2.1
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	0	0	10	65	54	45	0.0	0.0	-3.6
District heating	454	489	446	418	435	409	313	-0.2	-0.3	-3.2
Derived gases, cokeries etc.	473	782	1077	1325	1289	1196	1091	8.6	1.8	-1.7

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Estonia: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	10	14	14	15	16	16	17	2.8	1.6	0.8
Public road transport	3	3	2	2	2	2	3	-2.4	1.5	0.6
Private cars and motorcycles	7	10	10	11	12	12	12	4.3	1.4	0.5
Rail	0	0	0	0	0	1	1	-1.3	3.0	2.6
Aviation ⁽³⁾	0	1	1	1	1	1	1	12.3	4.1	3.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.3	1.2
Freight transport activity (Gtkm)	10	13	9	10	11	12	14	-1.1	2.2	2.1
Heavy goods and light commercial vehicles	2	3	2	3	3	3	3	1.9	3.1	1.3
Rail	8	11	7	7	8	9	10	-2.0	1.9	2.4
Inland navigation	0	0	0	0	0	0	0	-6.9	1.0	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	580	766	781	811	794	733	699	3.0	0.2	-1.3
Public road transport	62	62	67	74	76	76	74	0.7	1.3	-0.2
Private cars and motorcycles	349	475	499	524	483	408	363	3.6	-0.3	-2.8
Heavy goods and light commercial vehicles	95	135	116	132	139	142	144	2.0	1.9	0.4
Rail	46	44	54	33	39	41	45	1.7	-3.2	1.5
Aviation	21	42	38	42	50	58	66	6.4	2.8	2.7
Inland navigation	7	8	8	6	7	7	7	1.2	-1.7	0.9
By transport activity										
Passenger transport	441	589	614	647	618	551	512	3.4	0.1	-1.9
Freight transport	138	178	167	164	176	181	187	1.9	0.5	0.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.0	1.3	8.2	7.8	7.0			
ENERGY EFFICIENCY										
Primary energy consumption	4799	5394	6065	6064	6137	5939	4979	2.4	0.1	-2.1
Final Energy Demand	2434	2877	2907	3036	3092	2978	2606	1.8	0.6	-1.7
by sector										
Industry	571	718	575	713	747	740	682	0.1	2.7	-0.9
Energy intensive industries	245	273	231	294	305	302	279	-0.6	2.8	-0.9
Other industrial sectors	327	446	343	419	442	438	403	0.5	2.6	-0.9
Residential	929	890	1028	963	987	962	777	1.0	-0.4	-2.4
Tertiary	348	495	520	544	558	537	442	4.1	0.7	-2.3
Transport ⁽⁵⁾	586	774	785	816	800	739	706	3.0	0.2	-1.2
by fuel										
Solids	118	118	83	64	57	46	36	-3.4	-3.8	-4.4
Oil	772	982	941	966	860	762	690	2.0	-0.9	-2.2
Gas	177	263	207	286	328	318	222	1.6	4.7	-3.8
Electricity	431	519	594	614	655	684	658	3.3	1.0	0.1
Heat (from CHP and District Heating)	511	547	531	484	513	495	407	0.4	-0.4	-2.3
Renewable energy forms	425	447	550	622	679	671	586	2.6	2.1	-1.5
Other	0	0	0	0	0	3	7	-100.0	0.0	38.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	465	372	405	346	314	281	220	-1.4	-2.5	-3.5
Industry (Energy on Value added, index 2000=100)	100	84	67	69	66	61	53	-4.0	-0.2	-2.2
Residential (Energy on Private Income, index 2000=100)	100	63	74	58	52	46	34	-2.9	-3.4	-4.3
Tertiary (Energy on Value added, index 2000=100)	100	104	108	93	85	75	56	0.8	-2.4	-4.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	44	41	37	32	28	0.3	-1.7	-2.8
Freight transport (toe/Mtkm)	14	13	19	17	16	15	14	3.1	-1.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	17.0	18.2	18.8	16.5	16.7	16.3	12.5	1.0	-1.2	-2.8
of which ETS sectors (2013 scope) GHG emissions		13.0	13.8	11.3	12.0	11.9	8.7		-1.4	-3.1
of which ESD sectors (2013 scope) GHG emissions		5.1	5.0	5.1	4.7	4.3	3.8		-0.6	-2.1
CO ₂ Emissions (energy related)	14.0	15.5	16.4	14.1	14.4	14.0	10.5	1.6	-1.3	-3.1
Power generation/District heating	10.7	11.3	12.7	10.1	10.7	10.7	7.7	1.7	-1.7	-3.3
Energy Branch	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.5	3.0	-2.3
Industry	0.9	1.0	0.8	0.8	0.7	0.7	0.5	-1.8	0.0	-4.8
Residential	0.3	0.2	0.2	0.2	0.2	0.2	0.1	-4.2	0.5	-4.1
Tertiary	0.3	0.5	0.4	0.5	0.5	0.4	0.3	2.1	1.8	-5.3
Transport	1.7	2.3	2.3	2.4	2.2	2.0	1.9	3.1	-0.6	-1.4
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.4	0.5	0.5	0.5	0.4	-6.0	3.0	-1.4
Non-CO2 GHG emissions	2.3	1.9	2.0	1.9	1.8	1.8	1.6	-1.4	-1.0	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	42.2	45.2	46.7	41.0	41.5	40.5	31.2	1.0	-1.2	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.67	0.64	0.63	0.59	0.59	0.60	0.55	-0.6	-0.6	-0.8
Final energy demand (t of CO ₂ /toe)	1.33	1.42	1.27	1.28	1.17	1.09	1.07	-0.5	-0.8	-0.9
Industry	1.58	1.43	1.31	1.07	1.00	0.93	0.67	-1.8	-2.6	-3.9
Residential	0.32	0.26	0.19	0.20	0.20	0.18	0.17	-5.2	0.9	-1.8
Tertiary	0.91	1.05	0.75	0.92	0.84	0.69	0.62	-2.0	1.1	-3.1
Transport	2.96	2.98	2.99	2.96	2.75	2.74	2.71	0.1	-0.8	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	17.9	17.4	24.6	24.2	25.9	27.1	29.3			
RES-H&C share	31.8	32.2	43.2	39.9	38.8	41.0	47.3			
RES-E share	0.2	1.1	10.4	14.4	14.9	15.7	16.7			
RES-T share (based on ILUC formula)	0.0	0.0	0.2	0.2	10.0	10.4	10.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	43	47	65	64	68	83	1.0	3.2	2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	59	63	80	109	122	131	135	3.2	4.3	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.3	2.0	2.9	3.7	4.4	4.8	5.4	8.6	4.1	2.2
as % of GDP	12.0	13.5	19.3	20.0	21.4	21.5	22.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Finland: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	5	5	5	5	6	6	6	0.3	0.5	0.5
GDP (in 000 M€13)	157	179	187	188	199	210	226	1.7	0.6	1.3
Gross Inland Consumption (ktoe)	32531	34529	37124	33972	35242	34792	30641	1.3	-0.5	-1.4
Solids	5131	4936	6874	4106	4611	4219	2950	3.0	-3.9	-4.4
Oil	9342	10335	10121	9288	8374	7397	6172	0.8	-1.9	-3.0
Natural gas	3422	3598	3838	2821	2683	2704	2506	1.2	-3.5	-0.7
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8
Renewable energy forms	7816	8195	9508	10767	10552	12256	12285	2.0	1.0	1.5
Energy Branch Consumption	1168	1209	1529	1577	1542	1358	1275	2.7	0.1	-1.9
Non-Energy Uses	1040	1155	1229	1157	1191	1240	1243	1.7	-0.3	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	14892	16669	17662	18108	20960	22768	20727	1.7	1.7	-0.1
Solids	1088	2136	1803	1007	1111	1270	1286	5.2	-4.7	1.5
Oil	189	257	389	433	393	353	306	7.5	0.1	-2.5
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7
Renewable energy sources	7816	8273	9589	10905	10722	12412	12472	2.1	1.1	1.5
Hydro	1261	1185	1111	1350	1215	1276	1284	-1.3	0.9	0.6
Biomass & Waste	6549	7072	8451	9354	9030	10214	10253	2.6	0.7	1.3
Wind	7	15	25	198	464	898	903	14.2	33.8	6.9
Solar and others	1	1	1	2	14	23	27	10.0	26.4	7.2
Geothermal	0	0	0	0	0	2	5	0.0	0.0	39.7
Net Imports (ktoe)	18337	18979	17869	16077	14488	12223	10109	-0.3	-2.1	-3.5
Solids	3537	3341	3977	3099	3508	2949	1664	1.2	-1.3	-7.2
Oil	10357	10655	9232	9680	8183	7235	6041	-1.1	-1.2	-3.0
Crude oil and Feedstocks	11964	10713	11206	13148	11846	10661	9358	-0.7	0.6	-2.3
Oil products	-1607	-58	-1974	-4080	-3663	-3426	-3317	2.1	6.4	-1.0
Natural gas	3422	3598	3838	2821	2687	2712	2526	1.2	-3.5	-0.6
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8
Import Dependency (%)	55.2	54.2	47.9	47.0	40.9	34.9	32.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	69934	70538	80591	71479	84111	98705	89061	1.4	0.4	0.6
Nuclear energy	22479	23271	22800	23137	36999	37079	28850	0.1	5.0	-2.5
Solids	12452	10998	20826	8559	11118	11948	8118	5.3	-6.1	-3.1
Oil (including refinery gas)	587	500	484	635	39	294	59	-1.9	-22.2	4.1
Gas (including derived gases)	10816	11921	11847	7771	6530	8301	7596	0.9	-5.8	1.5
Biomass-waste	8860	9891	11413	13361	9904	15798	18999	2.6	-1.4	6.7
Hydro (pumping excluded)	14660	13784	12922	15701	14123	14837	14925	-1.3	0.9	0.6
Wind	78	170	294	2307	5392	10443	10500	14.2	33.8	6.9
Solar	1	2	5	7	6	6	14	14.9	2.0	9.7
Geothermal and other renewables	1	1	0	0	0	0	0	-8.4	-96.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	16012	16586	16691	18173	19615	20398	18765	0.4	1.6	-0.4
Nuclear energy	2726	2726	2726	2726	4378	4378	3398	0.0	4.8	-2.5
Renewable energy	2923	3121	3359	4289	5628	7353	7425	1.4	5.3	2.8
Hydro (pumping excluded)	2882	3035	3155	3276	3276	3392	3416	0.9	0.4	0.4
Wind	38	82	197	1001	2343	3952	3990	17.9	28.1	5.5
Solar	3	4	7	12	9	9	19	8.8	2.5	7.8
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	10363	10739	10605	11158	9610	8667	7941	0.2	-1.0	-1.9
of which cogeneration units	8280	5832	6168	6361	5450	5303	4121	-2.9	-1.2	-2.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4676	4633	4532	4340	3303	2308	1763	-0.3	-3.1	-6.1
Gas fired	2570	2481	2703	2698	2825	2884	2661	0.5	0.4	-0.6
Oil fired	1519	1505	1194	1532	643	628	607	-2.4	-6.0	-0.6
Biomass-waste fired	1597	2120	2176	2589	2839	2848	2909	3.1	2.7	0.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.9	46.7	52.8	43.2	47.0	53.1	52.0			
Efficiency of gross thermal power generation (%)	39.3	36.8	36.6	34.5	34.4	34.7	35.4			
% of gross electricity from CHP	36.4	38.9	36.2	33.7	26.9	27.7	25.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	65.9	66.8	58.9	76.3	79.0	79.2	82.3			
Fuel Inputs to Thermal Power Generation (ktoe)	7166	7782	10460	7561	6894	9006	8457	3.9	-4.1	2.1
Solids	3181	2998	5098	2421	2885	2904	1891	4.8	-5.5	-4.1
Oil (including refinery gas)	122	98	99	168	13	71	15	-2.1	-18.6	1.7
Gas (including derived gases)	2119	2385	2516	1493	1282	1471	1336	1.7	-6.5	0.4
Biomass & Waste	1744	2302	2747	3480	2714	4560	5215	4.6	-0.1	6.8
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	21306	21544	23155	24530	26272	24141	19762	0.8	1.3	-2.8
Refineries	13059	12876	14265	15688	14232	12757	11088	0.9	0.0	-2.5
Biofuels and hydrogen production	0	0	140	334	373	339	320	0.0	10.3	-1.5
District heating	1059	1265	1600	1434	1505	1200	807	4.2	-0.6	-6.0
Derived gases, cokeries etc.	7188	7403	7149	7074	10162	9845	7547	-0.1	3.6	-2.9

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Finland: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	80	87	91	94	97	100	104	1.2	0.7	0.7
Public road transport	8	8	8	8	8	8	8	-0.2	0.3	0.4
Private cars and motorcycles	57	63	66	68	69	69	71	1.5	0.4	0.3
Rail	4	4	4	5	5	6	6	1.4	1.5	1.6
Aviation ⁽³⁾	8	9	9	10	12	13	14	1.2	3.0	2.2
Inland navigation	4	4	4	4	4	4	4	-0.6	0.6	0.6
Freight transport activity (Gtkm)	42	42	42	43	46	49	52	-0.2	1.0	1.4
Heavy goods and light commercial vehicles	29	30	27	28	30	31	33	-0.5	0.8	1.2
Rail	10	10	10	10	11	12	13	-0.4	1.4	1.8
Inland navigation	3	3	5	5	5	5	6	3.0	0.8	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4338	4624	4827	4896	4735	4444	4204	1.1	-0.2	-1.2
Public road transport	120	116	121	121	121	119	117	0.1	0.0	-0.3
Private cars and motorcycles	2334	2542	2693	2631	2399	2097	1892	1.4	-1.1	-2.3
Heavy goods and light commercial vehicles	1158	1186	1129	1145	1163	1143	1145	-0.3	0.3	-0.2
Rail	90	92	90	94	101	106	111	0.0	1.2	0.9
Aviation	469	526	619	746	785	807	761	2.8	2.4	-0.3
Inland navigation	167	163	175	159	166	172	178	0.5	-0.6	0.7
By transport activity										
Passenger transport	3086	3310	3549	3604	3416	3138	2887	1.4	-0.4	-1.7
Freight transport	1251	1314	1278	1292	1319	1306	1317	0.2	0.3	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.2	2.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.9	7.0	8.2	8.3	8.4			
ENERGY EFFICIENCY										
Primary energy consumption	31491	33375	35896	32814	34051	33551	29399	1.3	-0.5	-1.5
Final Energy Demand	24510	25239	26243	24732	24694	22896	19997	0.7	-0.6	-2.1
by sector										
Industry	12313	11922	11428	10647	10744	9896	8968	-0.7	-0.6	-1.8
Energy intensive industries	10172	9616	9017	8348	8394	7521	6772	-1.2	-0.7	-2.1
Other industrial sectors	2141	2306	2412	2299	2350	2375	2196	1.2	-0.3	-0.7
Residential	4544	5053	5804	5338	5404	4905	3847	2.5	-0.7	-3.3
Tertiary	3296	3616	4169	3837	3798	3638	2965	2.4	-0.9	-2.4
Transport ⁽⁵⁾	4356	4648	4842	4910	4749	4457	4217	1.1	-0.2	-1.2
by fuel										
Solids	1109	873	843	702	698	661	489	-2.7	-1.9	-3.5
Oil	7850	8102	7619	7073	6499	5475	4395	-0.3	-1.6	-3.8
Gas	1209	1082	1012	981	986	1060	1159	-1.8	-0.3	1.6
Electricity	6507	6942	7178	6788	6893	7288	7066	1.0	-0.4	0.2
Heat (from CHP and District Heating)	3334	3972	4656	4143	4259	3746	2676	3.4	-0.9	-4.5
Renewable energy forms	4501	4268	4935	5042	5353	4644	4179	0.9	0.8	-2.4
Other	0	0	0	3	7	22	33	0.0	1586.2	17.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	207	193	199	181	177	165	136	-0.4	-1.2	-2.6
Industry (Energy on Value added, index 2000=100)	100	81	79	75	74	65	56	-2.3	-0.8	-2.7
Residential (Energy on Private Income, index 2000=100)	100	94	98	86	82	70	51	-0.2	-1.8	-4.6
Tertiary (Energy on Value added, index 2000=100)	100	100	110	100	92	83	63	0.9	-1.7	-3.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	36	36	34	32	29	26	23	-0.6	-1.5	-2.5
Freight transport (toe/Mtkm)	30	31	31	30	29	27	25	0.4	-0.6	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	73.1	71.5	78.2	61.1	58.8	53.3	43.7	0.7	-2.8	-2.9
of which ETS sectors (2013 scope) GHG emissions		37.2	43.9	30.8	31.6	29.3	22.4		-3.2	-3.4
of which ESD sectors (2013 scope) GHG emissions		34.3	34.3	30.3	27.2	24.0	21.3		-2.3	-2.4
CO ₂ Emissions (energy related)	58.1	57.7	65.3	48.5	47.6	42.5	33.3	1.2	-3.1	-3.5
Power generation/District heating	22.5	23.0	32.3	17.5	18.7	17.9	12.7	3.7	-5.3	-3.8
Energy Branch	2.5	2.5	2.8	3.1	2.8	2.2	1.9	1.2	0.0	-3.5
Industry	14.2	12.7	11.0	10.1	9.5	8.0	6.2	-2.5	-1.4	-4.3
Residential	2.4	2.3	1.8	1.4	1.3	0.9	0.4	-2.6	-3.5	-11.1
Tertiary	3.6	3.5	3.4	2.8	2.4	1.4	0.8	-0.6	-3.6	-10.4
Transport	12.9	13.8	14.0	13.6	13.0	12.1	11.2	0.8	-0.8	-1.4
CO ₂ Emissions (non energy and non land use related)	1.5	1.6	2.2	2.3	2.2	2.2	2.1	3.8	0.3	-0.8
Non-CO2 GHG emissions	13.6	12.2	10.8	10.3	9.0	8.6	8.4	-2.3	-1.8	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	101.1	98.9	108.1	84.4	81.3	73.7	60.4	0.7	-2.8	-2.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.20	0.19	0.23	0.14	0.14	0.12	0.10	1.4	-5.3	-2.7
Final energy demand (t of CO ₂ /toe)	1.35	1.28	1.15	1.13	1.06	0.98	0.93	-1.6	-0.8	-1.3
Industry	1.15	1.06	0.96	0.95	0.89	0.81	0.69	-1.8	-0.8	-2.5
Residential	0.52	0.45	0.32	0.26	0.24	0.19	0.10	-5.0	-2.8	-8.0
Tertiary	1.09	0.97	0.81	0.74	0.62	0.37	0.26	-2.9	-2.7	-8.2
Transport	2.97	2.97	2.89	2.77	2.73	2.70	2.66	-0.3	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	28.7	28.8	32.5	41.1	42.0	46.3	49.8			
RES-H&C share	38.2	39.1	44.4	55.2	57.8	61.0	67.1			
RES-E share	27.3	26.9	27.7	36.2	33.3	43.9	49.1			
RES-T share (based on ILUC formula)	0.8	0.9	4.3	16.3	18.9	22.5	26.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	52	55	59	95	92	87	94	1.4	4.5	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	68	80	98	122	131	138	142	3.7	3.0	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.9	20.3	25.8	27.4	32.7	35.2	39.8	4.4	2.4	2.0
as % of GDP	10.7	11.3	13.8	14.6	16.4	16.7	17.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								France: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	57	60	61	63	64	66	67	0.7	0.5	0.4
GDP (in 000 M€13)	1812	1962	2024	2091	2266	2417	2594	1.1	1.1	1.4
Gross Inland Consumption (ktoe)	257565	276646	267546	255764	248962	233007	209437	0.4	-0.7	-1.7
Solids	15048	14303	12076	8763	8527	5935	4901	-2.2	-3.4	-5.4
Oil	88937	93185	82668	79806	75205	68896	62145	-0.7	-0.9	-1.9
Natural gas	35766	41025	42540	38807	35961	32419	22792	1.7	-1.7	-4.5
Nuclear	107093	116474	110539	109294	97019	94378	93010	0.3	-1.3	-0.4
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3
Renewable energy forms	16695	16847	22365	24473	37944	37066	32133	3.0	5.4	-1.6
Energy Branch Consumption	10822	9989	9635	8309	7414	6622	6040	-1.2	-2.6	-2.0
Non-Energy Uses	16851	16704	14290	14232	14666	14892	14842	-1.6	0.3	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	129790	136271	135095	135170	136013	132265	125877	0.4	0.1	-0.8
Solids	2483	383	162	143	0	0	0	-23.9	-100.0	0.0
Oil	2023	1604	1542	1217	1122	955	899	-2.7	-3.1	-2.2
Natural gas	1505	909	646	304	294	283	267	-8.1	-7.6	-1.0
Nuclear	107093	116474	110539	109294	97019	94378	93010	0.3	-1.3	-0.4
Renewable energy sources	16688	16902	22206	24212	37578	36648	31701	2.9	5.4	-1.7
Hydro	5771	4442	5364	5476	5753	5515	5516	-0.7	0.7	-0.4
Biomass & Waste	10763	12159	15690	15780	23675	19994	14650	3.8	4.2	-4.7
Wind	7	83	855	1850	4741	6217	6223	62.6	18.7	2.8
Solar and others	21	26	118	870	3084	4541	4870	18.7	38.6	4.7
Geothermal	126	192	180	236	325	382	442	3.6	6.1	3.1
Net Imports (ktoe)	134082	144103	132149	123217	115700	103608	86527	-0.1	-1.3	-2.9
Solids	13005	13511	12192	8620	8527	5935	4901	-0.6	-3.5	-5.4
Oil	91265	95114	82886	81211	76780	70680	63874	-1.0	-0.8	-1.8
Crude oil and Feedstocks	85329	85302	65254	46552	45754	43566	40818	-2.6	-3.5	-1.1
Oil products	5936	9813	17632	34659	31027	27114	23056	11.5	5.8	-2.9
Natural gas	35779	40720	39553	38504	35721	32262	22864	1.0	-1.0	-4.4
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3
Import Dependency (%)	51.5	51.6	49.0	47.7	46.0	43.9	40.7			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	535965	571353	563931	584201	597155	615433	585315	0.5	0.6	-0.2
Nuclear energy	415162	451529	428521	444338	396167	385196	378679	0.3	-0.8	-0.5
Solids	27004	27515	23359	8820	9109	458	0	-1.4	-9.0	-100.0
Oil (including refinery gas)	7165	7925	5565	516	0	516	280	-2.5	-100.0	0.0
Gas (including derived gases)	15365	26254	26385	25753	23350	27755	5190	5.6	-1.2	-14.0
Biomass-waste	3559	5016	6675	10512	14131	18846	15788	6.5	7.8	1.1
Hydro (pumping excluded)	67121	51658	62388	63670	66898	64123	64140	-0.7	0.7	-0.4
Wind	77	964	9942	21517	55129	72289	72365	62.6	18.7	2.8
Solar	5	10	620	8601	31589	45050	46864	63.1	48.2	4.0
Geothermal and other renewables	507	482	476	474	782	1198	2008	-0.6	5.1	9.9
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	114543	114015	123033	127555	148953	157392	157574	0.7	1.9	0.6
Nuclear energy	64293	64053	63679	63247	61327	59493	59493	-0.1	-0.4	-0.3
Renewable energy	23570	24601	32099	40333	66684	80167	81381	3.1	7.6	2.0
Hydro (pumping excluded)	23266	23571	23779	23635	23635	23635	23635	0.2	-0.1	0.0
Wind	57	777	7050	10358	22130	27373	27394	61.9	12.1	2.2
Solar	7	13	1030	6100	20535	28589	29439	64.7	34.9	3.7
Other renewables (tidal etc.)	240	240	240	240	384	571	914	0.0	4.8	9.1
Thermal power	26680	25361	27256	23974	20942	17731	16699	0.2	-2.6	-2.2
of which cogeneration units	7013	5779	4606	10620	5954	4192	3156	-4.1	2.6	-6.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	10552	8637	7229	5385	3856	3834	3780	-3.7	-6.1	-0.2
Gas fired	4116	6055	9334	9646	9181	8962	8146	8.5	-0.2	-1.2
Oil fired	11328	9794	9643	7693	5008	1849	1676	-1.6	-6.3	-10.4
Biomass-waste fired	684	876	1049	1249	2894	3083	3095	4.4	10.7	0.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	2	3	3	3	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	51.0	54.6	50.0	50.2	44.1	43.1	41.0			
Efficiency of gross thermal power generation (%)	34.9	33.3	30.0	39.7	38.7	39.3	32.9			
% of gross electricity from CHP	3.0	2.4	2.8	2.4	1.9	1.6	1.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	90.8	89.2	90.2	94.0	94.6	95.3	99.1			
Fuel Inputs to Thermal Power Generation (ktoe)	13278	17328	17887	9873	10364	10404	5555	3.0	-5.3	-6.0
Solids	6559	6402	4717	2258	2323	108	0	-3.2	-6.8	-100.0
Oil (including refinery gas)	1242	2160	1639	135	0	143	93	2.8	-79.3	262.0
Gas (including derived gases)	4002	6298	8178	4941	3898	5017	1369	7.4	-7.1	-9.9
Biomass & Waste	1476	2469	3352	2529	4127	5120	4078	8.5	2.1	-0.1
Geothermal heat	0	0	0	10	15	15	15	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	205144	211862	191250	166425	153114	148215	143546	-0.7	-2.2	-0.6
Refineries	90823	88392	73306	49009	48042	45705	42826	-2.1	-4.1	-1.1
Biofuels and hydrogen production	325	651	2397	2746	3119	2916	2887	22.1	2.7	-0.8
District heating	312	448	608	546	574	552	411	6.9	-0.6	-3.3
Derived gases, cokeries etc.	113684	122371	114938	114124	101379	99041	97423	0.1	-1.2	-0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								France: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	950	998	1033	1091	1169	1204	1257	0.8	1.2	0.7
Public road transport	42	42	50	55	60	63	66	1.7	1.9	0.9
Private cars and motorcycles	754	801	811	850	901	909	932	0.7	1.1	0.3
Rail	81	90	101	107	119	131	145	2.1	1.7	2.0
Aviation ⁽³⁾	69	62	68	76	86	97	110	-0.1	2.3	2.5
Inland navigation	3	3	3	3	3	4	4	-0.8	0.7	1.3
Freight transport activity (Gtkm)	412	409	392	413	470	510	568	-0.5	1.8	1.9
Heavy goods and light commercial vehicles	311	319	296	310	357	379	423	-0.5	1.9	1.7
Rail	58	41	30	37	42	51	60	-6.3	3.5	3.6
Inland navigation	43	49	66	66	71	79	85	4.4	0.8	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	50360	50194	49347	50154	49943	47220	45672	-0.2	0.1	-0.9
Public road transport	536	519	595	654	705	719	722	1.0	1.7	0.2
Private cars and motorcycles	31157	31368	31602	31615	29848	26349	24208	0.1	-0.6	-2.1
Heavy goods and light commercial vehicles	10961	10554	9424	9543	10233	10339	10815	-1.5	0.8	0.6
Rail	1134	980	932	1017	1081	1164	1235	-1.9	1.5	1.3
Aviation	6088	6291	6294	6827	7541	8061	8072	0.3	1.8	0.7
Inland navigation	483	481	500	499	535	587	621	0.4	0.7	1.5
By transport activity										
Passenger transport	38753	38887	39197	39839	38867	35932	33826	0.1	-0.1	-1.4
Freight transport	11607	11307	10150	10316	11076	11288	11846	-1.3	0.9	0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.5	3.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.7	1.3	4.9	5.6	6.5	6.7	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	240713	259943	253256	241532	234295	218115	194595	0.5	-0.8	-1.8
Final Energy Demand	154639	160337	155397	155251	156474	142483	122732	0.0	0.1	-2.4
by sector										
Industry	36670	34356	28478	30330	31256	29852	28089	-2.5	0.9	-1.1
Energy intensive industries	20906	20576	16506	17591	18001	16880	15758	-2.3	0.9	-1.3
Other industrial sectors	15764	13780	11972	12739	13255	12972	12331	-2.7	1.0	-0.7
Residential	42153	45931	45463	44159	45096	38285	27853	0.8	-0.1	-4.7
Tertiary	25209	29569	31792	30270	29813	26733	20696	2.3	-0.6	-3.6
Transport ⁽⁵⁾	50607	50482	49664	50492	50308	47613	46094	-0.2	0.1	-0.9
by fuel										
Solids	5775	5218	4547	4076	4167	3601	2740	-2.4	-0.9	-4.1
Oil	72503	71421	64647	63583	58935	52653	46293	-1.1	-0.9	-2.4
Gas	30907	33744	32430	32675	31008	26858	21115	0.5	-0.4	-3.8
Electricity	33096	36352	38185	37788	38962	40630	38537	1.4	0.2	-0.1
Heat (from CHP and District Heating)	3236	4163	3525	3658	3392	3022	2242	0.9	-0.4	-4.1
Renewable energy forms	9123	9439	12064	13458	19962	15550	11493	2.8	5.2	-5.4
Other	0	0	0	12	46	169	313	0.0	0.0	21.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	142	141	132	122	110	96	81	-0.7	-1.8	-3.0
Industry (Energy on Value added, index 2000=100)	100	89	78	80	77	70	62	-2.5	-0.1	-2.1
Residential (Energy on Private Income, index 2000=100)	100	98	91	86	80	64	43	-0.9	-1.3	-6.0
Tertiary (Energy on Value added, index 2000=100)	100	108	110	101	92	77	55	1.0	-1.8	-5.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	34	33	32	30	27	24	21	-0.7	-1.6	-2.5
Freight transport (toe/Mtkm)	28	28	26	25	24	22	21	-0.9	-0.9	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	585.3	552.1	512.0	482.2	444.4	400.3	345.9	-1.3	-1.4	-2.5
of which ETS sectors (2013 scope) GHG emissions	173.2	147.3	147.3	131.7	125.3	115.5	97.4		-1.6	-2.5
of which ESD sectors (2013 scope) GHG emissions	378.8	378.8	364.7	350.4	319.1	284.8	248.5		-1.3	-2.5
CO ₂ Emissions (energy related)	388.3	394.4	360.0	332.5	307.6	269.5	222.5	-0.8	-1.6	-3.2
Power generation/District heating	46.7	53.6	48.1	26.7	22.3	17.7	8.6	0.3	-7.4	-9.1
Energy Branch	19.9	16.3	15.0	13.7	11.5	10.2	9.2	-2.7	-2.6	-2.3
Industry	74.6	67.0	54.1	59.8	57.6	50.7	43.2	-3.2	0.6	-2.8
Residential	59.3	64.8	57.2	51.5	43.6	33.4	19.1	-0.4	-2.7	-7.9
Tertiary	39.8	44.4	44.7	38.9	33.3	27.8	19.8	1.1	-2.9	-5.1
Transport	148.0	148.1	140.9	141.9	139.3	129.7	122.6	-0.5	-0.1	-1.3
CO ₂ Emissions (non energy and non land use related)	28.9	28.5	25.7	25.6	26.7	25.7	22.4	-1.2	0.4	-1.8
Non-CO2 GHG emissions	168.1	129.2	126.3	124.1	110.1	105.1	101.0	-2.8	-1.4	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	104.5	98.6	91.4	86.1	79.4	71.5	61.8	-1.3	-1.4	-2.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.08	0.09	0.08	0.04	0.03	0.03	0.01	-0.3	-7.9	-8.7
Final energy demand (t of CO ₂ /toe)	2.08	2.02	1.91	1.88	1.75	1.70	1.67	-0.8	-0.9	-0.5
Industry	2.03	1.95	1.90	1.97	1.84	1.70	1.54	-0.7	-0.3	-1.8
Residential	1.41	1.41	1.26	1.17	0.97	0.87	0.69	-1.1	-2.6	-3.4
Tertiary	1.58	1.50	1.41	1.29	1.12	1.04	0.96	-1.2	-2.3	-1.5
Transport	2.92	2.93	2.84	2.81	2.77	2.72	2.66	-0.3	-0.2	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	9.5	9.5	12.5	15.5	23.6	25.5	26.0			
RES-H&C share	12.4	12.3	15.8	19.4	30.0	30.8	31.5			
RES-E share	14.7	13.7	14.9	19.8	31.5	36.5	38.4			
RES-T share (based on ILUC formula)	1.4	2.0	6.3	7.7	10.2	12.8	17.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	61	58	57	90	93	82	72	-0.7	5.1	-2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	108	100	109	123	145	147	154	0.0	2.9	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	176.3	196.0	216.7	274.0	279.3	301.5	2.4	3.4	1.0
as % of GDP	8.5	9.0	9.7	10.4	12.1	11.6	11.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Germany: EU/CO+33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	82	83	82	81	81	80	80	0.0	-0.1	-0.1	
GDP (in 000 M€13)	2370	2442	2608	2790	2973	3126	3251	1.0	1.3	0.9	
Gross Inland Consumption (ktoe)	342337	341916	332974	322609	309156	288207	246718	-0.3	-0.7	-2.3	
Solids	84802	81952	78824	78036	78278	78666	61136	-0.7	-0.1	-2.4	
Oil	130980	121460	111798	111688	102692	91224	79839	-1.6	-0.8	-2.5	
Natural gas	71878	77782	75905	74011	68410	64737	53558	0.5	-1.0	-2.4	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0	
Renewable energy forms	10665	19054	31477	39195	50744	52196	49864	11.4	4.9	-0.2	
Energy Branch Consumption	14566	14384	13378	13631	12265	11634	10022	-0.8	-0.9	-2.0	
Non-Energy Uses	25064	24662	22582	24685	25861	26620	26391	-1.0	1.4	0.2	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	135549	137356	129648	120921	110247	100562	85331	-0.4	-1.6	-2.5	
Solids	60629	56484	45906	42340	37535	37437	27387	-2.7	-2.0	-3.1	
Oil	4680	5782	4754	4964	3809	2913	2225	0.2	-2.2	-5.2	
Natural gas	15825	14334	11113	10749	9887	8209	6065	-3.5	-1.2	-4.8	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Renewable energy sources	10665	18695	31618	39044	50542	52002	49654	11.5	4.8	-0.2	
Hydro	1869	1689	1802	1925	1936	2044	2075	-0.4	0.7	0.7	
Biomass & Waste	7876	14249	24988	27662	32659	31322	26746	12.2	2.7	-2.0	
Wind	804	2341	3250	5689	9411	10194	11147	15.0	11.2	1.7	
Solar and others	116	371	1493	3575	5511	7378	8227	29.1	14.0	4.1	
Geothermal	0	46	86	192	1027	1064	1459	0.0	28.1	3.6	
Net Imports (ktoe)	204709	208118	201696	204465	201906	190718	163583	-0.1	0.0	-2.1	
Solids	21663	25972	31644	35695	40744	41228	33749	3.9	2.6	-1.9	
Oil	125918	120239	109834	109834	101820	91250	80561	-1.4	-0.8	-2.3	
Crude oil and Feedstocks	101441	111039	91612	87783	82370	74818	67454	-1.0	-1.1	-2.0	
Oil products	24477	9200	18222	21718	19451	16432	13107	-2.9	0.7	-3.9	
Natural gas	56865	61940	61645	63262	58582	56661	47740	0.8	-0.5	-2.0	
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0	
Import Dependency (%)	59.4	60.4	60.1	62.8	64.7	65.5	65.7				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	572313	615800	626583	645695	598691	642817	584017	0.9	-0.5	-0.2	
Nuclear energy	169606	163055	140556	96916	34469	0	0	-1.9	-13.1	-100.0	
Solids	296687	288142	262896	272895	274873	286289	219812	-1.2	0.4	-2.2	
Oil (including refinery gas)	4785	11997	8741	1079	941	2154	2045	6.2	-20.0	8.1	
Gas (including derived gases)	59970	83608	100912	92808	71752	100234	83390	5.3	-3.4	1.5	
Biomass-waste	10121	20849	42975	58714	35287	45040	48298	15.6	-2.0	3.2	
Hydro (pumping excluded)	21732	19638	20953	22381	22507	23763	24127	-0.4	0.7	0.7	
Wind	9352	27229	37793	66153	109427	118540	129612	15.0	11.2	1.7	
Solar	60	1283	11727	34612	48465	65826	75764	69.3	15.2	4.6	
Geothermal and other renewables	0	-1	30	137	969	969	969	0.0	41.4	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114373	123973	154603	189032	207114	212475	217776	3.1	3.0	0.5	
Nuclear energy	21644	20656	20656	12188	6907	0	0	-0.5	-10.4	-100.0	
Renewable energy	11040	25641	50141	90293	120216	136143	152514	16.3	9.1	2.4	
Hydro (pumping excluded)	4831	5210	5407	5590	5592	5847	5918	1.1	0.3	0.6	
Wind	6095	18375	27180	44946	61821	61256	68381	16.1	8.6	1.0	
Solar	114	2056	17554	39757	52803	69040	78215	65.5	11.6	4.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	81689	77676	83806	86551	79991	76332	65262	0.3	-0.5	-2.0	
of which cogeneration units	14369	20840	24554	17076	6202	10681	10886	5.5	-12.9	5.8	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	50924	48087	47789	52819	49170	44020	36715	-0.6	0.3	-2.9	
Gas fired	21336	21671	26890	25178	21891	23604	20233	2.3	-2.0	-0.8	
Oil fired	8066	5686	5688	5028	1674	1457	1247	-3.4	-11.5	-2.9	
Biomass-waste fired	1363	2232	3432	3501	7085	7080	6897	9.7	7.5	-0.3	
Hydrogen plants	0	0	0	1	1	1	1	0.0	0.0	0.0	
Geothermal heat	0	0	8	24	170	170	170	0.0	35.8	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	53.3	53.0	43.5	36.8	31.2	32.7	29.2				
Efficiency of gross thermal power generation (%)	37.8	38.6	39.4	40.5	37.6	39.3	40.8				
% of gross electricity from CHP	10.6	12.6	13.2	12.8	6.1	10.0	11.2				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	36.8	37.7	40.5	43.2	41.9	39.5	47.7				
Fuel Inputs to Thermal Power Generation (ktoe)	84562	90075	90587	90286	87757	95099	74803	0.7	-0.3	-1.6	
Solids	67101	65740	59687	61356	61149	62982	47413	-1.2	0.2	-2.5	
Oil (including refinery gas)	1411	1427	855	236	311	693	665	-4.9	-9.6	7.9	
Gas (including derived gases)	12891	17808	19955	16546	12402	17040	14165	4.5	-4.6	1.3	
Biomass & Waste	3158	5100	10066	12030	13061	13551	11727	12.3	2.6	-1.1	
Geothermal heat	0	0	24	118	834	834	834	0.0	42.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	180304	187908	163048	142875	120526	101667	92311	-1.0	-3.0	-2.6	
Refineries	119420	125092	103238	98875	92813	84431	76121	-1.4	-1.1	-2.0	
Biofuels and hydrogen production	237	1859	2884	3011	2842	2615	2720	28.4	-0.1	-0.4	
District heating	1198	3942	4754	4043	3518	2807	2263	14.8	-3.0	-4.3	
Derived gases, cokeries etc.	59450	57015	52171	36947	21353	11814	11207	-1.3	-8.5	-6.2	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Germany: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	1066	1099	1130	1187	1208	1227	1253	0.6	0.7	0.4
Public road transport	69	67	62	63	67	68	69	-1.1	0.7	0.3
Private cars and motorcycles	850	876	905	942	949	947	957	0.6	0.5	0.1
Rail	90	92	100	111	115	130	140	1.1	1.4	1.9
Aviation ⁽³⁾	55	62	61	69	75	80	85	1.1	2.0	1.3
Inland navigation	2	2	2	2	2	3	3	-0.8	1.0	1.7
Freight transport activity (Gtkm)	493	545	592	619	682	703	749	1.9	1.4	0.9
Heavy goods and light commercial vehicles	342	385	422	439	486	487	520	2.1	1.4	0.7
Rail	83	95	107	116	126	139	147	2.6	1.6	1.6
Inland navigation	68	65	63	65	70	78	81	-0.7	1.1	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	65101	59797	58145	59791	56101	51037	48008	-1.1	-0.4	-1.5
Public road transport	1047	897	803	815	836	822	802	-2.6	0.4	-0.4
Private cars and motorcycles	42176	37675	35607	35814	31215	26750	24161	-1.7	-1.3	-2.5
Heavy goods and light commercial vehicles	12303	11057	11325	11780	12340	11613	11701	-0.8	0.9	-0.5
Rail	1947	1580	1414	1496	1455	1543	1549	-3.2	0.3	0.6
Aviation	7345	8265	8719	9601	9949	9969	9445	1.7	1.3	-0.5
Inland navigation	283	323	278	285	307	339	350	-0.2	1.0	1.3
By transport activity										
Passenger transport	51841	47805	45951	47113	42812	38403	35259	-1.2	-0.7	-1.9
Freight transport	13261	11992	12194	12678	13288	12633	12748	-0.8	0.9	-0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.5	3.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.4	3.2	5.1	5.2	5.3	6.0	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	317273	317254	310393	297924	283295	261588	219328	-0.2	-0.9	-2.5
Final Energy Demand	219989	218456	219721	217308	213427	194998	167297	0.0	-0.3	-2.4
by sector										
Industry	57570	59093	60563	62096	65175	62591	55682	0.5	0.7	-1.6
Energy intensive industries	39345	40705	42170	43510	45937	43889	38302	0.7	0.9	-1.8
Other industrial sectors	18225	18389	18393	18586	19238	18702	17380	0.1	0.5	-1.0
Residential	63072	63498	62442	58726	57381	50485	39995	-0.1	-0.8	-3.5
Tertiary	34239	35302	38222	36396	34492	30627	23387	1.1	-1.0	-3.8
Transport ⁽⁵⁾	65109	60563	58494	60090	56380	51295	48232	-1.1	-0.4	-1.5
by fuel										
Solids	10958	8238	9379	9284	9988	9624	7740	-1.5	0.6	-2.5
Oil	99738	90309	83168	82419	73163	61324	50857	-1.8	-1.3	-3.6
Gas	56064	55136	56501	56368	55515	47041	39070	0.1	-0.2	-3.5
Electricity	41570	44907	45781	44880	45901	50135	45654	1.0	0.0	-0.1
Heat (from CHP and District Heating)	6831	10751	11268	9856	9772	9250	7912	5.1	-1.4	-2.1
Renewable energy forms	4828	9116	13625	14468	18993	17187	15348	10.9	3.4	-2.1
Other	0	0	0	32	94	437	716	0.0	0.0	22.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	144	140	128	116	104	92	76	-1.2	-2.0	-3.1
Industry (Energy on Value added, index 2000=100)	100	96	93	90	90	83	72	-0.7	-0.3	-2.2
Residential (Energy on Private Income, index 2000=100)	100	99	94	83	76	63	47	-0.6	-2.2	-4.6
Tertiary (Energy on Value added, index 2000=100)	100	98	98	87	77	65	47	-0.2	-2.4	-4.8
Passenger transport (toe/tpkm) ⁽⁶⁾	42	37	33	32	28	24	21	-2.2	-1.7	-2.7
Freight transport (toe/ttkm)	27	22	21	20	19	18	17	-2.6	-0.6	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	1076.8	1015.8	957.1	943.5	893.8	840.5	694.3	-1.2	-0.7	-2.5
of which ETS sectors (2013 scope) GHG emissions	543.7	505.7	510.9	497.4	497.4	500.3	405.5	-0.2	-2.0	
of which ESD sectors (2013 scope) GHG emissions	472.1	451.3	432.6	396.4	396.4	340.2	288.9	-1.3	-3.1	
CO ₂ Emissions (energy related)	852.1	825.2	787.8	777.7	734.9	687.8	554.5	-0.8	-0.7	-2.8
Power generation/District heating	330.6	344.9	324.5	317.5	304.7	322.4	250.7	-0.2	-0.6	-1.9
Energy Branch	28.1	26.2	23.5	25.9	22.1	19.7	17.5	-1.8	-0.6	-2.3
Industry	130.2	115.3	115.3	112.7	115.4	100.8	82.5	-1.2	0.0	-3.3
Residential	119.4	110.8	104.3	98.0	87.9	68.7	51.9	-1.3	-1.7	-5.1
Tertiary	58.5	55.9	56.3	55.4	47.9	35.9	23.5	-0.4	-1.6	-6.9
Transport	185.3	172.2	163.8	168.2	157.0	140.1	128.4	-1.2	-0.4	-2.0
CO ₂ Emissions (non energy and non land use related)	63.7	61.6	55.6	56.8	58.5	58.6	54.1	-1.4	0.5	-0.8
Non-CO2 GHG emissions	161.0	128.9	113.7	109.1	100.4	94.0	85.7	-3.4	-1.2	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	85.5	80.6	76.0	74.9	71.0	66.7	55.1	-1.2	-0.7	-2.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.50	0.46	0.42	0.41	0.42	0.42	0.37	-1.7	0.0	-1.4
Final energy demand (t of CO ₂ /toe)	2.24	2.08	2.00	2.00	1.91	1.77	1.71	-1.1	-0.5	-1.1
Industry	2.26	1.95	1.90	1.81	1.77	1.61	1.48	-1.7	-0.7	-1.8
Residential	1.89	1.74	1.67	1.67	1.53	1.36	1.30	-1.2	-0.9	-1.6
Tertiary	1.71	1.58	1.47	1.52	1.39	1.17	1.00	-1.5	-0.6	-3.2
Transport	2.85	2.84	2.80	2.80	2.79	2.73	2.66	-0.2	-0.1	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.6	6.7	10.5	13.5	18.6	21.4	24.3			
RES-H&C share	4.2	6.7	9.6	10.6	17.5	19.7	20.7			
RES-E share	6.1	10.5	18.1	29.5	34.9	37.6	45.5			
RES-T share (based on ILUC formula)	0.8	4.2	6.9	8.8	10.4	15.5	21.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	51	62	86	106	99	99	3.7	5.5	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	132	171	164	160	168	174	177	2.2	0.3	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	225.6	285.4	302.7	290.0	344.3	363.0	411.5	3.0	1.3	1.8
as % of GDP	9.5	11.7	11.6	10.4	11.6	11.6	12.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Greece: EU CO ₂ 33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	11	11	11	11	11	10	10	0.3	-0.5	-0.6
GDP (in 000 M€13)	190	231	232	200	207	213	225	2.0	-1.1	0.8
Gross Inland Consumption (ktoe)	28292	31410	28725	26055	25212	22543	17806	0.2	-1.3	-3.4
Solids	9038	8944	7863	6765	5672	4602	2304	-1.4	-3.2	-8.6
Oil	16085	18119	14974	12997	12140	10470	8599	-0.7	-2.1	-3.4
Natural gas	1705	2354	3235	2979	3775	3329	1939	6.6	1.6	-6.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Renewable energy forms	1466	1668	2163	2714	3225	3897	4781	4.0	4.1	4.0
Energy Branch Consumption	1634	1820	1839	1906	1781	1626	1402	1.2	-0.3	-2.4
Non-Energy Uses	719	761	1108	824	847	842	833	4.4	-2.7	-0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	10012	10326	9461	9027	8387	8075	6804	-0.6	-1.2	-2.1
Solids	8222	8538	7315	6430	5374	4356	2168	-1.2	-3.0	-8.7
Oil	282	101	132	75	73	70	68	-7.3	-5.7	-0.8
Natural gas	42	18	8	0	0	0	0	-15.8	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1466	1668	2006	2521	2940	3649	4569	3.2	3.9	4.5
Hydro	318	431	641	506	508	477	480	7.3	-2.3	-0.6
Biomass & Waste	1009	1015	919	1157	1348	1300	1221	-0.9	3.9	-1.0
Wind	39	109	233	330	448	890	1605	19.7	6.7	13.6
Solar and others	99	101	197	514	621	965	1247	7.1	12.2	7.2
Geothermal	2	12	16	16	15	17	16	25.9	-0.4	0.5
Net Imports (ktoe)	22151	23498	21712	20057	19810	17396	13963	-0.2	-0.9	-3.4
Solids	769	364	401	335	298	246	136	-6.3	-2.9	-7.5
Oil	19695	20476	17433	15950	15017	13256	11306	-1.2	-1.5	-2.8
Crude oil and Feedstocks	20596	19488	20633	24349	23252	21513	19685	0.0	1.2	-1.7
Oil products	-900	988	-3200	-8399	-8325	-8257	-8379	13.5	9.9	0.2
Natural gas	1689	2332	3231	2979	3809	3401	2126	6.7	1.7	-5.7
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Import Dependency (%)	69.5	68.6	69.1	69.0	70.3	68.3	67.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	53425	59427	57367	54082	58353	58601	49772	0.7	0.2	-1.6
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	34313	35543	30797	26751	23209	19818	9235	-1.1	-2.8	-8.8
Oil (including refinery gas)	8885	9207	6089	4847	5122	2384	128	-3.7	-1.7	-30.9
Gas (including derived gases)	5920	8171	9830	8817	13817	11440	3297	5.2	3.5	-13.3
Biomass-waste	163	222	319	195	382	677	898	6.9	1.8	8.9
Hydro (pumping excluded)	3693	5017	7460	5880	5901	5552	5577	7.3	-2.3	-0.6
Wind	451	1266	2714	3834	5207	10349	18665	19.7	6.7	13.6
Solar	0	1	158	3757	4715	8381	11971	0.0	40.4	9.8
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	11212	13208	15889	19208	19739	22855	26685	3.5	2.2	3.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	3298	3598	4715	8146	9363	13381	18075	3.6	7.1	6.8
Hydro (pumping excluded)	3072	3106	3215	3389	3579	3579	3579	0.5	1.1	0.0
Wind	226	491	1298	2152	2637	4377	6996	19.1	7.3	10.3
Solar	0	1	202	2605	3147	5425	7500	0.0	31.6	9.1
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7914	9610	11174	11062	10377	9475	8610	3.5	-0.7	-1.8
of which cogeneration units	195	3051	588	284	310	304	314	11.7	-6.2	0.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4454	4754	4312	3923	3066	3136	2881	-0.3	-3.4	-0.6
Gas fired	1157	2203	4189	5062	5306	5273	4738	13.7	2.4	-1.1
Oil fired	2302	2625	2618	2022	1824	834	732	1.3	-3.6	-8.7
Biomass-waste fired	1	28	55	55	180	232	258	50.5	12.6	3.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	50.3	47.7	38.3	29.6	31.5	27.7	20.7			
Efficiency of gross thermal power generation (%)	36.9	37.0	37.5	38.6	41.4	42.8	39.1			
% of gross electricity from CHP	2.1	7.8	4.3	3.0	3.4	2.8	2.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	8.1	10.9	18.6	25.3	27.8	42.6	74.6			
Fuel Inputs to Thermal Power Generation (ktoe)	11492	12344	10787	9041	8837	6901	2983	-0.6	-2.0	-10.3
Solids	8170	8694	7567	6558	5479	4440	2211	-0.8	-3.2	-8.7
Oil (including refinery gas)	1978	1992	1278	1005	1071	505	42	-4.3	-1.8	-27.6
Gas (including derived gases)	1280	1605	1863	1435	2204	1813	547	3.8	1.7	-13.0
Biomass & Waste	64	52	79	43	83	144	183	2.2	0.4	8.2
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	22570	21629	22585	24150	24046	22388	20644	0.0	0.6	-1.5
Refineries	22508	21536	22462	23941	23761	22095	20332	0.0	0.6	-1.5
Biofuels and hydrogen production	0	0	124	207	279	275	286	0.0	8.4	0.2
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	62	93	0	2	7	18	26	-95.7	1750.5	14.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Greece: EU20+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	129	153	161	164	172	175	182	2.2	0.7	0.5
Public road transport	22	22	21	21	22	23	23	-0.3	0.6	0.5
Private cars and motorcycles	67	90	105	106	108	105	107	4.7	0.2	-0.1
Rail	3	3	3	3	3	4	4	-0.2	1.0	1.9
Aviation ⁽³⁾	30	31	24	26	32	35	40	-2.2	2.8	2.3
Inland navigation	7	7	7	7	7	8	8	-0.1	0.2	0.7
Freight transport activity (Gtkm)	38	34	37	37	39	41	42	-0.1	0.5	0.7
Heavy goods and light commercial vehicles	28	24	30	30	32	33	34	0.8	0.5	0.6
Rail	0	1	1	1	1	1	1	3.7	0.8	1.2
Inland navigation	9	9	6	6	7	7	7	-3.6	0.5	0.9
Energy demand in transport (ktoe) ⁽⁴⁾	7286	8174	8147	7472	7249	6815	6443	1.1	-1.2	-1.2
Public road transport	423	438	403	403	408	403	390	-0.5	0.1	-0.4
Private cars and motorcycles	3327	4435	4483	4018	3693	3222	2826	3.0	-1.9	-2.6
Heavy goods and light commercial vehicles	1668	1426	1601	1480	1486	1443	1399	-0.4	-0.7	-0.6
Rail	49	46	24	22	23	24	24	-6.8	-0.3	0.3
Aviation	1325	1181	919	936	1017	1086	1154	-3.6	1.0	1.3
Inland navigation	495	648	717	612	621	638	650	3.8	-1.4	0.5
By transport activity										
Passenger transport	5530	6460	6297	5784	5548	5151	4814	1.3	-1.3	-1.4
Freight transport	1756	1714	1850	1688	1701	1664	1629	0.5	-0.8	-0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	2.8	3.9	4.3	4.7			
ENERGY EFFICIENCY										
Primary energy consumption	27573	30650	27617	25230	24365	21701	16973	0.0	-1.2	-3.6
Final Energy Demand	18676	20958	19197	17486	17116	15853	13539	0.3	-1.1	-2.3
by sector										
Industry	4450	4161	3672	3224	3305	3196	2816	-1.9	-1.0	-1.6
Energy intensive industries	2737	2588	2427	2157	2192	2093	1784	-1.2	-1.0	-2.0
Other industrial sectors	1714	1573	1245	1067	1113	1103	1032	-3.1	-1.1	-0.7
Residential	4502	5510	4615	4351	4279	3808	2772	0.2	-0.8	-4.2
Tertiary	2426	3100	2752	2426	2269	2019	1493	1.3	-1.9	-4.1
Transport ⁽⁵⁾	7297	8188	8158	7484	7262	6829	6458	1.1	-1.2	-1.2
by fuel										
Solids	891	458	302	208	192	162	93	-10.3	-4.4	-7.0
Oil	12744	14413	12110	10307	9458	8442	7172	-0.5	-2.4	-2.7
Gas	257	586	982	1018	1031	980	838	14.3	0.5	-2.1
Electricity	3710	4377	4568	4397	4603	4549	3902	2.1	0.1	-1.6
Heat (from CHP and District Heating)	28	49	46	44	50	52	45	5.2	0.8	-1.1
Renewable energy forms	1046	1076	1191	1510	1774	1647	1450	1.3	4.1	-2.0
Other	0	0	0	2	7	21	39	0.0	0.0	18.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	149	136	124	130	122	106	79	-1.8	-0.2	-4.2
Industry (Energy on Value added, index 2000=100)	100	88	101	99	98	92	78	0.1	-0.4	-2.2
Residential (Energy on Private Income, index 2000=100)	100	99	80	88	88	77	54	-2.2	1.0	-4.8
Tertiary (Energy on Value added, index 2000=100)	100	101	86	88	79	68	48	-1.5	-0.8	-4.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	40	40	37	33	30	27	24	-0.9	-2.1	-2.0
Freight transport (toe/Mtkm)	46	51	50	45	43	41	39	0.7	-1.4	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	133.3	139.6	121.4	105.7	96.8	83.8	62.0	-0.9	-2.2	-4.4
of which ETS sectors (2013 scope) GHG emissions		77.2	64.9	57.3	53.2	44.7	28.0		-2.0	-6.2
of which ESD sectors (2013 scope) GHG emissions		62.4	56.5	48.4	43.6	39.1	34.0		-2.6	-2.5
CO ₂ Emissions (energy related)	98.4	106.4	92.1	79.6	73.2	61.4	40.5	-0.7	-2.3	-5.8
Power generation/District heating	52.1	55.6	47.9	40.9	37.3	29.1	13.0	-0.8	-2.5	-10.0
Energy Branch	3.1	3.4	3.6	3.9	3.5	3.3	2.9	1.6	-0.1	-1.8
Industry	10.4	8.9	7.2	6.2	5.9	5.3	3.9	-3.7	-1.9	-4.0
Residential	7.6	9.9	6.7	5.0	4.3	3.4	1.8	-1.3	-4.2	-8.5
Tertiary	3.4	4.3	2.8	1.8	1.2	0.9	0.6	-2.1	-8.0	-7.5
Transport	21.8	24.4	24.0	21.7	20.9	19.5	18.2	1.0	-1.4	-1.3
CO ₂ Emissions (non energy and non land use related)	8.9	9.6	6.6	6.8	6.7	6.9	7.5	-2.9	0.1	1.2
Non-CO2 GHG emissions	26.1	23.6	22.6	19.3	16.9	15.4	14.0	-1.4	-2.9	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.1	129.9	113.0	98.4	90.1	78.0	57.7	-0.9	-2.2	-4.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.97	0.93	0.83	0.75	0.63	0.49	0.26	-1.6	-2.7	-8.6
Final energy demand (t of CO ₂ /toe)	2.32	2.26	2.12	1.99	1.89	1.83	1.81	-0.9	-1.1	-0.4
Industry	2.35	2.13	1.96	1.91	1.79	1.64	1.40	-1.8	-0.9	-2.4
Residential	1.69	1.79	1.45	1.16	1.02	0.88	0.64	-1.5	-3.5	-4.5
Tertiary	1.41	1.38	1.01	0.76	0.53	0.44	0.37	-3.3	-6.2	-3.5
Transport	2.99	2.98	2.94	2.90	2.87	2.86	2.83	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	7.2	7.0	9.7	14.4	18.5	24.2	35.2			
RES-H&C share	13.6	12.8	17.4	24.8	30.1	33.6	40.4			
RES-E share	7.2	8.2	12.3	22.4	25.7	40.7	72.2			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	1.4	10.2	12.1	18.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	60	63	72	85	96	97	99	1.9	2.9	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	74	78	108	124	136	144	158	3.8	2.3	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	15.2	20.2	26.7	26.6	31.4	32.9	35.8	5.8	1.6	1.3
as % of GDP	8.0	8.7	11.5	13.3	15.2	15.4	15.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Hungary: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	10	10	10	10	10	10	10	-0.2	-0.2	-0.1
GDP (in 000 M€13)	83	102	101	107	117	131	145	1.9	1.5	2.2
Gross Inland Consumption (ktoe)	25298	27611	25811	23493	24254	24498	22969	0.2	-0.6	-0.5
Solids	3850	3031	2730	2635	2146	1450	1133	-3.4	-2.4	-6.2
Oil	6964	7115	6699	6271	6312	6365	6292	-0.4	-0.6	0.0
Natural gas	9657	12094	9816	7786	8565	6740	5278	0.2	-1.4	-4.7
Nuclear	3672	3585	4078	3666	3677	6045	6502	1.1	-1.0	5.9
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Renewable energy forms	859	1251	2042	1931	2692	3071	3094	9.0	2.8	1.4
Energy Branch Consumption	1164	1062	1095	1029	950	936	916	-0.6	-1.4	-0.4
Non-Energy Uses	1587	2169	1974	2275	2502	2826	3077	2.2	2.4	2.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	11598	10372	11065	10244	9905	10907	11222	-0.5	-1.1	1.3
Solids	2893	1748	1593	1794	1384	680	645	-5.8	-1.4	-7.4
Oil	1699	1457	1150	795	619	277	192	-3.8	-6.0	-11.0
Natural gas	2475	2331	2235	1857	1197	519	481	-1.0	-6.1	-8.7
Nuclear	3672	3585	4078	3666	3677	6045	6502	1.1	-1.0	5.9
Renewable energy sources	859	1251	2010	2132	3029	3386	3402	8.9	4.2	1.2
Hydro	15	17	16	20	20	20	20	0.6	2.1	0.0
Biomass & Waste	758	1145	1844	1905	2651	2557	2299	9.3	3.7	-1.4
Wind	0	1	46	50	77	183	207	0.0	5.3	10.5
Solar and others	0	2	6	9	45	207	223	0.0	23.5	17.2
Geothermal	86	87	99	148	237	419	652	1.4	9.1	10.7
Net Imports (ktoe)	13956	17421	14988	13249	14349	13591	11767	0.7	-0.4	-2.0
Solids	1087	1299	1143	841	762	769	488	0.5	-4.0	-4.4
Oil	5291	5780	5637	5476	5693	6089	6100	0.6	0.1	0.7
Crude oil and Feedstocks	5887	5988	5806	5273	5500	5911	5969	-0.1	-0.5	0.8
Oil products	-596	-208	-169	203	194	177	131	-11.9	0.0	-3.8
Natural gas	7283	9808	7726	5929	7368	6221	4796	0.6	-0.5	-4.2
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Import Dependency (%)	55.2	63.1	58.1	56.4	59.2	55.5	51.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	35191	35756	37371	27859	33213	37080	35924	0.6	-1.2	0.8
Nuclear energy	14180	13834	15761	15087	15024	24706	26575	1.1	-0.5	5.9
Solids	9590	7023	6234	6436	5160	2351	2227	-4.2	-1.9	-8.1
Oil (including refinery gas)	4404	455	490	52	0	0	0	-19.7	-100.0	0.0
Gas (including derived gases)	6719	12502	11714	3383	9504	3596	544	5.7	-2.1	-24.9
Biomass-waste	120	1730	2449	2015	2241	2342	1995	35.2	-0.9	-1.2
Hydro (pumping excluded)	178	202	188	232	232	232	232	0.5	2.1	0.0
Wind	0	10	534	585	890	2133	2412	0.0	5.2	10.5
Solar	0	0	1	32	97	1656	1873	0.0	55.6	34.5
Geothermal and other renewables	0	0	0	38	65	65	65	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	8589	8297	8292	7495	7098	9730	11090	-0.4	-1.5	4.6
Nuclear energy	1920	1920	1920	1960	1960	3221	4482	0.0	0.2	8.6
Renewable energy	48	66	348	431	640	2661	3049	21.9	6.3	16.9
Hydro (pumping excluded)	48	49	53	57	57	57	57	1.0	0.7	0.0
Wind	0	17	293	329	477	1040	1226	0.0	5.0	9.9
Solar	0	0	2	45	106	1564	1766	0.0	48.7	32.5
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6621	6311	6024	5103	4498	3849	3559	-0.9	-2.9	-2.3
of which cogeneration units	1464	2047	1862	1144	1570	1114	527	2.4	-1.7	-10.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1747	1380	1155	1137	703	437	425	-4.1	-4.8	-4.9
Gas fired	4160	4622	4605	3496	3377	2991	2719	1.0	-3.1	-2.1
Oil fired	602	176	91	91	11	11	5	-17.2	-19.2	-7.3
Biomass-waste fired	112	133	173	349	356	358	358	4.4	7.5	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	30	52	52	52	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	42.9	45.7	47.7	39.3	50.4	41.3	35.1			
Efficiency of gross thermal power generation (%)	29.8	32.8	34.1	37.3	40.5	36.6	29.9			
% of gross electricity from CHP	13.5	19.1	19.6	14.4	13.7	8.7	6.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	41.1	44.1	50.7	64.6	55.8	84.0	92.3			
Fuel Inputs to Thermal Power Generation (ktoe)	6009	5692	5265	2752	3607	1965	1390	-1.3	-3.7	-9.1
Solids	2755	1924	1646	1611	1310	609	579	-5.0	-2.3	-7.8
Oil (including refinery gas)	1052	155	138	15	0	0	0	-18.4	-100.0	0.0
Gas (including derived gases)	2140	3079	2704	657	1589	627	166	2.4	-5.2	-20.2
Biomass & Waste	61	534	777	436	651	673	589	28.9	-1.7	-1.0
Geothermal heat	0	0	0	32	56	56	56	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12946	13165	14441	12781	12804	15154	15459	1.1	-1.2	1.9
Refineries	7638	8118	8427	6997	7084	7162	7105	1.0	-1.7	0.0
Biofuels and hydrogen production	0	3	175	182	348	322	323	0.0	7.1	-0.7
District heating	471	627	474	648	634	605	780	0.1	3.0	2.1
Derived gases, cokeries etc.	4837	4417	5365	4954	4737	7066	7251	1.0	-1.2	4.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Hungary: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	80	84	84	86	95	103	110	0.5	1.3	1.4
Public road transport	19	18	16	17	18	18	19	-1.3	0.8	0.7
Private cars and motorcycles	47	51	54	54	60	64	67	1.4	1.1	1.1
Rail	12	12	10	11	12	14	16	-1.8	2.1	2.4
Aviation ⁽³⁾	2	4	4	4	5	6	8	5.9	3.0	5.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	27	35	34	35	38	41	45	2.3	1.1	1.8
Heavy goods and light commercial vehicles	17	24	23	23	24	26	28	2.7	0.8	1.5
Rail	9	9	9	10	11	12	14	0.0	2.0	2.6
Inland navigation	1	2	2	2	3	3	3	10.4	0.9	1.8
Energy demand in transport (ktoe) ⁽⁴⁾	3309	4308	4341	3958	4116	4089	4140	2.8	-0.5	0.1
Public road transport	339	361	335	346	353	351	346	-0.1	0.5	-0.2
Private cars and motorcycles	1805	2191	2208	2035	2070	1973	1913	2.0	-0.6	-0.8
Heavy goods and light commercial vehicles	763	1341	1418	1214	1275	1268	1309	6.4	-1.1	0.3
Rail	171	154	150	152	171	192	206	-1.3	1.3	1.9
Aviation	230	261	230	207	243	300	361	0.0	0.6	4.0
Inland navigation	1	1	1	4	4	4	5	3.1	14.5	1.6
By transport activity										
Passenger transport	2449	2877	2826	2642	2729	2696	2696	1.4	-0.3	-0.1
Freight transport	860	1431	1515	1316	1387	1393	1445	5.8	-0.9	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	4.1	4.7	8.8	8.5	8.6			
ENERGY EFFICIENCY										
Primary energy consumption	23711	25442	23837	21219	21752	21671	19912	0.1	-0.9	-0.9
Final Energy Demand	16139	18218	16596	15895	16135	15374	13432	0.3	-0.3	-1.8
by sector										
Industry	3513	3369	2890	3081	2998	3115	2942	-1.9	0.4	-0.2
Energy intensive industries	2517	2267	1854	1941	1849	1883	1688	-3.0	0.0	-0.9
Other industrial sectors	996	1102	1036	1141	1149	1232	1254	0.4	1.0	0.9
Residential	5603	6464	5740	5253	5256	4824	3814	0.2	-0.9	-3.2
Tertiary	3712	4072	3625	3566	3726	3312	2505	-0.2	0.3	-3.9
Transport ⁽⁵⁾	3311	4313	4341	3995	4154	4123	4170	2.7	-0.4	0.0
by fuel										
Solids	665	690	481	501	371	386	173	-3.2	-2.6	-7.3
Oil	4218	4904	4638	4261	4174	3988	3769	1.0	-1.0	-1.0
Gas	6503	7852	6261	5868	5787	5140	4107	-0.4	-0.8	-3.4
Electricity	2531	2780	2941	2977	3097	3343	3200	1.5	0.5	0.3
Heat (from CHP and District Heating)	1447	1308	1090	985	1007	882	773	-2.8	-0.8	-2.6
Renewable energy forms	774	683	1184	1301	1694	1621	1389	4.3	3.6	-2.0
Other	0	0	0	1	5	15	21	0.0	0.0	15.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	305	271	257	219	207	187	159	-1.7	-2.1	-2.6
Industry (Energy on Value added, index 2000=100)	100	74	64	63	56	52	45	-4.4	-1.2	-2.2
Residential (Energy on Private Income, index 2000=100)	100	90	87	77	71	58	42	-1.4	-2.0	-5.2
Tertiary (Energy on Value added, index 2000=100)	100	90	81	75	71	57	38	-2.0	-1.3	-6.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	33	32	30	27	25	23	0.8	-1.7	-1.7
Freight transport (toe/Mtkm)	32	41	45	38	37	34	32	3.5	-2.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	79.8	76.9	67.7	59.4	55.8	47.5	41.3	-1.6	-1.9	-3.0
of which ETS sectors (2013 scope) GHG emissions		30.6	25.6	19.8	19.6	14.1	11.8		-2.6	-5.0
of which ESD sectors (2013 scope) GHG emissions		46.3	42.1	39.6	36.2	33.4	29.5		-1.5	-2.0
CO ₂ Emissions (energy related)	55.0	56.4	49.0	41.5	40.6	32.8	27.3	-1.1	-1.9	-3.9
Power generation/District heating	22.1	18.3	16.0	10.5	10.9	5.4	4.1	-3.2	-3.8	-9.4
Energy Branch	1.5	1.2	1.5	1.6	1.4	1.3	1.2	-0.3	-0.6	-1.2
Industry	6.8	6.7	5.3	5.8	4.9	4.7	3.5	-2.4	-0.8	-3.4
Residential	8.8	10.7	8.6	7.3	7.0	6.3	4.6	-0.2	-2.1	-4.0
Tertiary	6.1	6.7	5.2	5.2	5.2	4.1	2.9	-1.6	-0.1	-5.8
Transport	9.7	12.7	12.3	11.2	11.2	11.0	11.0	2.4	-1.0	-0.2
CO ₂ Emissions (non energy and non land use related)	4.5	4.9	3.7	4.4	4.8	5.1	5.1	-1.9	2.5	0.8
Non-CO2 GHG emissions	20.3	15.6	15.0	13.5	10.4	9.6	8.9	-3.0	-3.6	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.3	81.2	71.5	62.7	58.9	50.2	43.6	-1.6	-1.9	-3.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.34	0.31	0.26	0.23	0.11	0.09	-2.7	-2.7	-9.3
Final energy demand (t of CO ₂ /toe)	1.94	2.02	1.90	1.85	1.75	1.69	1.63	-0.2	-0.8	-0.7
Industry	1.92	2.00	1.84	1.87	1.64	1.50	1.18	-0.4	-1.1	-3.2
Residential	1.57	1.66	1.50	1.39	1.33	1.31	1.22	-0.4	-1.2	-0.9
Tertiary	1.65	1.65	1.44	1.45	1.39	1.23	1.14	-1.4	-0.4	-1.9
Transport	2.92	2.94	2.83	2.81	2.69	2.67	2.63	-0.3	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.8	4.5	8.6	10.0	13.1	15.3	16.5			
RES-H&C share	7.6	6.0	11.1	13.4	17.0	19.1	22.1			
RES-E share	0.6	4.4	7.1	6.7	7.9	13.5	14.7			
RES-T share (based on ILUC formula)	0.0	0.3	4.7	6.0	10.0	10.5	11.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	48	60	67	76	70	78	91	3.5	0.4	2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	78	107	132	113	129	139	164	5.4	-0.2	2.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	11.2	16.1	20.3	18.0	22.2	25.3	30.6	6.1	0.9	3.3
as % of GDP	13.5	15.9	20.2	16.7	18.9	19.4	21.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Ireland: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	5	5	5	5	5	1.9	0.8	0.0
GDP (in 000 M€13)	130	165	165	183	208	225	245	2.4	2.3	1.6
Gross Inland Consumption (ktoe)	14425	15265	15191	14208	14471	14093	12493	0.5	-0.5	-1.5
Solids	2601	2664	1979	2028	1844	1638	1027	-2.7	-0.7	-5.7
Oil	8145	8589	7818	6926	6744	6432	5903	-0.4	-1.5	-1.3
Natural gas	3436	3470	4683	4016	4061	3961	3170	3.1	-1.4	-2.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Renewable energy forms	235	366	671	1152	1960	2210	2517	11.1	11.3	2.5
Energy Branch Consumption	254	300	243	250	206	202	170	-0.4	-1.6	-1.9
Non-Energy Uses	675	516	341	360	405	441	449	-6.6	1.7	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	2159	1647	1843	2031	1924	2147	2449	-1.6	0.4	2.4
Solids	965	820	981	740	0	1	1	0.2	-56.5	13.3
Oil	0	0	0	44	0	0	0	0.0	0.0	13.3
Natural gas	958	461	233	231	236	235	230	-13.2	0.1	-0.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	235	366	628	1016	1688	1912	2218	10.3	10.4	2.8
Hydro	73	54	52	62	66	65	65	-3.4	2.6	-0.2
Biomass & Waste	141	216	327	420	651	804	818	8.8	7.1	2.3
Wind	21	96	242	520	912	956	1235	27.7	14.2	3.1
Solar and others	0	1	8	13	58	86	98	54.0	22.6	5.4
Geothermal	0	0	0	0	0	1	2	0.0	0.0	19.5
Net Imports (ktoe)	12370	13765	13215	12285	12656	12061	10166	0.7	-0.4	-2.2
Solids	1681	1886	945	1288	1843	1637	1026	-5.6	6.9	-5.7
Oil	8203	8694	7706	6991	6852	6545	6010	-0.6	-1.2	-1.3
Crude oil and Feedstocks	3016	3166	2987	2873	2873	2676	2416	-0.1	-0.4	-1.7
Oil products	5186	5527	4718	4118	3979	3869	3594	-0.9	-1.7	-1.0
Natural gas	2478	3010	4480	3784	3827	3729	2955	6.1	-1.6	-2.6
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Import Dependency (%)	84.9	89.6	86.5	85.8	86.8	84.9	80.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	23673	25626	28425	26857	31178	32574	31163	1.8	0.9	0.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	8587	8839	6384	6793	6070	5650	3557	-2.9	-0.5	-5.2
Oil (including refinery gas)	4638	3340	605	15	3	15	6	-18.4	-41.0	7.3
Gas (including derived gases)	9263	11574	17705	12617	13031	14131	11402	6.7	-3.0	-1.3
Biomass-waste	95	130	317	660	682	888	1065	12.8	8.0	4.6
Hydro (pumping excluded)	846	631	599	721	771	760	760	-3.4	2.6	-0.2
Wind	244	1112	2815	6049	10605	11114	14358	27.7	14.2	3.1
Solar	0	0	0	1	16	16	16	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	4452	5930	8091	9091	9597	9132	9661	6.2	1.7	0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	355	751	1611	2724	4133	4294	5318	16.3	9.9	2.6
Hydro (pumping excluded)	236	234	237	237	258	258	258	0.0	0.8	0.0
Wind	119	517	1374	2486	3857	4018	5042	27.7	10.9	2.7
Solar	0	0	0	1	19	19	19	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	4097	5179	6480	6366	5464	4838	4343	4.7	-1.7	-2.3
of which cogeneration units	77	240	285	264	63	266	267	14.0	-14.0	15.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1369	1387	1213	1186	842	842	842	-1.2	-3.6	0.0
Gas fired	1872	2625	4081	3969	3624	3472	3128	8.1	-1.2	-1.5
Oil fired	842	1124	1143	1143	801	326	173	3.1	-3.5	-14.2
Biomass-waste fired	14	43	43	69	197	198	199	11.4	16.6	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	57.4	47.1	38.5	32.4	36.0	39.6	36.0			
Efficiency of gross thermal power generation (%)	40.7	43.2	46.8	47.2	47.7	47.1	47.1			
% of gross electricity from CHP	2.4	1.7	6.7	8.4	2.9	11.9	13.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	5.0	7.3	13.1	27.7	38.7	39.2	52.0			
Fuel Inputs to Thermal Power Generation (ktoe)	4775	4758	4600	3661	3566	3776	2928	-0.4	-2.5	-2.0
Solids	1930	1920	1358	1448	1344	1252	798	-3.5	-0.1	-5.1
Oil (including refinery gas)	997	769	128	4	1	4	1	-18.5	-40.4	7.4
Gas (including derived gases)	1825	2040	3039	2066	2068	2309	1879	5.2	-3.8	-1.0
Biomass & Waste	24	30	75	143	153	212	250	12.2	7.5	5.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	3341	3204	3033	3024	3133	2951	2702	-1.0	0.3	-1.5
Refineries	3341	3203	2940	2933	2926	2722	2459	-1.3	0.0	-1.7
Biofuels and hydrogen production	0	1	93	89	199	193	193	0.0	7.9	-0.3
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	0	0	0	2	8	35	49	0.0	2204.6	20.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Ireland: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	50	65	70	69	78	86	92	3.4	1.1	1.6
Public road transport	7	8	8	9	9	9	9	2.0	0.3	0.7
Private cars and motorcycles	35	45	48	46	52	58	62	3.3	0.8	1.7
Rail	1	2	2	2	2	2	2	2.7	1.0	1.1
Aviation ⁽³⁾	6	10	10	11	14	16	17	5.2	3.1	1.9
Inland navigation	1	1	1	1	1	1	1	0.9	1.0	0.9
Freight transport activity (Gtkm)	12	17	11	12	14	15	17	-0.9	2.4	2.4
Heavy goods and light commercial vehicles	11	17	10	11	13	15	17	-0.5	2.4	2.4
Rail	0	0	0	0	0	0	0	-15.4	1.2	1.7
Inland navigation	0	0	0	0	0	0	0	-2.5	1.4	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	4082	5078	4715	4586	4762	4748	4782	1.5	0.1	0.0
Public road transport	96	101	110	111	111	113	114	1.4	0.1	0.2
Private cars and motorcycles	2206	2577	2807	2583	2525	2415	2310	2.4	-1.1	-0.9
Heavy goods and light commercial vehicles	1086	1482	967	1019	1135	1226	1330	-1.2	1.6	1.6
Rail	40	42	44	44	47	49	50	0.8	0.7	0.7
Aviation	629	857	767	809	921	922	954	2.0	1.9	0.3
Inland navigation	25	18	20	21	22	23	24	-2.1	1.0	0.9
By transport activity										
Passenger transport	2958	3559	3724	3544	3602	3495	3425	2.3	-0.3	-0.5
Freight transport	1124	1519	990	1042	1160	1253	1357	-1.3	1.6	1.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.8	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.0	2.0	4.4	4.8	5.1			
ENERGY EFFICIENCY										
Primary energy consumption	13750	14749	14850	13848	14066	13652	12044	0.8	-0.5	-1.5
Final Energy Demand	10779	12597	11957	11423	11762	11241	10162	1.0	-0.2	-1.5
by sector										
Industry	2498	2582	2146	2453	2561	2415	2209	-1.5	1.8	-1.5
Energy intensive industries	1245	1341	1023	1166	1183	1025	869	-1.9	1.5	-3.0
Other industrial sectors	1252	1241	1123	1287	1378	1390	1340	-1.1	2.1	-0.3
Residential	2513	2954	3296	2823	2856	2688	2078	2.7	-1.4	-3.1
Tertiary	1684	1979	1799	1556	1579	1385	1089	0.7	-1.3	-3.6
Transport ⁽⁵⁾	4085	5082	4715	4590	4767	4753	4787	1.4	0.1	0.0
by fuel										
Solids	671	751	604	567	500	386	230	-1.0	-1.9	-7.5
Oil	7045	8204	7270	6439	6229	5887	5357	0.3	-1.5	-1.5
Gas	1200	1364	1593	1883	1927	1591	1249	2.9	1.9	-4.2
Electricity	1745	2094	2186	2107	2264	2366	2299	2.3	0.4	0.2
Heat (from CHP and District Heating)	0	0	0	1	14	36	59	0.0	0.0	15.3
Renewable energy forms	118	184	304	424	820	939	916	10.0	10.4	1.1
Other	0	0	0	2	8	36	52	0.0	1734.1	20.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	111	93	92	78	70	63	51	-1.9	-2.7	-3.1
Industry (Energy on Value added, index 2000=100)	100	85	75	80	73	64	54	-2.8	-0.3	-2.9
Residential (Energy on Private Income, index 2000=100)	100	95	98	86	75	62	42	-0.2	-2.7	-5.5
Tertiary (Energy on Value added, index 2000=100)	100	97	82	64	57	46	33	-1.9	-3.6	-5.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	51	46	46	43	38	34	31	-1.2	-1.8	-2.1
Freight transport (toe/Mtkm)	96	88	92	89	86	81	79	-0.3	-0.7	-0.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.8	73.1	65.0	63.1	61.4	59.8	53.7	-1.0	-0.6	-1.3
of which ETS sectors (2013 scope) GHG emissions		25.4	20.0	18.5	17.8	17.3	13.7		-1.2	-2.5
of which ESD sectors (2013 scope) GHG emissions		47.8	45.0	44.6	43.7	42.5	40.0		-0.3	-0.9
CO ₂ Emissions (energy related)	43.2	47.3	42.0	37.8	36.2	34.1	28.1	-0.3	-1.5	-2.5
Power generation/District heating	15.6	15.3	13.3	11.0	10.4	10.6	7.7	-1.6	-2.4	-2.9
Energy Branch	0.3	0.4	0.3	0.4	0.3	0.2	0.2	-1.3	-1.1	-1.5
Industry	5.3	5.6	3.6	3.8	3.4	2.6	1.9	-3.9	-0.5	-5.7
Residential	6.4	7.2	7.8	6.5	6.1	5.2	3.4	2.1	-2.5	-5.5
Tertiary	3.4	3.5	3.1	2.5	2.4	1.9	1.3	-0.7	-2.8	-5.6
Transport	12.3	15.3	13.9	13.6	13.8	13.6	13.6	1.3	-0.1	-0.1
CO ₂ Emissions (non energy and non land use related)	2.9	2.7	1.4	1.8	1.9	1.9	1.7	-7.0	3.1	-1.2
Non-CO2 GHG emissions	25.6	23.1	21.5	23.5	23.2	23.8	23.8	-1.7	0.8	0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.2	126.5	112.3	109.1	106.2	103.5	92.9	-1.0	-0.6	-1.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.66	0.60	0.47	0.41	0.33	0.32	0.24	-3.4	-3.4	-3.1
Final energy demand (t of CO ₂ /toe)	2.53	2.51	2.38	2.32	2.18	2.07	1.99	-0.6	-0.9	-0.9
Industry	2.13	2.16	1.66	1.56	1.33	1.09	0.86	-2.5	-2.2	-4.3
Residential	2.53	2.44	2.37	2.30	2.13	1.93	1.66	-0.7	-1.1	-2.5
Tertiary	1.99	1.77	1.74	1.63	1.50	1.35	1.21	-1.3	-1.5	-2.1
Transport	3.00	3.01	2.96	2.96	2.89	2.87	2.84	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.0	2.8	5.6	8.7	15.2	18.1	23.3			
RES-H&C share	2.4	3.5	4.5	6.1	12.0	17.4	23.1			
RES-E share	4.8	7.2	14.5	26.5	40.8	41.3	54.5			
RES-T share (based on ILUC formula)	0.0	0.0	2.4	4.3	10.0	12.3	16.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	72	75	89	91	94	92	5.9	2.0	0.0
Average Price of Electricity in Final demand sectors (€13/MWh)	117	147	158	175	177	178	179	3.0	1.2	0.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.8	13.9	15.5	15.6	18.8	20.7	23.1	4.7	1.9	2.1
as % of GDP	7.5	8.4	9.4	8.5	9.1	9.2	9.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Italy: EU20+33
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	57	58	59	61	62	63	64	0.4	0.5	0.3
GDP (in 000 M€13)	1564	1643	1622	1565	1675	1776	1695	0.4	0.3	1.2
Gross Inland Consumption (ktoe)	174219	187471	174761	159035	161259	150531	129900	0.0	-0.8	-2.2
Solids	12550	16461	14170	16106	18603	11613	6396	1.2	2.8	-10.1
Oil	89540	83963	69558	61171	56698	51154	44558	-2.5	-2.0	-2.4
Natural gas	57945	70651	68057	56177	59842	57962	48435	1.6	-1.3	-2.1
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7
Renewable energy forms	10371	12170	19180	21627	23538	27037	27457	6.3	2.1	1.6
Energy Branch Consumption	7704	10052	9539	8520	8166	7272	6422	2.2	-1.5	-2.4
Non-Energy Uses	9019	8607	9560	7050	7322	7453	7361	0.6	-2.6	0.1
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	28400	27839	29560	30750	31722	33908	34058	0.4	0.7	0.7
Solids	3	60	64	55	0	0	0	33.7	-100.0	0.0
Oil	4915	6376	5687	5142	5667	5611	5594	1.5	0.0	-0.1
Natural gas	13627	9886	6885	6760	5764	4596	3950	-6.6	-1.8	-3.7
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	9856	11516	16924	18793	20291	23701	24513	5.6	1.8	1.9
Hydro	3800	3101	4395	4138	4088	4212	4210	1.5	-0.7	0.3
Biomass & Waste	1736	3392	6670	10105	11354	12567	11590	14.4	5.5	0.2
Wind	48	202	785	1258	1260	1567	2469	32.1	4.8	7.0
Solar and others	12	30	298	2199	2501	4192	5028	37.4	23.7	7.2
Geothermal	4259	4791	4776	1092	1089	1162	1216	1.2	-13.7	1.1
Net Imports (ktoe)	152069	160241	149804	131764	133118	120345	99387	-0.1	-1.2	-2.9
Solids	13133	16367	14301	16050	18603	11613	6398	0.9	2.7	-10.1
Oil	87599	79154	67826	59509	54556	49136	42459	-2.5	-2.2	-2.5
Crude oil and Feedstocks	89451	94307	84882	68525	61695	55043	47499	-0.5	-3.1	-2.6
Oil products	-1852	-15153	-17056	-9016	-7138	-5907	-5041	24.9	-8.3	-3.4
Natural gas	47008	59840	61600	49416	54135	53496	44833	2.7	-1.3	-1.9
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7
Import Dependency (%)	86.5	84.5	84.3	81.1	80.8	78.0	74.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	269941	296840	298773	288963	317803	311786	286239	1.0	0.6	-1.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	26272	43606	39734	58856	67196	41214	20632	4.2	5.4	-11.1
Oil (including refinery gas)	85878	47124	21714	8781	7794	6941	3111	-12.8	-9.7	-8.8
Gas (including derived gases)	106398	156191	158215	110293	127429	115145	95355	4.0	-2.1	-2.9
Biomass-waste	1908	6153	11586	18671	21446	31620	31180	19.8	6.4	3.8
Hydro (pumping excluded)	44199	36067	51116	48114	47530	48978	48958	1.5	-0.7	0.3
Wind	563	2344	9126	14628	14646	18221	28710	32.1	4.8	7.0
Solar	17	31	1906	23409	25552	43458	52082	59.9	29.6	7.4
Geothermal and other renewables	4706	5324	5376	6210	6210	6210	6210	1.3	1.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	71896	82950	104920	127454	122837	124233	124400	3.9	1.6	0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	16770	18701	26470	46375	47826	60235	69531	4.7	6.1	3.8
Hydro (pumping excluded)	16390	17036	17563	18512	18805	18805	18805	0.7	0.7	0.0
Wind	363	1635	5794	8958	8963	10055	13614	31.9	4.5	4.3
Solar	17	30	3113	18905	20057	31375	37111	68.3	20.5	6.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	55126	64249	78450	81079	75012	63998	54869	3.6	-0.4	-3.1
of which cogeneration units	6476	5888	7351	17220	16942	16803	13897	1.3	8.7	-2.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	9518	8279	9511	9511	8858	5103	5098	0.0	-0.7	-5.4
Gas fired	22819	36431	51677	52045	51352	46635	41221	8.5	-0.1	-2.2
Oil fired	21763	17998	14748	13928	8629	5986	2172	-3.8	-5.2	-12.9
Biomass-waste fired	436	870	1774	4810	5388	5488	5592	15.1	11.7	0.4
Hydrogen plants	0	0	12	12	12	12	12	0.0	0.0	0.0
Geothermal heat	590	671	728	773	773	773	773	2.1	0.6	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	40.8	39.1	31.3	24.8	28.3	27.7	25.5			
Efficiency of gross thermal power generation (%)	39.4	37.7	37.7	45.5	45.6	46.1	46.0			
% of gross electricity from CHP	8.3	9.0	11.5	15.3	15.4	11.1	11.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	19.0	16.8	26.5	38.4	36.3	47.6	58.4			
Fuel Inputs to Thermal Power Generation (ktoe)	49150	58911	53964	38349	43358	37500	29234	0.9	-2.2	-3.9
Solids	6045	10399	9484	12963	14702	8343	4178	4.6	4.5	-11.8
Oil (including refinery gas)	18954	12079	7365	1905	1675	1524	854	-9.0	-13.8	-6.5
Gas (including derived gases)	19668	29585	28966	18745	21711	20166	16771	3.9	-2.8	-2.5
Biomass & Waste	438	2270	3527	3795	4330	6526	6491	23.2	2.1	4.1
Geothermal heat	4046	4578	4623	941	941	941	941	1.3	-14.7	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	101609	106909	97409	78677	74315	67414	59173	-0.4	-2.7	-2.3
Refineries	95900	101959	91472	74873	68916	62414	54838	-0.5	-2.8	-2.3
Biofuels and hydrogen production	0	177	1419	1593	2218	1997	1874	0.0	4.6	-1.7
District heating	0	0	110	121	123	121	104	0.0	1.1	-1.6
Derived gases, cokeries etc.	5709	4773	4408	2090	3058	2882	2357	-2.6	-3.6	-2.6

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Italy: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	943	931	952	967	1020	1043	1075	0.1	0.7	0.5
Public road transport	93	101	102	105	107	109	111	0.9	0.5	0.3
Private cars and motorcycles	756	727	740	746	781	788	806	-0.2	0.5	0.3
Rail	55	56	54	55	63	70	77	-0.2	1.5	2.1
Aviation ⁽¹⁾	34	43	51	56	63	70	75	4.3	2.2	1.7
Inland navigation	5	5	5	5	5	5	6	-0.3	0.5	1.2
Freight transport activity (Gtkm)	253	303	268	271	290	302	320	0.6	0.8	1.0
Heavy goods and light commercial vehicles	192	226	202	203	217	222	235	0.5	0.7	0.8
Rail	23	23	19	20	22	24	26	-2.0	1.7	1.6
Inland navigation	38	54	48	48	51	56	59	2.4	0.5	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	42174	44377	41220	39856	38986	36651	35274	-0.2	-0.6	-1.0
Public road transport	1061	1231	1245	1278	1308	1301	1286	1.6	0.5	-0.2
Private cars and motorcycles	27882	27505	25835	24747	23387	20990	19561	-0.8	-1.0	-1.8
Heavy goods and light commercial vehicles	7944	10062	8686	8259	8425	8265	8305	0.9	-0.3	-0.1
Rail	526	492	463	487	522	564	589	-1.3	1.2	1.2
Aviation	3491	3700	3863	4073	4278	4381	4336	1.0	1.0	0.1
Inland navigation	1269	1387	1128	1012	1065	1149	1196	-1.2	-0.6	1.2
<i>By transport activity</i>										
Passenger transport	33399	32865	31375	30531	29431	27165	25700	-0.6	-0.6	-1.3
Freight transport	8775	11512	9844	9324	9555	9485	9574	1.2	-0.3	0.0
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	3.5	4.1	5.8	5.7	5.6			
ENERGY EFFICIENCY										
Primary energy consumption	165200	178864	165201	151985	153937	143078	122239	0.0	-0.7	-2.3
Final Energy Demand	125579	134544	124781	122385	122424	116114	100568	-0.1	-0.2	-1.9
<i>by sector</i>										
Industry	40502	39858	30905	27952	28617	27174	24447	-2.7	-0.8	-1.6
Energy intensive industries	25289	25477	19382	16985	17622	16819	14708	-2.6	-0.9	-1.8
Other industrial sectors	15214	14382	11523	10966	10995	10355	9739	-2.7	-0.5	-1.2
Residential	27656	31313	31959	34859	34801	33175	26062	1.5	0.9	-2.9
Tertiary	14901	18537	20182	19017	19278	18353	14024	3.1	-0.5	-3.1
Transport ⁽⁵⁾	42519	44836	41734	40557	39729	37412	36035	-0.2	-0.5	-1.0
<i>by fuel</i>										
Solids	3586	3980	2910	2094	2644	2223	1239	-2.1	-1.0	-7.3
Oil	57249	59005	48733	45659	41833	36995	31834	-1.6	-1.5	-2.7
Gas	38022	40609	38499	36390	37276	36936	30917	0.1	-0.3	-1.9
Electricity	23472	25871	25736	25288	26259	26161	24349	0.9	0.2	-0.8
Heat (from CHP and District Heating)	1449	3082	3332	3592	3781	3836	3408	8.7	1.3	-1.0
Renewable energy forms	1802	1997	5570	9356	10614	9881	8662	11.9	6.7	-2.0
Other	0	0	0	6	17	83	160	0.0	0.0	24.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	111	114	108	102	96	85	69	-0.3	-1.1	-3.3
Industry (Energy on Value added, index 2000=100)	100	100	83	79	77	71	62	-1.8	-0.7	-2.2
Residential (Energy on Private Income, index 2000=100)	100	109	110	123	114	102	75	0.9	0.4	-4.1
Tertiary (Energy on Value added, index 2000=100)	100	117	126	121	114	102	73	2.3	-1.0	-4.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	33	33	30	29	26	23	21	-1.0	-1.5	-2.0
Freight transport (toe/Mtkm)	35	38	37	34	33	31	30	0.6	-1.1	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	558.5	592.5	509.9	457.0	458.6	401.5	333.8	-0.9	-1.1	-3.1
of which ETS sectors (2013 scope) GHG emissions	261.5	213.8	172.1	188.2	188.2	152.5	118.4		-1.3	-4.5
of which ESD sectors (2013 scope) GHG emissions	331.0	296.1	284.8	270.4	270.4	249.0	215.4		-0.9	-2.2
CO₂ Emissions (energy related)	432.5	470.4	404.2	354.7	361.3	310.5	248.2	-0.7	-1.1	-3.7
Power generation/District heating	137.1	158.5	135.9	106.9	122.0	90.2	63.5	-0.1	-1.1	-6.3
Energy Branch	15.9	18.4	16.4	14.1	12.9	11.3	10.1	0.4	-2.4	-2.4
Industry	78.0	72.5	49.5	42.3	42.7	37.9	29.3	-4.5	-1.5	-3.7
Residential	53.4	59.9	53.6	51.4	49.7	47.0	33.6	0.0	-0.8	-3.8
Tertiary	24.4	29.3	30.2	26.0	25.5	23.3	16.8	2.2	-1.7	-4.0
Transport	123.7	131.8	118.6	114.0	108.6	100.8	95.0	-0.4	-0.9	-1.3
CO₂ Emissions (non energy and non land use related)	28.6	30.8	24.1	21.1	21.8	21.8	21.4	-1.7	-1.0	-0.2
Non-CO2 GHG emissions	97.3	91.3	81.6	81.2	75.5	69.2	64.1	-1.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	106.3	112.8	97.1	87.0	87.3	76.5	63.6	-0.9	-1.1	-3.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.47	0.45	0.38	0.31	0.32	0.24	0.19	-2.0	-1.7	-5.3
Final energy demand (t of CO ₂ /toe)	2.23	2.18	2.02	1.91	1.85	1.80	1.74	-1.0	-0.9	-0.6
Industry	1.93	1.82	1.60	1.51	1.49	1.40	1.20	-1.8	-0.7	-2.2
Residential	1.93	1.91	1.68	1.48	1.43	1.42	1.29	-1.4	-1.6	-1.0
Tertiary	1.64	1.58	1.50	1.37	1.32	1.27	1.20	-0.9	-1.3	-0.9
Transport	2.91	2.94	2.84	2.81	2.73	2.69	2.64	-0.2	-0.4	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	5.8	10.5	18.2	19.8	24.8	31.7			
RES-H&C share	2.9	4.6	10.4	20.1	22.3	27.2	37.7			
RES-E share	15.7	16.3	20.1	33.6	32.6	42.6	51.9			
RES-T share (based on ILUC formula)	0.6	1.1	5.0	7.1	10.7	13.3	17.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	66	77	90	86	93	98	99	3.2	0.3	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	140	130	153	152	157	165	173	0.9	0.3	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	134.7	151.9	164.9	170.7	190.2	202.9	233.8	2.0	1.4	2.1
as % of GDP	8.6	9.2	10.2	10.9	11.4	11.4	12.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Latvia: EU CO ₂ -33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	2	2	2	2	2	2	2	-1.2	-1.0	-1.4
GDP (in 000 M€13)	13	20	19	23	27	29	31	3.6	3.5	1.7
Gross Inland Consumption (ktoe)	3864	4592	4629	4341	4528	4608	4022	1.8	-0.2	-1.2
Solids	132	82	109	84	72	50	26	-1.9	-4.1	-9.6
Oil	1295	1487	1521	1464	1433	1383	1254	1.6	-0.6	-1.3
Natural gas	1092	1358	1462	867	920	1126	699	3.0	-4.5	-2.7
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6
Renewable energy forms	1191	1481	1463	1758	1960	1973	1875	2.1	3.0	-0.4
Energy Branch Consumption	39	42	48	33	36	40	28	2.1	-2.9	-2.6
Non-Energy Uses	75	97	73	105	127	139	144	-0.3	5.7	1.3
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	1411	1868	1979	2228	2486	2476	2326	3.4	2.3	-0.7
Solids	16	3	2	1	0	0	0	-17.4	-100.0	0.0
Oil	2	7	2	0	0	0	0	1.1	-100.0	0.0
Natural gas	0	0	0	0	0	0	0	2.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1393	1858	1975	2228	2486	2476	2326	3.6	2.3	-0.7
Hydro	242	286	303	248	272	272	272	2.2	-1.1	0.0
Biomass & Waste	1150	1568	1668	1972	2159	2146	1933	3.8	2.6	-1.1
Wind	0	4	4	8	54	55	118	30.2	29.1	8.1
Solar and others	0	0	0	0	1	2	2	0.0	0.0	7.2
Geothermal	0	0	0	0	0	0	0	0.0	0.0	12.8
Net Imports (ktoe)	2361	3097	2220	2456	2402	2501	2074	-0.6	0.8	-1.5
Solids	61	77	112	84	72	50	26	6.3	-4.4	-9.6
Oil	1235	1783	1671	1807	1788	1741	1602	3.1	0.7	-1.1
Crude oil and Feedstocks	87	4	2	0	0	0	0	-31.8	-100.0	0.0
Oil products	1148	1779	1669	1807	1788	1741	1602	3.8	0.7	-1.1
Natural gas	1113	1434	903	867	925	1138	729	-2.1	0.2	-2.4
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6
Import Dependency (%)	61.0	63.9	45.5	52.4	49.1	50.3	47.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	4136	4906	6627	5587	6672	8078	6915	4.8	0.1	0.4
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	78	0	2	78	108	106	66	-30.7	49.0	-4.8
Oil (including refinery gas)	107	6	2	0	0	0	0	-32.8	-100.0	0.0
Gas (including derived gases)	1128	1486	2988	2023	2112	3390	1433	10.2	-3.4	-3.8
Biomass-waste	0	41	66	511	662	780	880	0.0	25.9	2.9
Hydro (pumping excluded)	2819	3326	3520	2878	3160	3160	3160	2.2	-1.1	0.0
Wind	4	47	49	95	628	640	1374	28.5	29.1	8.1
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2089	2162	2546	2837	3101	3104	3378	2.0	2.0	0.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	1515	1562	1606	1652	1872	1873	2125	0.6	1.5	1.3
Hydro (pumping excluded)	1513	1536	1576	1589	1589	1589	1589	0.4	0.1	0.0
Wind	2	26	30	62	281	283	535	31.1	25.1	6.6
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	574	600	940	1185	1229	1231	1253	5.1	2.7	0.2
of which cogeneration units	254	586	870	1026	1028	1023	1101	13.1	1.7	0.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	23	2	21	21	21	21	21	-0.9	0.0	0.0
Gas fired	522	572	893	1098	1098	1089	1089	5.5	2.1	-0.1
Oil fired	27	15	15	15	15	15	15	-5.4	0.0	0.0
Biomass-waste fired	2	10	10	50	95	105	127	17.8	24.9	3.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.2	23.3	27.2	20.9	23.0	28.0	22.3			
Efficiency of gross thermal power generation (%)	20.7	21.9	32.3	45.9	45.5	46.1	36.6			
% of gross electricity from CHP	31.4	30.7	45.0	38.6	33.8	45.6	26.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.3	69.6	54.9	62.4	66.7	56.7	78.3			
Fuel Inputs to Thermal Power Generation (ktoe)	545	602	815	490	545	798	559	4.1	-3.9	0.3
Solids	53	1	9	13	17	17	10	-15.9	6.4	-5.1
Oil (including refinery gas)	84	19	10	0	0	0	0	-19.3	-100.0	0.0
Gas (including derived gases)	408	562	767	360	383	587	321	6.5	-6.7	-1.7
Biomass & Waste	0	22	29	117	144	194	227	0.0	17.4	4.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	570	479	383	344	426	401	328	-3.9	1.1	-2.6
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	3	27	37	89	73	67	0.0	12.6	-2.7
District heating	569	476	356	307	337	325	256	-4.6	-0.5	-2.7
Derived gases, cokeries etc.	1	0	0	0	0	3	4	-95.3	1788.1	29.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Latvia: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	15	17	18	18	20	21	22	1.5	1.0	1.1
Public road transport	2	3	2	2	2	3	3	-0.2	0.7	0.4
Private cars and motorcycles	12	12	13	13	14	14	15	0.8	0.7	0.6
Rail	1	1	1	1	1	1	1	-1.2	1.8	3.1
Aviation ⁽³⁾	0	1	2	2	2	3	4	20.4	2.2	3.6
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	15	24	21	24	26	30	33	3.1	2.2	2.4
Heavy goods and light commercial vehicles	2	4	4	4	5	5	5	5.8	2.2	1.5
Rail	13	20	17	20	21	24	27	2.6	2.2	2.6
Inland navigation	0	0	0	0	0	0	0	179.2	1.5	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	746	1064	1200	1158	1194	1186	1139	4.9	-0.1	-0.5
Public road transport	51	67	68	65	66	67	67	2.9	-0.3	0.2
Private cars and motorcycles	502	603	673	613	590	530	470	3.0	-1.3	-2.2
Heavy goods and light commercial vehicles	89	242	260	255	292	314	311	11.2	1.2	0.6
Rail	76	94	76	87	91	101	110	0.1	1.8	1.9
Aviation	27	59	118	132	148	166	172	15.9	2.3	1.5
Inland navigation	0	0	5	6	7	8	8	0.0	3.5	1.2
By transport activity										
Passenger transport	582	729	861	811	805	764	711	4.0	-0.7	-1.2
Freight transport	163	335	340	347	389	422	428	7.6	1.4	1.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.3	2.3	3.3	7.6	6.6	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	3789	4495	4556	4237	4401	4469	3878	1.9	-0.3	-1.3
Final Energy Demand	3254	4018	4120	4104	4247	4167	3628	2.4	0.3	-1.6
by sector										
Industry	576	699	774	912	991	1014	923	3.0	2.5	-0.7
Energy intensive industries	229	282	305	277	305	302	260	2.9	0.0	-1.6
Other industrial sectors	348	417	469	635	686	712	663	3.0	3.9	-0.3
Residential	1327	1504	1389	1286	1298	1239	981	0.5	-0.7	-2.8
Tertiary	602	749	756	744	761	725	582	2.3	0.1	-2.6
Transport ⁽⁵⁾	749	1067	1201	1162	1197	1189	1141	4.8	0.0	-0.5
by fuel										
Solids	62	74	94	70	54	33	16	4.2	-5.4	-11.7
Oil	1056	1323	1446	1355	1306	1245	1110	3.2	-1.0	-1.6
Gas	329	508	498	391	437	450	375	4.2	-1.3	-1.5
Electricity	385	493	534	568	621	660	657	3.3	1.5	0.6
Heat (from CHP and District Heating)	598	603	575	524	570	550	440	-0.4	-0.1	-2.6
Renewable energy forms	824	1018	973	1194	1258	1226	1023	1.7	2.6	-2.0
Other	0	0	0	0	0	3	7	0.0	0.0	35.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	293	235	246	189	171	157	128	-1.8	-3.6	-2.8
Industry (Energy on Value added, index 2000=100)	100	87	102	98	93	86	75	0.2	-1.0	-2.2
Residential (Energy on Private Income, index 2000=100)	100	74	67	51	45	39	28	-4.0	-3.9	-4.5
Tertiary (Energy on Value added, index 2000=100)	100	83	82	67	59	51	38	-2.0	-3.2	-4.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	37	41	44	41	37	33	28	1.7	-1.8	-2.6
Freight transport (toe/Mtkm)	11	14	16	14	15	14	13	4.4	-0.8	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.5	11.3	12.3	10.6	10.1	10.2	8.7	1.6	-1.9	-1.5
of which ETS sectors (2013 scope) GHG emissions		3.1	3.6	2.4	2.5	3.0	2.0		-3.7	-2.0
of which ESD sectors (2013 scope) GHG emissions		8.2	8.7	8.3	7.6	7.3	6.6		-1.3	-1.4
CO ₂ Emissions (energy related)	6.8	7.7	8.3	6.5	6.4	6.6	5.1	2.0	-2.6	-2.2
Power generation/District heating	2.6	2.2	2.4	1.2	1.2	1.6	0.8	-0.9	-6.6	-4.0
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.0	1.1	1.0	0.8	0.8	0.7	0.5	0.0	-2.9	-4.3
Residential	0.3	0.4	0.6	0.4	0.4	0.4	0.3	6.5	-2.1	-4.3
Tertiary	0.7	0.8	0.8	0.7	0.7	0.6	0.5	2.1	-1.8	-4.2
Transport	2.2	3.2	3.5	3.4	3.3	3.3	3.1	4.9	-0.6	-0.7
CO ₂ Emissions (non energy and non land use related)	0.2	0.2	0.5	0.7	0.7	0.7	0.7	10.4	2.8	0.0
Non-CO2 GHG emissions	3.5	3.3	3.4	3.4	3.0	2.9	2.8	-0.1	-1.3	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	39.5	42.5	46.3	40.0	38.1	38.6	32.6	1.6	-1.9	-1.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.21	0.17	0.16	0.09	0.08	0.11	0.06	-2.2	-6.4	-2.8
Final energy demand (t of CO ₂ /toe)	1.29	1.37	1.45	1.30	1.23	1.20	1.19	1.1	-1.6	-0.3
Industry	1.80	1.55	1.34	0.85	0.78	0.71	0.54	-2.9	-5.3	-3.6
Residential	0.22	0.29	0.40	0.35	0.34	0.31	0.29	6.0	-1.5	-1.5
Tertiary	1.14	1.10	1.12	0.98	0.92	0.83	0.79	-0.2	-1.9	-1.6
Transport	2.93	2.97	2.93	2.90	2.76	2.76	2.70	0.0	-0.6	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	33.5	32.4	30.5	37.5	40.4	41.9	46.0			
RES-H&C share	40.1	43.0	40.9	51.2	51.8	55.4	61.5			
RES-E share	52.7	43.0	42.1	46.2	53.4	51.1	61.1			
RES-T share (based on ILUC formula)	2.1	1.5	3.5	5.2	10.2	12.2	18.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	107	86	93	77	85	91	110	-1.4	-0.9	2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	57	66	107	102	115	123	133	6.5	0.7	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.0	3.4	5.1	4.4	5.1	5.8	7.1	10.0	0.1	3.3
as % of GDP	14.8	17.3	27.0	19.0	19.4	19.9	22.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Lithuania: EU/CO-33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	4	3	3	3	3	3	2	-1.1	-1.0	-1.8
GDP (in 000 M€13)	19	27	29	35	40	42	43	4.4	3.3	0.7
Gross Inland Consumption (ktoe)	7063	8711	6787	6651	6566	6366	6611	-0.4	-0.3	0.1
Solids	91	185	213	254	197	136	82	8.8	-0.8	-8.4
Oil	2125	2710	2502	2432	2367	2254	1973	1.6	-0.6	-1.8
Natural gas	2064	2477	2492	2122	2092	2243	1395	1.9	-1.7	-4.0
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Renewable energy forms	675	881	1065	1249	1342	1341	1264	4.7	2.3	-0.6
Energy Branch Consumption	610	853	743	680	612	600	574	2.0	-1.9	-0.6
Non-Energy Uses	662	804	714	717	793	786	756	0.8	1.1	-0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3269	3900	1318	1358	1473	1464	3399	-8.7	1.1	8.7
Solids	12	20	9	19	7	8	8	-3.0	-2.1	1.3
Oil	352	267	125	77	77	73	68	-9.9	-4.7	-1.2
Natural gas	0	0	0	0	0	0	0	4.2	-100.0	0.0
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Renewable energy sources	682	900	1185	1262	1389	1384	1313	5.7	1.6	-0.6
Hydro	29	39	46	38	38	38	38	4.7	-2.0	0.0
Biomass & Waste	653	858	1114	1158	1278	1156	1062	5.5	1.4	-1.8
Wind	0	0	19	60	60	167	167	0.0	12.0	10.8
Solar and others	0	0	0	5	8	7	12	0.0	0.0	3.9
Geothermal	0	3	5	1	6	15	35	0.0	3.1	19.2
Net Imports (ktoe)	4247	5026	5668	5454	5257	5071	3381	2.9	-0.7	-4.3
Solids	80	174	196	235	190	128	74	9.4	-0.3	-9.0
Oil	2223	2622	2607	2516	2451	2343	2062	1.6	-0.6	-1.7
Crude oil and Feedstocks	4760	9029	9339	9639	9124	8586	7918	7.0	-0.2	-1.4
Oil products	-2537	-6408	-6732	-7123	-6672	-6244	-5856	10.3	-0.1	-1.3
Natural gas	2065	2493	2485	2122	2095	2250	1408	1.9	-1.7	-3.9
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Import Dependency (%)	59.4	56.8	81.8	80.1	78.1	77.6	49.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	11121	14415	4994	5066	5999	8313	13530	-7.7	1.9	8.5
Nuclear energy	8419	10337	0	0	0	0	9377	-100.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	655	401	647	182	0	0	0	-0.1	-100.0	0.0
Gas (including derived gases)	1707	3217	3436	3028	4075	5080	844	7.2	1.7	-14.6
Biomass-waste	0	7	147	657	725	790	867	0.0	17.3	1.8
Hydro (pumping excluded)	340	451	540	440	440	440	440	4.7	-2.0	0.0
Wind	0	2	224	695	695	1939	1939	0.0	12.0	10.8
Solar	0	0	0	64	64	64	64	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	5539	4135	2878	3443	2423	2949	3881	-6.3	-1.7	4.8
Nuclear energy	2880	1440	0	0	0	0	1117	-100.0	0.0	0.0
Renewable energy	103	118	249	614	614	1272	1272	9.2	9.4	7.6
Hydro (pumping excluded)	103	117	116	116	116	116	116	1.2	0.0	0.0
Wind	0	1	133	424	424	1083	1083	0.0	12.3	9.8
Solar	0	0	0	74	74	74	74	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2556	2577	2629	2829	1809	1677	1492	0.3	-3.7	-1.9
of which cogeneration units	650	1038	1100	1799	577	1094	746	5.4	-6.2	2.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	3	3	0	0	0	0	0	-100.0	0.0	0.0
Gas fired	1736	1781	1822	1992	1520	1520	1349	0.5	-1.8	-1.2
Oil fired	817	793	770	770	200	48	0	-0.6	-12.6	-55.4
Biomass-waste fired	0	0	37	67	90	110	143	0.0	9.3	4.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.1	36.5	18.3	15.0	26.4	30.4	37.7			
Efficiency of gross thermal power generation (%)	22.0	25.1	28.4	36.6	47.4	45.9	26.9			
% of gross electricity from CHP	15.5	15.5	34.6	45.5	49.9	42.1	9.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	78.8	74.9	18.2	36.6	32.1	38.9	93.8			
Fuel Inputs to Thermal Power Generation (ktoe)	924	1240	1282	909	870	1099	547	3.3	-3.8	-4.5
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil (including refinery gas)	200	178	100	49	0	0	0	-6.7	-100.0	0.0
Gas (including derived gases)	723	1057	1117	725	707	876	275	4.4	-4.5	-9.0
Biomass & Waste	1	5	65	135	163	223	272	59.7	9.7	5.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	7911	12651	9987	10232	9879	9337	10542	2.4	-0.1	0.7
Refineries	5032	9415	9446	9704	9277	8809	8141	6.5	-0.2	-1.3
Biofuels and hydrogen production	0	3	45	59	113	101	93	0.0	9.7	-2.0
District heating	656	520	496	468	488	426	297	-2.7	-0.2	-4.9
Derived gases, cokeries etc.	2223	2713	0	0	0	1	2011	0.0	0.0	154.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Lithuania: EU CO ₂ +33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	30	40	38	39	41	43	44	2.3	1.0	0.7
Public road transport	3	4	3	3	3	3	3	-0.2	0.6	0.2
Private cars and motorcycles	26	35	33	34	36	37	38	2.4	0.8	0.6
Rail	1	0	0	0	1	1	1	-4.8	3.4	1.7
Aviation ⁽³⁾	0	1	1	2	2	2	2	14.6	4.2	2.5
Inland navigation	0	0	0	0	0	0	0	0.4	1.4	0.9
Freight transport activity (Gtkm)	11	17	19	20	24	26	27	5.3	2.6	1.3
Heavy goods and light commercial vehicles	2	4	5	6	7	7	7	9.1	2.8	0.4
Rail	9	12	13	14	17	19	20	4.2	2.5	1.6
Inland navigation	0	0	0	0	0	0	0	0.4	1.7	0.7
Energy demand in transport (ktoe) ⁽⁴⁾	1054	1413	1521	1582	1630	1572	1470	3.7	0.7	-1.0
Public road transport	40	51	40	41	41	41	39	0.0	0.3	-0.4
Private cars and motorcycles	705	845	919	881	871	802	722	2.7	-0.5	-1.9
Heavy goods and light commercial vehicles	204	387	443	517	555	556	544	8.1	2.3	-0.2
Rail	76	79	65	67	78	80	80	-1.5	1.8	0.3
Aviation	27	46	49	69	79	85	78	6.1	4.9	-0.1
Inland navigation	3	5	6	6	7	7	7	7.2	1.3	0.5
By transport activity										
Passenger transport	777	947	1013	998	998	935	846	2.7	-0.2	-1.6
Freight transport	277	466	508	584	632	637	624	6.2	2.2	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.2	3.0	3.8	7.0	6.6	6.5			
ENERGY EFFICIENCY										
Primary energy consumption	6401	7907	6073	5934	5773	5580	5854	-0.5	-0.5	0.1
Final Energy Demand	3767	4601	4763	4996	5040	4743	3930	2.4	0.6	-2.5
by sector										
Industry	780	987	898	1172	1192	1195	985	1.4	2.9	-1.9
Energy intensive industries	363	436	486	689	695	695	564	3.0	3.6	-2.1
Other industrial sectors	416	551	412	483	498	500	421	-0.1	1.9	-1.7
Residential	1368	1509	1599	1498	1435	1283	953	1.6	-1.1	-4.0
Tertiary	563	672	720	718	757	668	500	2.5	0.5	-4.1
Transport ⁽⁵⁾	1057	1433	1546	1608	1656	1597	1491	3.9	0.7	-1.0
by fuel										
Solids	82	177	208	238	180	117	63	9.8	-1.4	-10.0
Oil	1356	1616	1613	1664	1693	1593	1407	1.7	0.5	-1.8
Gas	363	519	567	649	607	597	435	4.6	0.7	-3.3
Electricity	533	686	717	832	894	901	832	3.0	2.2	-0.7
Heat (from CHP and District Heating)	827	905	922	870	911	866	625	1.1	-0.1	-3.7
Renewable energy forms	605	698	738	743	754	667	566	2.0	0.2	-2.8
Other	0	0	0	0	0	1	3	0.0	0.0	30.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	374	317	234	191	164	150	155	-4.6	-3.5	-0.6
Industry (Energy on Value added, index 2000=100)	100	80	66	74	69	67	55	-4.1	0.5	-2.3
Residential (Energy on Private Income, index 2000=100)	100	72	76	59	50	41	30	-2.7	-4.2	-4.8
Tertiary (Energy on Value added, index 2000=100)	100	88	87	72	65	54	40	-1.3	-2.9	-4.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	26	23	27	25	24	21	19	0.3	-1.2	-2.3
Freight transport (toe/Mtkm)	25	27	27	29	26	24	23	0.9	-0.3	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO ₂ eq.)	19.8	24.8	23.0	21.3	19.5	19.0	15.5	1.5	-1.6	-2.3
of which ETS sectors (2013 scope) GHG emissions		11.7	9.4	7.8	7.0	7.3	4.9		-2.9	-3.6
of which ESD sectors (2013 scope) GHG emissions		13.2	13.6	13.4	12.5	11.7	10.7		-0.8	-1.6
CO ₂ Emissions (energy related)	10.3	12.4	12.3	11.4	10.7	10.5	7.5	1.8	-1.4	-3.5
Power generation/District heating	4.0	4.0	3.7	2.4	2.1	2.5	0.8	-0.8	-5.5	-8.7
Energy Branch	1.1	1.7	1.6	1.5	1.4	1.3	1.1	3.8	-1.4	-2.1
Industry	1.1	1.3	1.2	1.5	1.5	1.4	0.9	0.7	2.4	-5.1
Residential	0.5	0.6	0.8	0.8	0.6	0.4	0.3	3.7	-2.6	-6.9
Tertiary	0.5	0.6	0.6	0.6	0.6	0.4	0.3	2.2	-0.6	-7.4
Transport	3.1	4.2	4.5	4.6	4.6	4.4	4.1	3.7	0.2	-1.2
CO ₂ Emissions (non energy and non land use related)	1.5	3.1	2.8	2.3	2.4	2.4	2.1	6.0	-1.4	-1.4
Non-CO ₂ GHG emissions	8.0	9.3	7.9	7.6	6.4	6.2	6.0	0.0	-2.1	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	41.1	51.5	47.7	44.1	40.4	39.4	32.2	1.5	-1.6	-2.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.14	0.21	0.14	0.12	0.13	0.04	2.3	-5.6	-10.3
Final energy demand (t of CO ₂ /toe)	1.39	1.47	1.48	1.50	1.43	1.40	1.40	0.6	-0.3	-0.2
Industry	1.38	1.35	1.29	1.31	1.22	1.19	0.88	-0.7	-0.5	-3.2
Residential	0.40	0.43	0.50	0.51	0.42	0.33	0.31	2.1	-1.6	-3.0
Tertiary	0.88	0.84	0.86	0.82	0.76	0.62	0.53	-0.3	-1.1	-3.5
Transport	2.94	2.94	2.89	2.87	2.76	2.76	2.72	-0.2	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	15.7	17.0	19.7	22.8	24.1	25.2	28.0			
RES-H&C share	26.1	30.4	33.2	36.7	38.2	37.0	45.4			
RES-E share	4.0	3.8	7.4	15.6	15.4	25.4	27.5			
RES-T share (based on ILUC formula)	0.1	0.3	3.5	4.7	10.2	10.9	11.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	57	174	124	109	107	111	8.7	-4.6	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	64	73	112	104	119	134	159	5.7	0.6	3.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.7	4.0	5.6	5.9	7.1	7.9	8.8	7.6	2.5	2.2
as % of GDP	14.2	14.4	19.3	16.8	17.9	18.5	20.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Luxembourg: EU/CO-33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	0	0	1	1	1	1	1	1.5	2.5	2.2	
GDP (in 000 M€13)	32	38	41	45	52	60	68	2.6	2.3	2.8	
Gross Inland Consumption (ktoe)	3654	4800	4642	4616	4726	4755	4576	2.4	0.2	-0.3	
Solids	108	77	66	51	44	31	16	-4.8	-4.0	-9.5	
Oil	2320	3160	2869	2908	2862	2779	2792	2.2	0.0	-0.2	
Natural gas	671	1176	1197	1031	1045	1143	917	6.0	-1.3	-1.3	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Renewable energy forms	64	106	160	245	391	413	429	9.6	9.4	0.9	
Energy Branch Consumption	26	30	50	51	55	61	68	6.9	0.9	2.2	
Non-Energy Uses	55	29	33	39	42	43	46	-5.1	2.5	0.9	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	64	111	122	148	265	291	299	6.7	8.1	1.2	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil	0	0	0	0	0	0	0	11.5	-100.0	0.0	
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	64	111	122	148	265	291	299	6.7	8.1	1.2	
Hydro	11	8	9	9	9	10	12	-1.4	0.2	2.8	
Biomass & Waste	51	97	105	119	186	203	177	7.5	5.9	-0.5	
Wind	2	5	5	7	43	42	48	7.4	24.8	1.1	
Solar and others	0	2	3	13	27	37	61	0.0	25.2	8.7	
Geothermal	0	0	0	0	0	0	0	0.0	0.0	15.5	
Net Imports (ktoe)	3639	4671	4503	4468	4461	4464	4276	2.2	-0.1	-0.4	
Solids	108	77	66	51	44	31	16	-4.8	-4.0	-9.5	
Oil	2368	3141	2852	2908	2862	2779	2792	1.9	0.0	-0.2	
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil products	2368	3141	2852	2908	2862	2779	2792	1.9	0.0	-0.2	
Natural gas	671	1176	1197	1031	1045	1143	917	6.0	-1.3	-1.3	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Import Dependency (%)	99.6	97.3	97.0	96.8	94.4	93.9	93.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	422	3348	3230	2762	3278	3979	3869	22.6	0.1	1.7	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	0	1	1	0	3	3	3	0.0	11.2	0.0	
Gas (including derived gases)	215	3107	2916	2304	2367	3041	2587	29.8	-2.1	0.9	
Biomass-waste	56	76	129	158	175	210	234	8.7	3.1	2.9	
Hydro (pumping excluded)	124	94	108	110	110	114	145	-1.4	0.2	2.8	
Wind	27	52	55	78	501	491	560	7.4	24.7	1.1	
Solar	0	17	21	112	121	121	340	0.0	19.2	10.8	
Geothermal and other renewables	0	1	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	163	574	597	702	971	949	1231	13.8	5.0	2.4	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	47	93	107	212	467	454	750	8.6	15.9	4.9	
Hydro (pumping excluded)	33	34	34	34	34	35	45	0.3	0.0	2.8	
Wind	14	35	44	58	302	288	323	12.1	21.2	0.7	
Solar	0	24	29	120	131	131	383	0.0	16.2	11.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	116	481	490	490	504	496	481	15.5	0.3	-0.5	
of which cogeneration units	63	101	121	229	181	124	150	6.7	4.1	-1.9	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0	
Gas fired	103	468	469	469	469	457	442	16.4	0.0	-0.6	
Oil fired	5	5	4	1	2	2	2	-2.3	-7.8	0.0	
Biomass-waste fired	9	9	17	20	34	37	37	7.1	7.1	0.8	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.9	66.2	61.4	44.1	38.0	47.2	35.4				
Efficiency of gross thermal power generation (%)	24.3	47.5	47.4	50.5	50.0	48.4	49.1				
% of gross electricity from CHP	17.7	10.1	9.6	23.3	16.0	7.6	8.3				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	49.1	7.2	9.7	16.6	27.7	23.5	33.1				
Fuel Inputs to Thermal Power Generation (ktoe)	96	576	553	419	438	577	495	19.1	-2.3	1.2	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	1	0	0	0	0	0	0	-100.0	0.0	0.0	
Gas (including derived gases)	66	544	520	383	392	520	439	22.8	-2.8	1.1	
Biomass & Waste	29	32	33	36	46	57	56	1.5	3.2	2.1	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1	3	46	113	152	152	167	57.2	12.7	0.9	
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biofuels and hydrogen production	0	1	42	108	147	145	161	0.0	13.4	0.9	
District heating	1	2	4	5	5	5	4	23.1	2.3	-1.9	
Derived gases, cokeries etc.	0	0	0	0	0	1	2	0.0	0.0	16.6	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Luxembourg: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	7	8	9	9	10	12	13	1.6	2.0	2.2
Public road transport	1	1	1	1	1	1	1	4.2	1.7	1.5
Private cars and motorcycles	6	6	7	7	8	9	10	1.5	2.0	2.2
Rail	0	0	0	0	0	1	1	0.4	3.1	2.9
Aviation ⁽³⁾	1	1	1	1	1	1	1	-0.5	2.4	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	3	3	3	3	4	5	5	0.8	3.6	1.9
Heavy goods and light commercial vehicles	2	2	2	3	3	4	4	2.8	4.1	1.7
Rail	1	0	0	0	0	0	1	-6.5	1.9	3.2
Inland navigation	0	0	0	0	0	0	0	-0.5	0.9	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	1914	2781	2604	2697	2759	2720	2822	3.1	0.6	0.2
Public road transport	60	92	106	115	122	124	129	5.9	1.4	0.6
Private cars and motorcycles	1153	1521	1341	1311	1216	1120	1168	1.5	-1.0	-0.4
Heavy goods and light commercial vehicles	364	721	709	818	956	972	981	6.9	3.0	0.3
Rail	12	11	13	14	16	18	20	0.8	1.9	2.3
Aviation	321	432	431	435	446	482	519	3.0	0.3	1.5
Inland navigation	4	3	4	3	3	3	3	-1.0	-1.8	1.5
By transport activity										
Passenger transport	1535	2046	1880	1863	1785	1728	1819	2.0	-0.5	0.2
Freight transport	379	735	724	834	974	992	1003	6.7	3.0	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.6	4.0	5.4	5.4	5.4			
ENERGY EFFICIENCY										
Primary energy consumption	3599	4771	4609	4576	4684	4711	4530	2.5	0.2	-0.3
Final Energy Demand	3505	4477	4327	4382	4469	4412	4252	2.1	0.3	-0.5
by sector										
Industry	714	754	739	585	590	559	485	0.4	-2.2	-1.9
Energy intensive industries	583	598	601	438	432	397	324	0.3	-3.2	-2.8
Other industrial sectors	130	156	139	148	158	163	161	0.6	1.3	0.2
Residential	468	525	508	498	520	533	430	0.8	0.3	-1.9
Tertiary	409	418	477	601	600	599	515	1.5	2.3	-1.5
Transport ⁽⁵⁾	1914	2781	2604	2697	2759	2720	2822	3.1	0.6	0.2
by fuel										
Solids	108	77	66	51	44	31	16	-4.8	-4.0	-9.5
Oil	2261	3106	2835	2869	2820	2735	2747	2.3	-0.1	-0.3
Gas	605	631	675	645	652	623	479	1.1	-0.4	-3.0
Electricity	497	529	568	557	599	654	658	1.4	0.5	0.9
Heat (from CHP and District Heating)	13	75	74	80	75	77	63	19.2	0.2	-1.8
Renewable energy forms	22	59	108	181	277	287	277	17.2	9.9	0.0
Other	0	0	0	0	1	3	13	0.0	0.0	35.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	115	126	113	103	91	80	67	-0.1	-2.1	-3.1
Industry (Energy on Value added, index 2000=100)	100	101	133	100	92	78	61	2.9	-3.7	-3.9
Residential (Energy on Private Income, index 2000=100)	100	103	93	90	83	74	52	-0.7	-1.1	-4.6
Tertiary (Energy on Value added, index 2000=100)	100	85	86	98	84	73	54	-1.5	-0.1	-4.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	204	244	209	188	161	139	132	0.3	-2.5	-2.0
Freight transport (toe/Mtkm)	139	268	247	245	234	217	200	5.9	-0.5	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.7	14.1	13.3	12.9	12.8	12.7	12.0	2.2	-0.4	-0.6
of which ETS sectors (2013 scope) GHG emissions		4.2	3.8	3.5	3.4	3.7	3.4		-1.0	-0.1
of which ESD sectors (2013 scope) GHG emissions		9.9	9.5	9.5	9.4	9.0	8.6		-0.2	-0.8
CO ₂ Emissions (energy related)	8.9	12.6	11.8	11.4	11.3	11.2	10.6	2.9	-0.4	-0.6
Power generation/District heating	0.2	1.3	1.2	0.9	0.9	1.2	1.0	22.6	-2.8	1.1
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.2	1.1	1.0	0.8	0.8	0.6	0.4	-2.0	-2.8	-5.0
Residential	1.1	1.2	1.1	1.1	1.0	1.0	0.7	0.5	-1.1	-3.6
Tertiary	0.6	0.5	0.6	0.7	0.6	0.6	0.4	-0.6	0.6	-3.9
Transport	5.8	8.4	7.8	7.9	7.9	7.8	8.0	3.1	0.2	0.1
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.6	0.5	0.5	0.5	0.5	-2.1	-1.1	-1.6
Non-CO2 GHG emissions	1.1	0.9	1.0	1.0	1.0	1.0	1.0	-0.9	0.1	-0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	80.3	106.5	100.3	97.4	96.3	95.5	90.6	2.2	-0.4	-0.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.30	0.30	0.25	0.22	0.25	0.22	0.7	-2.9	0.1
Final energy demand (t of CO ₂ /toe)	2.49	2.52	2.43	2.40	2.31	2.26	2.26	-0.2	-0.5	-0.3
Industry	1.71	1.47	1.36	1.39	1.28	1.14	0.93	-2.3	-0.6	-3.1
Residential	2.29	2.28	2.22	2.14	1.93	1.80	1.62	-0.3	-1.4	-1.7
Tertiary	1.59	1.25	1.28	1.23	1.08	0.97	0.84	-2.1	-1.6	-2.5
Transport	3.01	3.04	2.99	2.92	2.88	2.86	2.84	-0.1	-0.4	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.8	1.4	2.9	5.0	8.2	8.9	9.7			
RES-H&C share	1.4	3.6	4.8	6.4	12.3	15.0	17.2			
RES-E share	2.1	3.2	3.8	6.1	12.0	11.3	15.3			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	7.5	10.1	10.8	11.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	87	63	78	82	95	93	100	-1.1	2.0	0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	108	119	110	116	122	131	137	0.1	1.1	1.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.0	4.4	4.6	4.7	5.9	6.5	7.7	4.3	2.5	2.7
as % of GDP	9.5	11.5	11.2	10.4	11.4	10.9	11.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Malta: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
											Annual % Change	
Population (in million)	0	0	0	0	0	0	0	0	0.9	0.6	0.4	
GDP (in 000 M€13)	6	6	7	8	8	9	10	1.8	2.1	1.9		
Gross Inland Consumption (ktoe)	802	972	908	675	745	713	644	1.3	-2.0	-1.4		
Solids	0	0	0	0	0	0	0	0.0	0.0	-12.6		
Oil	802	972	903	579	342	325	299	1.2	-9.3	-1.3		
Natural gas	0	0	0	0	338	312	266	0.0	0.0	-2.3		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Renewable energy forms	0	1	5	21	49	58	62	0.0	25.7	2.3		
Energy Branch Consumption	10	2	10	6	5	4	3	0.5	-7.2	-3.8		
Non-Energy Uses	0	20	9	11	12	12	12	0.0	3.4	-0.2		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	0	1	4	16	38	48	56	0.0	24.3	3.9		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	0	1	4	16	38	48	56	0.0	24.3	3.9		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	0	0	1	3	1	2	3	0.0	9.5	8.2		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar and others	0	1	4	13	36	46	52	0.0	25.6	3.7		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	1.3		
Net Imports (ktoe)	1458	1630	2362	2099	2096	2088	2062	4.9	-1.2	-0.2		
Solids	0	0	0	0	0	0	0	0.0	0.0	-12.6		
Oil	1458	1630	2361	2019	1719	1723	1655	4.9	-3.1	-0.4		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	1458	1630	2361	2019	1719	1723	1655	4.9	-3.1	-0.4		
Natural gas	0	0	0	0	350	338	383	0.0	0.0	0.9		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Import Dependency (%)	100.3	100.0	99.0	99.2	98.2	97.7	97.4					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	1917	2240	2115	1402	2482	2585	2314	1.0	1.6	-0.7		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1917	2240	2113	1293	0	0	0	1.0	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	2148	2211	1889	0.0	0.0	-1.3		
Biomass-waste	0	0	0	6	8	11	18	0.0	0.0	8.2		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	0	103	326	363	407	0.0	0.0	2.2		
Geothermal and other renewables	0	0	2	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	577	577	579	541	787	945	862	0.0	3.1	0.9		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	2	60	185	211	235	0.0	57.2	2.4		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	2	60	185	211	235	0.0	57.2	2.4		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	577	577	577	481	603	735	627	0.0	0.4	0.4		
of which cogeneration units	0	0	0	1	1	1	1	0.0	0.0	-5.8		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	239	479	479	0.0	0.0	7.2		
Oil fired	577	577	577	479	361	253	144	0.0	-4.6	-8.8		
Biomass-waste fired	0	0	0	2	2	3	3	0.0	0.0	4.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	35.6	43.8	39.3	28.2	35.1	30.7	30.1					
Efficiency of gross thermal power generation (%)	35.4	29.3	31.7	45.4	54.7	60.9	61.3					
% of gross electricity from CHP	0.0	0.0	0.0	0.4	0.3	0.3	0.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	0.1	7.7	13.5	14.5	18.4					
Fuel Inputs to Thermal Power Generation (ktoe)	465	658	573	246	339	314	267	2.1	-5.1	-2.3		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	465	658	573	245	0	0	0	2.1	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	338	312	266	0.0	0.0	-2.4		
Biomass & Waste	0	0	0	1	1	1	1	0.0	0.0	0.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	0	0	1	3	7	7	6	0.0	23.3	-2.6		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	1	3	7	7	6	0.0	23.3	-2.6		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	0	0.0	0.0	20.8		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Malta: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5	5	5	6	7	7	8	1.2	2.2	1.2
Public road transport	0	0	1	1	1	1	1	1	0.8	0.5
Private cars and motorcycles	2	2	2	2	2	2	2	2.0	0.5	0.3
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation ⁽³⁾	2	2	3	3	4	4	5	0.7	3.8	1.8
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Freight transport activity (Gtkm)	0	0	0	0	0	0	0	0.3	1.3	1.6
Heavy goods and light commercial vehicles	0	0	0	0	0	0	0	0.3	1.3	1.6
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	268	242	255	256	270	269	264	-0.5	0.6	-0.2
Public road transport	12	13	12	12	12	11	11	-0.3	-0.2	-0.7
Private cars and motorcycles	97	105	110	109	102	91	83	1.2	-0.7	-2.1
Heavy goods and light commercial vehicles	36	37	31	31	34	35	37	-1.5	0.7	0.9
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation	122	87	102	105	122	132	134	-1.8	1.8	0.9
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
By transport activity										
Passenger transport	232	205	224	225	236	233	227	-0.4	0.5	-0.4
Freight transport	36	37	31	31	34	35	37	-1.5	0.7	0.9
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.4	1.2	2.7	2.6	2.1			
ENERGY EFFICIENCY										
Primary energy consumption	802	952	899	664	733	700	632	1.2	-2.0	-1.5
Final Energy Demand	483	478	476	501	547	545	501	-0.1	1.4	-0.9
by sector										
Industry	83	74	48	51	52	53	52	-5.4	0.8	0.0
Energy intensive industries	13	19	8	8	8	8	8	-4.8	0.0	-0.3
Other industrial sectors	70	55	40	44	44	45	44	-5.5	1.0	0.1
Residential	76	77	80	85	101	97	81	0.5	2.4	-2.2
Tertiary	55	85	94	108	124	126	104	5.4	2.8	-1.8
Transport ⁽⁵⁾	268	242	255	256	270	269	264	-0.5	0.6	-0.2
by fuel										
Solids	0	0	0	0	0	0	0	0.0	0.0	-12.6
Oil	348	309	316	323	330	313	287	-1.0	0.4	-1.4
Gas	0	0	0	0	0	0	0	0.0	0.0	8.8
Electricity	135	168	155	166	197	206	187	1.4	2.4	-0.5
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0.0	0.0	-1.8
Renewable energy forms	0	1	5	11	20	26	25	0.0	14.2	2.5
Other	0	0	0	0	0	0	0	0.0	0.0	32.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	142	162	134	89	89	78	64	-0.6	-4.0	-3.3
Industry (Energy on Value added, index 2000=100)	100	116	74	73	67	64	58	-2.9	-1.0	-1.4
Residential (Energy on Private Income, index 2000=100)	100	93	89	91	97	83	62	-1.1	0.9	-4.4
Tertiary (Energy on Value added, index 2000=100)	100	137	123	125	130	119	88	2.1	0.6	-3.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	40	39	37	33	30	28	-1.3	-1.8	-1.6
Freight transport (toe/Mtkm)	139	135	116	113	110	107	102	-1.7	-0.6	-0.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	2.8	3.3	3.1	2.1	2.1	1.9	1.7	1.0	-3.9	-2.0
of which ETS sectors (2013 scope) GHG emissions		2.4	2.1	1.1	1.2	1.1	1.0		-6.0	-1.2
of which ESD sectors (2013 scope) GHG emissions		1.0	1.0	1.0	0.9	0.8	0.7		-0.4	-3.0
CO ₂ Emissions (energy related)	2.5	3.0	2.8	1.8	1.8	1.7	1.5	0.9	-4.4	-1.8
Power generation/District heating	1.5	2.1	1.8	0.8	0.8	0.7	0.6	2.1	-8.1	-2.4
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-9.7	0.5	-6.5
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-1.2	2.4	-11.0
Tertiary	0.0	0.0	0.1	0.1	0.1	0.1	0.0	6.2	-0.7	-3.9
Transport	0.8	0.7	0.8	0.8	0.8	0.8	0.8	-0.5	0.3	-0.2
CO ₂ Emissions (non energy and non land use related)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-17.5	1.7
Non-CO2 GHG emissions	0.3	0.3	0.3	0.3	0.3	0.3	0.2	1.6	-0.5	-3.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	127.9	150.8	141.1	95.1	94.7	87.9	77.5	1.0	-3.9	-2.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.78	0.95	0.87	0.56	0.32	0.28	0.27	1.1	-9.6	-1.7
Final energy demand (t of CO ₂ /toe)	2.17	1.94	1.99	1.93	1.80	1.72	1.72	-0.9	-1.0	-0.4
Industry	1.55	1.43	0.97	1.00	0.94	0.85	0.48	-4.6	-0.3	-6.5
Residential	1.02	0.80	0.86	0.91	0.86	0.56	0.34	-1.7	0.0	-9.0
Tertiary	0.67	0.40	0.72	0.73	0.51	0.45	0.41	0.7	-3.5	-2.2
Transport	3.00	3.00	2.99	2.96	2.92	2.92	2.91	0.0	-0.2	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.0	0.1	1.0	6.0	11.7	14.1	16.4			
RES-H&C share	0.0	1.0	7.0	17.5	23.9	35.0	46.5			
RES-E share	0.0	0.0	0.1	4.8	12.5	13.5	16.9			
RES-T share (based on ILUC formula)	0.0	0.0	0.5	4.2	10.0	10.6	10.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	78	111	173	117	90	95	101	8.4	-6.4	1.2
Average Price of Electricity in Final demand sectors (€13/MWh)	75	84	201	177	169	163	154	10.4	-1.7	-0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	0.4	0.5	0.8	0.8	1.1	1.2	1.3	8.2	2.3	2.0
as % of GDP	6.8	8.9	12.5	11.2	12.7	12.9	12.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Netherlands: EU/CO ₂ -33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	16	16	17	17	17	17	18	0.4	0.3	0.2
GDP (in 000 M€13)	537	573	613	620	668	706	738	1.3	0.9	1.0
Gross Inland Consumption (ktoe)	75572	81469	86612	83760	83462	80823	72761	1.4	-0.4	-1.4
Solids	7852	8195	7596	9274	7952	8886	6504	-0.3	0.5	-2.0
Oil	28245	32464	34649	34892	34339	33051	31403	2.1	-0.1	-0.9
Natural gas	35009	35334	39309	33859	30923	29817	25345	1.2	-2.4	-2.0
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0
Renewable energy forms	1827	2872	3796	3906	9216	8726	9098	7.6	9.3	-0.1
Energy Branch Consumption	5353	6336	5088	5607	5437	5032	4711	-0.5	0.7	-1.4
Non-Energy Uses	10491	13013	17582	13895	14822	15339	15340	5.3	-1.7	0.3
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	57555	62220	70219	51471	52957	45414	37675	2.0	-2.8	-3.3
Solids	7	8	6	0	0	0	0	-2.0	-100.0	0.0
Oil	2405	2328	1985	1381	1414	956	738	-1.9	-3.3	-6.3
Natural gas	52203	56276	63534	44126	40613	33816	25839	2.0	-4.4	-4.4
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4
Renewable energy sources	1926	2577	3671	5009	9974	9652	10108	6.7	10.5	0.1
Hydro	12	8	9	9	9	9	9	-3.0	-0.1	0.1
Biomass & Waste	1831	2371	3282	4236	7005	6572	6830	6.0	7.9	-0.3
Wind	71	178	343	618	2373	2373	2373	17.0	21.3	0.0
Solar and others	11	21	29	123	546	621	751	9.8	34.1	3.2
Geothermal	0	0	8	24	41	76	145	0.0	18.2	13.6
Net Imports (ktoe)	33759	37076	30549	47678	45882	51477	52253	-1.0	4.2	1.3
Solids	7998	8312	9228	9274	7952	8886	6504	1.4	-1.5	-2.0
Oil	41425	47836	45167	48901	48023	47570	46410	0.9	0.6	-0.3
Crude oil and Feedstocks	61018	61724	60676	53468	50690	47984	45409	-0.1	-1.8	-1.1
Oil products	-19594	-13888	-15508	-4567	-2668	-414	1001	-2.3	-16.1	0.0
Natural gas	-17191	-20941	-24211	-10267	-9411	-3407	929	3.5	-9.0	0.0
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0
Import Dependency (%)	38.0	37.7	30.4	48.1	46.4	53.1	58.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	89631	100219	118140	107605	123295	135194	127708	2.8	0.4	0.4
Nuclear energy	3926	3997	3969	3907	3907	4047	4047	0.1	-0.2	0.4
Solids	24276	23500	22588	29437	23897	30619	21960	-0.7	0.6	-0.8
Oil (including refinery gas)	2641	2262	1253	799	0	57	57	-7.2	-100.0	0.0
Gas (including derived gases)	54606	61588	77566	56719	46879	55479	54814	3.6	-4.9	1.6
Biomass-waste	3203	6683	8606	8344	15906	12286	13927	10.4	6.3	-1.3
Hydro (pumping excluded)	142	88	105	100	104	105	105	-3.0	-0.1	0.1
Wind	829	2067	3993	7185	27598	27598	27598	17.0	21.3	0.0
Solar	8	34	60	1113	5003	5003	5201	22.2	55.5	0.4
Geothermal and other renewables	0	0	0	0	0	0	0	12.8	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	21048	21728	25072	30866	38325	36600	33590	1.8	4.3	-1.3
Nuclear energy	485	485	485	485	485	485	485	0.0	0.0	0.0
Renewable energy	497	1312	2362	4706	15719	15719	15947	16.9	20.9	0.1
Hydro (pumping excluded)	37	37	37	37	37	37	37	0.0	0.0	0.0
Wind	447	1224	2237	3431	10096	10096	10096	17.5	16.3	0.0
Solar	13	51	88	1238	5586	5586	5814	21.1	51.4	0.4
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	20066	19931	22225	25674	22122	20397	17158	1.0	0.0	-2.5
of which cogeneration units	7372	7162	9300	8515	2413	4605	5218	2.4	-12.6	8.0
of which CCS units	0	0	0	0	0	250	250	0.0	0.0	0.0
Solids fired	4394	4394	4394	6975	5388	5054	4429	0.0	2.1	-1.9
Gas fired	14667	14529	16575	17356	14403	13008	10407	1.2	-1.4	-3.2
Oil fired	490	218	218	204	77	77	66	-7.8	-9.9	-1.6
Biomass-waste fired	514	790	1037	1138	2254	2257	2257	7.3	8.1	0.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	50.5	52.1	38.3	35.5	40.7	41.9			
Efficiency of gross thermal power generation (%)	41.6	41.4	44.5	45.4	43.6	43.8	44.8			
% of gross electricity from CHP	37.6	29.4	33.2	37.8	16.9	20.6	26.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	1.4	1.6			
% of carbon free (RES, nuclear) gross electricity generation	9.0	12.8	14.2	19.2	42.6	36.3	39.8			
Fuel Inputs to Thermal Power Generation (ktoe)	17516	19517	21244	18047	17082	19345	17426	1.9	-2.2	0.2
Solids	4998	4958	4669	6490	4875	6199	4434	-0.7	0.4	-0.9
Oil (including refinery gas)	634	553	342	177	0	20	20	-6.0	-80.0	276.4
Gas (including derived gases)	10671	11953	13773	9489	7761	9515	9374	2.6	-5.6	1.9
Biomass & Waste	1213	2052	2460	1892	4446	3612	3599	7.3	6.1	-2.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	86454	91417	68924	63771	61738	59313	56542	-2.2	-1.1	-0.9
Refineries	82233	86869	64188	58847	56693	54875	52440	-2.4	-1.2	-0.8
Biofuels and hydrogen production	0	0	230	579	485	471	520	0.0	7.8	0.7
District heating	398	436	499	366	338	315	274	2.3	-3.8	-2.1
Derived gases, cokeries etc.	3824	4113	4007	3979	4222	3652	3308	0.5	0.5	-2.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Netherlands: EUO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	184	195	183	191	200	205	213	-0.1	0.9	0.6
Public road transport	11	12	12	13	13	14	14	0.8	0.9	0.9
Private cars and motorcycles	143	152	138	141	147	147	150	-0.4	0.6	0.3
Rail	16	17	17	19	21	23	25	0.5	2.1	1.9
Aviation ⁽³⁾	13	14	15	17	18	20	22	1.1	2.4	1.8
Inland navigation	1	1	1	1	1	1	1	0.1	1.1	1.5
Freight transport activity (Gtkm)	94	100	106	111	121	128	134	1.3	1.3	1.0
Heavy goods and light commercial vehicles	48	51	54	55	61	62	64	1.2	1.3	0.5
Rail	5	6	6	6	7	8	8	2.7	1.5	1.9
Inland navigation	41	42	47	50	53	58	62	1.2	1.3	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	14297	15197	14986	14817	14207	13213	12499	0.5	-0.5	-1.3
Public road transport	212	224	260	267	270	273	269	2.1	0.4	-0.1
Private cars and motorcycles	8007	8288	8206	7708	6904	6018	5501	0.2	-1.7	-2.2
Heavy goods and light commercial vehicles	2184	2594	2715	2594	2740	2662	2634	2.2	0.1	-0.4
Rail	184	172	182	189	204	219	228	-0.1	1.1	1.1
Aviation	3382	3712	3463	3821	3835	3766	3577	0.2	1.0	-0.7
Inland navigation	328	207	159	239	253	275	291	-7.0	4.8	1.4
By transport activity										
Passenger transport	11703	12265	11985	11861	11079	10132	9427	0.2	-0.8	-1.6
Freight transport	2594	2933	3001	2957	3128	3081	3072	1.5	0.4	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	0.9	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	4.0	3.6	4.1	4.5			
ENERGY EFFICIENCY										
Primary energy consumption	65081	68457	69030	69864	68640	65484	57421	0.6	-0.1	-1.8
Final Energy Demand	50505	51654	51835	50854	50340	46635	40325	0.3	-0.3	-2.2
by sector										
Industry	14804	14814	12208	12815	13601	12619	11608	-1.9	1.1	-1.6
Energy intensive industries	10277	10532	8224	8734	9329	8640	8026	-2.2	1.3	-1.5
Other industrial sectors	4527	4281	3984	4082	4271	3978	3582	-1.3	0.7	-1.7
Residential	10299	10143	11518	10892	10509	9963	7862	1.1	-0.9	-2.9
Tertiary	11104	11499	13124	12329	12024	10841	8356	1.7	-0.9	-3.6
Transport ⁽⁵⁾	14297	15198	14985	14817	14207	13213	12499	0.5	-0.5	-1.3
by fuel										
Solids	1330	1515	1270	1402	1592	1564	1041	-0.5	2.3	-4.2
Oil	16505	17382	16113	15746	14872	13368	12069	-0.2	-0.8	-2.1
Gas	21011	20346	22378	21405	20301	17468	13380	0.6	-1.0	-4.1
Electricity	8408	8986	9189	9034	9561	9786	9202	0.9	0.4	-0.4
Heat (from CHP and District Heating)	2893	2981	2106	2038	2150	2255	2068	-3.1	0.2	-0.4
Renewable energy forms	358	444	780	1223	1837	2090	2370	8.1	8.9	2.6
Other	0	0	0	8	27	106	196	-100.0	0.0	21.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	141	142	141	135	125	115	99	0.0	-1.2	-2.3
Industry (Energy on Value added, index 2000=100)	100	96	75	75	74	65	57	-2.9	-0.2	-2.5
Residential (Energy on Private Income, index 2000=100)	100	94	106	98	87	77	57	0.6	-2.0	-4.2
Tertiary (Energy on Value added, index 2000=100)	100	96	101	94	85	72	53	0.1	-1.7	-4.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	40	37	32	27	24	-0.4	-2.4	-2.8
Freight transport (toe/Mtkm)	28	29	28	27	26	24	23	0.2	-0.9	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	222.8	221.6	216.9	209.7	193.1	185.7	160.5	-0.3	-1.2	-1.8
of which ETS sectors (2013 scope) GHG emissions		103.3	95.6	95.8	85.2	87.9	75.2		-1.1	-1.2
of which ESD sectors (2013 scope) GHG emissions		118.2	121.4	113.8	107.9	97.8	85.3		-1.2	-2.3
CO ₂ Emissions (energy related)	168.5	175.7	175.0	171.3	155.9	149.4	124.5	0.4	-1.2	-2.2
Power generation/District heating	51.9	55.5	57.7	54.3	43.7	50.7	42.9	1.1	-2.7	-0.2
Energy Branch	11.1	12.3	8.8	10.4	9.9	8.7	7.9	-2.3	1.2	-2.3
Industry	26.6	26.5	22.9	26.6	27.6	23.2	18.0	-1.5	1.9	-4.2
Residential	18.9	17.9	20.6	19.1	17.5	15.6	11.0	0.9	-1.7	-4.5
Tertiary	17.5	18.3	21.1	18.7	16.6	13.8	10.1	1.9	-2.4	-4.8
Transport	42.4	45.3	43.9	42.3	40.6	37.3	34.6	0.4	-0.8	-1.6
CO ₂ Emissions (non energy and non land use related)	7.1	8.8	8.6	8.5	8.8	8.9	8.8	2.0	0.3	0.0
Non-CO2 GHG emissions	47.3	37.0	33.3	29.9	28.3	27.5	27.2	-3.4	-1.6	-0.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.0	98.4	96.4	93.2	85.8	82.5	71.3	-0.3	-1.2	-1.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.40	0.38	0.37	0.38	0.28	0.30	0.27	-0.6	-3.0	-0.4
Final energy demand (t of CO ₂ /toe)	2.09	2.09	2.09	2.10	2.03	1.93	1.83	0.0	-0.3	-1.0
Industry	1.80	1.79	1.87	2.07	2.03	1.84	1.55	0.4	0.8	-2.7
Residential	1.84	1.77	1.79	1.75	1.66	1.57	1.40	-0.2	-0.7	-1.7
Tertiary	1.58	1.59	1.61	1.51	1.38	1.27	1.21	0.2	-1.5	-1.3
Transport	2.97	2.98	2.93	2.86	2.86	2.82	2.77	-0.1	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	3.9	5.2	13.1	14.0	17.0			
RES-H&C share	1.5	2.1	2.9	2.9	7.8	9.6	12.7			
RES-E share	2.6	6.3	9.7	12.9	37.9	34.0	37.4			
RES-T share (based on ILUC formula)	0.1	0.2	3.1	9.3	10.8	13.4	17.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	65	73	83	87	92	2.7	2.4	1.0
Average Price of Electricity in Final demand sectors (€13/MWh)	118	130	129	120	136	141	151	0.9	0.5	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	47.8	60.9	67.3	65.0	78.1	83.5	95.2	3.5	1.5	2.0
as % of GDP	8.9	10.6	11.0	10.5	11.7	11.8	12.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Poland: EU CO ₂ 33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	38	38	38	38	38	38	37	0.0	0.1	-0.2
GDP (in 000 M€13)	253	294	371	425	492	559	623	3.9	2.9	2.4
Gross Inland Consumption (ktoe)	88648	92226	100730	101934	105505	103730	94933	1.3	0.5	-1.1
Solids	56291	54612	54608	53011	50293	45885	38593	-0.3	-0.8	-2.6
Oil	19037	21696	25747	25895	26605	25255	23702	3.1	0.3	-1.1
Natural gas	9964	12237	12807	13159	16176	17534	17011	2.5	2.4	0.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-548	-962	-116	6	63	167	83	-14.4	0.0	2.7
Renewable energy forms	3905	4643	7684	9863	12368	14889	15544	7.0	4.9	2.3
Energy Branch Consumption	6664	6104	6095	6243	6146	5492	5132	-0.9	0.1	-1.8
Non-Energy Uses	4357	4573	4961	5545	6359	6996	7350	1.3	2.5	1.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	79590	78592	67394	70900	70360	65802	59214	-1.6	0.4	-1.7
Solids	71299	68857	55381	55586	52049	44587	35458	-2.5	-0.6	-3.8
Oil	1062	1143	1063	1539	1581	1533	1486	0.0	4.0	-0.6
Natural gas	3317	3887	3696	3947	4583	4860	6789	1.1	2.2	4.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3912	4705	7254	9829	12148	14822	15480	6.4	5.3	2.5
Hydro	181	189	251	206	209	218	242	3.3	-1.8	1.5
Biomass & Waste	3728	4493	6838	8749	10836	12234	12061	6.3	4.7	1.1
Wind	0	12	143	832	984	2123	2629	80.0	21.3	10.3
Solar and others	0	0	8	22	82	199	230	0.0	25.5	10.9
Geothermal	3	11	13	21	38	47	318	16.1	11.0	23.6
Net Imports (ktoe)	8773	15932	31567	31285	35436	38248	36062	13.7	1.2	0.2
Solids	-16353	-13039	-2814	-2575	-1756	1298	3134	-16.1	-4.6	0.0
Oil	19067	21466	25187	24607	25312	24032	22534	2.8	0.0	-1.2
Crude oil and Feedstocks	17616	17893	22965	24633	24824	23271	21558	2.7	0.8	-1.4
Oil products	1451	3573	2222	-26	488	762	976	4.4	-14.1	7.2
Natural gas	6607	8531	8874	9213	11597	12683	10246	3.0	2.7	-1.2
Electricity	-548	-962	-116	6	63	167	83	-14.4	0.0	2.7
Import Dependency (%)	9.9	17.2	31.3	30.6	33.5	36.8	37.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	143174	155359	157089	162367	177614	190236	192230	0.9	1.2	0.8
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	135888	142161	136592	137628	142538	132552	123834	0.1	0.4	-1.4
Oil (including refinery gas)	1916	2757	2892	9	0	470	470	4.2	-100.0	0.0
Gas (including derived gases)	2961	6573	6689	2968	9692	17357	17500	8.5	3.8	6.1
Biomass-waste	298	1532	6332	9667	11452	12559	16953	35.7	6.1	4.0
Hydro (pumping excluded)	2106	2201	2920	2397	2427	2538	2816	3.3	-1.8	1.5
Wind	5	135	1664	9669	11437	24692	30572	78.7	21.3	10.3
Solar	0	0	0	29	67	67	84	0.0	0.0	2.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	30310	31721	33411	38260	33728	38715	40830	1.0	0.1	1.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	821	1036	2044	6084	6756	12796	15363	9.6	12.7	8.6
Hydro (pumping excluded)	817	915	936	949	949	984	1052	1.4	0.1	1.0
Wind	4	121	1108	5100	5728	11733	14212	75.5	17.9	9.5
Solar	0	0	0	35	79	79	99	0.0	0.0	2.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	29489	30685	31367	32176	26972	25918	25467	0.6	-1.5	-0.6
of which cogeneration units	9354	8313	8693	6564	6335	7703	6706	-0.7	-3.1	0.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	28214	28608	29158	28543	23118	20835	19408	0.3	-2.3	-1.7
Gas fired	764	1548	1592	1659	1703	2861	3713	7.6	0.7	8.1
Oil fired	396	396	396	398	171	162	155	0.0	-8.1	-0.9
Biomass-waste fired	115	133	221	1574	1980	2060	2192	6.8	24.5	1.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.0	51.1	48.8	44.3	55.2	52.0	50.1			
Efficiency of gross thermal power generation (%)	33.1	33.9	34.2	35.2	37.4	37.3	38.0			
% of gross electricity from CHP	16.1	16.8	17.6	18.2	20.6	18.4	16.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	1.7	2.5	6.9	13.4	14.3	21.0	26.2			
Fuel Inputs to Thermal Power Generation (ktoe)	36625	38771	38341	36695	37617	37536	35925	0.5	-0.2	-0.5
Solids	35247	36349	34345	33735	33209	31349	29301	-0.3	-0.3	-1.2
Oil (including refinery gas)	245	184	171	2	0	154	154	-3.5	-74.4	286.6
Gas (including derived gases)	1032	1805	2179	913	1947	3151	3051	7.8	-1.1	4.6
Biomass & Waste	102	434	1645	2046	2460	2882	3419	32.1	4.1	3.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	32964	31279	38702	40301	40611	37639	33246	1.6	0.5	-2.0
Refineries	18969	18975	24192	27120	27437	25886	24131	2.5	1.3	-1.3
Biofuels and hydrogen production	0	49	887	1100	1396	1372	1289	0.0	4.6	-0.8
District heating	4179	3465	3716	3183	3579	3204	2685	-1.2	-0.4	-2.8
Derived gases, cokeries etc.	9816	8789	9908	8898	8200	7178	5141	0.1	-1.9	-4.6

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Poland: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	225	233	268	302	344	372	405	1.7	2.6	1.6
Public road transport	59	49	42	44	46	48	49	-3.4	1.1	0.6
Private cars and motorcycles	134	156	194	223	254	270	289	3.8	2.7	1.3
Rail	29	23	22	24	31	38	46	-2.5	3.2	4.3
Aviation ⁽³⁾	3	5	9	11	13	16	20	12.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	-0.9	2.0	2.1
Freight transport activity (Gtkm)	114	140	170	201	228	256	286	4.0	3.0	2.3
Heavy goods and light commercial vehicles	59	90	121	150	167	186	206	7.4	3.3	2.1
Rail	54	50	49	51	61	70	79	-1.0	2.2	2.7
Inland navigation	1	0	0	0	0	0	0	-16.7	2.7	3.4
Energy demand in transport (ktoe) ⁽⁴⁾	9830	12265	17459	18691	19785	19273	19116	5.9	1.3	-0.3
Public road transport	654	581	610	632	668	680	673	-0.7	0.9	0.1
Private cars and motorcycles	6314	7213	9660	10120	10620	9773	9342	4.3	1.0	-1.3
Heavy goods and light commercial vehicles	2041	3678	6307	6957	7373	7570	7684	11.9	1.6	0.4
Rail	541	469	372	366	427	476	529	-3.7	1.4	2.2
Aviation	274	319	508	613	693	771	883	6.4	3.1	2.5
Inland navigation	6	5	3	3	4	4	5	-7.4	2.3	2.5
By transport activity										
Passenger transport	7317	8170	10823	11407	12035	11290	10977	4.0	1.1	-0.9
Freight transport	2514	4095	6636	7283	7750	7984	8139	10.2	1.6	0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	0.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	5.2	6.0	7.2	7.3	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	84291	87654	95769	96389	99145	96735	87583	1.3	0.3	-1.2
Final Energy Demand	55260	58986	67070	68144	71625	69844	62439	2.0	0.7	-1.4
by sector										
Industry	18504	16147	14193	16600	17411	18104	17013	-2.6	2.1	-0.2
Energy intensive industries	13031	10951	9372	10814	11106	11130	9998	-3.2	1.7	-1.0
Other industrial sectors	5473	5196	4821	5786	6306	6975	7016	-1.3	2.7	1.1
Residential	17193	19454	22501	20556	21360	20121	16018	2.7	-0.5	-2.8
Tertiary	9644	10846	12664	12057	12796	12073	10036	2.8	0.1	-2.4
Transport ⁽⁵⁾	9919	12539	17712	18930	20058	19545	19371	6.0	1.3	-0.3
by fuel										
Solids	13215	12285	14494	13387	11176	9531	5942	0.9	-2.6	-6.1
Oil	15500	17844	20727	21289	21504	19842	18255	2.9	0.4	-1.6
Gas	7574	8780	9468	9673	11131	11018	10225	2.3	1.6	-0.8
Electricity	8482	9064	10238	11011	12301	13567	13708	1.9	1.9	1.1
Heat (from CHP and District Heating)	6886	7056	6547	6063	6917	6518	5966	-0.5	0.6	-1.5
Renewable energy forms	3602	3957	5596	6721	8594	9358	8291	4.5	4.4	-0.4
Other	0	0	0	1	1	11	51	0.0	0.0	44.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	350	313	272	240	214	186	152	-2.5	-2.4	-3.3
Industry (Energy on Value added, index 2000=100)	100	64	36	36	32	29	24	-9.7	-1.3	-2.8
Residential (Energy on Private Income, index 2000=100)	100	98	93	74	66	54	38	-0.8	-3.4	-5.2
Tertiary (Energy on Value added, index 2000=100)	100	100	100	83	76	63	47	0.0	-2.7	-4.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	32	34	39	36	34	29	26	2.0	-1.5	-2.6
Freight transport (toe/Mtkm)	22	29	39	36	34	31	28	5.9	-1.4	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	400.5	403.1	411.9	407.8	400.0	376.9	338.1	0.3	-0.3	-1.7
of which ETS sectors (2013 scope) GHG emissions		222.2	210.3	208.8	206.3	196.3	176.4		-0.2	-1.6
of which ESD sectors (2013 scope) GHG emissions		180.9	201.6	199.0	193.7	180.6	161.7		-0.4	-1.8
CO ₂ Emissions (energy related)	303.3	307.5	320.7	311.8	307.1	286.0	249.4	0.6	-0.4	-2.1
Power generation/District heating	167.4	171.0	165.6	157.9	158.6	152.3	138.3	-0.1	-0.4	-1.4
Energy Branch	10.2	7.7	8.5	9.7	9.1	7.8	7.3	-1.8	0.7	-2.2
Industry	51.9	36.9	30.4	34.9	31.8	28.8	22.0	-5.2	0.4	-3.6
Residential	27.4	35.5	44.9	37.8	34.6	29.8	19.7	5.1	-2.6	-5.5
Tertiary	18.4	20.7	21.9	19.1	18.1	14.2	10.1	1.7	-1.9	-5.6
Transport	28.0	35.8	49.3	52.4	54.8	53.0	51.9	5.8	1.1	-0.5
CO ₂ Emissions (non energy and non land use related)	22.3	20.8	20.2	22.9	25.4	26.3	26.7	-1.0	2.3	0.5
Non-CO2 GHG emissions	75.0	74.7	71.0	73.2	67.5	64.6	62.1	-0.5	-0.5	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.4	84.9	86.8	85.9	84.3	79.4	71.2	0.3	-0.3	-1.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.71	0.69	0.67	0.65	0.59	0.55	0.51	-0.6	-1.2	-1.5
Final energy demand (t of CO ₂ /toe)	2.27	2.18	2.19	2.12	1.95	1.80	1.66	-0.4	-1.2	-1.6
Industry	2.81	2.28	2.14	2.10	1.83	1.59	1.29	-2.6	-1.6	-3.4
Residential	1.59	1.83	2.00	1.84	1.62	1.48	1.23	2.3	-2.1	-2.7
Tertiary	1.91	1.91	1.73	1.59	1.41	1.18	1.01	-1.0	-2.0	-3.3
Transport	2.82	2.85	2.79	2.77	2.73	2.71	2.68	-0.1	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.5	6.9	9.2	11.8	15.1	18.1	20.3			
RES-H&C share	9.6	10.2	11.6	13.8	19.1	22.2	25.0			
RES-E share	1.6	2.7	6.6	13.4	14.2	20.8	26.1			
RES-T share (based on ILUC formula)	0.2	0.7	6.1	7.5	10.1	10.7	10.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	38	40	49	67	72	78	85	2.6	3.9	1.7
Average Price of Electricity in Final demand sectors (€13/MWh)	77	93	128	121	130	136	142	5.2	0.1	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	34.0	46.3	66.0	71.1	93.0	108.6	130.0	6.9	3.5	3.4
as % of GDP	13.4	15.7	17.8	16.7	18.9	19.4	20.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Portugal: EU CO ₂ 33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	10	10	11	10	10	10	10	0.3	-0.4	-0.4
GDP (in 000 M€13)	169	176	181	174	187	204	217	0.7	0.4	1.5
Gross Inland Consumption (ktoe)	25285	27475	24205	22984	21378	20549	17518	-0.4	-1.2	-2.0
Solids	3805	3349	1658	3347	854	10	4	-8.0	-6.4	-41.8
Oil	15475	16174	12215	10669	10364	9781	8919	-2.3	-1.6	-1.5
Natural gas	2078	3751	4489	3446	3423	3658	1633	8.0	-2.7	-7.1
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Renewable energy forms	3846	3615	5618	5328	6287	6600	6526	3.9	1.1	0.4
Energy Branch Consumption	1028	1235	1195	1417	1209	1230	1145	1.5	0.1	-0.5
Non-Energy Uses	2393	2587	1728	1470	1485	1524	1509	-3.2	-1.5	0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3891	3615	5800	5217	6156	6476	6378	4.1	0.6	0.4
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0
Natural gas	45	0	0	0	0	0	0	-96.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3846	3615	5800	5217	6156	6476	6378	4.2	0.6	0.4
Hydro	974	407	1389	821	1596	1562	1623	3.6	1.4	0.2
Biomass & Waste	2770	2967	3375	3181	3274	3258	2668	2.0	-0.3	-2.0
Wind	14	153	790	1004	1012	1051	1467	49.2	2.5	3.8
Solar and others	19	23	66	136	199	528	541	13.6	11.6	10.5
Geothermal	70	66	181	76	76	77	79	10.0	-8.3	0.4
Net Imports (ktoe)	22072	24845	18588	18330	15776	14612	11665	-1.7	-1.6	-3.0
Solids	3914	3225	1629	3347	854	10	4	-8.4	-6.3	-41.8
Oil	16039	17140	12436	11231	10912	10307	9410	-2.5	-1.3	-1.5
Crude oil and Feedstocks	12316	13795	11875	14608	14053	13303	12315	-0.4	1.7	-1.3
Oil products	3723	3345	561	-3376	-3141	-2995	-2905	-17.2	0.0	-0.8
Natural gas	2039	3893	4505	3446	3428	3670	1666	8.2	-2.7	-7.0
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Import Dependency (%)	85.1	88.6	75.1	77.8	71.9	69.3	64.7			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	43372	46188	53688	50204	48553	50395	44680	2.2	-1.0	-0.8
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	14595	15226	7100	14862	3700	0	0	-7.0	-6.3	-100.0
Oil (including refinery gas)	8421	8791	3008	770	1922	1253	609	-9.8	-4.4	-10.9
Gas (including derived gases)	7231	13606	14900	9528	8564	10128	520	7.5	-5.4	-24.4
Biomass-waste	1553	1987	2942	2936	3064	4012	3013	6.6	0.4	-0.2
Hydro (pumping excluded)	11323	4731	16148	9545	18557	18167	18870	3.6	1.4	0.2
Wind	168	1773	9182	11676	11767	12224	17057	49.2	2.5	3.8
Solar	1	3	212	680	789	4403	4403	68.3	14.1	18.8
Geothermal and other renewables	80	71	196	208	208	208	208	9.4	0.6	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	10989	13461	18921	21094	21872	22538	24518	5.6	1.5	1.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	4619	6083	9036	12611	14827	16996	19069	6.9	5.1	2.5
Hydro (pumping excluded)	4535	5017	5106	7065	9183	9408	9971	1.2	6.0	0.8
Wind	83	1064	3796	5079	5113	5256	6766	46.6	3.0	2.8
Solar	1	2	134	467	531	2332	2332	63.2	14.8	16.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6370	7378	9885	8484	7045	5542	5449	4.5	-3.3	-2.5
of which cogeneration units	1676	1079	1310	1491	1672	1386	1092	-2.4	2.5	-4.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1774	1728	1728	1728	578	0	0	-0.3	-10.4	-100.0
Gas fired	1542	2477	4799	5062	5012	4153	4077	12.0	0.4	-2.0
Oil fired	2819	2915	2990	1144	783	695	669	0.6	-12.5	-1.6
Biomass-waste fired	221	244	343	521	643	665	674	4.5	6.5	0.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	14	14	25	29	29	29	29	6.0	1.5	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	43.5	37.8	31.6	26.3	24.9	25.2	20.6			
Efficiency of gross thermal power generation (%)	42.0	43.1	41.8	42.2	43.7	41.3	29.3			
% of gross electricity from CHP	10.0	11.6	11.8	17.0	22.6	13.2	9.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	30.3	18.5	53.4	49.9	70.8	77.4	97.5			
Fuel Inputs to Thermal Power Generation (ktoe)	6520	7914	5787	5770	3429	3247	1277	-1.2	-5.1	-9.4
Solids	3198	3319	1597	3329	839	0	0	-6.7	-6.2	-100.0
Oil (including refinery gas)	1683	1793	574	185	454	296	144	-10.2	-2.3	-10.9
Gas (including derived gases)	1215	2309	2775	1560	1400	1830	141	8.6	-6.6	-20.5
Biomass & Waste	356	428	662	621	661	1046	917	6.4	0.0	3.3
Geothermal heat	69	65	180	75	75	75	75	10.1	-8.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	13004	13953	12457	15231	14670	13904	12872	-0.4	1.6	-1.3
Refineries	12555	13953	12148	14807	14243	13485	12473	-0.3	1.6	-1.3
Biofuels and hydrogen production	0	0	309	422	423	394	369	0.0	3.2	-1.4
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	449	0	0	1	4	24	30	0.0	0.0	22.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Portugal: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	105	115	116	121	125	135	143	1.0	0.8	1.4
Public road transport	12	6	6	6	6	7	7	-6.4	0.5	1.2
Private cars and motorcycles	73	87	86	86	86	92	97	1.7	0.1	1.2
Rail	5	5	5	5	6	7	8	1.4	1.7	2.4
Aviation ⁽³⁾	16	17	18	23	26	29	31	1.6	3.3	2.0
Inland navigation	0	0	0	0	0	0	0	1.0	0.9	1.4
Freight transport activity (Gtkm)	26	32	27	28	30	32	34	0.5	0.9	1.4
Heavy goods and light commercial vehicles	20	25	20	20	21	23	24	-0.4	0.9	1.2
Rail	2	2	2	2	3	3	3	0.6	1.5	2.5
Inland navigation	4	5	5	6	6	6	7	4.6	0.6	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	6636	7188	7226	6867	6637	6451	6267	0.9	-0.8	-0.6
Public road transport	237	135	129	129	128	134	144	-5.9	0.0	1.1
Private cars and motorcycles	4590	5056	5149	4730	4385	4031	3791	1.2	-1.6	-1.4
Heavy goods and light commercial vehicles	891	1026	835	797	844	874	866	-0.6	0.1	0.3
Rail	89	67	57	50	56	57	62	-4.3	-0.3	1.1
Aviation	784	888	1012	1124	1185	1313	1361	2.6	1.6	1.4
Inland navigation	45	18	45	37	39	41	43	0.1	-1.5	1.1
By transport activity										
Passenger transport	5689	6109	6318	6007	5726	5505	5324	1.1	-1.0	-0.7
Freight transport	947	1079	908	860	911	946	943	-0.4	0.0	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	4.3	6.2	6.5	6.6	6.4			
ENERGY EFFICIENCY										
Primary energy consumption	22892	24889	22477	21514	19893	19025	16009	-0.2	-1.2	-2.1
Final Energy Demand	17919	19009	18022	16789	16838	15905	14068	0.1	-0.7	-1.8
by sector										
Industry	6323	5796	5453	5066	5170	4954	4390	-1.5	-0.5	-1.6
Energy intensive industries	4179	3889	3634	3613	3671	3536	3065	-1.4	0.1	-1.8
Other industrial sectors	2144	1907	1819	1452	1499	1418	1325	-1.6	-1.9	-1.2
Residential	2804	3224	2976	2632	2762	2361	1803	0.6	-0.7	-4.2
Tertiary	2157	2801	2368	2224	2268	2139	1609	0.9	-0.4	-3.4
Transport ⁽⁵⁾	6636	7188	7226	6867	6637	6451	6267	0.9	-0.8	-0.6
by fuel										
Solids	466	17	50	17	15	10	4	-20.0	-11.4	-12.8
Oil	10713	10812	9199	8142	7696	7183	6534	-1.5	-1.8	-1.6
Gas	873	1307	1564	1691	1835	1649	1329	6.0	1.6	-3.2
Electricity	3300	3983	4290	3865	4052	4279	3819	2.7	-0.6	-0.6
Heat (from CHP and District Heating)	134	328	338	325	364	296	309	9.7	0.7	-1.6
Renewable energy forms	2434	2563	2581	2748	2872	2463	2035	0.6	1.1	-3.4
Other	0	0	0	1	4	25	37	0.0	0.0	24.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	150	156	134	132	114	101	81	-1.1	-1.6	-3.4
Industry (Energy on Value added, index 2000=100)	100	93	89	85	82	74	64	-1.2	-0.8	-2.5
Residential (Energy on Private Income, index 2000=100)	100	108	94	87	86	67	48	-0.6	-0.9	-5.7
Tertiary (Energy on Value added, index 2000=100)	100	120	94	91	86	74	52	-0.6	-0.9	-4.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	47	46	41	37	32	29	-0.3	-2.2	-2.3
Freight transport (toe/Mtkm)	36	33	33	31	30	29	28	-0.9	-0.8	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.9	90.7	73.4	73.2	59.8	54.6	45.7	-1.7	-2.0	-2.6
of which ETS sectors (2013 scope) GHG emissions		40.6	27.7	32.3	22.1	19.6	14.4		-2.2	-4.2
of which ESD sectors (2013 scope) GHG emissions		50.1	45.7	40.9	37.7	35.1	31.4		-1.9	-1.8
CO ₂ Emissions (energy related)	61.0	64.6	49.6	50.1	38.9	34.1	26.7	-2.1	-2.4	-3.7
Power generation/District heating	21.7	24.9	14.9	18.0	8.2	5.3	0.8	-3.6	-5.8	-20.8
Energy Branch	2.5	3.1	2.5	3.1	2.6	2.8	2.6	-0.2	0.6	-0.1
Industry	11.6	8.2	6.3	5.7	5.5	5.2	4.0	-5.9	-1.2	-3.2
Residential	2.0	2.3	2.6	2.0	2.0	1.3	0.8	2.5	-2.4	-9.3
Tertiary	3.4	4.4	2.4	2.0	1.7	1.5	1.0	-3.2	-3.3	-5.0
Transport	19.9	21.7	20.9	19.5	18.8	18.2	17.5	0.5	-1.1	-0.7
CO ₂ Emissions (non energy and non land use related)	6.6	7.0	5.4	6.1	6.1	6.2	6.2	-2.0	1.1	0.2
Non-CO2 GHG emissions	19.3	19.1	18.4	16.9	14.8	14.3	12.8	-0.4	-2.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	139.7	145.8	118.0	117.7	96.1	87.8	73.5	-1.7	-2.0	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.50	0.25	0.32	0.15	0.09	0.02	-6.3	-5.0	-20.1
Final energy demand (t of CO ₂ /toe)	2.05	1.92	1.78	1.73	1.66	1.64	1.65	-1.4	-0.7	-0.1
Industry	1.83	1.42	1.15	1.12	1.07	1.04	0.91	-4.5	-0.7	-1.6
Residential	0.71	0.72	0.86	0.75	0.73	0.53	0.42	1.9	-1.7	-5.4
Tertiary	1.55	1.56	1.02	0.88	0.76	0.70	0.64	-4.1	-2.9	-1.7
Transport	3.00	3.01	2.89	2.84	2.83	2.82	2.79	-0.4	-0.2	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	19.1	19.4	24.3	25.3	33.4	36.1	41.4			
RES-H&C share	30.4	32.1	33.9	36.8	38.5	39.2	41.0			
RES-E share	28.3	27.7	40.7	47.5	63.7	69.2	87.5			
RES-T share (based on ILUC formula)	0.4	0.4	5.7	1.3	10.9	13.5	19.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	67	76	79	98	112	114	106	1.6	3.6	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	118	120	104	128	139	142	148	-1.3	3.0	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	16.8	22.3	24.4	23.5	28.5	30.7	34.3	3.8	1.6	1.9
as % of GDP	10.0	12.7	13.5	13.5	15.2	15.0	15.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Romania: EU/CO-33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (In million)	22	21	20	20	20	19	19	-1.0	-0.3	-0.4
GDP (in 000 M€13)	87	114	130	145	163	181	195	4.1	2.3	1.8
Gross Inland Consumption (ktoe)	36650	39207	35800	33091	34966	35481	30968	-0.2	-0.2	-1.2
Solids	7493	8788	7008	6207	6462	5153	3235	-0.7	-0.8	-6.7
Oil	9992	10286	9310	8775	8529	8379	7786	-0.7	-0.9	-0.9
Natural gas	13680	13923	10788	9688	10762	10114	7138	-2.3	0.0	-4.0
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1
Renewable energy forms	4137	5026	5891	6299	6965	6978	8029	3.6	1.7	1.4
Energy Branch Consumption	3675	4105	2839	2480	2444	2344	2071	-2.5	-1.5	-1.6
Non-Energy Uses	1883	2467	1473	1754	2001	2202	2347	-2.4	3.1	1.6
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	28465	28224	27824	26642	28344	30087	29160	-0.2	0.2	0.3
Solids	5604	5795	5904	5042	5111	3934	2289	0.5	-1.4	-7.7
Oil	6355	6226	4565	3643	3646	3656	3647	-3.3	-2.2	0.0
Natural gas	10968	9701	8619	8848	9960	9938	9628	-2.4	1.5	-0.3
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3
Renewable energy sources	4131	5070	5739	6271	6781	6811	7848	3.3	1.7	1.5
Hydro	1271	1738	1710	1386	1438	1443	1443	3.0	-1.7	0.0
Biomass & Waste	2854	3314	3980	4135	4555	4490	4318	3.4	1.4	-0.5
Wind	0	0	26	557	560	560	1541	0.0	35.8	10.7
Solar and others	0	0	0	163	183	249	401	0.0	111.9	8.2
Geothermal	7	18	23	30	46	69	145	13.1	7.1	12.3
Net Imports (ktoe)	8009	10867	7827	6473	6673	5431	1869	-0.2	-1.6	-11.9
Solids	1920	2939	1234	1165	1350	1219	946	-4.3	0.9	-3.5
Oil	3437	3988	4838	5156	4913	4760	4179	3.5	0.2	-1.6
Crude oil and Feedstocks	4801	8857	6233	5504	4994	4619	3993	2.6	-2.2	-2.2
Oil products	-1364	-4870	-1395	-348	-81	141	186	0.2	-24.8	0.0
Natural gas	2712	4190	1816	839	802	177	-2487	-3.9	-7.8	0.0
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1
Import Dependency (%)	21.8	27.7	21.9	19.5	19.1	15.3	6.0			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	51560	59413	60619	67527	70623	75681	73717	1.6	1.5	0.4
Nuclear energy	5456	5555	11623	11890	11922	23792	23606	7.9	0.3	7.1
Solids	18926	21916	20681	21982	22414	16795	9208	0.9	0.8	-8.5
Oil (including refinery gas)	3399	1894	692	625	406	229	204	-14.7	-5.2	-6.6
Gas (including derived gases)	9001	9834	7323	8032	9934	8152	465	-2.0	3.1	-26.4
Biomass-waste	0	7	111	522	763	971	1721	0.0	21.3	8.5
Hydro (pumping excluded)	14778	20207	19883	16111	16723	16777	16779	3.0	-1.7	0.0
Wind	0	0	306	6473	6512	6512	17915	0.0	35.8	10.7
Solar	0	0	0	1891	1950	2452	3819	0.0	0.0	6.9
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	20197	19153	20120	24896	23884	22629	25641	0.0	1.7	0.7
Nuclear energy	672	672	1344	1414	1414	2828	2828	7.2	0.5	7.2
Renewable energy	6242	6289	6863	11413	11457	11707	16165	1.0	5.3	3.5
Hydro (pumping excluded)	6242	6289	6474	6645	6645	6645	6645	0.4	0.3	0.0
Wind	0	0	389	2976	2989	2989	6552	0.0	22.6	8.2
Solar	0	0	0	1792	1824	2074	2968	0.0	0.0	5.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	13283	12192	11913	12070	11012	8093	6649	-1.1	-0.8	-4.9
of which cogeneration units	3431	5246	4582	4234	4098	2288	2004	2.9	-1.1	-6.9
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	7602	7057	6643	6441	5626	3094	1909	-1.3	-1.6	-10.2
Gas fired	3728	3439	3488	4173	4115	4060	3849	-0.7	1.7	-0.7
Oil fired	1806	1691	1759	1360	1132	771	676	-0.3	-4.3	-5.0
Biomass-waste fired	147	5	23	96	139	169	215	-16.9	19.7	4.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.5	33.1	31.5	28.5	31.2	35.7	31.4			
Efficiency of gross thermal power generation (%)	25.3	28.0	28.6	39.2	38.9	39.2	34.0			
% of gross electricity from CHP	32.3	26.2	10.8	12.0	12.4	8.9	6.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	39.2	43.4	52.7	54.6	53.6	66.7	86.6			
Fuel Inputs to Thermal Power Generation (ktoe)	10788	10329	8675	6836	7404	5731	2935	-2.2	-1.6	-8.8
Solids	5462	6085	5929	5216	5337	4105	2398	0.8	-1.0	-7.7
Oil (including refinery gas)	1736	799	327	176	130	73	65	-15.4	-8.8	-6.6
Gas (including derived gases)	3579	3437	2399	1331	1768	1334	104	-3.9	-3.0	-24.6
Biomass & Waste	12	9	21	113	169	219	367	6.1	23.3	8.0
Geothermal heat	0	0	1	0	0	0	0	0.0	-100.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	16275	19666	15568	13664	13412	15835	14973	-0.4	-1.5	1.1
Refineries	11250	15219	11480	9680	9157	8766	8115	0.2	-2.2	-1.2
Biofuels and hydrogen production	0	0	115	273	558	520	493	0.0	17.1	-1.2
District heating	1738	825	749	702	680	618	456	-8.1	-1.0	-3.9
Derived gases, cokeries etc.	3287	3621	3223	3009	3017	5929	5908	-0.2	-0.7	7.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Romania: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	85	93	110	118	130	144	158	2.6	1.7	2.0
Public road transport	12	12	12	12	13	13	14	0.0	0.8	0.7
Private cars and motorcycles	54	63	78	85	92	102	112	3.9	1.7	1.9
Rail	18	15	13	13	15	16	17	-3.3	1.6	1.6
Aviation ⁽³⁾	2	3	7	8	10	12	15	15.1	3.4	4.7
Inland navigation	0	0	0	0	0	0	0	-2.5	2.1	2.7
Freight transport activity (Gtkm)	27	56	43	51	61	69	77	4.7	3.5	2.3
Heavy goods and light commercial vehicles	8	31	16	20	25	29	32	7.2	4.4	2.4
Rail	16	17	12	15	18	21	23	-2.7	3.9	2.5
Inland navigation	3	8	14	15	18	20	21	18.4	2.1	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	3336	4186	5073	5448	5725	5850	5871	4.3	1.2	0.3
Public road transport	293	260	359	373	378	379	377	2.0	0.5	0.0
Private cars and motorcycles	2082	2416	3214	3381	3371	3278	3165	4.4	0.5	-0.6
Heavy goods and light commercial vehicles	363	1182	946	1142	1356	1474	1526	10.1	3.7	1.2
Rail	357	159	222	245	274	303	321	-4.6	2.1	1.6
Aviation	128	128	272	265	298	363	425	7.8	0.9	3.6
Inland navigation	113	42	59	42	47	52	56	-6.2	-2.2	1.7
By transport activity										
Passenger transport	2648	2855	3921	4091	4130	4112	4063	4.0	0.5	-0.2
Freight transport	689	1331	1152	1356	1595	1738	1807	5.3	3.3	1.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.3	5.1	10.0	9.2	8.7			
ENERGY EFFICIENCY										
Primary energy consumption	34767	36740	34326	31337	32985	33278	28642	-0.1	-0.4	-1.4
Final Energy Demand	22772	24714	22591	23117	24593	24315	21495	-0.1	0.9	-1.3
by sector										
Industry	9296	10007	6876	7316	8140	8275	7503	-3.0	1.7	-0.8
Energy intensive industries	6510	7208	4759	4794	5386	5349	4627	-3.1	1.2	-1.5
Other industrial sectors	2787	2799	2117	2522	2754	2926	2877	-2.7	2.7	0.4
Residential	8409	7990	8102	7825	8136	7688	6096	-0.4	0.0	-2.8
Tertiary	1606	2441	2489	2468	2529	2436	1959	4.5	0.2	-2.5
Transport ⁽⁵⁾	3460	4276	5124	5507	5789	5916	5937	4.0	1.2	0.3
by fuel										
Solids	1046	1611	939	815	939	853	663	-1.1	0.0	-3.4
Oil	5526	6628	6184	6765	6594	6500	5991	1.1	0.6	-1.0
Gas	6910	7754	6189	6337	6832	6664	5123	-1.1	1.0	-2.8
Electricity	2918	3341	3553	3683	4076	4278	4287	2.0	1.4	0.5
Heat (from CHP and District Heating)	3570	2136	1650	1493	1623	1670	1421	-7.4	-0.2	-1.3
Renewable energy forms	2802	3244	4077	4023	4527	4347	4000	3.8	1.1	-1.2
Other	0	0	0	0	1	4	10	-100.0	0.0	27.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	423	343	275	229	215	196	159	-4.2	-2.5	-3.0
Industry (Energy on Value added, index 2000=100)	100	78	44	41	40	37	31	-7.8	-1.0	-2.6
Residential (Energy on Private Income, index 2000=100)	100	59	49	43	39	33	24	-6.9	-2.1	-4.7
Tertiary (Energy on Value added, index 2000=100)	100	119	114	102	92	80	59	1.4	-2.1	-4.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	31	31	35	34	32	28	25	1.3	-1.2	-2.1
Freight transport (toe/Mtkm)	25	24	27	27	26	25	24	0.5	-0.2	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	145.9	151.3	125.5	118.7	118.5	110.1	91.0	-1.5	-0.6	-2.6
of which ETS sectors (2013 scope) GHG emissions	74.8	55.8	46.9	48.7	41.4	27.9		-1.3	-5.4	
of which ESD sectors (2013 scope) GHG emissions	76.5	69.6	71.8	69.7	68.7	63.1		0.0	-1.0	
CO ₂ Emissions (energy related)	88.8	95.8	77.4	71.5	73.8	65.9	48.6	-1.4	-0.5	-4.1
Power generation/District heating	42.0	39.0	33.6	27.2	28.6	21.8	11.0	-2.2	-1.6	-9.1
Energy Branch	6.8	7.7	5.1	4.0	3.8	3.6	3.4	-2.8	-2.9	-1.2
Industry	21.6	25.2	14.4	14.7	15.6	14.8	11.2	-4.0	0.9	-3.2
Residential	6.6	7.3	5.8	6.5	6.9	6.8	5.2	-1.2	1.7	-2.8
Tertiary	1.9	4.2	3.6	3.5	3.5	3.1	2.2	6.7	-0.4	-4.6
Transport	9.9	12.4	14.8	15.5	15.4	15.8	15.7	4.1	0.4	0.2
CO ₂ Emissions (non energy and non land use related)	13.4	8.7	7.1	7.4	7.8	7.8	7.5	-6.1	0.8	-0.4
Non-CO2 GHG emissions	43.8	46.7	40.9	39.8	36.9	36.5	34.9	-0.7	-1.0	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	57.4	59.5	49.4	46.7	46.6	43.3	35.8	-1.5	-0.6	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.42	0.39	0.30	0.30	0.22	0.12	-0.6	-2.5	-9.1
Final energy demand (t of CO ₂ /toe)	1.76	1.99	1.71	1.74	1.68	1.66	1.59	-0.3	-0.2	-0.5
Industry	2.33	2.52	2.09	2.01	1.92	1.79	1.50	-1.1	-0.8	-2.5
Residential	0.79	0.92	0.72	0.83	0.85	0.88	0.85	-0.8	1.6	0.0
Tertiary	1.17	1.70	1.44	1.42	1.37	1.27	1.11	2.2	-0.5	-2.1
Transport	2.86	2.90	2.89	2.81	2.67	2.67	2.64	0.1	-0.8	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.9	17.6	23.3	25.1	26.2	26.7	34.5			
RES-H&C share	16.1	17.9	27.4	25.9	26.4	27.4	32.4			
RES-E share	30.2	28.8	30.4	42.3	40.7	41.0	64.3			
RES-T share (based on ILUC formula)	2.3	1.9	3.8	7.5	10.2	10.4	15.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	72	70	76	75	74	74	5.0	0.7	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	52	105	90	101	108	116	126	5.7	1.9	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.9	19.1	23.0	26.7	32.5	37.2	45.0	8.8	3.5	3.3
as % of GDP	11.5	16.8	17.7	18.4	19.9	20.6	23.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovakia: EU/CO-33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	5	5	5	5	5	5	5	0.0	0.0	-0.2
GDP (in 000 M€13)	43	55	69	76	89	102	117	4.8	2.6	2.7
Gross Inland Consumption (ktoe)	18302	19029	17864	16867	18323	18474	17362	-0.2	0.3	-0.5
Solids	4278	4231	3897	3247	3117	2813	1940	-0.9	-2.2	-4.6
Oil	3415	3711	3692	3346	3438	3388	3412	0.8	-0.7	-0.1
Natural gas	5777	5884	5007	4939	4983	4961	3935	-1.4	0.0	-2.3
Nuclear	4255	4626	3819	3569	4953	5375	6343	-1.1	2.6	2.5
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Renewable energy forms	810	859	1360	1551	2036	2167	1970	5.3	4.1	-0.3
Energy Branch Consumption	623	1297	963	942	937	859	804	4.5	-0.3	-1.5
Non-Energy Uses	1365	1279	1053	1597	1738	1869	2012	-2.6	5.1	1.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	6389	6684	6345	6192	7956	8126	8613	-0.1	2.3	0.8
Solids	1018	637	613	593	512	437	157	-4.9	-1.8	-11.1
Oil	165	383	387	297	264	0	0	8.9	-3.7	-100.0
Natural gas	133	126	88	120	107	71	72	-4.0	1.9	-3.9
Nuclear	4255	4626	3819	3569	4953	5375	6343	-1.1	2.6	2.5
Renewable energy sources	818	912	1438	1613	2121	2242	2041	5.8	4.0	-0.4
Hydro	397	399	452	407	468	432	431	1.3	0.4	-0.8
Biomass & Waste	421	505	972	1148	1574	1636	1403	8.7	4.9	-1.1
Wind	0	1	1	1	2	77	77	0.0	16.2	42.4
Solar and others	0	0	6	51	63	70	77	0.0	26.9	2.1
Geothermal	0	8	8	6	14	28	52	0.0	5.4	14.1
Net Imports (ktoe)	11997	12428	11230	10675	10367	10348	8749	-0.7	-0.8	-1.7
Solids	3432	3739	2951	2654	2605	2376	1783	-1.5	-1.2	-3.7
Oil	3090	3274	3266	3048	3174	3388	3412	0.6	-0.3	0.7
Crude oil and Feedstocks	5720	5429	5282	5716	5602	5609	5417	-0.8	0.6	-0.3
Oil products	-2630	-2155	-2015	-2667	-2428	-2222	-2005	-2.6	1.9	-1.9
Natural gas	5707	5735	5003	4819	4876	4890	3864	-1.3	-0.3	-2.3
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Import Dependency (%)	65.5	65.3	62.9	63.3	56.6	56.0	50.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	30798	31352	27464	27068	34047	36709	36525	-1.1	2.2	0.7
Nuclear energy	16494	17727	14574	14662	20320	22049	27158	-1.2	3.4	2.9
Solids	5584	5535	3570	4120	4615	3678	1450	-4.4	2.6	-10.9
Oil (including refinery gas)	202	741	600	164	8	90	91	11.5	-34.7	26.8
Gas (including derived gases)	3871	2629	2716	1730	945	2593	229	-3.5	-10.0	-13.2
Biomass-waste	32	76	726	1129	2154	1853	1069	36.6	11.5	-6.8
Hydro (pumping excluded)	4615	4638	5255	4738	5445	5019	5014	1.3	0.4	-0.8
Wind	0	6	6	6	26	894	894	0.0	15.8	42.4
Solar	0	0	17	520	532	532	619	0.0	40.8	1.5
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	6919	7103	6715	7497	7732	8338	9116	-0.3	1.4	1.7
Nuclear energy	2707	2707	1845	1940	2820	2820	4020	-3.8	4.3	3.6
Renewable energy	1685	1601	1624	2220	2356	3041	3101	-0.4	3.8	2.8
Hydro (pumping excluded)	1685	1596	1600	1607	1718	1718	1718	-0.5	0.7	0.0
Wind	0	5	5	5	19	703	703	0.0	14.3	43.4
Solar	0	0	19	608	620	620	680	0.0	41.7	0.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2526	2795	3246	3337	2555	2477	1995	2.5	-2.4	-2.4
of which cogeneration units	618	5411	2821	1020	873	900	771	16.4	-11.1	-1.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1618	1617	1313	1274	792	711	454	-2.1	-4.9	-5.4
Gas fired	821	1067	1674	1738	1325	1323	1099	7.4	-2.3	-1.9
Oil fired	81	81	81	84	84	84	84	0.0	0.4	0.0
Biomass-waste fired	7	30	177	241	354	358	358	38.2	7.2	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.2	46.9	42.6	38.8	47.4	47.6	43.6			
Efficiency of gross thermal power generation (%)	31.4	29.0	25.6	36.3	37.0	36.5	29.2			
% of gross electricity from CHP	18.4	15.3	15.9	25.6	22.0	19.5	7.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.6	71.6	74.9	77.8	83.6	82.7	95.2			
Fuel Inputs to Thermal Power Generation (ktoe)	2656	2664	2555	1692	1796	1933	837	-0.4	-3.5	-7.4
Solids	1619	1677	1205	1089	1132	991	415	-2.9	-0.6	-9.5
Oil (including refinery gas)	31	100	293	34	3	30	30	25.4	-37.2	26.8
Gas (including derived gases)	1002	847	793	314	177	472	105	-2.3	-13.9	-5.1
Biomass & Waste	4	40	264	255	484	440	286	51.0	6.2	-5.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12901	13989	12558	12416	13528	13506	13992	-0.3	0.7	0.3
Refineries	5959	6398	6011	6450	6334	6106	5940	0.1	0.5	-0.6
Biofuels and hydrogen production	0	11	98	118	176	169	172	0.0	6.0	-0.2
District heating	674	718	497	367	376	362	264	-3.0	-2.8	-3.5
Derived gases, cokeries etc.	6268	6862	5952	5481	6642	6869	7616	-0.5	1.1	1.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovakia: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	37	39	36	38	45	51	57	-0.2	2.2	2.4
Public road transport	9	9	5	6	6	7	8	-5.5	2.0	2.2
Private cars and motorcycles	24	26	27	28	34	38	42	1.2	2.1	2.2
Rail	3	3	3	3	3	4	5	-2.1	2.9	3.3
Aviation ⁽³⁾	0	2	1	1	1	2	2	15.3	3.0	4.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	20	21	22	23	26	29	32	1.1	1.8	2.1
Heavy goods and light commercial vehicles	7	11	13	14	15	16	18	6.0	1.9	1.6
Rail	11	9	8	8	10	11	13	-3.2	1.8	3.0
Inland navigation	1	1	1	1	1	1	2	-1.5	1.1	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	1455	1794	2241	2205	2346	2309	2356	4.4	0.5	0.0
Public road transport	193	185	132	141	154	165	175	-3.7	1.5	1.3
Private cars and motorcycles	830	992	1194	1155	1208	1141	1152	3.7	0.1	-0.5
Heavy goods and light commercial vehicles	308	527	821	814	872	874	883	10.3	0.6	0.1
Rail	83	42	40	41	48	55	61	-7.1	1.8	2.6
Aviation	27	39	41	44	53	62	71	4.5	2.5	3.0
Inland navigation	14	7	12	10	11	12	13	-2.0	-0.4	1.4
By transport activity										
Passenger transport	1064	1223	1374	1346	1423	1376	1408	2.6	0.4	-0.1
Freight transport	390	570	867	859	924	932	948	8.3	0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.6	4.4	5.5	7.7	7.9	8.0			
ENERGY EFFICIENCY										
Primary energy consumption	16937	17751	16811	15270	16585	16605	15350	-0.1	-0.1	-0.8
Final Energy Demand	10980	11561	11546	11225	11675	11385	10201	0.5	0.1	-1.3
by sector										
Industry	4532	4713	4361	4420	4570	4575	4275	-0.4	0.5	-0.7
Energy intensive industries	3678	3887	3637	3655	3740	3707	3386	-0.1	0.3	-1.0
Other industrial sectors	854	826	723	765	830	868	889	-1.7	1.4	0.7
Residential	2586	2540	2312	2176	2213	2125	1658	-1.1	-0.4	-2.8
Tertiary	2407	1916	2240	2038	2161	2000	1577	-0.7	-0.4	-3.1
Transport ⁽⁵⁾	1455	2392	2633	2591	2730	2686	2692	6.1	0.4	-0.1
by fuel										
Solids	1747	1572	1637	1294	1247	1180	969	-0.6	-2.7	-2.5
Oil	1703	2184	2301	2230	2288	2191	2155	3.1	-0.1	-0.6
Gas	4698	4540	4119	4011	4084	3706	3000	-1.3	-0.1	-3.0
Electricity	1893	1965	2075	2219	2348	2549	2542	0.9	1.2	0.8
Heat (from CHP and District Heating)	619	951	851	726	814	780	578	3.2	-0.5	-3.4
Renewable energy forms	320	349	562	745	894	970	944	5.8	4.8	0.5
Other	0	0	0	0	2	8	13	0.0	0.0	24.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	424	347	259	221	206	181	149	-4.8	-2.3	-3.2
Industry (Energy on Value added, index 2000=100)	100	61	39	37	34	30	25	-8.9	-1.5	-3.0
Residential (Energy on Private Income, index 2000=100)	100	78	59	51	44	37	25	-5.1	-2.9	-5.7
Tertiary (Energy on Value added, index 2000=100)	100	72	68	54	49	39	27	-3.8	-3.2	-5.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	31	37	35	31	27	24	2.7	-1.8	-2.5
Freight transport (toe/Mtkm)	20	27	40	37	35	32	30	7.2	-1.1	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	54.1	54.7	50.8	45.0	42.3	39.6	32.6	-0.6	-1.8	-2.6
of which ETS sectors (2013 scope) GHG emissions		29.2	24.7	20.4	18.9	17.7	12.8		-2.6	-3.8
of which ESD sectors (2013 scope) GHG emissions		25.5	26.1	24.6	23.4	21.9	19.7		-1.1	-1.7
CO ₂ Emissions (energy related)	38.7	41.6	38.7	33.6	32.3	29.8	23.1	0.0	-1.8	-3.3
Power generation/District heating	11.1	11.2	9.2	6.3	5.8	6.1	2.6	-1.8	-4.6	-7.5
Energy Branch	1.6	3.4	2.5	2.2	2.0	1.7	1.6	4.4	-2.0	-2.3
Industry	13.3	14.1	12.8	12.0	11.3	9.9	8.3	-0.4	-1.2	-3.0
Residential	4.1	3.6	3.4	2.8	2.7	2.4	1.7	-2.0	-2.2	-4.4
Tertiary	4.5	2.7	3.5	3.1	3.1	2.5	1.6	-2.5	-1.0	-6.2
Transport	4.1	6.6	7.3	7.1	7.3	7.2	7.1	5.9	0.1	-0.3
CO ₂ Emissions (non energy and non land use related)	6.7	3.9	3.2	3.5	3.5	3.5	3.5	-7.0	0.9	-0.1
Non-CO2 GHG emissions	8.7	9.1	8.9	7.8	6.4	6.3	6.0	0.2	-3.2	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	71.5	72.3	67.2	59.5	56.0	52.4	43.1	-0.6	-1.8	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.27	0.25	0.23	0.17	0.13	0.13	0.06	-1.4	-5.9	-7.4
Final energy demand (t of CO ₂ /toe)	2.37	2.34	2.33	2.24	2.10	1.93	1.84	-0.2	-1.1	-1.3
Industry	2.94	2.99	2.94	2.72	2.48	2.16	1.95	0.0	-1.7	-2.4
Residential	1.60	1.40	1.47	1.30	1.22	1.15	1.04	-0.9	-1.8	-1.6
Tertiary	1.85	1.43	1.55	1.54	1.45	1.23	1.05	-1.8	-0.7	-3.2
Transport	2.82	2.77	2.77	2.74	2.69	2.67	2.64	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.3	5.8	9.0	11.7	14.1	15.9	17.0			
RES-H&C share	1.2	4.9	7.8	10.3	12.2	15.4	18.5			
RES-E share	11.9	13.5	17.8	21.7	25.8	24.5	22.6			
RES-T share (based on ILUC formula)	1.7	1.5	5.3	6.6	10.1	11.0	11.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	62	60	70	80	82	75	86	1.2	1.5	0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	94	102	143	128	132	139	147	4.3	-0.7	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	7.1	8.5	11.5	11.2	13.7	15.7	18.7	4.9	1.8	3.2
as % of GDP	16.4	15.6	16.6	14.7	15.4	15.4	16.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Slovenia: EU/CO-33			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	2	2	2	2	2	2	2	0.3	0.2	0.0
GDP (in 000 M€13)	28	34	37	38	41	45	48	2.7	1.0	1.6
Gross Inland Consumption (ktoe)	6451	7325	7226	6776	7002	6863	6079	1.1	-0.3	-1.4
Solids	1305	1539	1451	1268	1353	1263	897	1.1	-0.7	-4.0
Oil	2419	2580	2579	2360	2275	2058	1804	0.6	-1.2	-2.3
Natural gas	826	929	863	681	690	721	602	0.4	-2.2	-1.4
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Renewable energy forms	788	787	1054	1182	1394	1441	1490	3.0	2.8	0.7
Energy Branch Consumption	107	100	112	99	105	95	84	0.5	-0.6	-2.2
Non-Energy Uses	238	310	209	114	120	126	126	-1.3	-5.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3085	3492	3687	3441	3763	3787	3546	1.8	0.2	-0.6
Solids	1062	1184	1196	1023	1127	1045	759	1.2	-0.6	-3.9
Oil	1	0	0	0	0	0	0	-95.0	-100.0	0.0
Natural gas	6	3	6	3	4	10	15	0.0	-3.9	13.9
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Renewable energy sources	788	787	1025	1094	1259	1303	1343	2.7	2.1	0.6
Hydro	330	298	388	380	391	407	432	1.6	0.1	1.0
Biomass & Waste	458	489	601	632	723	702	608	2.7	1.9	-1.7
Wind	0	0	0	0	24	24	53	0.0	0.0	8.1
Solar and others	0	0	9	36	54	117	209	0.0	19.2	14.4
Geothermal	0	0	27	45	66	52	41	0.0	9.4	-4.7
Net Imports (ktoe)	3415	3855	3581	3356	3259	3096	2553	0.5	-0.9	-2.4
Solids	244	323	279	245	226	218	138	1.4	-2.1	-4.8
Oil	2466	2634	2596	2380	2295	2078	1824	0.5	-1.2	-2.3
Crude oil and Feedstocks	152	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	2314	2634	2596	2380	2295	2078	1824	1.2	-1.2	-2.3
Natural gas	820	925	857	678	686	711	588	0.4	-2.2	-1.5
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Import Dependency (%)	52.9	52.5	49.4	49.4	46.4	45.0	41.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	13624	15117	16248	15126	16446	17297	17757	1.8	0.1	0.8
Nuclear energy	4761	5884	5657	5421	5628	5801	5801	1.7	-0.1	0.3
Solids	4611	5271	5288	4858	5182	4661	3239	1.4	-0.2	-4.6
Oil (including refinery gas)	55	42	8	0	0	0	0	-17.5	-100.0	0.0
Gas (including derived gases)	293	339	548	14	119	358	315	6.5	-14.1	10.2
Biomass-waste	70	120	222	111	300	404	557	12.2	3.0	6.4
Hydro (pumping excluded)	3834	3461	4512	4423	4542	4735	5024	1.6	0.1	1.0
Wind	0	0	0	5	284	284	617	0.0	0.0	8.1
Solar	0	0	13	295	391	1054	2204	0.0	40.8	18.9
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	-100.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2955	3111	3186	3490	3886	4303	5384	0.8	2.0	3.3
Nuclear energy	700	700	700	700	700	700	700	0.0	0.0	0.0
Renewable energy	843	979	1086	1385	1773	2393	3750	2.6	5.0	7.8
Hydro (pumping excluded)	843	979	1074	1119	1220	1220	1288	2.5	1.3	0.5
Wind	0	0	0	4	200	200	422	0.0	0.0	7.7
Solar	0	0	12	262	352	973	2040	0.0	40.2	19.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1412	1432	1400	1405	1414	1210	934	-0.1	0.1	-4.1
of which cogeneration units	648	336	333	228	213	247	228	-6.4	-4.3	0.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	923	923	792	792	792	678	632	-1.5	0.0	-2.2
Gas fired	278	284	372	470	469	391	168	3.0	2.3	-9.8
Oil fired	176	190	185	92	29	16	16	0.5	-16.9	-5.7
Biomass-waste fired	35	35	51	51	124	124	118	3.9	9.3	-0.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.4	51.9	54.5	46.4	45.4	43.7	36.2			
Efficiency of gross thermal power generation (%)	33.2	32.9	33.4	34.4	34.5	32.9	32.9			
% of gross electricity from CHP	6.4	7.3	6.9	8.9	8.5	5.8	4.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	63.6	62.6	64.0	67.8	67.8	71.0	80.0			
Fuel Inputs to Thermal Power Generation (ktoe)	1302	1508	1562	1247	1395	1416	1073	1.8	-1.1	-2.6
Solids	1215	1412	1381	1217	1301	1220	875	1.3	-0.6	-3.9
Oil (including refinery gas)	13	9	3	0	0	0	0	-13.3	-100.0	0.0
Gas (including derived gases)	59	58	113	3	21	80	67	6.7	-15.5	12.4
Biomass & Waste	15	30	65	27	73	116	131	15.5	1.2	6.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1479	1607	1562	1481	1580	1626	1617	0.6	0.1	0.2
Refineries	171	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	46	98	145	142	147	0.0	12.3	0.1
District heating	80	89	57	61	62	54	39	-3.2	0.8	-4.6
Derived gases, cokeries etc.	1228	1518	1459	1322	1373	1431	1431	1.7	-0.6	0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovenia: EU+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	25	27	30	31	34	35	36	2.0	1.0	0.8
Public road transport	4	3	3	3	3	3	3	-1.0	0.2	0.4
Private cars and motorcycles	20	23	26	27	29	30	31	2.4	1.0	0.7
Rail	1	1	1	1	1	1	2	1.4	4.1	3.9
Aviation ⁽³⁾	0	0	0	0	0	1	1	2.0	3.3	3.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	6	11	11	12	15	18	20	5.6	3.3	2.8
Heavy goods and light commercial vehicles	4	8	8	8	10	12	13	7.9	3.1	1.9
Rail	3	3	3	4	5	6	7	1.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	1249	1492	1806	1838	1906	1844	1760	3.8	0.5	-0.8
Public road transport	78	71	92	94	96	96	93	1.8	0.3	-0.3
Private cars and motorcycles	1025	1047	1304	1319	1300	1190	1084	2.4	0.0	-1.8
Heavy goods and light commercial vehicles	98	323	355	370	444	482	500	13.8	2.3	1.2
Rail	24	28	26	27	33	38	43	1.0	2.2	2.8
Aviation	25	23	28	28	34	38	41	1.3	2.1	1.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	1132	1146	1430	1447	1437	1331	1227	2.4	0.1	-1.6
Freight transport	117	346	376	391	469	513	534	12.4	2.2	1.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.1	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.5	5.4	7.7	7.9	8.5			
ENERGY EFFICIENCY										
Primary energy consumption	6214	7016	7017	6662	6882	6737	5953	1.2	-0.2	-1.4
Final Energy Demand	4457	4897	4927	4954	5046	4832	4268	1.0	0.2	-1.7
by sector										
Industry	1424	1644	1273	1332	1412	1433	1283	-1.1	1.0	-1.0
Energy intensive industries	836	1028	788	890	944	947	817	-0.6	1.8	-1.4
Other industrial sectors	588	616	485	442	468	485	465	-1.9	-0.4	0.0
Residential	1077	1140	1191	1145	1099	999	787	1.0	-0.8	-3.3
Tertiary	697	620	657	638	628	556	437	-0.6	-0.4	-3.6
Transport ⁽⁵⁾	1259	1493	1806	1839	1907	1845	1761	3.7	0.5	-0.8
by fuel										
Solids	90	80	47	51	52	43	22	-6.3	1.1	-8.3
Oil	2264	2409	2447	2239	2154	1933	1679	0.8	-1.3	-2.5
Gas	569	665	620	635	644	609	516	0.9	0.4	-2.2
Electricity	905	1096	1029	1098	1158	1277	1238	1.3	1.2	0.7
Heat (from CHP and District Heating)	195	196	192	197	205	199	161	-0.2	0.7	-2.4
Renewable energy forms	435	452	592	735	832	768	647	3.1	3.5	-2.5
Other	0	0	0	0	0	2	6	0.0	0.0	33.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	227	215	195	181	171	153	127	-1.5	-1.3	-3.0
Industry (Energy on Value added, index 2000=100)	100	93	70	74	72	66	54	-3.6	0.3	-2.7
Residential (Energy on Private Income, index 2000=100)	100	93	85	87	77	63	46	-1.6	-1.1	-5.1
Tertiary (Energy on Value added, index 2000=100)	100	74	70	66	59	48	35	-3.5	-1.6	-5.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	42	46	46	42	37	33	0.3	-1.0	-2.4
Freight transport (toe/Mtkm)	18	32	34	33	31	29	27	6.4	-1.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.0	20.2	19.2	17.5	17.4	16.3	13.5	0.1	-1.0	-2.5
of which ETS sectors (2013 scope) GHG emissions		8.9	8.2	7.2	7.6	7.2	5.3		-0.8	-3.4
of which ESD sectors (2013 scope) GHG emissions		11.3	11.0	10.2	9.8	9.1	8.2		-1.1	-1.8
CO ₂ Emissions (energy related)	14.1	15.5	15.3	13.8	13.9	12.9	10.3	0.9	-1.0	-2.9
Power generation/District heating	5.5	6.3	6.2	5.3	5.6	5.4	3.9	1.3	-1.0	-3.6
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.9	-4.9	13.9
Industry	2.4	2.3	1.7	1.7	1.7	1.5	1.1	-3.0	-0.5	-4.4
Residential	1.3	1.5	1.2	0.9	0.8	0.6	0.4	-1.0	-4.0	-5.9
Tertiary	1.2	1.0	0.9	0.7	0.6	0.4	0.3	-3.0	-4.1	-7.3
Transport	3.7	4.4	5.3	5.2	5.3	5.0	4.7	3.8	0.0	-1.2
CO ₂ Emissions (non energy and non land use related)	1.0	1.2	0.8	0.7	0.7	0.8	0.8	-1.7	-1.1	0.2
Non-CO2 GHG emissions	3.9	3.5	3.0	3.0	2.7	2.6	2.5	-2.6	-1.0	-1.0
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.0	108.4	103.1	93.8	93.3	87.4	72.8	0.1	-1.0	-2.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.34	0.35	0.33	0.30	0.29	0.27	0.19	-0.3	-1.2	-4.0
Final energy demand (t of CO ₂ /toe)	1.91	1.88	1.85	1.72	1.64	1.55	1.51	-0.4	-1.2	-0.9
Industry	1.66	1.41	1.37	1.29	1.18	1.03	0.83	-1.9	-1.5	-3.5
Residential	1.24	1.28	1.01	0.79	0.73	0.61	0.55	-2.0	-3.2	-2.7
Tertiary	1.68	1.63	1.32	1.03	0.91	0.74	0.61	-2.4	-3.6	-3.8
Transport	2.90	2.97	2.93	2.85	2.76	2.72	2.65	0.1	-0.6	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.6	15.9	19.1	21.9	25.2	27.1	31.5			
RES-H&C share	18.9	19.0	25.5	29.8	34.4	36.8	38.8			
RES-E share	30.9	28.7	32.2	33.0	35.8	38.9	52.4			
RES-T share (based on ILUC formula)	1.0	0.8	3.2	6.1	10.1	12.2	18.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	49	47	45	67	70	57	64	-0.7	4.4	-0.9
Average Price of Electricity in Final demand sectors (€13/MWh)	109	86	111	106	107	111	117	0.2	-0.3	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.8	4.7	6.1	6.4	7.5	8.1	8.9	5.0	2.0	1.7
as % of GDP	13.3	13.8	16.5	17.1	18.4	18.1	18.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Spain: EU CO ₂ 33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	40	43	46	46	46	45	44	1.5	-0.2	-0.3
GDP (in 000 M€13)	893	1048	1093	1094	1207	1327	1447	2.0	1.0	1.8
Gross Inland Consumption (ktoe)	123642	144223	129868	124582	125176	115097	100951	0.5	-0.4	-2.1
Solids	20938	20566	7906	15768	15784	10342	4234	-9.3	7.2	-12.3
Oil	63967	70457	60436	53990	50060	46650	42766	-0.6	-1.9	-1.6
Natural gas	15305	29886	31162	25155	25434	21008	14698	7.4	-2.0	-5.3
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Renewable energy forms	7005	8587	15090	15610	19346	22378	24714	8.0	2.5	2.5
Energy Branch Consumption	6259	6666	7878	7994	7432	6556	5934	2.3	-0.6	-2.2
Non-Energy Uses	9407	8362	7046	5744	6094	6367	6375	-2.8	-1.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	31478	30047	34166	33100	36691	37660	39593	0.8	0.7	0.8
Solids	7966	6265	3296	2973	2896	1074	368	-8.4	-1.3	-18.6
Oil	228	167	124	377	365	345	360	-5.9	11.4	-0.1
Natural gas	234	185	78	42	47	53	57	-10.4	-4.9	1.9
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Renewable energy sources	7005	8587	14677	15536	19210	22216	24635	7.7	2.7	2.5
Hydro	2430	1582	3638	2853	2861	2877	2883	4.1	-2.4	0.1
Biomass & Waste	4131	5113	6183	6934	9584	9034	8539	4.1	4.5	-1.1
Wind	406	1821	3807	4443	4844	5288	7125	25.1	2.4	3.9
Solar and others	33	65	1035	1288	1896	4962	6036	41.3	6.2	12.3
Geothermal	5	7	16	18	24	54	52	11.5	4.3	8.0
Net Imports (ktoe)	99342	123832	106084	100729	97835	86569	70787	0.7	-0.8	-3.2
Solids	12840	14418	6726	12795	12888	9268	3866	-6.3	6.7	-11.3
Oil	70653	79281	68704	62860	58963	55456	51344	-0.3	-1.5	-1.4
Crude oil and Feedstocks	59023	60650	56496	66666	63011	59313	55247	-0.4	1.1	-1.3
Oil products	11631	18630	12208	-3806	-4048	-3857	-3903	0.5	0.0	-0.4
Natural gas	15467	30248	30950	25113	25469	21136	15132	7.2	-1.9	-5.1
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Import Dependency (%)	76.6	81.4	76.8	75.3	72.7	69.6	64.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	220921	289445	298320	275290	284603	287082	272229	3.0	-0.5	-0.4
Nuclear energy	62206	57539	61990	58066	58066	57757	57521	0.0	-0.7	-0.1
Solids	79094	84047	25493	57621	58014	34790	12462	-10.7	8.6	-14.3
Oil (including refinery gas)	22578	24420	16562	4988	566	1701	1599	-3.1	-28.7	10.9
Gas (including derived gases)	21942	80725	95840	53218	56380	39637	11504	15.9	-5.2	-14.7
Biomass-waste	2100	3104	4674	4514	5972	7551	9940	8.3	2.5	5.2
Hydro (pumping excluded)	28256	18393	42304	33172	33273	33451	33519	4.1	-2.4	0.1
Wind	4727	21176	44271	51665	56322	61491	82854	25.1	2.4	3.9
Solar	17	41	6423	12046	16011	50704	62829	80.6	9.6	14.6
Geothermal and other renewables	1	0	763	0	0	0	0	105.9	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	52405	73568	99270	104515	104567	119732	126314	6.6	0.5	1.9
Nuclear energy	7869	7869	7845	7399	7399	7399	7399	0.0	-0.6	0.0
Renewable energy	17760	25774	41432	46783	51047	69939	82059	8.8	2.1	4.9
Hydro (pumping excluded)	15542	15796	16086	16632	16795	16795	16795	0.3	0.4	0.0
Wind	2206	9918	20693	23025	24977	26619	33296	25.1	1.9	2.9
Solar	12	60	4653	7126	9275	26525	31968	81.5	7.1	13.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	26776	39924	49994	50333	46122	42394	36856	6.4	-0.8	-2.2
of which cogeneration units	4570	6597	3382	6372	5728	5735	5416	-3.0	5.4	-0.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	11556	11359	10389	10316	9332	7377	3967	-1.1	-1.1	-8.2
Gas fired	4713	17647	29569	31333	30272	29750	28062	20.2	0.2	-0.8
Oil fired	10028	10043	8964	7496	4752	3422	2950	-1.1	-6.1	-4.7
Biomass-waste fired	478	876	1072	1188	1765	1845	1877	8.4	5.1	0.6
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.9	43.1	33.1	28.9	29.9	26.6	24.1			
Efficiency of gross thermal power generation (%)	40.8	46.7	48.9	42.5	42.6	41.4	38.1			
% of gross electricity from CHP	9.2	4.0	7.4	9.8	8.7	6.6	6.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	44.0	34.6	53.8	57.9	59.6	73.5	90.6			
Fuel Inputs to Thermal Power Generation (ktoe)	26472	35403	25226	24328	24414	17375	8008	-0.5	-0.3	-10.5
Solids	18245	17623	5561	13703	13713	8294	2995	-11.2	9.4	-14.1
Oil (including refinery gas)	4455	5249	3391	948	133	402	379	-2.7	-27.7	11.0
Gas (including derived gases)	3075	11140	14839	8684	9268	6841	2376	17.0	-4.6	-12.7
Biomass & Waste	697	1391	1435	994	1300	1838	2257	7.5	-1.0	5.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	79871	79435	78129	80766	79041	75632	71708	-0.2	0.1	-1.0
Refineries	60685	61323	58480	63161	60968	57823	54152	-0.4	0.4	-1.2
Biofuels and hydrogen production	70	256	1412	1419	2061	1908	1960	35.0	3.9	-0.5
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	19115	17857	18237	16187	16012	15902	15597	-0.5	-1.3	-0.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Spain: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	476	535	542	561	609	660	712	1.3	1.2	1.6
Public road transport	50	53	51	52	53	55	56	0.1	0.5	0.5
Private cars and motorcycles	310	346	352	354	372	395	422	1.3	0.5	1.3
Rail	25	28	29	29	37	44	52	1.2	2.5	3.5
Aviation ⁽³⁾	89	106	109	124	145	164	180	2.1	2.9	2.2
Inland navigation	2	2	2	2	2	2	2	0.8	1.4	1.5
Freight transport activity (Gtkm)	180	265	227	228	247	263	280	2.3	0.9	1.3
Heavy goods and light commercial vehicles	138	217	190	191	206	217	230	3.2	0.8	1.1
Rail	12	12	9	10	12	13	15	-2.3	2.3	2.6
Inland navigation	31	36	28	28	30	32	34	-1.1	0.6	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	33084	39797	37180	35033	34463	33181	32653	1.2	-0.8	-0.5
Public road transport	1354	1408	1319	1329	1326	1311	1288	-0.3	0.0	-0.3
Private cars and motorcycles	18655	20608	19876	18098	16536	14774	14062	0.6	-1.8	-1.6
Heavy goods and light commercial vehicles	6486	9874	8641	8122	8353	8235	8410	2.9	-0.3	0.1
Rail	708	1029	899	772	874	982	1057	2.4	-0.3	1.9
Aviation	4486	5323	5389	6005	6617	7059	6971	1.9	2.1	0.5
Inland navigation	1395	1555	1057	707	757	820	865	-2.7	-3.3	1.3
By transport activity										
Passenger transport	25151	27727	26960	25730	24835	23554	22772	0.7	-0.8	-0.9
Freight transport	7933	12069	10220	9303	9629	9627	9881	2.6	-0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	3.8	4.1	6.1	6.0	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	114235	135861	122822	118838	119083	108730	94576	0.7	-0.3	-2.3
Final Energy Demand	79885	97754	89072	85314	86279	80898	73118	1.1	-0.3	-1.6
by sector										
Industry	25368	30967	21435	21275	22264	21441	19935	-1.7	0.4	-1.1
Energy intensive industries	17349	20338	13379	13268	14026	13255	12116	-2.6	0.5	-1.5
Other industrial sectors	8020	10628	8056	8007	8238	8186	7819	0.0	0.2	-0.5
Residential	12000	15132	16920	15550	15510	13783	10727	3.5	-0.9	-3.6
Tertiary	9287	11712	13526	13441	14025	12475	9785	3.8	0.4	-3.5
Transport ⁽⁵⁾	33230	39944	37192	35048	34479	33199	32671	1.1	-0.8	-0.5
by fuel										
Solids	1775	1712	1261	1123	1310	1303	545	-3.4	0.4	-8.4
Oil	46297	53449	46775	43129	40259	36789	33200	0.1	-1.5	-1.9
Gas	12141	17978	14645	14743	14340	12549	10868	1.9	-0.2	-2.7
Electricity	16205	20827	21049	20057	21317	21967	20907	2.7	0.1	-0.2
Heat (from CHP and District Heating)	0	0	0	8	118	296	518	0.0	0.0	16.0
Renewable energy forms	3469	3788	5343	6252	8925	7943	6944	4.4	5.3	-2.5
Other	0	0	0	3	10	50	135	0.0	1431.1	29.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	139	138	119	114	104	87	70	-1.5	-1.4	-3.9
Industry (Energy on Value added, index 2000=100)	100	114	87	87	83	75	64	-1.4	-0.5	-2.6
Residential (Energy on Private Income, index 2000=100)	100	106	115	103	93	75	54	1.4	-2.1	-5.4
Tertiary (Energy on Value added, index 2000=100)	100	108	110	107	101	81	58	1.0	-0.9	-5.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	46	42	38	34	29	26	-1.1	-2.2	-2.6
Freight transport (toe/Mtkm)	44	46	45	41	39	37	35	0.3	-1.5	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	398.8	447.7	364.3	356.5	341.8	295.2	239.2	-0.9	-0.6	-3.5
of which ETS sectors (2013 scope) GHG emissions		216.2	146.4	157.9	157.6	127.7	88.2		0.7	-5.6
of which ESD sectors (2013 scope) GHG emissions		231.5	218.0	198.6	184.2	167.6	151.0		-1.7	-2.0
CO ₂ Emissions (energy related)	291.6	347.3	272.6	271.0	259.0	215.3	163.4	-0.7	-0.5	-4.5
Power generation/District heating	98.8	117.7	70.3	81.2	79.9	53.2	20.9	-3.4	1.3	-12.6
Energy Branch	13.4	13.5	16.2	16.1	14.3	12.6	11.6	1.9	-1.2	-2.1
Industry	50.4	59.2	42.3	39.8	39.6	35.6	28.3	-1.7	-0.7	-3.3
Residential	17.1	20.9	20.5	16.5	13.6	10.1	5.0	1.9	-4.0	-9.6
Tertiary	13.2	16.5	15.0	15.5	13.9	10.4	7.2	1.3	-0.7	-6.3
Transport	98.7	119.5	108.3	101.9	97.7	93.5	90.4	0.9	-1.0	-0.8
CO ₂ Emissions (non energy and non land use related)	26.2	29.5	21.8	17.7	18.8	19.4	18.8	-1.8	-1.5	0.0
Non-CO2 GHG emissions	81.1	71.0	69.9	67.7	64.0	60.5	57.1	-1.5	-0.9	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	134.6	151.1	123.0	120.3	115.3	99.6	80.7	-0.9	-0.6	-3.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.45	0.41	0.24	0.29	0.28	0.18	0.07	-6.2	1.7	-12.3
Final energy demand (t of CO ₂ /toe)	2.25	2.21	2.09	2.04	1.91	1.85	1.79	-0.7	-0.9	-0.6
Industry	1.99	1.91	1.97	1.87	1.78	1.66	1.42	-0.1	-1.1	-2.2
Residential	1.42	1.38	1.21	1.06	0.88	0.73	0.46	-1.6	-3.2	-6.2
Tertiary	1.43	1.41	1.11	1.15	0.99	0.83	0.74	-2.5	-1.1	-2.9
Transport	2.97	2.99	2.91	2.91	2.83	2.82	2.77	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	8.1	8.4	13.8	15.4	21.0	26.0	32.3			
RES-H&C share	11.0	9.4	12.6	16.1	22.5	23.8	27.0			
RES-E share	16.6	19.1	29.8	36.9	38.5	52.2	68.4			
RES-T share (based on ILUC formula)	0.6	1.3	5.1	0.8	10.1	12.5	18.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	58	62	75	90	98	90	81	2.5	2.7	-1.8
Average Price of Electricity in Final demand sectors (€13/MWh)	105	101	149	173	172	165	165	3.5	1.5	-0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	74.3	101.3	120.1	122.7	144.9	151.6	167.8	4.9	1.9	1.5
as % of GDP	8.3	9.7	11.0	11.2	12.0	11.4	11.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Sweden: EU/CO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (In million)	9	9	9	10	10	11	11	0.5	0.9	0.8
GDP (in 000 M€13)	296	337	366	404	448	497	552	2.2	2.1	2.1
Gross Inland Consumption (ktoe)	48898	50993	50783	47002	45915	44971	42259	0.4	-1.0	-0.8
Solids	2452	2629	2492	2263	1982	1902	1280	0.2	-2.3	-4.3
Oil	15377	14136	14199	11663	10828	9709	8679	-0.8	-2.7	-2.2
Natural gas	816	886	1484	679	3064	2595	1210	6.2	7.5	-8.9
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Renewable energy forms	15066	15308	17512	19146	19605	20287	20826	1.5	1.1	0.6
Energy Branch Consumption	1141	1326	1469	1414	1365	1328	1316	2.6	-0.7	-0.4
Non-Energy Uses	3143	2460	2113	2183	2281	2398	2436	-3.9	0.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	30052	34233	32685	33372	31492	32112	32523	0.8	-0.4	0.3
Solids	162	211	238	210	86	93	0	4.0	-9.6	-100.0
Oil	0	0	0	0	0	0	0	7.8	-100.0	0.0
Natural gas	40	44	18	0	0	0	0	-7.6	-100.0	0.0
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0
Renewable energy sources	15066	15308	17512	18801	19213	19827	20331	1.5	0.9	0.6
Hydro	6757	6260	5709	6203	6158	6083	6079	-1.7	0.8	-0.1
Biomass & Waste	8264	8961	11490	11434	11775	11262	11140	3.4	0.2	-0.6
Wind	39	81	301	1147	1249	2426	3017	22.6	15.3	9.2
Solar and others	5	6	11	17	31	54	90	7.4	10.9	11.2
Geothermal	0	0	0	0	0	2	6	0.0	0.0	34.1
Net Imports (ktoe)	20436	19460	19294	15820	16742	15288	12286	-0.6	-1.4	-3.0
Solids	2409	2556	2548	2054	1896	1809	1280	0.6	-2.9	-3.8
Oil	16849	16698	15102	13853	13098	12031	10849	-1.1	-1.4	-1.9
Crude oil and Feedstocks	21606	19369	19139	15905	15013	13861	12747	-1.2	-2.4	-1.6
Oil products	-4757	-2671	-4038	-2052	-1915	-1831	-1899	-1.6	-7.2	-0.1
Natural gas	776	843	1466	679	3112	2702	1590	6.6	7.8	-6.5
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Import Dependency (%)	40.7	36.8	36.6	32.2	34.7	32.3	27.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	145231	158365	148460	160491	173037	179934	180589	0.2	1.5	0.4
Nuclear energy	57316	72377	57828	57851	49379	49379	49738	0.1	-1.6	0.1
Solids	1706	1169	1770	1540	1118	786	634	0.4	-4.5	-5.5
Oil (including refinery gas)	1533	1379	1774	249	335	189	0	1.5	-15.3	-100.0
Gas (including derived gases)	1292	1342	3782	471	15492	11957	3492	11.3	15.1	-13.8
Biomass-waste	4342	8357	13397	14846	20510	18607	20886	11.9	4.4	0.2
Hydro (pumping excluded)	78584	72803	66398	72128	71601	70735	70687	-1.7	0.8	-0.1
Wind	457	936	3502	13335	14526	28206	35077	22.6	15.3	9.2
Solar	1	2	8	69	75	75	75	21.5	24.9	0.0
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	34594	33587	36947	39676	37487	42066	44303	0.7	0.1	1.7
Nuclear energy	10122	9532	9532	9532	6949	6949	6949	-0.6	-3.1	0.0
Renewable energy	16718	16799	18654	22501	23533	27954	30101	1.1	2.4	2.5
Hydro (pumping excluded)	16506	16302	16624	16395	16938	16938	16938	0.1	0.2	0.0
Wind	209	493	2019	6025	6507	10929	13075	25.5	12.4	7.2
Solar	3	4	11	81	88	88	88	13.9	23.1	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7754	7256	8761	7643	7005	7162	7252	1.2	-2.2	0.3
of which cogeneration units	4940	3488	5100	4504	6275	6123	4724	0.3	2.1	-2.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	337	348	356	356	136	136	128	0.5	-9.2	-0.6
Gas fired	547	469	1168	1168	3218	3283	3283	7.9	10.7	0.2
Oil fired	4472	3974	3963	2958	844	844	844	-1.2	-14.3	0.0
Biomass-waste fired	2398	2465	3274	3161	2808	2899	2998	3.2	-1.5	0.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	52.5	44.9	45.1	51.4	47.7	45.4			
Efficiency of gross thermal power generation (%)	21.3	23.0	27.3	25.6	41.0	38.3	36.0			
% of gross electricity from CHP	5.9	6.7	12.5	10.7	21.3	16.0	10.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	96.9	97.5	95.1	98.6	90.2	92.8	97.7			
Fuel Inputs to Thermal Power Generation (ktoe)	3582	4575	6518	5747	7854	7075	5967	6.2	1.9	-2.7
Solids	462	508	597	566	266	286	158	2.6	-7.8	-5.0
Oil (including refinery gas)	530	317	431	70	95	61	0	-2.0	-14.0	-100.0
Gas (including derived gases)	508	591	998	225	2487	1977	628	7.0	9.6	-12.9
Biomass & Waste	2084	3158	4491	4886	5005	4750	5180	8.0	1.1	0.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	40980	42243	39786	34628	31696	30695	29278	-0.3	-2.2	-0.8
Refineries	22901	20082	21039	16927	16153	15220	14161	-0.8	-2.6	-1.3
Biofuels and hydrogen production	0	134	376	733	817	865	1038	0.0	8.1	2.4
District heating	1564	1525	1735	1424	1357	1175	830	1.0	-2.4	-4.8
Derived gases, cokeries etc.	16516	20501	16636	15543	13369	13436	13249	0.1	-2.2	-0.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Sweden: EUCO+33		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	142	148	151	160	167	175	186	0.7	1.0	1.1
Public road transport	9	9	9	9	9	10	11	-1.0	0.9	1.3
Private cars and motorcycles	102	108	109	114	116	120	125	0.7	0.7	0.7
Rail	10	11	13	15	16	18	20	2.8	2.1	2.0
Aviation ⁽³⁾	14	13	15	17	18	20	23	0.3	2.3	2.4
Inland navigation	6	6	6	5	6	7	7	-0.3	0.2	1.5
Freight transport activity (Gtkm)	70	78	81	81	90	97	105	1.5	1.1	1.5
Heavy goods and light commercial vehicles	43	47	45	46	49	52	54	0.4	1.1	0.8
Rail	19	22	23	24	28	31	35	1.9	1.6	2.3
Inland navigation	7	9	13	11	13	15	16	5.6	0.4	2.2
Energy demand in transport (ktoe) ⁽⁴⁾	8192	8609	8620	8260	7891	7287	6902	0.5	-0.9	-1.3
Public road transport	189	179	184	187	193	204	212	-0.3	0.5	1.0
Private cars and motorcycles	4879	5236	5250	4890	4394	3726	3319	0.7	-1.8	-2.8
Heavy goods and light commercial vehicles	1740	1959	1951	1921	1939	1886	1866	1.2	-0.1	-0.4
Rail	299	246	208	232	264	287	310	-3.6	2.4	1.6
Aviation	928	846	840	945	1002	1078	1079	-1.0	1.8	0.7
Inland navigation	156	142	188	85	98	107	116	1.8	-6.3	1.6
<i>By transport activity</i>										
Passenger transport	6165	6361	6387	6089	5666	5091	4698	0.4	-1.2	-1.9
Freight transport	2027	2248	2234	2171	2224	2196	2204	1.0	0.0	-0.1
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.7	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	1.6	4.7	9.2	10.8	12.3	14.8			
ENERGY EFFICIENCY										
Primary energy consumption	45755	48533	48670	44819	43634	42573	39824	0.6	-1.1	-0.9
Final Energy Demand	33561	33492	34077	31885	31928	30745	27714	0.2	-0.6	-1.4
<i>by sector</i>										
Industry	12854	12464	12205	11531	12081	12094	11476	-0.5	-0.1	-0.5
Energy intensive industries	9198	9252	9141	8370	8737	8607	8079	-0.1	-0.5	-0.8
Other industrial sectors	3656	3212	3064	3161	3344	3487	3397	-1.8	0.9	0.2
Residential	7300	7305	7557	7197	7047	6612	5361	0.3	-0.7	-2.7
Tertiary	5214	5114	5720	4897	4909	4752	3976	0.9	-1.5	-2.1
Transport ⁽⁵⁾	8192	8609	8595	8260	7891	7287	6902	0.5	-0.9	-1.3
<i>by fuel</i>										
Solids	1114	1346	1202	1122	1133	974	570	0.8	-0.6	-6.6
Oil	11861	11256	10038	8856	7996	6826	5849	-1.7	-2.2	-3.1
Gas	673	765	728	677	798	882	840	0.8	0.9	0.5
Electricity	11068	11238	11283	11102	11595	12197	12006	0.2	0.3	0.3
Heat (from CHP and District Heating)	3550	4174	5141	4420	4466	3911	2666	3.8	-1.4	-5.0
Renewable energy forms	5294	4714	5685	5705	5937	5943	5703	0.7	0.4	-0.4
Other	0	0	0	3	3	13	80	0.0	0.0	37.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	165	151	139	116	102	91	77	-1.7	-3.0	-2.9
Industry (Energy on Value added, index 2000=100)	100	76	70	62	59	54	47	-3.5	-1.7	-2.2
Residential (Energy on Private Income, index 2000=100)	100	90	84	71	62	52	37	-1.7	-3.0	-5.0
Tertiary (Energy on Value added, index 2000=100)	100	89	91	70	63	54	41	-0.9	-3.7	-4.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	41	41	39	35	31	26	23	-0.5	-2.2	-3.0
Freight transport (toe/Mtkm)	29	29	28	27	25	23	21	-0.5	-1.2	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.6	69.0	65.1	55.7	56.7	50.7	40.8	-0.9	-1.4	-3.2
of which ETS sectors (2013 scope) GHG emissions		25.9	25.6	19.9	23.7	21.6	15.1		-0.8	-4.4
of which ESD sectors (2013 scope) GHG emissions		43.0	39.5	35.8	33.0	29.1	25.7		-1.8	-2.5
CO₂ Emissions (energy related)	52.2	52.1	49.0	40.6	42.2	36.9	27.6	-0.6	-1.5	-4.2
Power generation/District heating	7.7	7.7	9.1	4.4	8.6	7.8	3.6	1.7	-0.5	-8.5
Energy Branch	2.0	1.9	2.0	2.2	1.8	1.8	1.7	0.4	-1.0	-0.7
Industry	11.9	13.3	10.5	10.0	9.5	7.9	5.1	-1.2	-1.0	-6.0
Residential	3.0	1.5	0.4	0.2	0.1	0.1	0.1	-17.9	-6.6	-8.7
Tertiary	4.5	3.2	2.9	1.7	1.4	0.8	0.6	-4.2	-6.8	-9.1
Transport	23.2	24.6	24.1	22.0	20.5	18.5	16.5	0.4	-1.6	-2.1
CO₂ Emissions (non energy and non land use related)	3.2	3.2	3.7	3.4	3.4	3.3	3.2	1.5	-0.8	-0.7
Non-CO₂ GHG emissions	16.2	13.6	12.3	11.7	11.1	10.5	10.1	-2.7	-1.1	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	97.8	94.2	89.0	76.1	77.5	69.3	55.8	-0.9	-1.4	-3.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.04	0.04	0.04	0.02	0.04	0.03	0.02	0.6	-1.2	-7.9
Final energy demand (t of CO ₂ /toe)	1.27	1.27	1.11	1.07	0.99	0.89	0.80	-1.3	-1.1	-2.1
Industry	0.93	1.07	0.86	0.87	0.79	0.65	0.45	-0.7	-0.9	-5.5
Residential	0.41	0.20	0.05	0.03	0.03	0.02	0.02	-18.2	-6.0	-6.2
Tertiary	0.86	0.62	0.51	0.35	0.29	0.17	0.14	-5.1	-5.4	-7.2
Transport	2.83	2.86	2.80	2.66	2.60	2.54	2.39	-0.1	-0.7	-0.8
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	38.6	40.3	46.8	56.8	56.7	60.8	67.1			
RES-H&C share	48.7	52.4	60.9	72.7	68.8	72.8	81.2			
RES-E share	51.7	51.6	56.6	67.3	69.2	72.9	79.5			
RES-T share (based on ILUC formula)	4.8	5.7	8.9	18.7	22.3	27.0	39.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	57	51	57	63	62	56	58	-0.1	0.9	-0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	83	107	144	142	141	141	143	5.7	-0.2	0.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	31.7	39.3	46.2	43.5	49.1	52.5	60.1	3.9	0.6	2.0
as % of GDP	10.7	11.6	12.6	10.8	11.0	10.6	10.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								United Kingdom: EU/CO-33				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	59	60	63	65	67	69	71	0.6	0.7	0.5		
GDP (in 000 M€13)	1538	1780	1810	1976	2120	2247	2423	1.6	1.6	1.3		
Gross Inland Consumption (ktoe)	230560	233992	212234	199641	188330	175124	157342	-0.8	-1.2	-1.8		
Solids	36516	37737	30761	30896	18127	8260	4591	-1.7	-5.2	-12.8		
Oil	81031	84449	72986	71030	65588	59612	54153	-1.0	-1.1	-1.9		
Natural gas	87399	85473	85050	67578	61963	60811	40174	-0.3	-3.1	-4.2		
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5		
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7		
Renewable energy forms	2453	4564	7179	12764	25938	31414	33631	11.3	13.7	2.6		
Energy Branch Consumption	14909	16092	13761	10879	9774	8750	7843	-0.8	-3.4	-2.2		
Non-Energy Uses	11330	11213	7524	8461	8861	8961	8835	-4.0	1.6	0.0		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	268546	204420	147634	115064	109740	98493	95483	-5.8	-2.9	-1.4		
Solids	18658	11899	10751	6067	5064	3127	1893	-5.4	-7.3	-9.4		
Oil	127939	87930	63788	48199	40962	32861	26174	-6.7	-4.3	-4.4		
Natural gas	97554	79397	51468	34247	26704	22623	15505	-6.2	-6.4	-5.3		
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5		
Renewable energy sources	2453	4141	5598	10759	21636	26022	28137	8.6	14.5	2.7		
Hydro	437	423	307	477	453	457	457	-3.5	4.0	0.1		
Biomass & Waste	1922	3437	4314	6434	11791	15284	16599	8.4	10.6	3.5		
Wind	81	250	875	2969	8048	8666	9490	26.8	24.8	1.7		
Solar and others	11	30	101	878	1342	1604	1567	24.5	29.5	1.6		
Geothermal	1	1	1	1	3	11	24	0.0	13.3	24.1		
Net Imports (ktoe)	-39220	31596	61239	87711	81793	79793	65015	0.0	2.9	-2.3		
Solids	14454	27222	16045	24829	13063	5134	2698	1.0	-2.0	-14.6		
Oil	-45582	-2738	11181	25966	27794	29837	30936	0.0	9.5	1.1		
Crude oil and Feedstocks	-39093	4558	13213	20985	23613	26238	28013	0.0	6.0	1.7		
Oil products	-6489	-7296	-2032	4981	4181	3599	2924	-11.0	0.0	-3.5		
Natural gas	-9311	5973	32205	33331	35294	38265	24867	0.0	0.9	-3.4		
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7		
Import Dependency (%)	-16.9	13.4	28.5	43.3	42.7	44.8	40.5					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	374375	395425	378558	357130	372961	381656	374223	0.1	-0.1	0.0		
Nuclear energy	85063	81618	62140	64689	62974	59946	107051	-3.1	0.1	5.4		
Solids	119950	134637	107694	96298	49364	12099	3676	-1.1	-7.5	-22.9		
Oil (including refinery gas)	8446	5339	4804	4252	2868	2497	2471	-5.5	-5.0	-1.5		
Gas (including derived gases)	150427	154339	176759	117631	98708	123440	64865	1.6	-5.7	-4.1		
Biomass-waste	4455	11658	13373	26283	51008	68361	71254	11.6	14.3	3.4		
Hydro (pumping excluded)	5086	4922	3568	5550	5265	5309	5314	-3.5	4.0	0.1		
Wind	947	2904	10180	34520	93577	100769	110348	26.8	24.8	1.7		
Solar	1	8	41	7899	8985	8985	8985	42.7	71.6	0.0		
Geothermal and other renewables	0	0	-1	8	212	252	258	15.7	0.0	2.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	78130	82074	88395	92944	119525	111716	110792	1.2	3.1	-0.8		
Nuclear energy	12086	11376	10027	9374	8884	7811	13107	-1.9	-1.2	4.0		
Renewable energy	1900	3077	7128	25020	45744	48087	51082	14.1	20.4	1.1		
Hydro (pumping excluded)	1485	1501	1637	1693	1739	1739	1739	1.0	0.6	0.0		
Wind	412	1565	5396	13603	32861	35185	38178	29.3	19.8	1.5		
Solar	2	11	94	9721	11043	11043	11043	47.0	61.1	0.0		
Other renewables (tidal etc.)	1	0	1	4	102	119	122	0.0	58.7	1.9		
Thermal power	64144	67621	71240	58550	64896	55818	46602	1.1	-0.9	-3.3		
of which cogeneration units	5794	5440	6102	5052	5459	5283	10615	0.5	-1.1	6.9		
of which CCS units	0	0	0	0	833	833	1233	0.0	0.0	4.0		
Solids fired	27533	26230	25549	18735	11149	2323	501	-0.7	-8.0	-26.7		
Gas fired	24512	29106	33292	33953	35273	35116	27814	3.1	0.6	-2.3		
Oil fired	9696	9323	9064	2227	1235	1135	1091	-0.7	-18.1	-1.2		
Biomass-waste fired	2403	2961	3335	3634	17238	17244	17196	3.3	17.9	0.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	52.3	52.5	46.8	41.7	34.1	37.5	37.0					
Efficiency of gross thermal power generation (%)	41.1	42.1	43.6	41.3	43.0	46.2	43.7					
% of gross electricity from CHP	6.1	6.8	6.2	5.4	4.9	4.2	4.4					
% of electricity from CCS	0.0	0.0	0.0	0.0	1.4	1.5	2.6					
% of carbon free (RES, nuclear) gross electricity generation	25.5	25.6	23.6	38.9	59.5	63.8	81.0					
Fuel Inputs to Thermal Power Generation (ktoe)	59321	62482	59738	50947	40429	38400	28004	0.1	-3.8	-3.6		
Solids	28425	29812	23816	23961	12270	2974	779	-1.8	-6.4	-24.1		
Oil (including refinery gas)	1453	1060	789	920	641	559	553	-5.9	-2.1	-1.5		
Gas (including derived gases)	28139	28415	31452	20339	16567	20056	10882	1.1	-6.2	-4.1		
Biomass & Waste	1305	3194	3681	5727	10952	14811	15790	10.9	11.5	3.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	118459	115207	97492	88112	83349	77057	81783	-1.9	-1.6	-0.2		
Refineries	88821	88399	75162	65526	61257	56234	51647	-1.7	-2.0	-1.7		
Biofuels and hydrogen production	0	80	1130	1361	2136	1975	1945	0.0	6.6	-0.9		
District heating	15	14	13	13	11	15	8	-0.9	-2.2	-2.8		
Derived gases, cokeries etc.	29623	26714	21187	21212	19946	18834	28182	-3.3	-0.6	3.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							United Kingdom: EUCO+33			
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	822	872	849	878	935	964	1012	0.3	1.0	0.8
Public road transport	49	44	46	46	47	48	49	-0.5	0.2	0.4
Private cars and motorcycles	644	673	649	659	702	717	748	0.1	0.8	0.6
Rail	47	53	66	76	80	87	93	3.5	2.0	1.5
Aviation ⁽³⁾	77	97	83	90	100	107	115	0.7	1.8	1.5
Inland navigation	6	6	5	5	6	6	7	-0.3	0.8	1.2
Freight transport activity (Gtkm)	237	248	216	242	253	261	273	-0.9	1.6	0.8
Heavy goods and light commercial vehicles	183	183	164	187	195	199	208	-1.1	1.8	0.6
Rail	18	21	19	22	23	25	26	0.3	2.1	1.5
Inland navigation	36	43	33	34	35	37	39	-0.9	0.5	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	52386	55501	51470	52014	49595	45960	43727	-0.2	-0.4	-1.3
Public road transport	559	499	515	511	505	494	480	-0.8	-0.2	-0.5
Private cars and motorcycles	29150	30049	29058	27657	25099	21919	20475	0.0	-1.5	-2.0
Heavy goods and light commercial vehicles	9809	9612	8396	9457	9043	8808	8538	-1.5	0.7	-0.6
Rail	821	988	966	1108	1155	1225	1278	1.6	1.8	1.0
Aviation	11115	13069	11650	12400	12880	12551	11956	0.5	1.0	-0.7
Inland navigation	933	1282	884	881	913	964	1001	-0.5	0.3	0.9
By transport activity										
Passenger transport	41504	44033	41640	40984	38925	35419	33383	0.0	-0.7	-1.5
Freight transport	10882	11467	9830	11030	10669	10542	10344	-1.0	0.8	-0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.4	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	2.2	2.7	4.5	5.3	5.7			
ENERGY EFFICIENCY										
Primary energy consumption	219230	222779	204710	191181	179469	166162	148507	-0.7	-1.3	-1.9
Final Energy Demand	153236	152728	142723	138484	135241	126752	109388	-0.7	-0.5	-2.1
by sector										
Industry	36930	33388	26923	25432	25458	23391	20529	-3.1	-0.6	-2.1
Energy intensive industries	19392	16472	12350	11464	11262	9763	7719	-4.4	-0.9	-3.7
Other industrial sectors	17537	16916	14573	13968	14195	13628	12810	-1.8	-0.3	-1.0
Residential	43034	44151	44715	40936	39853	38414	29963	0.4	-1.1	-2.8
Tertiary	20377	19686	19633	20101	20336	18986	15169	-0.4	0.4	-2.9
Transport ⁽⁵⁾	52895	55503	51452	52014	49595	45960	43727	-0.3	-0.4	-1.3
by fuel										
Solids	5954	4530	4133	4583	3836	3132	1779	-3.6	-0.7	-7.4
Oil	63674	65851	59524	58175	53011	47494	42510	-0.7	-1.2	-2.2
Gas	52180	50380	47246	43853	42418	38442	27854	-1.0	-1.1	-4.1
Electricity	28360	29998	28286	27707	28955	29562	28638	0.0	0.2	-0.1
Heat (from CHP and District Heating)	2439	1268	1266	1255	1336	1425	1402	-6.3	0.5	0.5
Renewable energy forms	630	702	2268	2885	5588	6245	6493	13.7	9.4	1.5
Other	0	0	0	26	97	453	711	-100.0	0.0	22.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	150	131	117	101	89	78	65	-2.4	-2.7	-3.1
Industry (Energy on Value added, index 2000=100)	100	93	79	71	68	60	51	-2.3	-1.6	-2.9
Residential (Energy on Private Income, index 2000=100)	100	87	87	75	68	62	44	-1.4	-2.4	-4.2
Tertiary (Energy on Value added, index 2000=100)	100	81	77	71	67	58	43	-2.6	-1.5	-4.3
Passenger transport (toe/tpkm) ⁽⁶⁾	38	36	35	33	29	25	22	-0.8	-1.9	-2.6
Freight transport (toe/ttkm)	46	46	46	46	42	40	38	-0.1	-0.8	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	720.6	727.6	636.4	585.9	490.4	422.3	327.9	-1.2	-2.6	-3.9
of which ETS sectors (2013 scope) GHG emissions		314.0	273.9	244.9	179.4	142.2	94.6		-4.1	-6.2
of which ESD sectors (2013 scope) GHG emissions		413.6	362.5	340.9	311.0	280.1	233.3		-1.5	-2.8
CO ₂ Emissions (energy related)	568.2	573.4	518.3	477.6	390.8	330.0	245.5	-0.9	-2.8	-4.5
Power generation/District heating	194.2	199.6	178.4	155.5	93.1	63.8	27.9	-0.8	-6.3	-11.3
Energy Branch	31.3	35.2	29.4	20.9	18.6	16.3	13.8	-0.6	-4.4	-3.0
Industry	77.4	67.5	52.1	49.5	46.1	38.4	26.3	-3.9	-1.2	-5.5
Residential	82.6	80.4	83.1	74.7	68.8	64.0	44.3	0.1	-1.9	-4.3
Tertiary	27.0	25.3	24.8	25.3	22.6	18.2	12.8	-0.9	-0.9	-5.6
Transport	155.6	165.4	150.6	151.7	141.6	129.3	120.6	-0.3	-0.6	-1.6
CO ₂ Emissions (non energy and non land use related)	20.8	21.0	15.6	17.7	18.7	18.1	16.8	-2.8	1.8	-1.1
Non-CO ₂ GHG emissions	131.6	133.2	102.5	90.5	80.9	74.3	65.6	-2.5	-2.3	-2.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	88.0	88.8	77.7	71.5	59.9	51.6	40.0	-1.2	-2.6	-3.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.49	0.45	0.42	0.24	0.16	0.07	-0.6	-6.2	-11.4
Final energy demand (t of CO ₂ /toe)	2.24	2.22	2.18	2.18	2.06	1.97	1.86	-0.3	-0.5	-1.0
Industry	2.10	2.02	1.93	1.95	1.81	1.64	1.28	-0.8	-0.7	-3.4
Residential	1.92	1.82	1.86	1.82	1.73	1.67	1.48	-0.3	-0.7	-1.6
Tertiary	1.32	1.29	1.26	1.26	1.11	0.96	0.84	-0.5	-1.3	-2.7
Transport	2.94	2.98	2.93	2.92	2.86	2.81	2.76	-0.1	-0.2	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.9	1.4	3.3	6.9	14.6	17.8	22.0			
RES-H&C share	0.8	0.8	1.8	3.4	7.0	8.5	12.3			
RES-E share	2.6	4.1	7.4	19.3	40.5	46.1	50.4			
RES-T share (based on ILUC formula)	0.1	0.2	3.0	6.0	11.4	17.0	22.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	49	59	95	114	114	115	3.4	6.9	0.1
Average Price of Electricity in Final demand sectors (€13/MWh)	124	91	129	166	169	177	181	0.3	2.8	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	159.7	179.7	203.0	231.0	252.7	289.1	1.5	2.5	2.3
as % of GDP	10.1	9.0	9.9	10.3	10.9	11.2	11.9			

Source: PRIMES

- (1) For years 2000 to 2010, total gross electricity by source as reported in this table and total gross electricity generation reported as part of the energy balances, slightly differ because of differences in the respective statistical sources
- (2) Electricity generated over maximum potential generation based on net power capacity
- (3) Excluding international extra-EU aviation.
- (4) Excluding pipeline transport and other non-specified transport.
- (5) Including pipeline transport and other non-specified transport.
- (6) Calculated by taking into account domestic, international intra-EU flights, and extra-EU flights for aviation.
- (7) Including the part of electricity and heat generated from renewables
- (8) Excluding payments for auctioned emission allowances and disutilities (if applicable)

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are mainly based on EUROSTAT and on the publications "EU Energy in Figures" of the Directorate General for Energy and "EU Transport in Figures" of the Directorate General for Mobility and Transport.

Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight or passenger transport, which are measured in tonnes of oil equivalent per million tonne-km and in tonnes of oil equivalent per million passenger-km, respectively.

For modelling purposes, some assumptions had to be made for calculating air and maritime transport performance and allocating it by MS. The transport volumes (number of passengers and tonnes) and distance matrices have been used for this purpose. By assumption, 50% of the calculated transport performance is allocated to the origin country and 50% to the destination country. The same "50%-50%" principle allocation applies to the EFTA countries and the candidate countries. For the international extra-EU activity, where the corresponding partner is outside EU-28 and is not an EFTA or candidate country, 100% of transport performance is allocated to the declaring EU MS country. These assumptions are used only for modelling purposes and shall be considered as model estimates and not as official data.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Units

toe: tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ (Gigajoule)

ktoe: 1000 toe

MW: Megawatt or 10^6 watt

MWh: megawatt-hour or 10^6 watt-hours

GWh: gigawatt-hour or 10^9 watt-hours

t: metric tonnes, or 1000 kilogrammes

Mt: Million metric tonnes

km: kilometre

pkm: passenger-kilometre (one passenger transported a distance of one kilometre)

tkm: tonne-kilometre (one tonne transported a distance of one kilometre)

Gpkm: Giga passenger-kilometre, or 10^9 passenger-kilometre

Gtkm: Giga tonne-kilometre, or 10^9 tonne-kilometre

Appendix I.d: EUCO+35 scenario - Summary energy balances, emissions and indicators

SUMMARY ENERGY BALANCE AND INDICATORS (A)										EU28: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	484	492	500	505	510	513	516	0.3	0.2	0.1		
GDP (in 000 M€13)	11231	12351	12895	13427	14550	15585	16682	1.4	1.2	1.4		
Gross Inland Consumption (ktoe)	172688	182472	1760315	1666601	1646482	1552346	1337125	0.2	-0.7	-2.1		
Solids	321292	318127	282994	277891	260906	226121	166460	-1.3	-0.8	-4.4		
Oil	660025	677021	612954	579805	545082	495079	442416	-0.7	-1.2	-2.1		
Natural gas	396144	445263	447394	387731	382104	368116	267980	1.2	-1.6	-3.5		
Nuclear	243841	257516	236562	213043	188974	174739	180795	-0.3	-2.2	-0.4		
Electricity	2030	1412	712	1761	1247	523	-41	-9.9	5.8	0.0		
Renewable energy forms	103557	125383	179699	206371	268169	287768	279515	5.7	4.1	0.4		
Energy Branch Consumption	86261	91922	86455	81625	76148	69515	62259	0.0	-1.3	-2.0		
Non-Energy Uses	113106	116080	110230	106709	112514	116488	116923	-0.3	0.2	0.4		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	944996	903986	835772	758585	761397	724757	666401	-1.2	-0.9	-1.3		
Solids	214596	196030	164837	148196	138911	124284	94652	-2.6	-1.7	-3.8		
Oil	173901	135553	100408	78529	69713	57538	47293	-5.3	-3.6	-3.8		
Natural gas	209436	190771	159948	118438	106195	91856	74784	-2.7	-4.0	-3.4		
Nuclear	243841	257516	236562	213043	188974	174739	180795	-0.3	-2.2	-0.4		
Renewable energy sources	103222	124116	174017	200379	257604	276339	268877	5.4	4.0	0.4		
Hydro	30703	26859	32312	31168	32356	32390	32518	0.5	0.0	0.0		
Biomass & Waste	65583	85060	119573	132613	164880	164671	144671	6.2	3.3	1.3		
Wind	1913	6058	12836	23588	39423	47321	55211	21.0	11.9	3.4		
Solar and others	436	827	3775	11001	17729	28228	31122	24.1	16.7	5.8		
Geothermal	4587	5312	5521	2009	3214	3729	5355	1.9	-5.3	5.2		
Net Imports (ktoe)	826349	979676	955004	962880	941286	885302	730653	1.5	-0.1	-2.5		
Solids	98320	125363	111814	129695	121994	101837	71808	1.3	0.9	-5.2		
Oil	532226	597491	558847	556140	530821	493264	449829	0.5	-0.5	-1.6		
Crude oil and Feedstocks	514686	578712	537586	515210	492835	461573	427106	0.4	-0.9	-1.4		
Oil products	17540	18779	21261	40930	37986	31690	22723	1.9	6.0	-5.0		
Natural gas	193432	254054	278015	269292	276658	278250	198420	3.7	0.0	-3.3		
Electricity	2030	1412	712	1761	1247	523	-41	-9.9	5.8	0.0		
Import Dependency (%)	46.7	52.3	52.8	55.9	55.3	55.0	52.3					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3005548	3289991	3332773	3251313	3381845	3531234	3246373	1.0	0.1	-0.4		
Nuclear energy	944993	997699	916610	867402	772986	717746	749687	-0.3	-1.7	-0.3		
Solids	933855	965565	830393	846833	807446	696119	510683	-1.2	-0.3	-4.5		
Oil (including refinery gas)	181296	142772	86899	34610	21458	20571	12694	-7.1	-13.1	-5.1		
Gas (including derived gases)	514267	705961	798645	566076	567921	642055	389381	4.5	-3.4	-3.7		
Biomass-waste	46401	87831	145814	188814	214324	262219	265338	12.1	3.9	2.2		
Hydro (pumping excluded)	357072	312372	375785	362415	376234	376625	378118	0.5	0.0	0.0		
Wind	22254	70455	149278	274278	458412	550243	641992	21.0	11.9	3.4		
Solar	117	1458	22502	103798	154603	256739	288747	69.1	21.3	6.4		
Geothermal and other renewables	5293	5878	6847	7086	8461	8916	9732	2.6	2.1	1.4		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	683507	739589	858628	965588	1030181	1073845	1087374	2.3	1.8	0.5		
Nuclear energy	139595	136829	132606	120798	114204	105051	109905	-0.5	-1.5	-0.4		
Renewable energy	128990	162194	238638	366738	473926	569583	625482	6.3	7.1	2.8		
Hydro (pumping excluded)	115841	119177	122922	127470	131607	132250	133007	0.6	0.7	0.1		
Wind	12730	40485	85701	141580	205897	234389	267517	21.0	9.2	2.7		
Solar	178	2292	29774	97443	135936	202254	223923	66.9	16.4	5.1		
Other renewables (tidal etc.)	241	240	241	244	486	690	1036	0.0	7.3	7.9		
Thermal power	414922	440565	487384	478053	442052	399211	351987	1.6	-1.0	-2.3		
of which cogeneration units	92439	107819	107430	111896	87682	89261	78313	1.5	-2.0	-1.1		
of which CCS units	0	0	0	0	833	1083	1083	0.0	0.0	2.7		
Solids fired	194525	185353	180110	176559	146679	118195	99866	-0.8	-2.0	-3.8		
Gas fired	123821	163333	215485	219628	211103	206781	183571	5.7	-0.2	-1.4		
Oil fired	83315	74582	69295	53085	31475	20792	15363	-1.8	-7.6	-6.9		
Biomass-waste fired	12657	16610	21719	27908	51752	52400	52143	5.5	9.1	0.1		
Hydrogen plants	0	0	13	13	13	13	13	0.0	0.3	0.0		
Geothermal heat	604	687	762	860	1030	1030	1030	2.4	3.1	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.5	48.1	42.1	36.5	35.7	36.0	32.8					
Efficiency of gross thermal power generation (%)	37.2	38.1	38.6	40.2	40.3	41.0	40.1					
% of gross electricity from CHP	11.3	12.5	12.6	12.2	10.7	9.9	8.9					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.2	0.2	0.3					
% of carbon free (RES, nuclear) gross electricity generation	45.8	44.9	48.5	55.5	58.7	61.5	71.9					
Fuel Inputs to Thermal Power Generation (ktoe)	388346	430899	416477	351894	345677	341986	254155	0.7	-1.8	-3.0		
Solids	223608	229335	197694	200223	186828	159231	116329	-1.2	-0.6	-4.6		
Oil (including refinery gas)	40868	32485	20566	7340	4933	5025	3511	-6.6	-13.3	-3.3		
Gas (including derived gases)	105105	137667	151968	100069	96422	109661	68255	3.8	-4.4	-3.4		
Biomass & Waste	14651	26766	41420	43077	55562	66138	64129	11.0	3.0	1.4		
Geothermal heat	4114	4645	4828	1184	1932	1932	1932	1.6	-8.8	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	1067893	1101207	997991	908897	859711	798712	750546	-0.7	-1.5	-1.3		
Refineries	735106	756042	667606	609584	582746	542023	497643	-1.0	-1.4	-1.6		
Biofuels and hydrogen production	709	3279	13086	16149	20791	18893	18831	33.8	4.7	-1.0		
District heating	15899	17445	19101	16261	16230	14261	11083	1.9	-1.6	-3.7		
Derived gases, cokeries etc.	316179	324441	298197	266904	239944	223535	222989	-0.6	-2.2	-0.7		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								EU28: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5964	6295	6449	6735	7158	7400	7767	0.8	1.0	0.8
Public road transport	549	541	528	546	569	579	595	-0.4	0.8	0.5
Private cars and motorcycles	4466	4721	4843	5001	5255	5328	5524	0.8	0.8	0.5
Rail	450	464	499	540	599	674	743	1.0	1.8	2.2
Aviation ⁽³⁾	458	528	539	608	693	773	857	1.7	2.5	2.1
Inland navigation	42	42	40	40	43	45	48	-0.3	0.6	1.1
Freight transport activity (Gtkm)	2295	2612	2556	2704	2982	3151	3404	1.1	1.6	1.3
Heavy goods and light commercial vehicles	1589	1853	1809	1915	2110	2174	2346	1.3	1.6	1.1
Rail	405	416	394	428	482	547	603	-0.3	2.0	2.3
Inland navigation	300	343	354	361	389	430	455	1.7	1.0	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	341525	364526	359402	358062	350400	325150	313059	0.5	-0.3	-1.1
Public road transport	8775	8725	8834	9040	9255	9154	9051	0.1	0.5	-0.2
Private cars and motorcycles	206270	212102	211618	204765	189783	164585	151895	0.3	-1.1	-2.2
Heavy goods and light commercial vehicles	67279	79273	76918	78507	81620	79184	79985	1.3	0.6	-0.2
Rail	8168	7668	7129	7395	7895	8535	8969	-1.4	1.0	1.3
Aviation	44876	49959	49230	53303	56506	57992	57204	0.9	1.4	0.1
Inland navigation	6156	6798	5673	5051	5342	5701	5954	-0.8	-0.6	1.1
By transport activity										
Passenger transport	266294	275041	273897	271237	259851	236296	222879	0.3	-0.5	-1.5
Freight transport	75231	89484	85505	86825	90549	88855	90180	1.3	0.6	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.1	2.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.9	3.7	4.6	6.1	6.5	6.6			
ENERGY EFFICIENCY										
Primary energy consumption	1613782	1708642	1650085	1559892	1533968	1435858	1220202	0.2	-0.7	-2.3
Final Energy Demand	1129427	1186370	1155879	1133457	1135562	1058603	892760	0.2	-0.2	-2.4
by sector										
Industry	330627	327576	283437	284538	295063	284929	251303	-1.5	0.4	-1.6
Energy intensive industries	215899	215115	182721	182407	188866	179935	154705	-1.7	0.3	-2.0
Other industrial sectors	114728	112461	100716	102132	106197	104994	96599	-1.3	0.5	-0.9
Residential	288564	307594	313829	299747	298984	273413	199107	0.8	-0.5	-4.0
Tertiary	166677	183368	196770	188333	188228	172221	126539	1.7	-0.4	-3.9
Transport ⁽⁵⁾	343558	367831	361842	360838	353288	328041	315811	0.5	-0.2	-1.1
by fuel										
Solids	61977	53988	50512	47694	45723	41050	27473	-2.0	-1.0	-5.0
Oil	487065	502509	455207	437598	404653	355220	307789	-0.7	-1.2	-2.7
Gas	267588	281191	273366	265878	264142	238948	182871	0.2	-0.3	-3.6
Electricity	217644	239548	244471	241010	252125	264522	243154	1.2	0.3	-0.4
Heat (from CHP and District Heating)	46044	52425	52875	49062	50727	48603	37572	1.4	-0.4	-3.0
Renewable energy forms	49109	56708	79448	92104	117818	108476	90720	4.9	4.0	-2.6
Other	0	0	0	111	375	1785	3182	0.0	0.0	23.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	154	148	137	124	113	100	80	-1.2	-1.9	-3.4
Industry (Energy on Value added, index 2000=100)	100	93	80	77	75	69	58	-2.2	-0.6	-2.6
Residential (Energy on Private Income, index 2000=100)	100	97	94	87	79	67	46	-0.6	-1.7	-5.4
Tertiary (Energy on Value added, index 2000=100)	100	99	100	91	84	71	48	0.0	-1.8	-5.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	39	37	36	33	30	26	23	-0.8	-1.8	-2.6
Freight transport (toe/Mtkm)	33	34	33	32	30	28	26	0.2	-1.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	5326.4	5349.2	4875.0	4583.4	4306.9	3923.8	3230.8	-0.9	-1.2	-2.8
of which ETS sectors (2013 scope) GHG emissions		2501.2	2175.1	2016.7	1919.4	1778.8	1394.5		-1.2	-3.1
of which ESD sectors (2013 scope) GHG emissions		2847.9	2699.9	2566.7	2387.5	2145.0	1836.4		-1.2	-2.6
CO2 Emissions (energy related)	3992.2	4127.1	3782.3	3524.1	3312.1	2967.9	2323.4	-0.5	-1.3	-3.5
Power generation/District heating	1406.3	1486.8	1344.0	1177.9	1095.8	1007.5	715.1	-0.5	-2.0	-4.2
Energy Branch	167.3	170.7	155.2	148.5	132.8	117.9	105.3	-0.7	-1.6	-2.3
Industry	691.0	634.1	511.8	505.6	495.2	438.5	334.3	-3.0	-0.3	-3.9
Residential	468.0	484.2	466.9	422.7	384.9	328.3	207.4	0.0	-1.9	-6.0
Tertiary	257.9	271.6	267.9	245.8	221.5	177.2	116.1	0.4	-1.9	-6.3
Transport	1001.7	1079.8	1036.6	1023.4	982.0	898.5	845.1	0.3	-0.5	-1.5
CO2 Emissions (non energy and non land use related)	277.3	282.4	237.3	238.8	248.7	249.0	243.9	-1.5	0.5	-0.2
Non-CO2 GHG emissions	1057.0	939.6	855.4	820.5	746.1	706.9	663.6	-2.1	-1.4	-1.2
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	92.5	92.9	84.7	79.6	74.8	68.1	56.1	-0.9	-1.2	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.39	0.37	0.33	0.30	0.27	0.24	0.19	-1.6	-2.0	-3.4
Final energy demand (t of CO2/toe)	2.14	2.08	1.98	1.94	1.83	1.74	1.68	-0.8	-0.7	-0.9
Industry	2.09	1.94	1.81	1.78	1.68	1.54	1.33	-1.5	-0.7	-2.3
Residential	1.62	1.57	1.49	1.41	1.29	1.20	1.04	-0.9	-1.4	-2.1
Tertiary	1.55	1.48	1.36	1.31	1.18	1.03	0.92	-1.3	-1.4	-2.5
Transport	2.92	2.94	2.86	2.84	2.78	2.74	2.68	-0.2	-0.3	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.5	8.7	12.4	16.1	21.0	24.1	27.9			
RES-H&C share	9.0	10.3	14.0	17.4	22.4	24.6	28.5			
RES-E share	13.3	14.8	19.7	28.2	35.2	40.7	48.4			
RES-T share (based on ILUC formula)	0.9	1.7	5.2	6.9	11.2	14.6	20.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	57	65	85	93	89	88	2.1	3.6	-0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	0	117	136	144	152	155	161	0.0	1.1	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1055.8	1282.5	1467.9	1505.9	1797.7	1944.1	2274.8	3.4	2.0	2.4
as % of GDP	9.4	10.4	11.4	11.2	12.4	12.5	13.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Austria: EU/CO ₂ 35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
	8	8	8	9	9	9	9	0.4	0.5	0.5
Population (in million)										
GDP (in 000 M€13)	257	279	298	316	345	373	490	1.5	1.5	1.5
Gross Inland Consumption (ktoe)	28996	34373	34604	32933	33457	31790	27635	1.8	-0.3	-1.9
Solids	3597	4000	3365	3333	3428	3023	2701	-0.7	0.2	-2.4
Oil	12173	14448	12833	12275	11718	10572	9399	0.5	-0.9	-2.2
Natural gas	6519	8159	8215	6454	7659	7064	4598	2.3	-0.7	-5.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Renewable energy forms	6825	7537	9991	9810	10212	10796	10634	3.9	0.2	0.4
Energy Branch Consumption	1306	1566	1504	1593	1503	1378	1246	1.4	0.0	-1.9
Non-Energy Uses	1718	1717	1850	2037	2202	2331	2362	0.7	1.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9776	10012	12114	11277	11475	11289	10717	2.2	-0.5	-0.7
Solids	293	0	0	0	0	0	0	-51.8	-100.0	0.0
Oil	1092	1003	1036	813	673	342	111	-0.5	-4.2	-16.5
Natural gas	1533	1404	1486	1270	1140	665	431	-0.3	-2.6	-9.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	6859	7605	9592	9195	9663	10281	10175	3.4	0.1	0.5
Hydro	3597	3154	3299	3527	3699	3811	3845	-0.9	1.2	0.4
Biomass & Waste	3169	4214	5914	5018	5160	4946	4279	6.4	-1.4	-1.9
Wind	6	114	178	340	382	663	1077	40.8	8.0	10.9
Solar and others	63	93	168	260	358	777	848	10.3	7.9	9.0
Geothermal	25	30	35	49	64	84	125	3.4	6.3	7.0
Net Imports (ktoe)	18970	24517	21577	21656	21981	20501	16918	1.3	0.2	-2.6
Solids	3019	3971	3358	3333	3428	3023	2701	1.1	0.2	-2.4
Oil	10850	13204	11510	11462	11045	10230	9288	0.6	-0.4	-1.7
Crude oil and Feedstocks	7791	8100	7011	8001	7806	7497	7041	-1.1	1.1	-1.0
Oil products	3059	5104	4499	3461	3239	2733	2247	3.9	-3.2	-3.6
Natural gas	5253	7153	6115	5184	6520	6398	4167	1.5	0.6	-4.4
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Import Dependency (%)	65.4	71.3	62.4	65.8	65.7	64.5	61.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	59874	64066	67933	59617	72028	77314	74397	1.3	0.6	0.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	5727	7165	4918	4194	5022	3271	3029	-1.5	0.2	-4.9
Oil (including refinery gas)	1702	1641	1273	208	215	71	66	-2.9	-16.3	-11.1
Gas (including derived gases)	8864	14347	16137	6774	14582	12173	3274	6.2	-1.0	-13.9
Biomass-waste	1675	2882	5088	2592	3574	4291	4313	11.8	-3.5	1.9
Hydro (pumping excluded)	41836	36677	38363	41009	43006	44318	44710	-0.9	1.1	0.4
Wind	67	1331	2064	3958	4443	7707	12525	40.9	8.0	10.9
Solar	3	21	88	871	1174	5472	6467	38.2	29.5	18.6
Geothermal and other renewables	0	2	2	11	11	11	11	0.0	21.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	17911	19092	21503	22989	23330	28071	30308	1.8	0.8	2.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	11668	12440	13841	16437	17371	22640	25198	1.7	2.3	3.8
Hydro (pumping excluded)	11613	11632	12706	13149	13699	13702	13797	0.9	0.8	0.1
Wind	50	778	981	2412	2583	4050	5636	34.7	10.2	8.1
Solar	5	30	154	876	1090	4887	5766	40.9	21.6	18.1
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6243	6652	7662	6552	5959	5432	5109	2.1	-2.5	-1.5
of which cogeneration units	2632	3253	3157	3004	3056	2952	2959	1.8	-0.3	-0.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1887	1660	1359	873	804	778	778	-3.2	-5.1	-0.3
Gas fired	2816	3389	4512	4074	3561	3321	2991	4.8	-2.3	-1.7
Oil fired	1260	1145	1139	971	815	483	423	-1.0	-3.3	-6.4
Biomass-waste fired	280	456	650	633	778	848	916	8.8	1.8	1.6
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	2	1	2	2	2	2	0.0	7.2	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	36.8	36.7	35.1	28.4	33.9	30.4	27.2			
Efficiency of gross thermal power generation (%)	39.9	41.3	41.3	39.7	43.9	39.7	32.4			
% of gross electricity from CHP	10.4	15.4	15.4	17.7	22.8	17.6	9.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	72.8	63.9	67.1	81.3	72.5	79.9	91.4			
Fuel Inputs to Thermal Power Generation (ktoe)	3877	5421	5713	2988	4589	4290	2840	4.0	-2.2	-4.7
Solids	1216	1507	1019	908	1092	744	735	-1.8	0.7	-3.9
Oil (including refinery gas)	278	262	176	60	69	23	22	-4.5	-8.9	-10.9
Gas (including derived gases)	1961	2836	2868	1406	2583	2404	843	3.9	-1.0	-10.6
Biomass & Waste	421	814	1649	604	836	1108	1230	14.6	-6.6	3.9
Geothermal heat	0	2	1	10	10	10	10	0.0	23.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	11349	11946	11472	12554	11801	10908	9791	0.1	0.3	-1.9
Refineries	8865	9275	8040	9141	8769	8086	7351	-1.0	0.9	-1.7
Biofuels and hydrogen production	16	50	495	571	445	404	399	41.2	-1.1	-1.1
District heating	558	613	869	678	635	579	422	4.5	-3.1	-4.0
Derived gases, cokeries etc.	1910	2009	2068	2164	1953	1840	1619	0.8	-0.6	-1.9

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Austria: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	96	101	107	112	119	125	130	1.1	1.1	0.9
Public road transport	9	9	10	10	10	11	11	0.4	0.7	0.6
Private cars and motorcycles	68	72	75	78	80	83	85	1.0	0.7	0.5
Rail	12	13	15	16	18	20	22	1.9	2.2	1.8
Aviation ⁽³⁾	6	7	8	9	10	11	12	2.0	2.6	2.2
Inland navigation	0	0	0	0	0	0	0	-0.6	0.6	1.4
Freight transport activity (Gtkm)	50	54	61	65	70	73	78	2.0	1.3	1.1
Heavy goods and light commercial vehicles	31	33	39	43	46	46	49	2.3	1.6	0.7
Rail	17	19	20	20	22	24	26	1.8	0.9	1.9
Inland navigation	2	2	2	2	3	3	3	-0.3	0.9	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	6787	8815	8507	8480	8018	7290	6953	2.3	-0.6	-1.4
Public road transport	92	97	101	103	106	106	106	0.9	0.5	0.0
Private cars and motorcycles	4520	5616	5043	4708	4260	3674	3324	1.1	-1.7	-2.5
Heavy goods and light commercial vehicles	1290	2135	2387	2622	2590	2408	2380	6.3	0.8	-0.8
Rail	267	242	247	249	264	276	283	-0.8	0.7	0.7
Aviation	591	679	707	776	774	799	832	1.8	0.9	0.7
Inland navigation	28	45	22	23	24	27	27	-2.1	0.8	1.2
<i>By transport activity</i>										
Passenger transport	5260	6438	5894	5634	5193	4635	4321	1.1	-1.3	-1.8
Freight transport	1527	2377	2613	2846	2825	2655	2632	5.5	0.8	-0.7
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	6.0	6.9	5.8	6.1	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	27277	32657	32754	30896	31254	29459	25273	1.8	-0.5	-2.1
Final Energy Demand	23692	28185	28423	28425	28029	26389	22677	1.8	-0.1	-2.1
<i>by sector</i>										
Industry	7283	8825	9195	9724	9942	9655	8793	2.4	0.8	-1.2
Energy intensive industries	5321	6148	6212	6588	6648	6353	5698	1.6	0.7	-1.5
Other industrial sectors	1962	2676	2983	3136	3295	3302	3094	4.3	1.0	-0.6
Residential	6332	6828	6797	6669	6513	6048	4351	0.7	-0.4	-4.0
Tertiary	3070	3449	3686	3285	3272	3117	2326	1.8	-1.2	-3.4
Transport ⁽⁵⁾	7007	9082	8744	8746	8302	7570	7207	2.2	-0.5	-1.4
<i>by fuel</i>										
Solids	1403	1466	1169	1135	1188	1220	983	-1.8	0.2	-1.9
Oil	9818	12084	10539	9934	9318	8155	7051	0.7	-1.2	-2.7
Gas	4464	5125	5259	5142	5123	4647	3725	1.7	-0.3	-3.1
Electricity	4432	5013	5358	5436	5803	6111	5914	1.9	0.8	0.2
Heat (from CHP and District Heating)	1020	1353	1832	2008	1903	1892	1374	6.0	0.4	-3.2
Renewable energy forms	2555	3145	4266	4769	4688	4336	3580	5.3	0.9	-2.7
Other	0	0	0	2	5	27	50	0.0	0.0	25.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	113	123	116	104	97	85	69	0.3	-1.8	-3.3
Industry (Energy on Value added, index 2000=100)	100	111	108	109	104	95	82	0.8	-0.4	-2.4
Residential (Energy on Private Income, index 2000=100)	100	100	93	85	76	66	44	-0.7	-1.9	-5.4
Tertiary (Energy on Value added, index 2000=100)	100	103	101	85	77	67	46	0.1	-2.7	-4.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	54	47	43	37	31	27	0.1	-2.6	-2.9
Freight transport (toe/Mtkm)	30	44	43	44	40	36	34	3.4	-0.5	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.1	96.8	89.0	82.8	82.3	74.1	61.8	0.3	-0.8	-2.8
of which ETS sectors (2013 scope) GHG emissions		38.3	35.2	32.7	34.5	31.0	24.7		-0.2	-3.3
of which ESD sectors (2013 scope) GHG emissions		58.4	53.7	50.1	47.8	43.1	37.1		-1.2	-2.5
CO₂ Emissions (energy related)	65.6	78.6	71.5	65.7	65.9	58.4	47.2	0.9	-0.8	-3.3
Power generation/District heating	12.5	17.0	15.1	11.2	14.1	12.4	8.7	1.9	-0.7	-4.8
Energy Branch	3.3	3.7	3.8	4.1	3.6	3.3	2.9	1.3	-0.3	-2.2
Industry	16.8	18.5	17.6	17.8	17.2	15.6	12.5	0.5	-0.2	-3.2
Residential	8.9	8.6	7.7	6.8	6.4	5.2	3.2	-1.5	-1.9	-6.6
Tertiary	3.9	4.4	3.2	2.0	1.8	1.5	0.9	-1.8	-5.8	-6.7
Transport	20.2	26.5	24.1	23.9	22.8	20.4	19.1	1.8	-0.6	-1.8
CO₂ Emissions (non energy and non land use related)	4.6	5.0	5.4	5.3	5.3	5.2	5.2	1.6	-0.3	-0.2
Non-CO₂ GHG emissions	15.8	13.2	12.1	11.7	11.1	10.5	9.5	-2.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	108.2	121.6	111.8	104.0	103.4	93.2	77.7	0.3	-0.8	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.21	0.17	0.13	0.15	0.12	0.09	-0.3	-1.2	-4.3
Final energy demand (t of CO ₂ /toe)	2.10	2.06	1.85	1.77	1.72	1.62	1.57	-1.3	-0.8	-0.9
Industry	2.31	2.10	1.92	1.83	1.73	1.61	1.42	-1.9	-1.0	-2.0
Residential	1.41	1.26	1.13	1.02	0.98	0.87	0.74	-2.2	-1.4	-2.7
Tertiary	1.26	1.27	0.88	0.60	0.54	0.47	0.38	-3.6	-4.7	-3.5
Transport	2.88	2.91	2.76	2.73	2.74	2.70	2.65	-0.4	0.0	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	24.6	23.6	30.5	34.5	35.2	38.2	43.0			
RES-H&C share	20.4	22.0	29.7	37.0	36.4	35.4	37.9			
RES-E share	66.9	62.4	65.7	68.0	68.4	77.0	88.4			
RES-T share (based on ILUC formula)	6.8	4.8	10.9	11.4	12.6	16.7	24.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	68	68	69	58	65	70	71	0.0	-0.6	0.9
Average Price of Electricity in Final demand sectors (€13/MWh)	130	115	143	131	140	149	148	0.9	-0.2	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	21.8	28.6	32.9	32.2	38.6	43.2	50.1	4.2	1.6	2.6
as % of GDP	8.5	10.2	11.0	10.2	11.2	11.6	12.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Belgium: EU CO ₂ 35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	11	11	12	12	13	0.6	0.9	0.9
GDP (in 000 M€13)	324	350	372	385	414	443	479	1.4	1.1	1.5
Gross Inland Consumption (ktoe)	59302	59008	61346	54681	54711	49434	42550	0.3	-1.1	-2.5
Solids	7922	5081	3673	3205	2007	2057	1649	-7.4	-5.9	-1.9
Oil	24136	24721	24699	23472	21996	20533	18723	0.2	-1.2	-1.6
Natural gas	13369	14728	16999	14941	14131	16829	13464	2.4	-1.8	-0.5
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Renewable energy forms	1081	1658	3560	4242	6206	6605	6259	12.7	5.7	0.1
Energy Branch Consumption	2366	2403	2246	2406	2216	2125	2012	-0.5	-0.1	-1.0
Non-Energy Uses	6739	7516	8541	8464	8523	8620	8529	2.4	0.0	0.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	13607	13718	15356	10620	14086	7135	5722	1.2	-0.9	-8.6
Solids	206	57	0	0	0	0	0	-97.1	-100.0	0.0
Oil	0	6	-7	-14	-14	-13	-13	1692.2	7.2	-0.5
Natural gas	2	0	0	0	0	0	0	0.0	-100.0	0.0
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Renewable energy sources	977	1377	2996	3725	5468	5908	5735	11.9	6.2	0.5
Hydro	40	25	27	31	32	32	49	-3.8	1.7	4.5
Biomass & Waste	931	1327	2793	2944	3956	3819	3399	11.6	3.5	-1.5
Wind	1	20	111	431	1032	1464	1589	54.9	25.0	4.4
Solar and others	1	3	60	313	441	580	677	50.7	22.0	4.4
Geothermal	3	3	4	6	8	13	21	3.0	6.0	10.6
Net Imports (ktoe)	50502	53396	53753	52611	49705	51723	46617	0.6	-0.8	-0.6
Solids	7220	5150	3591	3205	2007	2057	1649	-6.7	-5.7	-1.9
Oil	29527	32605	32752	32035	31042	29514	27322	1.0	-0.5	-1.3
Crude oil and Feedstocks	34177	32251	31004	27409	27195	26631	25645	-1.0	-1.3	-0.6
Oil products	-4650	354	1749	4626	3847	2883	1677	0.0	8.2	-8.0
Natural gas	13278	14817	16791	14941	14177	17286	14668	2.4	-1.7	0.3
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Import Dependency (%)	78.1	80.1	78.0	83.2	77.9	87.9	89.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	82773	85709	93764	69728	73880	71320	63420	1.3	-2.4	-1.5
Nuclear energy	48157	47595	47944	28180	35207	5071	0	0.0	-3.0	-100.0
Solids	12916	8199	4190	2975	195	288	56	-10.6	-26.4	-11.8
Oil (including refinery gas)	797	1740	406	96	674	697	719	-6.5	5.2	0.6
Gas (including derived gases)	19091	25143	33178	23812	18189	38578	33552	5.7	-5.8	6.3
Biomass-waste	1336	2516	5882	5914	3235	3956	3910	16.0	-5.8	1.9
Hydro (pumping excluded)	460	288	312	365	368	371	571	-3.8	1.7	4.5
Wind	16	227	1292	5009	11998	17021	18476	55.1	25.0	4.4
Solar	0	1	560	3376	4013	5336	6136	0.0	21.8	4.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	14674	14867	17071	18515	20996	22686	22717	1.5	2.1	0.8
Nuclear energy	5921	5921	5921	3907	5055	3041	0	0.0	-1.6	-100.0
Renewable energy	117	274	1934	5560	8494	11411	12721	32.4	15.9	4.1
Hydro (pumping excluded)	103	105	118	119	119	119	177	1.4	0.1	4.1
Wind	14	167	912	2229	4558	6236	6747	51.8	17.5	4.0
Solar	0	2	904	3212	3818	5056	5796	0.0	15.5	4.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	8636	8672	9216	9048	7447	8235	9996	0.7	-2.1	3.0
of which cogeneration units	1112	1893	2575	1552	655	1419	1084	8.8	-12.8	5.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2290	1450	1184	825	43	43	16	-6.4	-28.2	-9.7
Gas fired	4392	5201	6468	6799	6270	7155	8981	3.9	-0.3	3.7
Oil fired	1581	1494	836	646	266	266	235	-6.2	-10.8	-1.2
Biomass-waste fired	373	527	727	777	868	770	764	6.9	1.8	-1.3
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	61.5	63.0	60.3	41.2	38.8	35.1	31.3			
Efficiency of gross thermal power generation (%)	41.4	42.1	44.8	44.7	44.3	47.6	50.8			
% of gross electricity from CHP	6.5	8.5	16.0	17.4	8.0	15.4	15.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	60.4	59.1	59.7	61.4	74.2	44.5	45.9			
Fuel Inputs to Thermal Power Generation (ktoe)	7090	7677	8386	6315	4326	7858	6475	1.7	-6.4	4.1
Solids	2629	1833	936	761	47	66	11	-9.8	-25.8	-13.3
Oil (including refinery gas)	180	411	57	29	223	231	238	-10.8	14.6	0.6
Gas (including derived gases)	3790	4612	5671	4111	2936	6299	5053	4.1	-6.4	5.6
Biomass & Waste	492	821	1722	1414	1120	1262	1173	13.4	-4.2	0.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	54711	52964	50595	41255	42571	34813	32232	-0.8	-1.7	-2.7
Refineries	38602	37483	35454	31882	31698	31162	30095	-0.8	-1.1	-0.5
Biofuels and hydrogen production	0	0	352	341	871	757	721	0.0	9.5	-1.9
District heating	45	29	6	15	19	20	15	-18.1	11.8	-2.3
Derived gases, cokeries etc.	16064	15452	14782	9016	9983	2875	1401	-0.8	-3.8	-17.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Belgium: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	137	145	154	158	169	174	183	1.2	1.0	0.8
Public road transport	13	18	17	18	18	18	18	2.7	0.2	0.0
Private cars and motorcycles	107	109	115	117	126	127	133	0.8	0.9	0.5
Rail	9	10	12	12	13	15	17	3.1	1.2	2.4
Aviation ⁽³⁾	8	8	9	10	12	13	15	0.9	2.5	2.5
Inland navigation	0	0	0	0	0	0	0	-0.3	1.4	1.6
Freight transport activity (Gtkm)	70	65	63	66	76	82	91	-1.1	1.8	1.8
Heavy goods and light commercial vehicles	55	48	46	47	54	57	62	-1.7	1.6	1.4
Rail	8	8	7	8	9	11	13	-0.3	2.1	3.5
Inland navigation	8	9	9	12	13	14	15	2.2	2.9	2.1
Energy demand in transport (ktoe) ⁽⁴⁾	9747	9972	10593	10179	10009	9466	9414	0.8	-0.6	-0.6
Public road transport	158	204	292	290	287	277	267	6.4	-0.2	-0.7
Private cars and motorcycles	4815	4463	5177	4757	4252	3647	3459	0.7	-1.9	-2.0
Heavy goods and light commercial vehicles	2857	3618	3413	3397	3642	3576	3667	1.8	0.7	0.1
Rail	184	186	177	181	210	239	264	-0.4	1.7	2.3
Aviation	1530	1281	1382	1389	1443	1534	1545	-1.0	0.4	0.7
Inland navigation	204	219	152	164	175	192	211	-2.9	1.4	1.9
By transport activity										
Passenger transport	6608	6016	6932	6518	6071	5558	5379	0.5	-1.3	-1.2
Freight transport	3139	3956	3661	3660	3938	3907	4035	1.6	0.7	0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.1	2.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	3.4	3.4	9.1	9.3	9.2			
ENERGY EFFICIENCY										
Primary energy consumption	52563	51491	52805	46217	46188	40814	34021	0.0	-1.3	-3.0
Final Energy Demand	37766	36705	37534	36239	36435	34292	29276	-0.1	-0.3	-2.2
by sector										
Industry	14218	11775	11688	11055	11227	10718	9335	-1.9	-0.4	-1.8
Energy intensive industries	10700	9088	8641	8013	8021	7677	6548	-2.1	-0.7	-2.0
Other industrial sectors	3518	2686	3047	3042	3206	3040	2786	-1.4	0.5	-1.4
Residential	8974	9299	9266	9230	9323	8847	6386	0.3	0.1	-3.7
Tertiary	4827	5658	5982	5722	5825	5209	4095	2.2	-0.3	-3.5
Transport ⁽⁵⁾	9747	9973	10598	10232	10060	9519	9461	0.8	-0.5	-0.6
by fuel										
Solids	3403	2019	1621	1505	1358	1255	979	-7.2	-1.8	-3.2
Oil	16661	16586	15314	14610	13010	11509	9875	-0.8	-1.6	-2.7
Gas	10010	10009	11147	10465	10564	9985	7793	1.1	-0.5	-3.0
Electricity	6667	6896	7163	7033	7238	7507	7154	0.7	0.1	-0.1
Heat (from CHP and District Heating)	492	428	640	567	606	667	553	2.7	-0.5	-0.9
Renewable energy forms	533	767	1650	2058	3636	3265	2776	12.0	8.2	-2.7
Other	0	0	0	3	23	105	146	0.0	0.0	20.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	183	168	165	142	132	111	89	-1.0	-2.2	-3.9
Industry (Energy on Value added, index 2000=100)	100	82	88	81	77	70	57	-1.3	-1.3	-3.0
Residential (Energy on Private Income, index 2000=100)	100	98	90	84	78	68	45	-1.1	-1.4	-5.3
Tertiary (Energy on Value added, index 2000=100)	100	107	105	97	91	76	55	0.5	-1.4	-4.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	43	38	39	35	30	26	24	-1.1	-2.5	-2.2
Freight transport (toe/Mtkm)	45	61	58	55	52	47	44	2.6	-1.1	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	154.0	148.3	136.1	127.3	112.1	112.9	96.1	-1.2	-1.9	-1.5
of which ETS sectors (2013 scope) GHG emissions		70.1	58.6	52.1	42.8	50.4	43.3		-3.1	0.1
of which ESD sectors (2013 scope) GHG emissions		78.3	77.6	75.2	69.3	62.5	52.7		-1.1	-2.7
CO ₂ Emissions (energy related)	122.7	114.2	106.4	97.8	84.6	87.3	72.2	-1.4	-2.3	-1.6
Power generation/District heating	25.1	24.0	20.4	15.8	9.0	18.8	15.5	-2.0	-7.9	5.6
Energy Branch	4.9	4.4	3.9	4.6	4.0	3.8	3.6	-2.3	0.4	-1.0
Industry	34.5	24.8	22.1	19.7	18.4	16.2	12.9	-4.4	-1.8	-3.5
Residential	20.3	20.5	18.9	18.4	16.9	15.5	10.0	-0.7	-1.1	-5.1
Tertiary	8.7	10.6	10.2	9.5	9.0	7.3	5.2	1.6	-1.3	-5.3
Transport	29.2	29.9	30.9	29.7	27.4	25.6	24.9	0.6	-1.2	-0.9
CO ₂ Emissions (non energy and non land use related)	8.1	13.3	9.5	10.2	9.9	9.4	8.7	1.6	0.4	-1.3
Non-CO2 GHG emissions	23.2	20.9	20.2	19.3	17.5	16.2	15.2	-1.3	-1.4	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.5	98.7	90.6	84.7	74.6	75.2	63.9	-1.2	-1.9	-1.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.26	0.20	0.20	0.11	0.23	0.22	-3.5	-5.8	7.1
Final energy demand (t of CO ₂ /toe)	2.45	2.34	2.19	2.14	1.97	1.89	1.81	-1.1	-1.1	-0.8
Industry	2.43	2.11	1.89	1.78	1.63	1.51	1.38	-2.5	-1.4	-1.7
Residential	2.26	2.21	2.04	2.00	1.81	1.75	1.57	-1.0	-1.2	-1.4
Tertiary	1.80	1.87	1.71	1.66	1.55	1.41	1.27	-0.5	-1.0	-1.9
Transport	2.99	3.00	2.91	2.91	2.72	2.69	2.63	-0.3	-0.7	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	5.6	8.6	14.0	15.8	17.5			
RES-H&C share	1.9	3.4	6.1	8.5	13.9	13.9	15.1			
RES-E share	1.1	2.4	7.1	15.2	20.0	26.8	30.8			
RES-T share (based on ILUC formula)	0.0	0.1	4.1	4.6	10.1	12.6	16.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	49	59	86	105	113	111	3.2	5.9	0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	128	116	139	141	146	154	160	0.9	0.5	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	32.9	35.9	48.6	47.3	59.2	65.5	78.5	4.0	2.0	2.9
as % of GDP	10.2	10.3	13.1	12.3	14.3	14.8	16.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Bulgaria: EU/CO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	8	8	7	7	7	7	6	-1.0	-0.7	-0.7
GDP (in 000 M€13)	25	33	38	40	45	50	53	4.1	1.8	1.7
Gross Inland Consumption (ktoe)	18523	19754	17770	16469	16442	15438	13747	-0.4	-0.8	-1.8
Solids	6433	6895	6887	5983	5875	4776	3734	0.7	-1.6	-4.4
Oil	4068	4725	3888	3732	3541	3404	3167	-0.5	-0.9	-1.1
Natural gas	2931	2804	2300	2118	1997	1744	1345	-2.4	-1.4	-3.9
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0
Electricity	-397	-652	-726	-1011	-914	-915	-852	6.2	2.3	-0.7
Renewable energy forms	788	1156	1465	1870	2167	2653	2576	6.4	4.0	1.7
Energy Branch Consumption	905	911	1032	907	876	780	722	1.3	-1.6	-1.9
Non-Energy Uses	980	851	422	427	498	570	605	-8.1	1.7	2.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9867	10629	10531	9856	10912	10429	9949	0.7	0.4	-0.9
Solids	4295	4178	4942	4055	4859	3886	3497	1.4	-0.2	-3.2
Oil	68	58	61	17	20	25	29	-1.2	-10.7	3.9
Natural gas	12	384	59	125	125	126	132	17.0	7.8	0.5
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0
Renewable energy sources	792	1182	1512	1883	2132	2615	2515	6.7	3.5	1.7
Hydro	230	373	435	349	373	364	363	6.6	-1.5	-0.3
Biomass & Waste	562	776	975	1283	1483	1421	1149	5.7	4.3	-2.5
Wind	0	0	59	98	102	418	578	0.0	5.7	19.0
Solar and others	0	0	12	118	139	386	406	0.0	28.3	11.3
Geothermal	0	33	33	34	36	26	20	0.0	0.8	-5.7
Net Imports (ktoe)	8544	9276	7075	6717	5677	5170	3971	-1.9	-2.2	-3.5
Solids	2258	2553	1700	1928	1016	890	237	-2.8	-5.0	-13.5
Oil	3944	4943	4025	3820	3667	3538	3299	0.2	-0.9	-1.1
Crude oil and Feedstocks	5228	6145	5916	6308	5990	5692	5331	1.2	0.1	-1.2
Oil products	-1284	-1202	-1891	-2489	-2323	-2155	-2032	3.9	2.1	-1.3
Natural gas	2742	2458	2131	1993	1873	1620	1225	-2.5	-1.3	-4.2
Electricity	-397	-652	-726	-1011	-914	-915	-852	6.2	2.3	-0.7
Import Dependency (%)	46.0	46.7	39.6	40.5	34.2	33.1	28.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	40646	43972	46017	48845	48913	49175	45522	1.2	0.6	-0.7
Nuclear energy	18178	18653	15249	15662	15326	15326	15326	-1.7	0.1	0.0
Solids	16941	18458	22606	23317	23729	19174	15215	2.9	0.5	-4.3
Oil (including refinery gas)	661	606	393	440	70	0	0	-5.1	-15.8	-100.0
Gas (including derived gases)	2178	1896	1967	3035	2955	1639	66	-1.0	4.2	-31.6
Biomass-waste	15	17	49	54	164	389	419	12.6	12.9	9.8
Hydro (pumping excluded)	2673	4337	5057	4064	4334	4236	4218	6.6	-1.5	-0.3
Wind	0	5	681	1144	1183	4857	6724	0.0	5.7	19.0
Solar	0	0	15	1129	1152	3553	3553	0.0	54.2	11.9
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	10471	10635	9943	11968	11800	13386	13780	-0.5	1.7	1.6
Nuclear energy	3610	2765	1920	1920	1920	1920	1920	-6.1	0.0	0.0
Renewable energy	1016	1992	2697	4081	4110	7003	7590	10.3	4.3	6.3
Hydro (pumping excluded)	1016	1984	2184	2338	2338	2338	2338	8.0	0.7	0.0
Wind	0	8	488	691	703	1921	2509	0.0	3.7	13.6
Solar	0	0	25	1052	1069	2744	2744	0.0	45.6	9.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	5845	5878	5326	5967	5770	4463	4269	-0.9	0.8	-3.0
of which cogeneration units	1129	1191	1017	1814	1699	1606	933	-1.0	5.3	-5.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5100	5100	4703	5313	4934	3616	3506	-0.8	0.5	-3.4
Gas fired	689	737	607	626	783	751	664	-1.3	2.6	-1.6
Oil fired	57	42	13	13	2	2	2	-13.6	-18.4	0.0
Biomass-waste fired	0	0	3	15	51	94	98	0.0	32.3	6.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	39.9	42.8	47.7	42.3	43.4	39.1	35.4			
Efficiency of gross thermal power generation (%)	28.4	27.0	28.5	36.8	38.7	38.0	37.3			
% of gross electricity from CHP	7.8	6.1	8.0	12.0	12.3	8.7	7.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	51.3	52.3	45.7	45.1	45.3	57.7	66.4			
Fuel Inputs to Thermal Power Generation (ktoe)	5986	6689	7553	6282	5985	4798	3620	2.4	-2.3	-4.9
Solids	4928	5817	6610	5466	5436	4444	3504	3.0	-1.9	-4.3
Oil (including refinery gas)	171	174	219	110	17	0	0	2.5	-22.6	-100.0
Gas (including derived gases)	884	697	720	692	493	263	21	-2.0	-3.7	-27.1
Biomass & Waste	3	2	4	15	38	91	96	1.4	26.0	9.6
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12213	13505	11285	10638	10377	10054	9649	-0.8	-0.8	-0.7
Refineries	5310	6421	6041	6617	6290	5989	5607	1.3	0.4	-1.1
Biofuels and hydrogen production	0	0	13	106	188	178	183	0.0	30.2	-0.3
District heating	324	368	304	96	98	96	74	-0.6	-10.7	-2.7
Derived gases, cokeries etc.	6579	6717	4927	3819	3801	3791	3785	-2.9	-2.6	0.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Bulgaria: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	48	56	65	72	76	80	84	3.2	1.4	1.0
Public road transport	15	14	11	11	11	11	12	-3.1	0.6	0.4
Private cars and motorcycles	28	36	48	53	54	57	58	5.7	1.3	0.6
Rail	4	3	3	3	4	4	4	-2.5	1.7	1.9
Aviation ⁽²⁾	2	4	4	5	6	8	10	8.8	4.9	4.5
Inland navigation	0	0	0	0	0	0	0	-1.8	0.9	1.4
Freight transport activity (Gtkm)	11	16	18	20	22	25	26	5.7	2.0	1.7
Heavy goods and light commercial vehicles	5	11	9	10	11	12	13	7.0	2.0	1.2
Rail	6	5	3	3	4	4	5	-5.7	2.0	2.5
Inland navigation	0	1	6	6	7	8	9	34.4	2.0	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	1841	2682	2719	2837	2879	2795	2755	4.0	0.6	-0.4
Public road transport	399	362	262	263	270	267	263	-4.1	0.3	-0.2
Private cars and motorcycles	956	1389	1581	1628	1559	1397	1317	5.2	-0.1	-1.7
Heavy goods and light commercial vehicles	305	652	590	646	699	712	700	6.8	1.7	0.0
Rail	78	69	52	44	49	53	56	-4.0	-0.6	1.4
Aviation	101	201	182	207	244	302	349	6.1	3.0	3.6
Inland navigation	3	10	53	49	58	65	68	34.5	0.9	1.7
<i>By transport activity</i>										
Passenger transport	1473	1965	2034	2106	2083	1977	1941	3.3	0.2	-0.7
Freight transport	369	718	685	731	796	819	814	6.4	1.5	0.2
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.5	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	3.8	6.6	6.6	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	17543	18903	17348	16042	15945	14867	13142	-0.1	-0.8	-1.9
Final Energy Demand	9106	10184	8843	9205	9473	9188	8089	-0.3	0.7	-1.6
<i>by sector</i>										
Industry	3967	4037	2561	2709	2788	2811	2587	-4.3	0.9	-0.7
Energy intensive industries	3124	3161	1789	1929	1932	1905	1714	-5.4	0.8	-1.2
Other industrial sectors	843	876	772	780	856	907	873	-0.9	1.0	0.2
Residential	2155	2117	2246	2307	2372	2231	1685	0.4	0.5	-3.4
Tertiary	972	1128	1174	1179	1269	1197	926	1.9	0.8	-3.1
Transport ⁽⁵⁾	2013	2903	2862	3011	3044	2949	2892	3.6	0.6	-0.5
<i>by fuel</i>										
Solids	879	979	414	487	415	312	218	-7.3	0.0	-6.3
Oil	3026	3712	3125	3134	3044	2915	2696	0.3	-0.3	-1.2
Gas	1681	1565	1058	1052	1087	1028	894	-4.5	0.3	-1.9
Electricity	2085	2211	2331	2382	2511	2610	2444	1.1	0.7	-0.3
Heat (from CHP and District Heating)	880	939	960	841	863	863	655	0.9	-1.1	-2.7
Renewable energy forms	555	778	956	1309	1552	1456	1176	5.6	5.0	-2.7
Other	0	0	0	0	0	3	6	0.0	0.0	34.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	733	599	472	415	364	309	257	-4.3	-2.5	-3.4
Industry (Energy on Value added, index 2000=100)	100	68	37	39	35	32	27	-9.4	-0.6	-2.5
Residential (Energy on Private Income, index 2000=100)	100	72	67	67	58	49	34	-3.9	-1.4	-5.2
Tertiary (Energy on Value added, index 2000=100)	100	91	81	76	71	61	44	-2.1	-1.3	-4.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	34	30	28	26	23	22	0.0	-1.3	-1.9
Freight transport (toe/Mtkm)	35	44	37	37	36	33	31	0.7	-0.5	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	64.4	67.0	61.2	55.6	51.7	45.5	39.4	-0.5	-1.7	-2.7
of which ETS sectors (2013 scope) GHG emissions	39.4	35.6	30.0	29.0	24.1	19.0		-2.0	-4.1	
of which ESD sectors (2013 scope) GHG emissions	27.6	25.6	25.6	22.7	21.5	20.4		-1.2	-1.1	
CO₂ Emissions (energy related)	44.3	49.1	45.9	40.1	38.7	32.9	26.8	0.4	-1.7	-3.6
Power generation/District heating	24.6	27.9	31.2	25.1	24.4	19.6	14.9	2.4	-2.4	-4.8
Energy Branch	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.8	-1.8	-1.4
Industry	10.6	9.8	3.7	4.0	3.9	3.6	2.9	-10.0	0.7	-3.2
Residential	1.4	1.2	1.0	1.0	0.7	0.4	0.2	-3.1	-4.0	-11.0
Tertiary	1.2	1.1	0.8	0.7	0.7	0.6	0.4	-4.0	-1.6	-6.0
Transport	5.7	8.3	8.3	8.4	8.3	8.0	7.8	3.7	0.1	-0.6
CO₂ Emissions (non energy and non land use related)	3.5	4.0	3.0	3.0	3.1	3.2	3.2	-1.5	0.4	0.4
Non-CO₂ GHG emissions	16.7	14.0	12.3	12.5	9.8	9.4	9.3	-3.0	-2.2	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	58.5	60.9	55.6	50.5	46.9	41.4	35.8	-0.5	-1.7	-2.7
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.46	0.49	0.51	0.41	0.40	0.32	0.27	1.2	-2.5	-3.7
Final energy demand (t of CO ₂ /toe)	2.07	2.01	1.55	1.53	1.44	1.38	1.39	-2.8	-0.8	-0.3
Industry	2.67	2.43	1.44	1.47	1.42	1.29	1.11	-6.0	-0.2	-2.4
Residential	0.63	0.58	0.44	0.41	0.28	0.19	0.12	-3.5	-4.5	-7.9
Tertiary	1.24	0.97	0.69	0.61	0.54	0.47	0.40	-5.8	-2.4	-3.0
Transport	2.85	2.88	2.88	2.80	2.73	2.73	2.70	0.1	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	6.6	9.1	14.1	18.7	21.0	26.3	28.9			
RES-H&C share	10.5	14.1	25.2	30.8	33.8	34.4	36.1			
RES-E share	4.0	8.5	12.3	17.4	18.0	34.1	42.2			
RES-T share (based on ILUC formula)	0.3	0.4	1.1	5.4	9.9	10.9	13.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	55	58	68	66	70	74	0.8	1.4	1.1
Average Price of Electricity in Final demand sectors (€13/MWh)	44	56	75	89	103	120	125	5.4	3.2	2.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	5.2	7.4	9.5	10.5	12.9	14.5	17.7	6.2	3.0	3.3
as % of GDP	20.7	22.3	25.3	26.5	28.5	29.0	33.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Croatia: EU/CO ₂ -35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	4	4	4	4	4	-0.4	-0.3	-0.3
GDP (in 000 M€13)	36	45	46	45	49	52	55	2.4	0.5	1.3
Gross Inland Consumption (ktoe)	7793	8888	8561	8018	8285	7777	6527	0.9	-0.3	-2.4
Solids	431	683	683	751	852	379	302	4.7	2.2	-9.9
Oil	3929	4490	3699	3414	3229	3011	2683	-0.6	-1.3	-1.8
Natural gas	2210	2370	2632	2144	2374	2513	1578	1.8	-1.0	-4.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Renewable energy forms	880	906	1138	1195	1416	1525	1554	2.6	2.2	0.9
Energy Branch Consumption	821	825	745	726	712	615	563	-1.0	-0.5	-2.3
Non-Energy Uses	656	675	596	514	529	535	535	-0.9	-1.2	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3580	3799	4222	3368	3597	3487	3185	1.7	-1.6	-1.2
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	1345	1029	767	466	461	435	389	-5.5	-5.0	-1.7
Natural gas	1355	1865	2215	1431	1485	1305	1069	5.0	-3.9	-3.2
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	880	906	1240	1471	1650	1747	1727	3.5	2.9	0.5
Hydro	505	545	716	533	544	549	550	3.6	-2.7	0.1
Biomass & Waste	375	360	500	859	1020	973	804	2.9	7.4	-2.4
Wind	0	1	12	56	56	56	182	0.0	16.6	12.5
Solar and others	0	0	5	16	23	162	178	0.0	16.0	22.8
Geothermal	0	0	7	7	8	7	14	0.0	1.3	6.0
Net Imports (ktoe)	4134	5208	4461	4657	4696	4298	3349	0.8	0.5	-3.3
Solids	478	624	699	751	852	379	302	3.9	2.0	-9.9
Oil	2406	3583	2980	2955	2775	2582	2301	2.2	-0.7	-1.9
Crude oil and Feedstocks	3952	4334	3647	2979	2837	2715	2514	-0.8	-2.5	-1.2
Oil products	-1546	-751	-667	-24	-62	-132	-213	-8.1	-21.1	13.1
Natural gas	905	562	476	713	889	1208	510	-6.2	6.5	-5.4
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Import Dependency (%)	52.9	58.4	52.1	58.0	56.6	55.2	51.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	10684	12354	13999	11995	14203	14865	12201	2.7	0.1	-1.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	1551	2328	2385	2671	3442	1236	868	4.4	3.7	-12.9
Oil (including refinery gas)	1687	1855	560	77	24	236	212	-10.4	-27.0	24.3
Gas (including derived gases)	1571	1814	2553	2232	3418	4542	891	5.0	3.0	-12.6
Biomass-waste	1	14	33	98	278	344	256	41.9	23.7	-0.8
Hydro (pumping excluded)	5874	6333	8329	6199	6324	6386	6392	3.6	-2.7	0.1
Wind	0	10	139	650	650	650	2111	0.0	16.7	12.5
Solar	0	0	0	68	68	1471	1471	0.0	0.0	36.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	3786	3945	4216	4884	4881	5677	6266	1.1	1.5	2.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2079	2066	2220	2668	2668	3647	4388	0.7	1.9	5.1
Hydro (pumping excluded)	2079	2060	2141	2190	2190	2190	2190	0.3	0.2	0.0
Wind	0	6	79	423	423	423	1164	0.0	18.3	10.7
Solar	0	0	0	55	55	1034	1034	0.0	0.0	34.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1707	1879	1996	2216	2213	2030	1878	1.6	1.0	-1.6
of which cogeneration units	558	515	486	298	627	687	603	-1.4	2.6	-0.4
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	311	311	311	311	656	656	656	0.0	7.7	0.0
Gas fired	781	919	1031	1706	1383	1190	1079	2.8	3.0	-2.5
Oil fired	615	646	649	185	150	157	112	0.5	-13.6	-2.9
Biomass-waste fired	0	3	5	13	24	27	30	0.0	17.3	2.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	31.0	34.4	36.6	27.3	32.2	29.4	21.9			
Efficiency of gross thermal power generation (%)	33.1	34.9	37.5	44.0	46.3	45.5	35.6			
% of gross electricity from CHP	16.8	0.0	14.3	15.5	17.1	16.8	15.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	55.0	51.5	60.7	58.5	51.5	59.5	83.8			
Fuel Inputs to Thermal Power Generation (ktoe)	1249	1479	1269	993	1330	1203	538	0.2	0.5	-8.6
Solids	357	537	532	612	725	276	239	4.1	3.1	-10.5
Oil (including refinery gas)	395	447	120	14	8	67	63	-11.3	-23.7	23.0
Gas (including derived gases)	497	490	611	350	543	793	181	2.1	-1.2	-10.4
Biomass & Waste	0	4	7	17	54	66	55	36.6	22.9	0.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	5394	5327	4409	3555	3567	3399	3123	-2.0	-2.1	-1.3
Refineries	5299	5210	4304	3414	3268	3121	2881	-2.1	-2.7	-1.3
Biofuels and hydrogen production	0	0	3	70	223	196	175	0.0	56.1	-2.4
District heating	83	104	97	70	74	71	54	1.6	-2.7	-3.2
Derived gases, cokeries etc.	12	13	4	1	2	11	14	-10.0	-5.6	19.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Croatia: EUco+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	27	31	34	36	39	41	43	2.5	1.4	0.9
Public road transport	3	3	3	3	4	4	4	-0.3	1.0	0.4
Private cars and motorcycles	21	25	27	28	30	31	33	2.4	1.2	0.8
Rail	2	2	2	2	3	3	3	2.7	1.3	0.9
Aviation ⁽³⁾	1	1	2	3	3	3	4	12.0	3.8	2.6
Inland navigation	0	0	0	0	0	0	0	212.2	1.1	1.8
Freight transport activity (Gtkm)	4	12	12	12	14	15	16	10.2	1.5	1.4
Heavy goods and light commercial vehicles	3	9	8	8	10	10	11	12.1	1.5	1.4
Rail	2	3	3	3	3	3	3	3.9	1.4	1.5
Inland navigation	0	0	1	1	1	1	1	30.9	1.4	1.1
Energy demand in transport (ktoe) ⁽⁴⁾	1544	1921	2068	2074	2133	2021	1965	3.0	0.3	-0.8
Public road transport	41	39	61	63	66	64	64	3.9	0.8	-0.3
Private cars and motorcycles	1192	1192	1332	1324	1319	1198	1128	1.1	-0.1	-1.5
Heavy goods and light commercial vehicles	161	508	479	465	510	506	510	11.5	0.6	0.0
Rail	46	52	50	48	52	53	55	0.8	0.5	0.5
Aviation	76	98	108	134	144	154	161	3.6	2.9	1.1
Inland navigation	29	33	38	39	43	45	47	2.8	1.3	1.0
By transport activity										
Passenger transport	1329	1340	1514	1535	1542	1431	1368	1.3	0.2	-1.2
Freight transport	215	581	554	540	591	590	597	9.9	0.7	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.9	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.1	3.5	10.7	10.5	9.9			
ENERGY EFFICIENCY										
Primary energy consumption	7138	8213	7965	7504	7756	7242	5992	1.1	-0.3	-2.5
Final Energy Demand	5371	6343	6347	6190	6308	5976	5097	1.7	-0.1	-2.1
by sector										
Industry	1378	1563	1366	1394	1397	1313	1149	-0.1	0.2	-1.9
Energy intensive industries	847	907	752	745	735	676	577	-1.2	-0.2	-2.4
Other industrial sectors	531	656	614	649	662	637	573	1.5	0.8	-1.4
Residential	1666	1922	1893	1784	1777	1693	1254	1.3	-0.6	-3.4
Tertiary	781	935	1018	934	997	946	726	2.7	-0.2	-3.1
Transport ⁽⁵⁾	1547	1923	2070	2078	2137	2024	1968	3.0	0.3	-0.8
by fuel										
Solids	74	146	150	139	127	103	63	7.3	-1.6	-6.8
Oil	2683	3108	2902	2755	2563	2332	2038	0.8	-1.2	-2.3
Gas	1009	1236	1288	1170	1233	1174	917	2.5	-0.4	-2.9
Electricity	1018	1240	1364	1317	1396	1410	1278	3.0	0.2	-0.9
Heat (from CHP and District Heating)	213	258	246	226	239	246	190	1.4	-0.3	-2.3
Renewable energy forms	375	356	397	582	746	699	596	0.6	6.5	-2.2
Other	0	0	0	1	2	11	15	0.0	0.0	19.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	214	196	184	179	169	150	118	-1.5	-0.8	-3.6
Industry (Energy on Value added, index 2000=100)	100	97	88	93	87	79	66	-1.3	-0.1	-2.7
Residential (Energy on Private Income, index 2000=100)	100	91	88	84	76	68	47	-1.2	-1.6	-4.7
Tertiary (Energy on Value added, index 2000=100)	100	97	99	95	91	81	58	-0.1	-0.8	-4.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	41	43	41	38	34	30	-1.2	-1.3	-2.1
Freight transport (toe/Mtkm)	48	49	47	45	43	40	38	-0.2	-0.8	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	26.3	30.7	28.5	25.4	25.4	22.8	19.1	0.8	-1.2	-2.8
of which ETS sectors (2013 scope) GHG emissions		12.7	10.8	9.7	10.4	8.9	6.7		-0.4	-4.4
of which ESD sectors (2013 scope) GHG emissions		17.9	17.7	15.7	14.9	13.9	12.4		-1.7	-1.8
CO ₂ Emissions (energy related)	17.0	20.2	18.6	17.0	17.4	15.1	11.6	0.9	-0.6	-4.0
Power generation/District heating	4.1	5.1	4.3	3.5	4.4	3.3	1.7	0.3	0.4	-9.4
Energy Branch	2.0	2.0	1.8	1.7	1.7	1.5	1.3	-1.0	-0.5	-2.4
Industry	2.9	3.5	2.8	2.9	2.7	2.4	1.7	-0.2	-0.5	-4.5
Residential	1.9	2.4	2.1	1.7	1.7	1.6	1.0	1.0	-2.1	-5.2
Tertiary	1.5	1.5	1.4	1.2	1.2	1.0	0.8	-0.6	-1.7	-4.4
Transport	4.5	5.7	6.2	6.0	5.7	5.3	5.1	3.1	-0.8	-1.0
CO ₂ Emissions (non energy and non land use related)	2.6	3.1	2.5	2.4	2.6	2.6	2.5	-0.3	0.1	-0.3
Non-CO2 GHG emissions	6.7	7.4	7.4	5.9	5.4	5.2	5.0	0.9	-3.1	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	74.2	86.5	80.4	71.5	71.6	64.3	53.8	0.8	-1.2	-2.8
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.30	0.32	0.25	0.23	0.25	0.18	0.11	-2.1	0.3	-8.0
Final energy demand (t of CO ₂ /toe)	2.01	2.06	1.97	1.90	1.79	1.72	1.69	-0.2	-1.0	-0.6
Industry	2.09	2.23	2.08	2.08	1.94	1.79	1.49	-0.1	-0.7	-2.6
Residential	1.15	1.24	1.12	0.95	0.96	0.93	0.80	-0.3	-1.5	-1.9
Tertiary	1.89	1.57	1.37	1.26	1.18	1.11	1.04	-3.2	-1.4	-1.3
Transport	2.94	2.97	2.97	2.88	2.65	2.63	2.61	0.1	-1.1	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	14.8	12.8	14.3	18.5	21.2	24.3	29.4			
RES-H&C share	13.0	10.9	13.1	18.0	18.7	20.5	24.8			
RES-E share	36.2	32.8	34.2	39.1	38.6	46.9	60.4			
RES-T share (based on ILUC formula)	1.2	0.9	1.1	5.1	10.0	12.3	16.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	83	75	67	59	65	76	84	-2.1	-0.3	2.6
Average Price of Electricity in Final demand sectors (€13/MWh)	96	84	109	110	120	128	133	1.3	0.9	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	4.4	5.9	7.6	7.5	9.0	10.4	12.6	5.5	1.7	3.4
as % of GDP	12.2	12.9	16.4	16.8	18.4	20.1	22.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Cyprus: EU/CO ₂ -35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	1	1	1	1	1	1	1	1.7	0.9	0.3
GDP (in 000 M€13)	14	16	18	16	19	21	22	2.8	0.2	1.9
Gross Inland Consumption (ktoe)	2412	2539	2740	2157	2154	2006	1788	1.3	-2.4	-1.8
Solids	33	36	17	0	0	0	0	-6.5	-53.4	-13.6
Oil	2334	2446	2611	1995	1349	1187	1087	1.1	-6.4	-2.1
Natural gas	0	0	0	0	558	546	448	0.0	0.0	-2.2
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	0	0	0	0	0	0	0	0.0	0.0	9.9
Renewable energy forms	46	57	112	162	246	274	253	9.4	8.2	0.3
Energy Branch Consumption	54	22	19	17	15	8	6	-9.7	-2.4	-8.5
Non-Energy Uses	86	73	85	38	42	44	44	-0.1	-7.0	0.6
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	44	51	89	137	196	2138	2940	7.2	8.2	31.1
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0
Natural gas	0	0	0	0	0	1910	2729	0.0	0.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	44	51	89	137	196	228	211	7.2	8.2	0.8
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0
Biomass & Waste	9	10	24	28	37	45	44	10.5	4.4	1.9
Wind	0	0	3	21	36	36	40	0.0	29.7	0.9
Solar and others	36	41	61	86	118	142	124	5.6	6.8	0.5
Geothermal	0	0	1	2	4	5	3	0.0	18.7	-4.3
Net Imports (ktoe)	2565	2843	2945	2243	2201	134	-868	1.4	-2.9	0.0
Solids	33	43	11	0	0	0	0	-10.4	-51.4	-13.6
Oil	2531	2794	2910	2218	1590	1447	1347	1.4	-5.9	-1.6
Crude oil and Feedstocks	1160	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	1371	2794	2910	2218	1590	1447	1347	7.8	-5.9	-1.6
Natural gas	0	0	0	0	561	-1359	-2257	0.0	0.0	0.0
Electricity	0	0	0	0	0	0	0	0.0	0.0	0.0
Import Dependency (%)	98.6	100.7	100.8	94.3	91.8	5.9	-41.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	3370	4376	5322	4573	4941	5300	4617	4.7	-0.7	-0.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	3370	4376	5249	4086	442	22	22	4.5	-21.9	-25.8
Gas (including derived gases)	0	0	0	0	3441	3854	3112	0.0	0.0	-1.0
Biomass-waste	0	0	35	45	59	102	124	0.0	5.4	7.7
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0
Wind	0	0	31	248	422	422	460	0.0	29.8	0.9
Solar	0	0	6	195	576	899	899	0.0	58.4	4.6
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	983	1119	1498	1755	1980	2169	2182	4.3	2.8	1.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	0	0	89	292	554	715	728	0.0	20.1	2.8
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0
Wind	0	0	82	158	216	216	229	0.0	10.2	0.6
Solar	0	0	7	135	338	499	499	0.0	47.4	4.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	983	1119	1409	1462	1426	1455	1455	3.7	0.1	0.2
of which cogeneration units	0	5	22	2	2	1	2	0.0	-21.7	1.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0
Gas fired	0	0	0	0	34	514	514	0.0	0.0	31.3
Oil fired	983	1119	1406	1452	1382	930	930	3.6	-0.2	-3.9
Biomass-waste fired	0	0	3	10	10	10	11	0.0	12.7	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	37.2	42.1	38.9	28.5	27.5	27.4	23.8			
Efficiency of gross thermal power generation (%)	32.9	34.9	38.4	48.0	51.8	60.7	60.2			
% of gross electricity from CHP	0.0	0.3	1.0	1.7	1.6	1.0	0.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	1.4	10.6	21.4	26.9	32.1			
Fuel Inputs to Thermal Power Generation (ktoe)	881	1077	1182	741	654	563	465	3.0	-5.7	-3.3
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	881	1077	1178	731	83	0	0	2.9	-23.3	-100.0
Gas (including derived gases)	0	0	0	0	558	544	446	0.0	0.0	-2.2
Biomass & Waste	0	0	4	10	13	19	19	0.0	12.6	3.9
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1178	0	15	17	41	37	33	-35.4	10.5	-2.1
Refineries	1178	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	15	17	41	36	32	0.0	10.5	-2.2
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	0	0	0	0	0	0	1	0.0	0.0	16.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Cyprus: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	12	14	15	15	18	20	22	1.9	2.3	1.9
Public road transport	1	1	1	1	1	1	1	1	1.4	0.8
Private cars and motorcycles	4	5	6	6	7	7	7	7	4.0	0.9
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation ⁽³⁾	7	8	7	8	10	12	14	0.5	3.6	2.8
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Freight transport activity (Gtkm)	1	1	1	1	1	1	1	-1.6	0.7	1.2
Heavy goods and light commercial vehicles	1	1	1	1	1	1	1	-1.6	0.7	1.2
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	860	982	1050	916	963	938	923	2.0	-0.9	-0.4
Public road transport	32	35	37	37	38	37	35	1.5	0.3	-0.6
Private cars and motorcycles	373	444	577	490	483	422	374	4.5	-1.8	-2.5
Heavy goods and light commercial vehicles	173	197	152	125	126	124	125	-1.3	-1.8	-0.1
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation	282	306	284	263	316	355	389	0.1	1.1	2.1
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
By transport activity										
Passenger transport	687	785	898	791	837	813	798	2.7	-0.7	-0.5
Freight transport	173	197	152	125	126	124	125	-1.3	-1.8	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.4	1.8	4.2	3.8	3.2			
ENERGY EFFICIENCY										
Primary energy consumption	2326	2466	2655	2118	2112	1962	1744	1.3	-2.3	-1.9
Final Energy Demand	1650	1834	1926	1700	1764	1713	1535	1.6	-0.9	-1.4
by sector										
Industry	445	320	235	202	207	202	185	-6.2	-1.2	-1.1
Energy intensive industries	240	221	171	141	148	148	140	-3.3	-1.5	-0.5
Other industrial sectors	205	98	63	61	59	53	45	-11.1	-0.7	-2.8
Residential	211	322	333	323	315	289	217	4.7	-0.5	-3.7
Tertiary	134	209	309	259	279	284	210	8.7	-1.0	-2.8
Transport ⁽⁵⁾	860	983	1050	916	963	938	923	2.0	-0.9	-0.4
by fuel										
Solids	32	36	17	0	0	0	0	-6.4	-53.4	-13.6
Oil	1317	1403	1384	1226	1225	1143	1043	0.5	-1.2	-1.6
Gas	0	0	0	0	0	1	2	0.0	0.0	16.1
Electricity	258	341	420	360	391	426	370	5.0	-0.7	-0.6
Heat (from CHP and District Heating)	0	0	0	1	1	1	1	0.0	25.5	-3.6
Renewable energy forms	42	54	105	114	147	141	117	9.6	3.4	-2.3
Other	0	0	0	0	0	1	4	-100.0	0.0	35.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	175	157	151	131	116	97	80	-1.5	-2.6	-3.6
Industry (Energy on Value added, index 2000=100)	100	70	56	57	53	48	41	-5.6	-0.5	-2.5
Residential (Energy on Private Income, index 2000=100)	100	129	114	116	102	86	60	1.3	-1.1	-5.2
Tertiary (Energy on Value added, index 2000=100)	100	133	166	151	143	130	88	5.2	-1.5	-4.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	50	51	53	44	38	33	30	0.5	-3.2	-2.5
Freight transport (toe/Mtkm)	129	135	133	109	104	96	91	0.3	-2.5	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	11.3	10.4	10.3	8.2	7.3	6.9	6.5	-0.9	-3.4	-1.2
of which ETS sectors (2013 scope) GHG emissions		6.0	5.7	4.1	3.5	3.3	3.2		-4.8	-0.7
of which ESD sectors (2013 scope) GHG emissions		4.4	4.5	4.2	3.8	3.5	3.2		-1.8	-1.6
CO ₂ Emissions (energy related)	7.2	8.0	8.1	6.1	5.3	4.8	4.3	1.2	-4.1	-2.2
Power generation/District heating	2.8	3.5	3.8	2.4	1.6	1.3	1.0	2.9	-8.4	-4.0
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.0
Industry	1.4	1.0	0.6	0.6	0.5	0.5	0.4	-7.6	-1.5	-3.2
Residential	0.2	0.5	0.4	0.3	0.3	0.2	0.1	4.7	-2.4	-12.2
Tertiary	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	-1.9	-6.0
Transport	2.6	3.0	3.1	2.7	2.8	2.7	2.6	1.8	-1.2	-0.4
CO ₂ Emissions (non energy and non land use related)	0.9	0.9	0.6	0.5	0.6	0.6	0.7	-3.5	-0.5	2.2
Non-CO2 GHG emissions	3.2	1.5	1.6	1.6	1.4	1.4	1.5	-6.9	-1.5	0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	179.4	166.0	163.7	131.1	115.8	109.3	102.8	-0.9	-3.4	-1.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.85	0.80	0.71	0.52	0.32	0.24	0.23	-1.7	-7.7	-3.4
Final energy demand (t of CO ₂ /toe)	2.57	2.45	2.24	2.22	2.14	2.06	2.10	-1.3	-0.5	-0.2
Industry	3.16	3.11	2.70	2.73	2.64	2.48	2.14	-1.6	-0.2	-2.1
Residential	1.11	1.44	1.11	1.04	0.91	0.67	0.36	0.0	-1.9	-8.9
Tertiary	0.00	0.43	0.69	0.73	0.63	0.50	0.45	0.0	-0.9	-3.3
Transport	3.02	3.00	2.95	2.94	2.86	2.87	2.87	-0.2	-0.3	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.9	3.1	5.9	9.1	14.9	17.5	19.0			
RES-H&C share	7.9	10.0	18.2	21.8	24.2	27.4	31.1			
RES-E share	0.0	0.0	1.4	10.6	21.4	26.9	32.1			
RES-T share (based on ILUC formula)	0.0	0.0	2.0	1.3	10.3	11.0	12.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	114	115	154	84	111	107	116	3.1	-3.2	0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	132	146	181	204	196	180	191	3.2	0.8	-0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.1	1.9	2.5	2.5	3.1	3.4	3.9	8.1	2.1	2.5
as % of GDP	8.3	12.0	13.7	14.9	16.4	16.3	17.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Czech Republic: EU/CO ₂ -35				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	10	11	11	11	11	0.2	0.2	0.1	
GDP (in 000 M€13)	112	137	157	165	181	197	216	3.4	1.4	1.8	
Gross Inland Consumption (ktoe)	41097	45124	44681	41122	41218	40621	36400	0.8	-0.8	-1.2	
Solids	21643	20248	18364	15061	15110	14810	13285	-1.6	-1.9	-1.3	
Oil	7881	9899	9306	8965	8809	8376	8120	1.7	-0.5	-0.8	
Natural gas	7500	7703	8070	7797	7225	6836	4841	0.7	-1.1	-3.9	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Renewable energy forms	1429	1955	2980	3521	3866	4415	4053	7.6	2.6	0.5	
Energy Branch Consumption	1768	1796	2068	1808	1782	1772	1664	1.6	-1.5	-0.7	
Non-Energy Uses	2093	2948	2783	2447	2583	2668	2726	2.9	-0.7	0.5	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30536	32861	31570	27296	28077	29067	26665	0.3	-1.2	-0.5	
Solids	25049	23570	20730	16524	17082	17516	15546	-1.9	-1.9	-0.9	
Oil	386	591	290	223	222	210	189	-2.8	-2.7	-1.6	
Natural gas	169	154	202	191	181	171	157	1.8	-1.1	-1.4	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Renewable energy sources	1426	2142	3101	3560	3795	4372	3974	8.1	2.0	0.5	
Hydro	151	205	240	208	218	211	220	4.7	-0.9	0.1	
Biomass & Waste	1275	1933	2770	3106	3244	3607	2931	8.1	1.6	-1.0	
Wind	0	2	29	44	65	231	508	76.2	8.5	22.8	
Solar and others	0	3	62	202	265	320	308	0.0	15.7	1.5	
Geothermal	0	0	0	0	2	3	7	0.0	0.0	13.9	
Net Imports (ktoe)	9414	12641	11447	13826	13141	11554	9736	2.0	1.4	-3.0	
Solids	-4721	-3270	-2968	-1463	-1971	-2706	-2262	-4.5	-4.0	1.4	
Oil	7512	9649	8974	8742	8588	8166	7931	1.8	-0.4	-0.8	
Crude oil and Feedstocks	5596	7730	7837	6115	6048	5829	5724	3.4	-2.6	-0.5	
Oil products	1916	1919	1137	2627	2539	2337	2207	-5.1	8.4	-1.4	
Natural gas	7482	7535	6846	7606	7044	6665	4684	-0.9	0.3	-4.0	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Import Dependency (%)	22.9	28.0	25.6	33.6	31.9	28.4	26.7				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	72911	81931	85319	82069	80784	84531	81609	1.6	-0.5	0.1	
Nuclear energy	13590	24728	27998	27596	27596	27596	27594	7.5	-0.1	0.0	
Solids	52752	49522	47113	41095	42899	41832	38188	-1.1	-0.9	-1.2	
Oil (including refinery gas)	372	326	159	231	0	0	0	-8.1	-100.0	0.0	
Gas (including derived gases)	3907	4215	4121	5851	3674	4890	2977	0.5	-1.1	-2.1	
Biomass-waste	531	739	2188	2216	1098	2609	1868	15.2	-6.7	5.5	
Hydro (pumping excluded)	1758	2380	2789	2421	2541	2449	2561	4.7	-0.9	0.1	
Wind	1	21	335	508	759	2687	5902	78.9	8.5	22.8	
Solar	0	0	615	2149	2214	2466	2518	0.0	13.7	1.3	
Geothermal and other renewables	0	0	1	0	2	2	2	0.0	9.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _d)	13990	16314	17995	18816	18569	19647	20158	2.5	0.3	0.8	
Nuclear energy	1958	4006	4006	4006	4006	4006	4006	7.4	0.0	0.0	
Renewable energy	953	1043	2989	3628	3816	4763	6245	12.1	2.5	5.1	
Hydro (pumping excluded)	952	1020	1049	1080	1080	1085	1109	1.0	0.3	0.3	
Wind	1	22	213	282	408	1116	2520	70.9	6.7	20.0	
Solar	0	1	1727	2266	2328	2563	2617	0.0	3.0	1.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	11079	11265	11000	11182	10748	10877	9907	-0.1	-0.2	-0.8	
of which cogeneration units	3733	5199	4792	3845	3868	3128	2376	2.5	-2.1	-4.8	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9823	9935	9571	9656	9487	9414	8797	-0.3	-0.1	-0.8	
Gas fired	1097	1110	1176	1220	931	1142	756	0.7	-2.3	-2.1	
Oil fired	140	140	117	134	72	64	64	-1.8	-4.7	-1.2	
Biomass-waste fired	19	80	136	171	258	258	289	21.7	6.6	1.2	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	55.0	52.9	50.0	46.3	46.1	45.7	43.2				
Efficiency of gross thermal power generation (%)	31.4	30.0	30.3	31.9	32.8	32.3	31.7				
% of gross electricity from CHP	17.9	16.8	14.2	17.4	19.2	14.7	12.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	21.8	34.0	39.8	42.5	42.3	44.7	49.6				
Fuel Inputs to Thermal Power Generation (ktoe)	15744	15702	15219	13299	12497	13147	11689	-0.3	-2.0	-0.7	
Solids	13945	14025	13445	10677	11223	11220	10377	-0.4	-1.8	-0.8	
Oil (including refinery gas)	311	161	78	59	0	0	0	-12.9	-100.0	0.0	
Gas (including derived gases)	1236	1292	1134	1938	986	1210	852	-0.9	-1.4	-1.5	
Biomass & Waste	253	224	562	626	287	715	458	8.3	-6.5	4.8	
Geothermal heat	0	0	0	0	2	2	2	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	15035	19758	20049	17183	17145	16787	16206	2.9	-1.6	-0.6	
Refineries	6151	8144	8337	6497	6444	6219	6095	3.1	-2.5	-0.6	
Biofuels and hydrogen production	62	3	231	285	594	517	505	14.1	9.9	-1.6	
District heating	975	916	787	650	692	677	457	-2.1	-1.3	-4.1	
Derived gases, cokeries etc.	7846	10696	10693	9751	9415	9374	9150	3.1	-1.3	-0.3	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Czech Republic: EUO+35				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
TRANSPORT											
Passenger transport activity (Gpkm)	103	112	108	113	124	134	145	0.5	1.4	1.5	
Public road transport	16	16	17	17	19	20	21	0.5	0.9	1.2	
Private cars and motorcycles	67	72	67	68	75	80	85	0.0	1.1	1.3	
Rail	15	15	16	18	20	22	24	0.1	2.6	2.0	
Aviation ⁽³⁾	5	10	9	9	11	12	14	5.6	2.3	2.7	
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0	
Freight transport activity (Gtkm)	46	49	48	50	55	59	64	0.3	1.4	1.5	
Heavy goods and light commercial vehicles	29	34	34	35	38	40	43	1.7	1.1	1.2	
Rail	17	15	14	15	17	19	21	-2.4	2.1	2.0	
Inland navigation	0	0	0	0	0	0	0	-7.0	1.1	2.2	
Energy demand in transport (ktoe) ⁽⁴⁾	4252	5983	6121	6178	6304	5929	5848	3.7	0.3	-0.7	
Public road transport	233	296	379	385	401	406	412	5.0	0.6	0.3	
Private cars and motorcycles	2563	3389	3394	3319	3294	2922	2756	2.8	-0.3	-1.8	
Heavy goods and light commercial vehicles	1038	1753	1810	1914	1996	1942	1967	5.7	1.0	-0.1	
Rail	216	197	193	211	235	249	265	-1.1	2.0	1.2	
Aviation	197	343	341	345	373	405	442	5.6	0.9	1.7	
Inland navigation	5	5	4	4	4	4	5	-2.2	-0.7	2.0	
By transport activity											
Passenger transport	3107	4132	4229	4175	4214	3887	3776	3.1	0.0	-1.1	
Freight transport	1145	1850	1892	2003	2090	2041	2072	5.1	1.0	-0.1	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.4				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	1.5	0.0	3.8	4.7	9.7	9.2	9.1				
ENERGY EFFICIENCY											
Primary energy consumption	39004	42175	41899	38675	38635	37953	33674	0.7	-0.8	-1.4	
Final Energy Demand	24798	26026	24853	24635	25392	24292	20774	0.0	0.2	-2.0	
by sector											
Industry	10129	9681	7933	7883	8194	8047	7273	-2.4	0.3	-1.2	
Energy intensive industries	6420	6748	5015	5079	5159	5029	4305	-2.4	0.3	-1.8	
Other industrial sectors	3709	2934	2919	2804	3034	3019	2968	-2.4	0.4	-0.2	
Residential	6150	6345	6665	6340	6584	6292	4599	0.8	-0.1	-3.5	
Tertiary	4151	3904	3979	4098	4158	3865	2893	-0.4	0.4	-3.6	
Transport ⁽⁵⁾	4368	6095	6276	6315	6457	6088	6009	3.7	0.3	-0.7	
by fuel											
Solids	5134	3769	2424	2616	2257	1967	1351	-7.2	-0.7	-5.0	
Oil	5322	6817	6541	6366	6150	5646	5340	2.1	-0.6	-1.4	
Gas	6491	6741	6662	6128	6374	5839	4539	0.3	-0.4	-3.3	
Electricity	4246	4754	4919	5012	5318	5603	5352	1.5	0.8	0.1	
Heat (from CHP and District Heating)	2624	2478	2249	2102	2276	2329	1776	-1.5	0.1	-2.4	
Renewable energy forms	981	1467	2058	2411	3015	2895	2384	7.7	3.9	-2.3	
Other	0	0	0	1	2	15	32	-100.0	0.0	31.5	
Energy intensity indicators											
Gross Int. Cons./GDP (toe/M€13)	366	329	285	250	228	207	169	-2.5	-2.2	-3.0	
Industry (Energy on Value added, index 2000=100)	100	69	44	43	41	37	31	-7.8	-0.8	-2.8	
Residential (Energy on Private Income, index 2000=100)	100	87	80	75	70	60	39	-2.2	-1.4	-5.6	
Tertiary (Energy on Value added, index 2000=100)	100	82	76	73	67	57	39	-2.7	-1.2	-5.4	
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	35	36	34	31	27	24	2.2	-1.5	-2.7	
Freight transport (toe/Mtkm)	25	38	40	40	38	35	33	4.8	-0.4	-1.5	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	153.1	150.6	140.8	128.6	122.7	118.2	104.5	-0.8	-1.4	-1.6	
of which ETS sectors (2013 scope) GHG emissions		87.1	79.4	68.7	67.0	67.0	60.0		-1.7	-1.1	
of which ESD sectors (2013 scope) GHG emissions		63.6	61.4	59.9	55.7	51.3	44.5		-1.0	-2.2	
CO2 Emissions (energy related)	125.7	124.3	114.6	102.9	100.2	96.6	84.6	-0.9	-1.3	-1.7	
Power generation/District heating	66.8	66.2	63.2	52.9	52.4	52.9	47.8	-0.6	-1.9	-0.9	
Energy Branch	2.6	2.2	3.1	2.7	2.6	2.6	2.4	1.6	-1.6	-0.7	
Industry	28.3	24.7	17.5	17.0	16.0	15.0	12.1	-4.7	-0.9	-2.8	
Residential	8.8	8.4	8.3	7.8	7.5	6.6	4.5	-0.6	-0.9	-5.1	
Tertiary	6.8	4.9	4.9	4.8	4.7	3.5	2.3	-3.3	-0.4	-6.9	
Transport	12.4	17.8	17.6	17.6	17.0	16.0	15.5	3.6	-0.4	-0.9	
CO2 Emissions (non energy and non land use related)	5.6	5.3	4.8	5.2	5.3	5.2	5.0	-1.7	1.1	-0.5	
Non-CO2 GHG emissions	21.7	21.1	21.5	20.5	17.1	16.4	14.9	-0.1	-2.3	-1.3	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	77.5	76.3	71.3	65.1	62.1	59.9	52.9	-0.8	-1.4	-1.6	
Carbon Intensity Indicators											
Electricity and Steam production (t of CO2/MWh)	0.60	0.55	0.52	0.46	0.45	0.44	0.44	-1.4	-1.3	-0.3	
Final energy demand (t of CO2/toe)	2.27	2.15	1.94	1.92	1.78	1.69	1.66	-1.6	-0.9	-0.7	
Industry	2.79	2.55	2.21	2.16	1.96	1.87	1.66	-2.3	-1.2	-1.6	
Residential	1.43	1.33	1.24	1.24	1.14	1.06	0.97	-1.4	-0.8	-1.6	
Tertiary	1.63	1.26	1.22	1.18	1.12	0.91	0.79	-2.9	-0.9	-3.4	
Transport	2.85	2.92	2.81	2.79	2.63	2.62	2.59	-0.1	-0.7	-0.2	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	4.7	6.1	9.5	11.9	13.6	15.5	17.1				
RES-H&C share	5.9	9.1	12.6	15.5	17.2	19.3	21.2				
RES-E share	3.4	3.8	7.5	10.3	8.9	13.1	17.4				
RES-T share (based on ILUC formula)	1.8	0.3	4.4	5.5	10.2	10.3	11.1				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	60	83	81	82	76	2.0	3.0	-0.6	
Average Price of Electricity in Final demand sectors (€13/MWh)	66	83	142	128	128	125	124	7.9	-1.0	-0.3	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	14.7	20.3	28.4	27.5	32.1	35.4	42.4	6.8	1.3	2.8	
as % of GDP	13.1	14.8	18.1	16.7	17.8	18.0	19.7				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Denmark: EU/CO ₂ 35			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	5	5	6	6	6	6	6	0.4	0.4	0.5	
GDP (in 000 M€13)	233	248	247	256	289	321	350	0.6	1.6	1.9	
Gross Inland Consumption (ktoe)	19733	19553	20040	16820	16829	15740	14070	0.2	-1.7	-1.8	
Solids	3985	3713	3809	1860	1697	927	533	-0.5	-7.8	-10.9	
Oil	9101	8063	7568	6738	6246	5675	5047	-1.8	-1.9	-2.1	
Natural gas	4465	4413	4435	3680	2629	2395	1755	-0.1	-5.1	-4.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1	
Renewable energy forms	2124	3246	4326	3795	5642	6037	6370	7.4	2.7	1.2	
Energy Branch Consumption	1121	1205	1132	911	890	744	611	0.1	-2.4	-3.7	
Non-Energy Uses	301	289	263	283	313	339	345	-1.3	1.8	1.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	27958	30781	22915	15259	15901	13567	11435	-2.0	-3.6	-3.2	
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0	
Oil	18465	18464	12040	8158	7711	6401	4407	-4.2	-4.4	-5.4	
Natural gas	7428	9397	7356	4188	3856	2448	1750	-0.1	-6.3	-7.6	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	2065	2920	3520	2913	4334	4717	5278	5.5	2.1	2.0	
Hydro	3	2	2	2	2	2	2	-3.6	0.2	0.0	
Biomass & Waste	1688	2335	2825	1819	2829	2980	2723	5.3	0.0	-0.4	
Wind	365	569	672	1007	1318	1493	1853	6.3	7.0	3.5	
Solar and others	8	10	16	80	100	125	141	7.2	19.9	3.5	
Geothermal	1	4	5	6	85	117	560	13.8	32.6	20.7	
Net Imports (ktoe)	-7370	-10130	-3257	2304	1731	3023	3540	-7.8	0.0	7.4	
Solids	3783	3505	2642	1860	1697	927	533	-3.5	-4.3	-10.9	
Oil	-8386	-9068	-3586	-676	-607	106	1460	-8.1	-15.4	0.0	
Crude oil and Feedstocks	-8783	-10933	-5033	-669	-741	35	1464	-5.4	-17.4	0.0	
Oil products	397	1865	1447	-7	70	71	-5	13.8	-26.1	0.0	
Natural gas	-2882	-5010	-3022	-508	-1219	-36	89	0.5	-8.7	0.0	
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1	
Import Dependency (%)	-35.1	-49.9	-15.7	13.1	9.8	18.2	23.6				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	36053	36246	38862	26963	30728	30927	34050	0.8	-2.3	1.0	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	16673	15463	17006	6440	5438	2803	2126	0.2	-10.8	-9.0	
Oil (including refinery gas)	4439	1375	774	214	7	79	45	-16.0	-37.5	20.5	
Gas (including derived gases)	8774	8780	7906	4589	710	1315	924	-1.0	-21.4	2.7	
Biomass-waste	1895	3989	5340	3223	8458	8581	8620	10.9	4.7	0.2	
Hydro (pumping excluded)	30	23	21	21	21	21	21	-3.5	0.2	0.0	
Wind	4241	6614	7809	11709	15325	17359	21546	6.3	7.0	3.5	
Solar	1	2	6	768	768	768	768	17.5	63.0	0.0	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _d)	11787	13021	13419	15207	13634	13146	13001	1.3	0.2	-0.5	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	2401	3141	3818	5910	6456	6682	7803	4.7	5.4	1.9	
Hydro (pumping excluded)	10	11	9	9	9	9	9	-1.0	0.0	0.0	
Wind	2390	3127	3802	5064	5609	5835	6957	4.8	4.0	2.2	
Solar	1	3	7	837	838	838	838	21.5	61.4	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	9386	9880	9601	9297	7179	6465	5198	0.2	-2.9	-3.2	
of which cogeneration units	5578	5685	5806	7114	6104	5205	3174	0.4	0.5	-6.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	5214	5061	4466	4225	2366	2090	1472	-1.5	-6.2	-4.6	
Gas fired	1862	2278	2274	2274	1135	1039	639	2.0	-6.7	-5.6	
Oil fired	860	860	1017	1017	492	223	217	1.7	-7.0	-7.9	
Biomass-waste fired	1449	1681	1844	1781	3186	3113	2870	2.4	5.6	-1.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	33.4	30.2	31.4	19.6	24.7	26.0	29.0				
Efficiency of gross thermal power generation (%)	34.9	35.7	35.3	32.4	33.3	33.0	35.0				
% of gross electricity from CHP	52.6	52.1	49.2	53.6	46.6	38.9	27.6				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	17.1	29.3	33.9	58.3	80.0	86.4	90.9				
Fuel Inputs to Thermal Power Generation (ktoe)	7834	7127	7624	3838	3777	3327	2877	-0.3	-6.8	-2.7	
Solids	3669	3444	3770	1696	1547	832	474	0.3	-8.5	-11.1	
Oil (including refinery gas)	1354	346	221	65	2	22	15	-16.6	-39.0	25.0	
Gas (including derived gases)	2112	1996	1812	1197	204	332	227	-1.5	-19.6	1.1	
Biomass & Waste	699	1341	1821	880	2024	2141	2161	10.0	1.1	0.7	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	9001	8288	8139	8416	8102	7469	7107	-1.0	0.0	-1.3	
Refineries	8435	7700	7175	7493	6971	6432	5865	-1.6	-0.3	-1.7	
Biofuels and hydrogen production	0	0	27	277	433	358	306	0.0	32.1	-3.4	
District heating	549	575	923	644	688	633	876	5.3	-2.9	2.4	
Derived gases, cokeries etc.	17	13	13	3	10	45	60	-2.9	-2.2	19.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Denmark: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	75	76	78	83	90	94	99	0.4	1.3	1.0
Public road transport	7	7	7	7	8	8	8	-0.7	0.9	0.5
Private cars and motorcycles	51	51	52	54	58	59	61	0.1	1.1	0.6
Rail	6	6	7	7	8	9	10	1.8	1.7	2.3
Aviation ⁽³⁾	8	9	10	12	13	14	17	2.7	2.5	2.2
Inland navigation	3	3	3	3	3	4	4	-0.7	1.1	1.1
Freight transport activity (Gtkm)	21	22	23	25	29	30	32	0.6	2.3	1.2
Heavy goods and light commercial vehicles	18	18	18	20	23	25	26	0.2	2.5	1.1
Rail	2	2	2	2	3	3	3	1.0	1.6	1.9
Inland navigation	2	2	2	2	3	3	3	3.6	1.0	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4816	5324	5180	5009	4962	4637	4481	0.7	-0.4	-1.0
Public road transport	203	202	199	204	213	211	208	-0.2	0.7	-0.2
Private cars and motorcycles	2627	2866	2828	2599	2396	2057	1907	0.7	-1.6	-2.3
Heavy goods and light commercial vehicles	864	1003	1011	971	1059	1044	1026	1.6	0.5	-0.3
Rail	103	107	113	118	125	131	136	0.9	1.0	0.8
Aviation	856	955	874	960	997	1013	1018	0.2	1.3	0.2
Inland navigation	163	192	156	158	171	180	186	-0.4	0.9	0.8
<i>By transport activity</i>										
Passenger transport	3874	4197	4049	3915	3772	3457	3315	0.4	-0.7	-1.3
Freight transport	942	1128	1132	1094	1190	1180	1166	1.9	0.5	-0.2
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.0	2.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	5.6	9.0	8.9	8.3			
ENERGY EFFICIENCY										
Primary energy consumption	19432	19264	19777	16536	16517	15402	13724	0.2	-1.8	-1.8
Final Energy Demand	14717	15497	15606	14800	14757	14007	11875	0.6	-0.6	-2.1
<i>by sector</i>										
Industry	2934	2864	2417	2568	2708	2648	2319	-1.9	1.1	-1.5
Energy intensive industries	1156	1107	849	908	934	857	723	-3.0	1.0	-2.5
Other industrial sectors	1778	1757	1569	1659	1774	1791	1596	-1.2	1.2	-1.1
Residential	4162	4453	4916	4345	4185	3976	2968	1.7	-1.6	-3.4
Tertiary	2805	2856	3094	2879	2903	2745	2107	1.0	-0.6	-3.2
Transport ⁽⁵⁾	4816	5324	5179	5009	4962	4637	4481	0.7	-0.4	-1.0
<i>by fuel</i>										
Solids	290	253	166	163	150	95	58	-5.4	-1.0	-9.0
Oil	7058	7293	6759	6083	5654	5065	4463	-0.4	-1.8	-2.3
Gas	1667	1708	1771	1744	1822	1635	1243	0.6	0.3	-3.8
Electricity	2791	2877	2783	2733	2844	2967	2927	0.0	0.2	0.3
Heat (from CHP and District Heating)	2255	2424	2840	2556	2498	2371	1656	2.3	-1.3	-4.0
Renewable energy forms	656	943	1287	1519	1779	1828	1462	7.0	3.3	-1.9
Other	0	0	0	3	10	46	66	-100.0	0.0	20.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	85	79	81	66	58	49	40	-0.4	-3.3	-3.6
Industry (Energy on Value added, index 2000=100)	100	101	91	94	90	81	65	-0.9	-0.1	-3.2
Residential (Energy on Private Income, index 2000=100)	100	96	102	84	71	60	41	0.2	-3.5	-5.3
Tertiary (Energy on Value added, index 2000=100)	100	96	101	91	80	68	47	0.1	-2.3	-5.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	44	46	43	39	34	30	27	-0.4	-2.2	-2.5
Freight transport (toe/Mtkm)	44	51	50	44	42	39	36	1.3	-1.7	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.7	66.3	63.9	50.5	45.7	39.9	34.3	-1.1	-3.3	-2.8
of which ETS sectors (2013 scope) GHG emissions		29.3	27.9	18.0	14.7	11.4	8.8		-6.2	-5.0
of which ESD sectors (2013 scope) GHG emissions		37.0	36.0	32.5	31.1	28.5	25.5		-1.5	-2.0
CO₂ Emissions (energy related)	53.3	50.0	48.8	35.8	31.1	25.6	20.5	-0.9	-4.4	-4.1
Power generation/District heating	24.5	20.3	21.2	10.6	7.2	4.4	2.6	-1.4	-10.3	-9.7
Energy Branch	2.2	2.3	2.1	1.9	1.7	1.4	1.1	-0.5	-2.1	-4.4
Industry	5.4	5.1	3.9	4.1	4.1	3.5	2.3	-3.2	0.4	-5.5
Residential	3.9	3.6	3.2	2.6	2.2	1.9	1.2	-2.0	-3.7	-5.9
Tertiary	3.0	2.7	2.9	2.5	2.4	1.8	1.2	-0.3	-1.8	-6.5
Transport	14.3	15.9	15.5	14.2	13.5	12.6	12.1	0.8	-1.3	-1.1
CO₂ Emissions (non energy and non land use related)	2.6	2.3	1.4	1.4	1.5	1.5	1.5	-6.1	1.1	-0.5
Non-CO2 GHG emissions	15.8	14.0	13.7	13.3	13.1	12.7	12.3	-1.4	-0.4	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.2	91.8	88.4	69.8	63.3	55.2	47.4	-1.1	-3.3	-2.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.36	0.28	0.26	0.17	0.11	0.07	0.05	-3.0	-8.3	-8.3
Final energy demand (t of CO ₂ /toe)	1.81	1.76	1.63	1.58	1.51	1.41	1.42	-1.0	-0.8	-0.6
Industry	1.85	1.79	1.63	1.58	1.52	1.31	1.01	-1.3	-0.7	-4.0
Residential	0.95	0.80	0.66	0.59	0.53	0.49	0.40	-3.6	-2.1	-2.7
Tertiary	1.05	0.95	0.93	0.88	0.83	0.65	0.58	-1.2	-1.2	-3.5
Transport	2.97	2.99	2.99	2.83	2.72	2.71	2.69	0.0	-0.9	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	10.5	15.6	22.0	23.9	34.0	39.6	45.5			
RES-H&C share	15.3	22.2	30.8	28.2	37.0	45.3	52.4			
RES-E share	15.0	25.0	33.1	42.0	62.7	66.5	79.0			
RES-T share (based on ILUC formula)	0.3	0.5	1.3	8.0	13.1	16.5	23.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	87	89	108	107	110	99	1.8	1.8	-0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	169	178	195	186	206	210	217	1.4	0.5	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	18.3	21.9	23.2	20.9	25.6	28.5	34.1	2.4	1.0	2.9
as % of GDP	7.9	8.8	9.4	8.2	8.8	8.9	9.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Estonia: EU/CO ₂ -35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	1	1	1	1	1	1	1	-0.5	-0.4	-0.6
GDP (in 000 ME13)	11	15	15	18	20	22	24	3.6	3.0	1.6
Gross Inland Consumption (ktoe)	4979	5622	6155	6344	6442	6259	5141	2.1	0.5	-2.2
Solids	2968	3190	3917	3589	3690	3604	2783	2.8	-0.6	-2.8
Oil	916	1182	1109	1065	974	881	808	1.9	-1.3	-1.8
Natural gas	662	800	563	796	855	808	523	-1.6	4.3	-4.8
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-80	-138	-280	-100	-114	-98	69	13.4	-8.6	0.0
Renewable energy forms	513	589	847	995	1038	1064	957	5.1	2.1	-0.8
Energy Branch Consumption	163	193	199	190	187	180	141	2.0	-0.7	-2.8
Non-Energy Uses	180	229	90	280	295	305	308	-6.7	12.6	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3435	4250	5467	5368	5414	5311	4308	4.8	-0.1	-2.3
Solids	2669	3176	3943	3594	3691	3612	2792	4.0	-0.7	-2.8
Oil	249	375	532	681	648	582	512	7.9	2.0	-2.3
Natural gas	5	7	5	0	0	0	0	-1.7	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	512	692	988	1093	1076	1117	1005	6.8	0.9	-0.7
Hydro	0	2	2	3	3	3	3	19.1	2.1	0.0
Biomass & Waste	512	686	962	1040	1014	1053	938	6.5	0.5	-0.8
Wind	0	5	24	49	57	57	57	0.0	9.2	0.0
Solar and others	0	0	0	0	2	3	6	0.0	0.0	13.1
Geothermal	0	0	0	0	0	0	1	0.0	0.0	20.1
Net Imports (ktoe)	1628	1489	862	1219	1263	1182	1069	-6.2	3.9	-1.6
Solids	270	23	-22	-5	-1	-9	-9	0.0	-24.5	20.5
Oil	786	917	760	625	555	520	501	-0.3	-3.1	-1.0
Crude oil and Feedstocks	-125	-225	-394	-560	-523	-461	-398	12.2	2.9	-2.7
Oil products	911	1142	1153	1185	1078	982	899	2.4	-0.7	-1.8
Natural gas	657	792	558	796	861	821	556	-1.6	4.4	-4.3
Electricity	-80	-138	-280	-100	-114	-98	69	13.4	-8.6	0.0
Import Dependency (%)	32.0	25.9	13.5	18.5	18.9	18.2	19.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	8513	10205	12964	10765	11392	11516	8488	4.3	-1.3	-2.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	7682	9302	11167	8608	9158	9139	6434	3.8	-2.0	-3.5
Oil (including refinery gas)	56	32	41	0	0	0	0	-3.1	-100.0	0.0
Gas (including derived gases)	757	760	712	689	659	713	454	-0.6	-0.8	-3.7
Biomass-waste	13	35	740	859	873	965	899	49.8	1.7	0.3
Hydro (pumping excluded)	5	22	27	33	33	33	33	18.4	2.0	0.0
Wind	0	54	277	575	668	666	668	0.0	9.2	0.0
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2912	2684	2827	2689	2287	2257	2298	-0.3	-2.1	0.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2	36	114	312	343	343	343	49.8	11.6	0.0
Hydro (pumping excluded)	2	5	6	8	8	8	8	11.6	2.9	0.0
Wind	0	31	108	303	334	334	334	0.0	12.0	0.0
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2910	2648	2713	2377	1944	1914	1955	-0.7	-3.3	0.1
of which cogeneration units	452	1604	447	438	264	268	464	-0.1	-5.1	5.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2684	2411	2430	1871	1425	1425	1425	-1.0	-5.2	0.0
Gas fired	218	224	224	362	371	337	379	0.3	5.2	0.2
Oil fired	8	8	8	0	0	0	0	0.0	-100.0	0.0
Biomass-waste fired	0	5	51	144	148	152	152	0.0	11.2	0.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	29.8	38.8	47.4	40.9	51.3	52.7	38.2			
Efficiency of gross thermal power generation (%)	30.0	33.5	34.9	34.3	34.3	34.0	33.7			
% of gross electricity from CHP	11.0	10.2	10.3	12.7	10.9	9.5	11.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	0.2	1.1	8.1	13.6	13.8	14.5	18.9			
Fuel Inputs to Thermal Power Generation (ktoe)	2442	2600	3115	2543	2680	2739	1986	2.5	-1.5	-3.0
Solids	2199	2353	2715	2171	2305	2328	1634	2.1	-1.6	-3.4
Oil (including refinery gas)	16	10	12	0	0	0	0	-3.0	-100.0	0.0
Gas (including derived gases)	226	227	209	168	166	182	137	-0.8	-2.3	-1.9
Biomass & Waste	2	10	179	205	208	229	215	55.3	1.5	0.3
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	926	1271	1523	1753	1788	1653	1421	5.1	1.6	-2.3
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	0	0	10	65	54	44	0.0	0.0	-3.7
District heating	454	489	446	418	435	410	303	-0.2	-0.3	-3.5
Derived gases, cokeries etc.	473	782	1077	1325	1288	1189	1073	8.6	1.8	-1.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Estonia: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	10	14	14	15	16	16	17	2.8	1.6	0.7
Public road transport	3	3	2	2	2	2	3	-2.4	1.5	0.5
Private cars and motorcycles	7	10	10	11	12	12	12	4.3	1.4	0.5
Rail	0	0	0	0	0	0	1	-1.3	3.0	2.6
Aviation ⁽³⁾	0	1	1	1	1	1	1	12.3	4.1	3.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.3	1.2
Freight transport activity (Gtkm)	10	13	9	10	11	12	14	-1.1	2.2	2.1
Heavy goods and light commercial vehicles	2	3	2	3	3	3	3	1.9	3.1	1.2
Rail	8	11	7	7	8	9	10	-2.0	1.9	2.4
Inland navigation	0	0	0	0	0	0	0	-6.9	1.0	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	580	766	781	811	794	726	689	3.0	0.2	-1.4
Public road transport	62	62	67	74	76	75	73	0.7	1.3	-0.3
Private cars and motorcycles	349	475	499	524	483	404	355	3.6	-0.3	-3.0
Heavy goods and light commercial vehicles	95	135	116	132	139	141	143	2.0	1.9	0.2
Rail	46	44	54	33	39	41	45	1.7	-3.2	1.5
Aviation	21	42	38	42	50	58	66	6.4	2.8	2.7
Inland navigation	7	8	8	6	7	7	7	1.2	-1.7	0.9
By transport activity										
Passenger transport	441	589	614	647	618	546	503	3.4	0.1	-2.0
Freight transport	138	178	167	164	176	180	185	1.9	0.5	0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.1	2.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.0	1.3	8.2	7.8	7.0			
ENERGY EFFICIENCY										
Primary energy consumption	4799	5394	6065	6064	6147	5954	4832	2.4	0.1	-2.4
Final Energy Demand	2434	2877	2907	3036	3093	2974	2499	1.8	0.6	-2.1
by sector										
Industry	571	718	575	713	748	742	663	0.1	2.7	-1.2
Energy intensive industries	245	273	231	294	305	302	267	-0.6	2.8	-1.3
Other industrial sectors	327	446	343	419	443	439	396	0.5	2.6	-1.1
Residential	929	890	1028	963	987	962	724	1.0	-0.4	-3.0
Tertiary	348	495	520	544	558	539	416	4.1	0.7	-2.9
Transport ⁽⁵⁾	586	774	785	816	800	732	695	3.0	0.2	-1.4
by fuel										
Solids	118	118	83	64	57	47	37	-3.4	-3.8	-4.2
Oil	772	982	941	966	859	753	674	2.0	-0.9	-2.4
Gas	177	263	207	286	328	317	218	1.6	4.7	-4.0
Electricity	431	519	594	614	658	691	639	3.3	1.0	-0.3
Heat (from CHP and District Heating)	511	547	531	484	513	495	378	0.4	-0.4	-3.0
Renewable energy forms	425	447	550	622	679	668	546	2.6	2.1	-2.1
Other	0	0	0	0	0	3	7	-100.0	0.0	39.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	465	372	405	346	315	282	214	-1.4	-2.5	-3.8
Industry (Energy on Value added, index 2000=100)	100	84	67	69	66	61	51	-4.0	-0.1	-2.4
Residential (Energy on Private Income, index 2000=100)	100	63	74	58	52	46	31	-2.9	-3.4	-5.0
Tertiary (Energy on Value added, index 2000=100)	100	104	108	93	85	75	53	0.8	-2.4	-4.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	44	41	37	32	28	0.3	-1.7	-2.9
Freight transport (toe/Mtkm)	14	13	19	17	16	15	14	3.1	-1.6	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	17.0	18.2	18.8	16.5	16.7	16.3	12.3	1.0	-1.1	-3.0
of which ETS sectors (2013 scope) GHG emissions		13.0	13.8	11.3	12.0	12.0	8.5		-1.4	-3.4
of which ESD sectors (2013 scope) GHG emissions		5.1	5.0	5.1	4.7	4.3	3.8		-0.6	-2.2
CO ₂ Emissions (energy related)	14.0	15.5	16.4	14.1	14.5	14.1	10.3	1.6	-1.3	-3.4
Power generation/District heating	10.7	11.3	12.7	10.1	10.7	10.8	7.5	1.7	-1.6	-3.6
Energy Branch	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.5	3.0	-2.6
Industry	0.9	1.0	0.8	0.8	0.7	0.7	0.5	-1.8	-0.1	-4.6
Residential	0.3	0.2	0.2	0.2	0.2	0.2	0.1	-4.2	0.5	-4.9
Tertiary	0.3	0.5	0.4	0.5	0.5	0.4	0.3	2.1	1.8	-5.9
Transport	1.7	2.3	2.3	2.4	2.2	2.0	1.9	3.1	-0.6	-1.6
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.4	0.5	0.5	0.5	0.4	-6.0	3.0	-0.6
Non-CO2 GHG emissions	2.3	1.9	2.0	1.9	1.8	1.8	1.6	-1.4	-1.0	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	42.2	45.2	46.7	41.0	41.7	40.7	30.6	1.0	-1.1	-3.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.67	0.64	0.63	0.59	0.59	0.60	0.56	-0.6	-0.6	-0.6
Final energy demand (t of CO ₂ /toe)	1.33	1.42	1.27	1.28	1.17	1.09	1.09	-0.5	-0.8	-0.7
Industry	1.58	1.43	1.31	1.07	1.00	0.94	0.70	-1.8	-2.7	-3.5
Residential	0.32	0.26	0.19	0.20	0.20	0.18	0.17	-5.2	0.9	-1.9
Tertiary	0.91	1.05	0.75	0.92	0.84	0.68	0.61	-2.0	1.1	-3.1
Transport	2.96	2.98	2.99	2.96	2.75	2.73	2.70	0.1	-0.8	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	17.9	17.4	24.6	24.2	25.9	27.0	28.4			
RES-H&C share	31.8	32.2	43.2	39.9	38.8	41.0	46.3			
RES-E share	0.2	1.1	10.4	14.4	14.8	15.2	16.4			
RES-T share (based on ILUC formula)	0.0	0.0	0.2	0.2	10.0	10.5	11.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	43	47	65	62	64	78	1.0	2.9	2.3
Average Price of Electricity in Final demand sectors (€13/MWh)	59	63	80	109	119	125	129	3.2	4.1	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.3	2.0	2.9	3.7	4.4	4.8	5.7	8.6	4.1	2.6
as % of GDP	12.0	13.5	19.3	20.0	21.4	21.7	23.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Finland: EU CO ₂ 35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	5	5	5	5	6	6	6	0.3	0.5	0.5
GDP (in 000 M€13)	157	179	187	188	199	210	226	1.7	0.6	1.3
Gross Inland Consumption (ktoe)	32531	34529	37124	33972	35230	34760	29967	1.3	-0.5	-1.7
Solids	5131	4936	6874	4106	4605	4229	2896	3.0	-3.9	-4.5
Oil	9342	10335	10121	9288	8366	7351	6041	0.8	-1.9	-3.2
Natural gas	3422	3598	3838	2821	2681	2853	2202	1.2	-3.5	-2.0
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8
Renewable energy forms	7816	8195	9508	10767	10556	12111	11799	2.0	1.1	1.1
Energy Branch Consumption	1168	1209	1529	1577	1542	1356	1267	2.7	0.1	-1.9
Non-Energy Uses	1040	1155	1229	1157	1191	1240	1243	1.7	-0.3	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	14892	16669	17662	18108	20963	22619	20192	1.7	1.7	-0.4
Solids	1088	2136	1803	1007	1110	1270	1278	5.2	-4.7	1.4
Oil	189	257	389	433	393	351	303	7.5	0.1	-2.6
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7
Renewable energy sources	7816	8273	9589	10905	10727	12265	11947	2.1	1.1	1.1
Hydro	1261	1185	1111	1350	1215	1272	1271	-1.3	0.9	0.5
Biomass & Waste	6549	7072	8451	9354	9035	10106	9782	2.6	0.7	0.8
Wind	7	15	25	198	464	862	862	14.2	33.8	6.4
Solar and others	1	1	1	2	14	23	28	10.0	26.4	7.4
Geothermal	0	0	0	0	0	1	5	0.0	0.0	39.1
Net Imports (ktoe)	18337	18979	17869	16077	14473	12341	9671	-0.3	-2.1	-4.0
Solids	3537	3341	3977	3099	3495	2960	1617	1.2	-1.3	-7.4
Oil	10357	10655	9232	9068	8175	7191	5913	-1.1	-1.2	-3.2
Crude oil and Feedstocks	11964	10713	11206	13148	11842	10643	9285	-0.7	0.6	-2.4
Oil products	-1607	-58	-1974	-4080	-3667	-3452	-3371	2.1	6.4	-0.8
Natural gas	3422	3598	3838	2821	2685	2861	2223	1.2	-3.5	-1.9
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8
Import Dependency (%)	55.2	54.2	47.9	47.0	40.8	35.3	32.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	69934	70538	80591	71480	84188	98742	86020	1.4	0.4	0.2
Nuclear energy	22479	23271	22800	23137	36999	37079	28850	0.1	5.0	-2.5
Solids	12452	10998	20826	8559	11118	11933	7909	5.3	-6.1	-3.3
Oil (including refinery gas)	587	500	484	635	42	339	13	-1.9	-21.6	-10.9
Gas (including derived gases)	10816	11921	11847	7771	6529	9178	6059	0.9	-5.8	-0.7
Biomass-waste	8860	9891	11413	13361	9979	15393	18375	2.6	-1.3	6.3
Hydro (pumping excluded)	14660	13784	12922	15702	14123	14794	14780	-1.3	0.9	0.5
Wind	78	170	294	2307	5392	10020	10020	14.2	33.8	6.4
Solar	1	2	5	7	6	6	14	14.9	2.0	9.7
Geothermal and other renewables	1	1	0	0	0	0	0	-8.4	-96.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	16012	16586	16691	18173	19620	20271	18527	0.4	1.6	-0.6
Nuclear energy	2726	2726	2726	2726	4378	4378	3398	0.0	4.8	-2.5
Renewable energy	2923	3121	3359	4289	5628	7227	7237	1.4	5.3	2.5
Hydro (pumping excluded)	2882	3035	3155	3276	3276	3382	3382	0.9	0.4	0.3
Wind	38	82	197	1001	2343	3836	3836	17.9	28.1	5.1
Solar	3	4	7	12	9	9	19	8.8	2.5	7.8
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	10363	10739	10605	11158	9615	8666	7892	0.2	-1.0	-2.0
of which cogeneration units	8280	5832	6168	6361	5454	5511	3872	-2.9	-1.2	-3.4
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4676	4633	4532	4340	3303	2308	1763	-0.3	-3.1	-6.1
Gas fired	2570	2481	2703	2698	2827	2886	2676	0.5	0.4	-0.5
Oil fired	1519	1505	1194	1532	643	628	607	-2.4	-6.0	-0.6
Biomass-waste fired	1597	2120	2176	2589	2842	2845	2845	3.1	2.7	0.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.9	46.7	52.8	43.2	47.1	53.4	50.8			
Efficiency of gross thermal power generation (%)	39.3	36.8	36.6	34.5	34.4	34.9	34.5			
% of gross electricity from CHP	36.4	38.9	36.2	33.7	27.0	28.2	24.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	65.9	66.8	58.9	76.3	79.0	78.3	83.7			
Fuel Inputs to Thermal Power Generation (ktoe)	7166	7782	10460	7561	6913	9076	8057	3.9	-4.1	1.5
Solids	3181	2998	5098	2421	2885	2903	1832	4.8	-5.5	-4.4
Oil (including refinery gas)	122	98	99	168	14	82	4	-2.1	-18.0	-10.6
Gas (including derived gases)	2119	2385	2516	1493	1282	1612	1080	1.7	-6.5	-1.7
Biomass & Waste	1744	2302	2747	3480	2732	4479	5141	4.6	-0.1	6.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	21306	21544	23155	24530	26265	24102	19577	0.8	1.3	-2.9
Refineries	13059	12876	14265	15688	14225	12706	10957	0.9	0.0	-2.6
Biofuels and hydrogen production	0	0	140	334	373	333	313	0.0	10.3	-1.7
District heating	1059	1265	1600	1434	1504	1198	740	4.2	-0.6	-6.8
Derived gases, cokeries etc.	7188	7403	7149	7074	10162	9865	7567	-0.1	3.6	-2.9

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Finland: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	80	87	91	94	97	100	104	1.2	0.7	0.6
Public road transport	8	8	8	8	8	8	8	-0.2	0.3	0.3
Private cars and motorcycles	57	63	66	68	69	69	71	1.5	0.4	0.3
Rail	4	4	4	5	5	6	6	1.4	1.5	1.6
Aviation ⁽³⁾	8	9	9	10	12	13	14	1.2	3.0	2.2
Inland navigation	4	4	4	4	4	4	4	-0.6	0.6	0.5
Freight transport activity (Gtkm)	42	42	42	43	46	48	52	-0.2	1.0	1.3
Heavy goods and light commercial vehicles	29	30	27	28	30	31	33	-0.5	0.8	1.1
Rail	10	10	10	10	11	12	13	-0.4	1.4	1.9
Inland navigation	3	3	5	5	5	5	6	3.0	0.8	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4338	4624	4827	4896	4736	4388	4134	1.1	-0.2	-1.3
Public road transport	120	116	121	121	121	118	115	0.1	0.0	-0.5
Private cars and motorcycles	2334	2542	2693	2631	2399	2066	1849	1.4	-1.1	-2.6
Heavy goods and light commercial vehicles	1158	1186	1129	1145	1163	1121	1120	-0.3	0.3	-0.4
Rail	90	92	90	94	101	106	111	0.0	1.2	1.0
Aviation	469	526	619	746	785	807	762	2.8	2.4	-0.3
Inland navigation	167	163	175	159	166	172	178	0.5	-0.6	0.7
By transport activity										
Passenger transport	3086	3310	3549	3604	3417	3105	2842	1.4	-0.4	-1.8
Freight transport	1251	1314	1278	1292	1319	1284	1292	0.2	0.3	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.3	3.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.9	7.0	8.2	8.3	8.5			
ENERGY EFFICIENCY										
Primary energy consumption	31491	33375	35896	32815	34039	33520	28425	1.3	-0.5	-1.8
Final Energy Demand	24510	25239	26243	24732	24671	22851	19123	0.7	-0.6	-2.5
by sector										
Industry	12313	11922	11428	10647	10719	9921	8599	-0.7	-0.6	-2.2
Energy intensive industries	10172	9616	9017	8347	8381	7538	6445	-1.2	-0.7	-2.6
Other industrial sectors	2141	2306	2412	2299	2339	2383	2154	1.2	-0.3	-0.8
Residential	4544	5053	5804	5338	5404	4897	3603	2.5	-0.7	-4.0
Tertiary	3296	3616	4169	3837	3798	3630	2774	2.4	-0.9	-3.1
Transport ⁽⁵⁾	4356	4648	4842	4910	4750	4402	4147	1.1	-0.2	-1.3
by fuel										
Solids	1109	873	843	702	696	656	492	-2.7	-1.9	-3.4
Oil	7850	8102	7619	7073	6490	5419	4281	-0.3	-1.6	-4.1
Gas	1209	1082	1012	981	986	1073	1112	-1.8	-0.3	1.2
Electricity	6507	6942	7178	6788	6893	7292	6821	1.0	-0.4	-0.1
Heat (from CHP and District Heating)	3334	3972	4656	4143	4260	3761	2502	3.4	-0.9	-5.2
Renewable energy forms	4501	4268	4935	5042	5338	4627	3880	0.9	0.8	-3.1
Other	0	0	0	3	7	23	36	0.0	1586.2	18.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	207	193	199	181	177	165	132	-0.4	-1.2	-2.9
Industry (Energy on Value added, index 2000=100)	100	81	79	75	73	65	53	-2.3	-0.8	-3.1
Residential (Energy on Private Income, index 2000=100)	100	94	98	86	82	70	48	-0.2	-1.8	-5.2
Tertiary (Energy on Value added, index 2000=100)	100	100	110	100	92	83	59	0.9	-1.7	-4.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	36	36	34	32	29	26	23	-0.6	-1.5	-2.6
Freight transport (toe/Mtkm)	30	31	31	30	29	26	25	0.4	-0.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	73.1	71.5	78.2	61.1	58.7	53.6	42.5	0.7	-2.8	-3.2
of which ETS sectors (2013 scope) GHG emissions	37.2	43.9	30.8	31.6	29.7	21.6	21.6		-3.2	-3.7
of which ESD sectors (2013 scope) GHG emissions	34.3	34.3	30.3	27.2	23.9	20.9	20.9		-2.3	-2.6
CO2 Emissions (energy related)	58.1	57.7	65.3	48.5	47.6	42.8	32.0	1.2	-3.1	-3.9
Power generation/District heating	22.5	23.0	32.3	17.5	18.7	18.3	11.8	3.7	-5.3	-4.4
Energy Branch	2.5	2.5	2.8	3.1	2.8	2.2	1.9	1.2	0.0	-3.5
Industry	14.2	12.7	11.0	10.1	9.5	8.1	6.1	-2.5	-1.5	-4.4
Residential	2.4	2.3	1.8	1.4	1.3	0.9	0.4	-2.6	-3.5	-12.0
Tertiary	3.6	3.5	3.4	2.8	2.4	1.3	0.7	-0.6	-3.6	-11.0
Transport	12.9	13.8	14.0	13.6	13.0	11.9	11.0	0.8	-0.8	-1.6
CO2 Emissions (non energy and non land use related)	1.5	1.6	2.2	2.3	2.2	2.2	2.1	3.8	0.3	-0.4
Non-CO2 GHG emissions	13.6	12.2	10.8	10.3	9.0	8.6	8.4	-2.3	-1.8	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	101.1	98.9	108.1	84.4	81.2	74.1	58.7	0.7	-2.8	-3.2
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.20	0.19	0.23	0.14	0.14	0.13	0.10	1.4	-5.3	-2.9
Final energy demand (t of CO2/toe)	1.35	1.28	1.15	1.13	1.06	0.98	0.95	-1.6	-0.8	-1.1
Industry	1.15	1.06	0.96	0.95	0.89	0.82	0.71	-1.8	-0.8	-2.2
Residential	0.52	0.45	0.32	0.26	0.24	0.19	0.10	-5.0	-2.8	-8.3
Tertiary	1.09	0.97	0.81	0.74	0.62	0.37	0.26	-2.9	-2.7	-8.2
Transport	2.97	2.97	2.89	2.77	2.73	2.70	2.65	-0.3	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	28.7	28.8	32.5	41.1	42.0	45.9	48.9			
RES-H&C share	38.2	39.1	44.4	55.2	57.8	60.7	65.6			
RES-E share	27.3	26.9	27.7	36.2	33.3	43.0	49.4			
RES-T share (based on ILUC formula)	0.8	0.9	4.3	16.3	18.9	22.7	27.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	52	55	59	95	92	87	93	1.4	4.5	0.1
Average Price of Electricity in Final demand sectors (€13/MWh)	68	80	98	122	131	137	141	3.7	3.0	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.9	20.3	25.8	27.4	32.7	35.5	41.3	4.4	2.4	2.4
as % of GDP	10.7	11.3	13.8	14.6	16.4	16.9	18.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								France: EU/CO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	57	60	61	63	64	66	67	0.7	0.5	0.4
GDP (in 000 M€13)	1812	1962	2024	2091	2266	2417	2594	1.1	1.1	1.4
Gross Inland Consumption (ktoe)	257565	276646	267546	256764	248970	232686	202926	0.4	-0.7	-2.0
Solids	15048	14303	12076	8763	8523	6138	4784	-2.2	-3.4	-5.6
Oil	88937	93185	82668	79806	75217	67930	60315	-0.7	-0.9	-2.2
Natural gas	35766	41025	42540	38807	35960	33603	21856	1.7	-1.7	-4.9
Nuclear	107093	116474	110539	109294	97019	94378	91062	0.3	-1.3	-0.6
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3
Renewable energy forms	16695	16847	22365	24473	37946	36324	30454	3.0	5.4	-2.2
Energy Branch Consumption	10822	9989	9635	8309	7415	6575	5849	-1.2	-2.6	-2.3
Non-Energy Uses	16851	16704	14290	14232	14666	14892	14841	-1.6	0.3	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	129790	136271	135095	135170	136015	131535	122270	0.4	0.1	-1.1
Solids	2483	383	162	143	0	0	0	-23.9	-100.0	0.0
Oil	2023	1604	1542	1217	1122	954	897	-2.7	-3.1	-2.2
Natural gas	1505	909	646	304	294	284	266	-8.1	-7.6	-1.0
Nuclear	107093	116474	110539	109294	97019	94378	91062	0.3	-1.3	-0.6
Renewable energy sources	16688	16902	22206	24212	37580	35918	30045	2.9	5.4	-2.2
Hydro	5771	4442	5364	5476	5753	5515	5516	-0.7	0.7	-0.4
Biomass & Waste	10763	12159	15690	15780	23676	19909	13858	3.8	4.2	-5.2
Wind	7	83	855	1850	4741	5620	5627	62.6	18.7	1.7
Solar and others	21	26	118	870	3084	4494	4633	18.7	38.6	4.2
Geothermal	126	192	180	236	325	381	411	3.6	6.1	2.4
Net Imports (ktoe)	134082	144103	132149	123217	115707	104017	83624	-0.1	-1.3	-3.2
Solids	13005	13511	12192	8620	8523	6138	4784	-0.6	-3.5	-5.6
Oil	91265	95114	82886	81211	76792	69715	62046	-1.0	-0.8	-2.1
Crude oil and Feedstocks	85329	85302	65254	46552	45758	43200	39955	-2.6	-3.5	-1.3
Oil products	5936	9813	17632	34659	31034	26515	22091	11.5	5.8	-3.3
Natural gas	35779	40720	39553	38504	35720	33445	21929	1.0	-1.0	-4.8
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3
Import Dependency (%)	51.5	51.6	49.0	47.7	46.0	44.2	40.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	535965	571353	563931	584203	597135	616696	566085	0.5	0.6	-0.5
Nuclear energy	415162	451529	428521	444338	395167	385196	369767	0.3	-0.8	-0.7
Solids	27004	27515	23359	8820	9109	730	0	-1.4	-9.0	-100.0
Oil (including refinery gas)	7165	7925	5565	516	0	761	246	-2.5	-100.0	0.0
Gas (including derived gases)	15365	26254	26385	25753	23330	35918	5076	5.6	-1.2	-14.1
Biomass-waste	3559	5016	6675	10512	14131	18887	14889	6.5	7.8	0.5
Hydro (pumping excluded)	67121	51658	62388	63672	66899	64124	64140	-0.7	0.7	-0.4
Wind	77	964	9942	21517	55129	65350	65426	62.6	18.7	1.7
Solar	5	10	620	8601	31589	44533	44534	63.1	48.2	3.5
Geothermal and other renewables	507	482	476	474	782	1198	2008	-0.6	5.1	9.9
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	114543	114015	123033	127555	148953	154795	154099	0.7	1.9	0.3
Nuclear energy	64293	64053	63679	63247	61327	59493	59493	-0.1	-0.4	-0.3
Renewable energy	23570	24601	32099	40333	66684	77564	77928	3.1	7.6	1.6
Hydro (pumping excluded)	23266	23571	23779	23635	23635	23635	23635	0.2	-0.1	0.0
Wind	57	777	7050	10358	22130	25130	25150	61.9	12.1	1.3
Solar	7	13	1030	6100	20535	28228	28228	64.7	34.9	3.2
Other renewables (tidal etc.)	240	240	240	240	384	571	914	0.0	4.8	9.1
Thermal power	26680	25361	27256	23974	20942	17738	16678	0.2	-2.6	-2.3
of which cogeneration units	7013	5779	4606	10620	5955	4561	2964	-4.1	2.6	-6.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	10552	8637	7229	5385	3856	3834	3780	-3.7	-6.1	-0.2
Gas fired	4116	6055	9334	9646	9181	8965	8120	8.5	-0.2	-1.2
Oil fired	11328	9794	9643	7693	5008	1849	1676	-1.6	-6.3	-10.4
Biomass-waste fired	684	876	1049	1249	2894	3088	3099	4.4	10.7	0.7
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	2	3	3	3	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	51.0	54.6	50.0	50.2	44.1	43.9	40.5			
Efficiency of gross thermal power generation (%)	34.9	33.3	30.0	39.7	38.7	41.0	33.0			
% of gross electricity from CHP	3.0	2.4	2.8	2.4	1.9	1.6	1.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	90.8	89.2	90.2	94.0	94.6	93.9	99.1			
Fuel Inputs to Thermal Power Generation (ktoe)	13278	17328	17887	9873	10360	11820	5275	3.0	-5.3	-6.5
Solids	6559	6402	4717	2258	2323	185	0	-3.2	-6.8	-100.0
Oil (including refinery gas)	1242	2160	1639	135	0	198	81	2.8	-79.3	257.3
Gas (including derived gases)	4002	6298	8178	4941	3894	6289	1332	7.4	-7.2	-10.2
Biomass & Waste	1476	2469	3352	2529	4127	5133	3845	8.5	2.1	-0.7
Geothermal heat	0	0	0	10	15	15	15	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	205144	211862	191250	166425	153115	147787	140506	-0.7	-2.2	-0.9
Refineries	90823	88392	73306	49009	48047	45334	41935	-2.1	-4.1	-1.4
Biofuels and hydrogen production	325	651	2397	2746	3119	2824	2773	22.1	2.7	-1.2
District heating	312	448	608	546	574	542	378	6.9	-0.6	-4.1
Derived gases, cokeries etc.	113684	122371	114938	114124	101375	99087	95420	0.1	-1.2	-0.6

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								France: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	950	998	1033	1091	1169	1197	1250	0.8	1.2	0.7
Public road transport	42	42	50	55	60	62	65	1.7	1.9	0.8
Private cars and motorcycles	754	801	811	850	901	903	926	0.7	1.1	0.3
Rail	81	90	101	107	119	131	145	2.1	1.7	2.0
Aviation ⁽³⁾	69	62	68	76	86	97	110	-0.1	2.3	2.5
Inland navigation	3	3	3	3	3	4	4	-0.8	0.7	1.3
Freight transport activity (Gtkm)	412	409	392	413	470	504	563	-0.5	1.8	1.8
Heavy goods and light commercial vehicles	311	319	296	310	356	372	417	-0.5	1.9	1.6
Rail	58	41	30	37	42	51	60	-6.3	3.5	3.6
Inland navigation	43	49	66	66	71	80	85	4.4	0.8	1.8
Energy demand in transport (ktoe) ⁽⁴⁾	50360	50194	49347	50154	49950	46289	44595	-0.2	0.1	-1.1
Public road transport	536	519	595	654	705	710	711	1.0	1.7	0.1
Private cars and motorcycles	31157	31368	31602	31615	29849	25756	23445	0.1	-0.6	-2.4
Heavy goods and light commercial vehicles	10961	10554	9424	9543	10233	9991	10487	-1.5	0.8	0.2
Rail	1134	980	932	1017	1081	1165	1234	-1.9	1.5	1.3
Aviation	6088	6291	6294	6827	7548	8074	8094	0.3	1.8	0.7
Inland navigation	483	481	500	499	535	592	624	0.4	0.7	1.6
By transport activity										
Passenger transport	38753	38887	39197	39839	38874	35343	33073	0.1	-0.1	-1.6
Freight transport	11607	11307	10150	10316	11076	10946	11522	-1.3	0.9	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.7	3.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.7	1.3	4.9	5.6	6.5	6.7	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	240713	259943	253256	241532	234304	217794	188085	0.5	-0.8	-2.2
Final Energy Demand	154639	160337	155397	155251	156485	141532	117803	0.0	0.1	-2.8
by sector										
Industry	36670	34356	28478	30330	31264	29908	27343	-2.5	0.9	-1.3
Energy intensive industries	20906	20576	16506	17590	18004	16895	15234	-2.3	0.9	-1.7
Other industrial sectors	15764	13780	11972	12740	13260	13013	12109	-2.7	1.0	-0.9
Residential	42153	45931	45463	44159	45096	38240	26142	0.8	-0.1	-5.3
Tertiary	25209	29569	31792	30270	29809	26702	19302	2.3	-0.6	-4.4
Transport ⁽⁵⁾	50607	50482	49664	50492	50316	46682	45017	-0.2	0.1	-1.1
by fuel										
Solids	5775	5218	4547	4076	4165	3709	2663	-2.4	-0.9	-4.4
Oil	72503	71421	64647	63583	58946	51668	44555	-1.1	-0.9	-2.8
Gas	30907	33744	32430	32675	31011	26793	20216	0.5	-0.4	-4.2
Electricity	33096	36352	38185	37788	38961	40719	37083	1.4	0.2	-0.5
Heat (from CHP and District Heating)	3236	4163	3525	3658	3393	3027	2092	0.9	-0.4	-4.7
Renewable energy forms	9123	9439	12064	13458	19963	15431	10839	2.8	5.2	-5.9
Other	0	0	0	12	46	185	355	0.0	0.0	22.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	142	141	132	122	110	96	78	-0.7	-1.8	-3.3
Industry (Energy on Value added, index 2000=100)	100	89	78	80	77	70	61	-2.5	-0.1	-2.3
Residential (Energy on Private Income, index 2000=100)	100	98	91	86	80	63	40	-0.9	-1.3	-6.6
Tertiary (Energy on Value added, index 2000=100)	100	108	110	101	91	76	51	1.0	-1.8	-5.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	34	33	32	30	27	23	21	-0.7	-1.6	-2.7
Freight transport (toe/Mtkm)	28	28	26	25	24	22	20	-0.9	-0.9	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	585.3	552.1	512.0	482.2	444.5	401.0	339.3	-1.3	-1.4	-2.7
of which ETS sectors (2013 scope) GHG emissions	173.2	147.3	147.3	131.8	125.3	119.1	97.6	-1.6	-2.5	
of which ESD sectors (2013 scope) GHG emissions	378.8	378.8	364.7	350.4	319.2	281.9	241.7	-1.3	-2.7	
CO ₂ Emissions (energy related)	388.3	394.4	360.0	332.5	307.6	270.1	214.2	-0.8	-1.6	-3.6
Power generation/District heating	46.7	53.6	48.1	26.7	22.3	21.1	8.4	0.3	-7.4	-9.3
Energy Branch	19.9	16.3	15.0	13.7	11.5	10.1	8.9	-2.7	-2.6	-2.6
Industry	74.6	67.0	54.1	59.7	57.6	51.1	41.9	-3.2	0.6	-3.1
Residential	59.3	64.8	57.2	51.5	43.6	33.4	17.6	-0.4	-2.7	-8.7
Tertiary	39.8	44.4	44.7	38.9	33.3	27.7	18.5	1.1	-2.9	-5.7
Transport	148.0	148.1	140.9	141.9	139.3	126.8	118.9	-0.5	-0.1	-1.6
CO ₂ Emissions (non energy and non land use related)	28.9	28.5	25.7	25.6	26.8	25.8	24.1	-1.2	0.4	-1.1
Non-CO2 GHG emissions	168.1	129.2	126.3	124.1	110.1	105.1	101.0	-2.8	-1.4	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	104.5	98.6	91.4	86.1	79.4	71.6	60.6	-1.3	-1.4	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.08	0.09	0.08	0.04	0.03	0.03	0.01	-0.3	-7.9	-8.6
Final energy demand (t of CO ₂ /toe)	2.08	2.02	1.91	1.88	1.75	1.69	1.67	-0.8	-0.9	-0.5
Industry	2.03	1.95	1.90	1.97	1.84	1.71	1.53	-0.7	-0.3	-1.8
Residential	1.41	1.41	1.26	1.17	0.97	0.87	0.67	-1.1	-2.6	-3.6
Tertiary	1.58	1.50	1.41	1.29	1.12	1.04	0.96	-1.2	-2.3	-1.5
Transport	2.92	2.93	2.84	2.81	2.77	2.72	2.64	-0.3	-0.2	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	9.5	9.5	12.5	15.5	23.6	25.2	25.7			
RES-H&C share	12.4	12.3	15.8	19.4	30.0	30.8	31.2			
RES-E share	14.7	13.7	14.9	19.8	31.5	35.0	37.8			
RES-T share (based on ILUC formula)	1.4	2.0	6.3	7.7	10.2	12.6	17.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	61	58	57	90	93	82	73	-0.7	5.1	-2.5
Average Price of Electricity in Final demand sectors (€13/MWh)	108	100	109	123	145	147	156	0.0	2.9	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	176.3	196.0	216.7	274.3	283.7	313.9	2.4	3.4	1.4
as % of GDP	8.5	9.0	9.7	10.4	12.1	11.7	12.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Germany: EU/CO ₂ -35			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	82	83	82	81	81	80	80	0.0	-0.1	-0.1	
GDP (in 000 M€13)	2370	2442	2608	2790	2973	3126	3251	1.0	1.3	0.9	
Gross Inland Consumption (ktoe)	342337	341916	332974	322609	309478	288337	239339	-0.3	-0.7	-2.5	
Solids	84802	81952	78824	78036	78885	80129	60759	-0.7	0.0	-2.6	
Oil	130980	121460	111798	111688	102684	90311	78005	-1.6	-0.8	-2.7	
Natural gas	71878	77782	75905	74011	68140	64481	51210	0.5	-1.1	-2.8	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0	
Renewable energy forms	10665	19054	31477	39195	50738	52033	48043	11.4	4.9	-0.5	
Energy Branch Consumption	14566	14384	13378	13631	12288	11641	9838	-0.8	-0.8	-2.2	
Non-Energy Uses	25064	24662	22582	24685	25861	26619	26387	-1.0	1.4	0.2	
SECURITY OF SUPPLY											
Production (incl. recovery of products) (ktoe)	135549	137356	129648	120921	110490	100731	83507	-0.4	-1.6	-2.8	
Solids	60629	56484	45906	42340	37788	37769	27408	-2.7	-1.9	-3.2	
Oil	4680	5782	4754	4964	3809	2911	2220	0.2	-2.2	-5.3	
Natural gas	15825	14334	11113	10749	9883	8207	6038	-3.5	-1.2	-4.8	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Renewable energy sources	10665	18695	31618	39044	50536	51844	47841	11.5	4.8	-0.5	
Hydro	1869	1689	1802	1925	1936	2044	2044	-0.4	0.7	0.5	
Biomass & Waste	7876	14249	24988	27662	32654	31208	25444	12.2	2.7	-2.5	
Wind	804	2341	3250	5689	9411	10202	10808	15.0	11.2	1.4	
Solar and others	116	371	1493	3575	5509	7328	8100	29.1	13.9	3.9	
Geothermal	0	46	86	192	1027	1063	1446	0.0	28.1	3.5	
Net Imports (ktoe)	204709	208118	201696	204465	201985	190679	159026	-0.1	0.0	-2.4	
Solids	21663	25972	31644	35695	41097	42359	33351	3.9	2.6	-2.1	
Oil	125918	120239	109834	109501	101813	90340	78733	-1.4	-0.8	-2.5	
Crude oil and Feedstocks	101441	111039	91612	87783	82363	74204	66106	-1.0	-1.1	-2.2	
Oil products	24477	9200	18222	21718	19450	16136	12627	-2.9	0.7	-4.2	
Natural gas	56865	61940	61645	63262	58316	56406	45419	0.8	-0.6	-2.5	
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0	
Import Dependency (%)	59.4	60.4	60.1	62.8	64.6	65.4	65.6				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	572313	615800	626583	645695	599946	646616	569278	0.9	-0.4	-0.5	
Nuclear energy	169606	163055	140556	96916	34469	0	0	-1.9	-13.1	-100.0	
Solids	296687	288142	262896	272892	277613	292205	218201	-1.2	0.5	-2.4	
Oil (including refinery gas)	4785	11997	8741	1079	941	2311	2488	6.2	-20.0	10.2	
Gas (including derived gases)	59970	83608	100912	92808	70252	98324	81017	5.3	-3.6	1.4	
Biomass-waste	10121	20849	42975	58717	35302	45050	41394	15.6	-1.9	1.6	
Hydro (pumping excluded)	21732	19638	20953	22381	22507	23764	23765	-0.4	0.7	0.5	
Wind	9352	27229	37793	66153	109427	118629	125675	15.0	11.2	1.4	
Solar	60	1283	11727	34612	48465	65364	75768	69.3	15.2	4.6	
Geothermal and other renewables	0	-1	30	137	969	969	969	0.0	41.4	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114373	123973	154603	189032	207111	212053	215402	3.1	3.0	0.4	
Nuclear energy	21644	20656	20656	12188	6907	0	0	-0.5	-10.4	-100.0	
Renewable energy	11040	25641	50141	90293	120216	135773	150563	16.3	9.1	2.3	
Hydro (pumping excluded)	4831	5210	5407	5590	5592	5847	5847	1.1	0.3	0.4	
Wind	6095	18375	27180	44946	61821	61317	66501	16.1	8.6	0.7	
Solar	114	2056	17554	39757	52803	68609	78215	65.5	11.6	4.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	81689	77676	83806	86551	79988	76280	64839	0.3	-0.5	-2.1	
of which cogeneration units	14369	20840	24554	17059	6199	10403	9770	5.5	-12.9	4.7	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	50924	48087	47789	52819	49167	44038	36733	-0.6	0.3	-2.9	
Gas fired	21336	21671	26890	25178	21891	23535	19792	2.3	-2.0	-1.0	
Oil fired	8066	5686	5688	5028	1674	1457	1247	-3.4	-11.5	-2.9	
Biomass-waste fired	1363	2232	3432	3501	7085	7080	6896	9.7	7.5	-0.3	
Hydrogen plants	0	0	0	1	1	1	1	0.0	0.0	0.0	
Geothermal heat	0	0	8	24	170	170	170	0.0	35.8	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	53.3	53.0	43.5	36.8	31.2	33.0	28.8				
Efficiency of gross thermal power generation (%)	37.8	38.6	39.4	40.5	37.6	39.2	40.3				
% of gross electricity from CHP	10.6	12.6	13.2	12.8	6.1	9.6	10.6				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	36.8	37.7	40.5	43.2	41.9	39.2	47.0				
Fuel Inputs to Thermal Power Generation (ktoe)	84562	90075	90587	90286	88085	96174	73429	0.7	-0.3	-1.8	
Solids	67101	65740	59687	61356	61736	64313	46983	-1.2	0.3	-2.7	
Oil (including refinery gas)	1411	1427	855	236	311	727	817	-4.9	-9.6	10.1	
Gas (including derived gases)	12891	17808	19955	16546	12144	16749	13738	4.5	-4.8	1.2	
Biomass & Waste	3158	5100	10066	12030	13061	13551	11057	12.3	2.6	-1.7	
Geothermal heat	0	0	24	118	834	834	834	0.0	42.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	180304	187908	163048	142875	120517	101113	90876	-1.0	-3.0	-2.8	
Refineries	119420	125092	103238	98875	92806	83808	74746	-1.4	-1.1	-2.1	
Biofuels and hydrogen production	237	1859	2884	3011	2842	2549	2657	28.4	-0.1	-0.7	
District heating	1198	3942	4754	4043	3517	2804	2173	14.8	-3.0	-4.7	
Derived gases, cokeries etc.	59450	57015	52171	36947	21353	11953	11299	-1.3	-8.5	-6.2	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Germany: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	1066	1099	1130	1187	1208	1218	1246	0.6	0.7	0.3
Public road transport	69	67	62	63	67	66	68	-1.1	0.7	0.2
Private cars and motorcycles	850	876	905	942	949	938	950	0.6	0.5	0.0
Rail	90	92	100	111	115	131	140	1.1	1.4	2.0
Aviation ⁽³⁾	55	62	61	69	75	80	85	1.1	2.1	1.3
Inland navigation	2	2	2	2	2	3	3	-0.8	1.0	1.8
Freight transport activity (Gtkm)	493	545	592	619	682	697	744	1.9	1.4	0.9
Heavy goods and light commercial vehicles	342	385	422	439	486	479	515	2.1	1.4	0.6
Rail	83	95	107	116	126	139	148	2.6	1.6	1.6
Inland navigation	68	65	63	65	70	79	82	-0.7	1.1	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	65101	59797	58145	59791	56107	50267	47188	-1.1	-0.4	-1.7
Public road transport	1047	897	803	815	835	809	788	-2.6	0.4	-0.6
Private cars and motorcycles	42176	37675	35607	35814	31215	26246	23582	-1.7	-1.3	-2.8
Heavy goods and light commercial vehicles	12303	11057	11325	11780	12340	11370	11472	-0.8	0.9	-0.7
Rail	1947	1580	1414	1496	1455	1549	1553	-3.2	0.3	0.7
Aviation	7345	8265	8719	9601	9955	9950	9442	1.7	1.3	-0.5
Inland navigation	283	323	278	285	307	343	351	-0.2	1.0	1.3
By transport activity										
Passenger transport	51841	47805	45951	47113	42818	37873	34667	-1.2	-0.7	-2.1
Freight transport	13261	11992	12194	12678	13288	12394	12521	-0.8	0.9	-0.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.7	3.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.4	3.2	5.1	5.2	5.3	6.0	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	317273	317254	310393	297924	283617	261719	212952	-0.2	-0.9	-2.8
Final Energy Demand	219989	218456	219721	217308	213501	194391	161306	0.0	-0.3	-2.8
by sector										
Industry	57570	59093	60563	62096	65218	62846	54845	0.5	0.7	-1.7
Energy intensive industries	39345	40705	42170	43510	45976	44113	37703	0.7	0.9	-2.0
Other industrial sectors	18225	18389	18393	18586	19242	18733	17142	0.1	0.5	-1.1
Residential	63072	63498	62442	58726	57386	50420	37245	-0.1	-0.8	-4.2
Tertiary	34239	35302	38222	36396	34512	30600	21810	1.1	-1.0	-4.5
Transport ⁽⁵⁾	65109	60563	58494	60090	56386	50524	47406	-1.1	-0.4	-1.7
by fuel										
Solids	10958	8238	9379	9284	10007	9687	7734	-1.5	0.7	-2.5
Oil	99738	90309	83168	82419	73156	60407	48938	-1.8	-1.3	-3.9
Gas	56064	55136	56501	56368	55504	47128	37192	0.1	-0.2	-3.9
Electricity	41570	44907	45781	44880	45983	50397	44557	1.0	0.0	-0.3
Heat (from CHP and District Heating)	6831	10751	11268	9856	9770	9262	7499	5.1	-1.4	-2.6
Renewable energy forms	4828	9116	13625	14468	18987	17044	14598	10.9	3.4	-2.6
Other	0	0	0	32	94	466	788	0.0	0.0	23.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	144	140	128	116	104	92	74	-1.2	-2.0	-3.4
Industry (Energy on Value added, index 2000=100)	100	96	93	90	90	84	71	-0.7	-0.3	-2.4
Residential (Energy on Private Income, index 2000=100)	100	99	94	83	76	63	44	-0.6	-2.2	-5.3
Tertiary (Energy on Value added, index 2000=100)	100	98	98	87	77	65	44	-0.2	-2.4	-5.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	37	33	32	28	24	21	-2.2	-1.7	-2.8
Freight transport (toe/Mtkm)	27	22	21	20	19	18	17	-2.6	-0.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	1076.8	1015.8	957.1	943.5	895.8	843.5	684.8	-1.2	-0.7	-2.6
of which ETS sectors (2013 scope) GHG emissions	543.7	505.7	505.7	510.9	499.4	506.2	405.4		-0.1	-2.1
of which ESD sectors (2013 scope) GHG emissions	472.1	451.3	451.3	432.6	396.3	337.2	279.4		-1.3	-3.4
CO ₂ Emissions (energy related)	852.1	825.2	787.8	777.7	736.8	690.7	542.0	-0.8	-0.7	-3.0
Power generation/District heating	330.6	344.9	324.5	317.5	306.5	327.3	248.6	-0.2	-0.6	-2.1
Energy Branch	28.1	26.2	23.5	25.9	22.1	19.8	17.3	-1.8	-0.6	-2.4
Industry	130.2	115.3	115.3	112.7	115.5	101.8	81.6	-1.2	0.0	-3.4
Residential	119.4	110.8	104.3	98.0	87.8	68.5	47.4	-1.3	-1.7	-6.0
Tertiary	58.5	55.9	56.3	55.4	47.8	35.7	21.7	-0.4	-1.6	-7.6
Transport	185.3	172.2	163.8	168.2	157.0	137.6	125.2	-1.2	-0.4	-2.2
CO ₂ Emissions (non energy and non land use related)	63.7	61.6	55.6	56.8	58.5	58.7	57.1	-1.4	0.5	-0.2
Non-CO2 GHG emissions	161.0	128.9	113.7	109.1	100.4	94.0	85.7	-3.4	-1.2	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	85.5	80.6	76.0	74.9	71.1	67.0	54.4	-1.2	-0.7	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.50	0.46	0.42	0.41	0.42	0.43	0.37	-1.7	0.0	-1.2
Final energy demand (t of CO ₂ /toe)	2.24	2.08	2.00	2.00	1.91	1.77	1.71	-1.1	-0.5	-1.1
Industry	2.26	1.95	1.90	1.81	1.77	1.62	1.49	-1.7	-0.7	-1.7
Residential	1.89	1.74	1.67	1.67	1.53	1.36	1.27	-1.2	-0.9	-1.8
Tertiary	1.71	1.58	1.47	1.52	1.39	1.17	1.00	-1.5	-0.6	-3.3
Transport	2.85	2.84	2.80	2.80	2.79	2.72	2.64	-0.2	-0.1	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.6	6.7	10.5	13.5	18.6	21.4	24.2			
RES-H&C share	4.2	6.7	9.6	10.6	17.5	19.6	20.9			
RES-E share	6.1	10.5	18.1	29.5	34.8	37.4	44.8			
RES-T share (based on ILUC formula)	0.8	4.2	6.9	8.8	10.4	15.9	22.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	51	62	86	104	97	98	3.7	5.4	-0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	132	171	164	160	167	171	176	2.2	0.2	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	225.6	285.4	302.7	290.0	344.8	366.7	429.9	3.0	1.3	2.2
as % of GDP	9.5	11.7	11.6	10.4	11.6	11.7	13.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Greece: EU/CO-35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	11	11	11	11	11	10	10	0.3	-0.5	-0.6
GDP (in 000 M€13)	190	231	232	200	207	213	225	2.0	-1.1	0.8
Gross Inland Consumption (ktoe)	28292	31410	28725	26055	25265	22715	17436	0.2	-1.3	-3.6
Solids	9038	8944	7863	6765	5727	5047	2522	-1.4	-3.1	-7.9
Oil	16085	18119	14974	12997	12137	10325	8359	-0.7	-2.1	-3.7
Natural gas	1705	2354	3235	2979	3774	3339	1941	6.6	1.6	-6.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Renewable energy forms	1466	1668	2163	2714	3225	3758	4431	4.0	4.1	3.2
Energy Branch Consumption	1634	1820	1839	1906	1784	1648	1387	1.2	-0.3	-2.5
Non-Energy Uses	719	761	1108	824	847	842	833	4.4	-2.7	-0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	10012	10326	9461	9027	8441	8375	6683	-0.6	-1.1	-2.3
Solids	8222	8538	7315	6430	5428	4791	2382	-1.2	-2.9	-7.9
Oil	282	101	132	75	73	70	67	-7.3	-5.7	-0.8
Natural gas	42	18	8	0	0	0	0	-15.8	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1466	1668	2006	2521	2940	3514	4233	3.2	3.9	3.7
Hydro	318	431	641	506	508	477	480	7.3	-2.3	-0.6
Biomass & Waste	1009	1015	919	1157	1349	1294	1148	-0.9	3.9	-1.6
Wind	39	109	233	330	448	805	1555	19.7	6.7	13.3
Solar and others	99	101	197	514	620	920	1035	7.1	12.2	5.3
Geothermal	2	12	16	16	15	17	15	25.9	-0.4	-0.2
Net Imports (ktoe)	22151	23498	21712	20057	19809	17268	13715	-0.2	-0.9	-3.6
Solids	769	364	401	335	299	256	139	-6.3	-2.9	-7.3
Oil	19695	20476	17433	15950	15015	13110	11066	-1.2	-1.5	-3.0
Crude oil and Feedstocks	20596	19488	20633	24349	23250	21398	19504	0.0	1.2	-1.7
Oil products	-900	988	-3200	-8399	-8236	-8288	-8438	13.5	9.9	0.2
Natural gas	1689	2332	3231	2979	3809	3411	2128	6.7	1.7	-5.7
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Import Dependency (%)	69.5	68.6	69.1	69.0	70.1	67.3	67.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	53425	59427	57367	54082	58617	59159	47903	0.7	0.2	-2.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	34313	35543	30797	26751	23476	21836	10095	-1.1	-2.7	-8.1
Oil (including refinery gas)	8885	9207	6089	4847	5122	2384	128	-3.7	-1.7	-30.9
Gas (including derived gases)	5920	8171	9830	8817	13814	11434	3440	5.2	3.5	-13.0
Biomass-waste	163	222	319	195	382	676	860	6.9	1.8	8.4
Hydro (pumping excluded)	3693	5017	7460	5880	5901	5552	5577	7.3	-2.3	-0.6
Wind	451	1266	2714	3834	5207	9366	18080	19.7	6.7	13.3
Solar	0	1	158	3757	4715	7910	9724	0.0	40.4	7.5
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	11212	13208	15889	19208	19767	22158	24877	3.5	2.2	2.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	3298	3598	4715	8146	9363	12655	16243	3.6	7.1	5.7
Hydro (pumping excluded)	3072	3106	3215	3389	3579	3579	3579	0.5	1.1	0.0
Wind	226	491	1298	2152	2637	3980	6718	19.1	7.3	9.8
Solar	0	1	202	2605	3147	5096	5946	0.0	31.6	6.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7914	9610	11174	11062	10405	9503	8634	3.5	-0.7	-1.8
of which cogeneration units	195	3051	588	284	333	289	291	11.7	-5.5	-1.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4454	4754	4312	3923	3095	3165	2910	-0.3	-3.3	-0.6
Gas fired	1157	2203	4189	5062	5305	5272	4737	13.7	2.4	-1.1
Oil fired	2302	2625	2618	2022	1824	834	733	1.3	-3.6	-8.7
Biomass-waste fired	1	28	55	55	180	232	254	50.5	12.6	3.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	50.3	47.7	38.3	29.6	31.6	28.8	21.3			
Efficiency of gross thermal power generation (%)	36.9	37.0	37.5	38.6	41.4	42.5	38.9			
% of gross electricity from CHP	2.1	7.8	4.3	3.0	3.3	2.7	2.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	8.1	10.9	18.6	25.3	27.6	39.7	71.5			
Fuel Inputs to Thermal Power Generation (ktoe)	11492	12344	10787	9041	8892	7344	3208	-0.6	-1.9	-9.7
Solids	8170	8694	7567	6558	5534	4884	2430	-0.8	-3.1	-7.9
Oil (including refinery gas)	1978	1992	1278	1005	1071	505	42	-4.3	-1.8	-27.6
Gas (including derived gases)	1280	1605	1863	1435	2204	1812	561	3.8	1.7	-12.8
Biomass & Waste	64	52	79	43	83	144	175	2.2	0.4	7.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	22570	21629	22585	24150	24044	22280	20460	0.0	0.6	-1.6
Refineries	22508	21536	22462	23941	23759	21995	20160	0.0	0.6	-1.6
Biofuels and hydrogen production	0	0	124	207	279	265	274	0.0	8.4	-0.2
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	62	93	0	2	7	20	26	-95.7	1750.5	14.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Greece: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	129	153	161	164	172	173	179	2.2	0.7	0.4
Public road transport	22	22	21	21	22	22	23	-0.3	0.6	0.1
Private cars and motorcycles	67	90	105	106	108	105	106	4.7	0.2	-0.2
Rail	3	3	3	3	3	4	4	-0.2	1.0	1.7
Aviation ⁽³⁾	30	31	24	26	32	35	40	-2.2	2.8	2.4
Inland navigation	7	7	7	7	7	7	7	-0.1	0.2	0.0
Freight transport activity (Gtkm)	38	34	37	37	39	40	41	-0.1	0.5	0.5
Heavy goods and light commercial vehicles	28	24	30	30	32	32	33	0.8	0.5	0.4
Rail	0	1	1	1	1	1	1	3.7	0.8	1.1
Inland navigation	9	9	6	6	7	7	7	-3.6	0.5	0.9
Energy demand in transport (ktoe) ⁽⁴⁾	7286	8174	8147	7472	7250	6680	6290	1.1	-1.2	-1.4
Public road transport	423	438	403	403	408	386	374	-0.5	0.1	-0.9
Private cars and motorcycles	3327	4435	4483	4018	3693	3170	2755	3.0	-1.9	-2.9
Heavy goods and light commercial vehicles	1668	1426	1601	1480	1486	1398	1352	-0.4	-0.7	-0.9
Rail	49	46	24	22	23	24	24	-6.8	-0.3	0.2
Aviation	1325	1181	919	936	1018	1094	1161	-3.6	1.0	1.3
Inland navigation	495	648	717	612	621	608	625	3.8	-1.4	0.1
By transport activity										
Passenger transport	5530	6460	6297	5784	5548	5061	4709	1.3	-1.3	-1.6
Freight transport	1756	1714	1850	1688	1701	1619	1581	0.5	-0.8	-0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.8	1.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	2.8	3.9	4.2	4.5			
ENERGY EFFICIENCY										
Primary energy consumption	27573	30650	27617	25230	24418	21873	16603	0.0	-1.2	-3.8
Final Energy Demand	18676	20958	19197	17486	17131	15730	13049	0.3	-1.1	-2.7
by sector										
Industry	4450	4161	3672	3224	3307	3210	2750	-1.9	-1.0	-1.8
Energy intensive industries	2737	2588	2427	2157	2194	2101	1745	-1.2	-1.0	-2.3
Other industrial sectors	1714	1573	1245	1067	1114	1108	1005	-3.1	-1.1	-1.0
Residential	4502	5510	4615	4351	4278	3811	2595	0.2	-0.8	-4.9
Tertiary	2426	3100	2752	2426	2283	2016	1399	1.3	-1.9	-4.8
Transport ⁽⁵⁾	7297	8188	8158	7484	7263	6694	6305	1.1	-1.2	-1.4
by fuel										
Solids	891	458	302	208	192	163	92	-10.3	-4.4	-7.1
Oil	12744	14413	12110	10307	9455	8302	6938	-0.5	-2.4	-3.0
Gas	257	586	982	1018	1031	991	827	14.3	0.5	-2.2
Electricity	3710	4377	4568	4397	4621	4568	3758	2.1	0.1	-2.0
Heat (from CHP and District Heating)	28	49	46	44	50	52	40	5.2	0.8	-2.2
Renewable energy forms	1046	1076	1191	1510	1775	1631	1353	1.3	4.1	-2.7
Other	0	0	0	2	7	23	41	0.0	0.0	18.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	149	136	124	130	122	107	78	-1.8	-0.1	-4.4
Industry (Energy on Value added, index 2000=100)	100	88	101	99	98	93	76	0.1	-0.4	-2.5
Residential (Energy on Private Income, index 2000=100)	100	99	80	88	88	77	51	-2.2	1.0	-5.4
Tertiary (Energy on Value added, index 2000=100)	100	101	86	88	80	68	45	-1.5	-0.8	-5.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	40	40	37	33	30	27	24	-0.9	-2.1	-2.1
Freight transport (toe/Mtkm)	46	51	50	45	43	41	38	0.7	-1.4	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	133.3	139.6	121.4	105.7	97.1	85.7	62.4	-0.9	-2.2	-4.3
of which ETS sectors (2013 scope) GHG emissions		77.2	64.9	57.3	53.5	47.1	29.1		-1.9	-5.9
of which ESD sectors (2013 scope) GHG emissions		62.4	56.5	48.4	43.6	38.7	33.3		-2.6	-2.7
CO2 Emissions (energy related)	98.4	106.4	92.1	79.6	73.4	63.4	40.8	-0.7	-2.2	-5.7
Power generation/District heating	52.1	55.6	47.9	40.9	37.6	31.4	14.2	-0.8	-2.4	-9.3
Energy Branch	3.1	3.4	3.6	3.9	3.5	3.3	2.9	1.6	-0.1	-1.9
Industry	10.4	8.9	7.2	6.2	5.9	5.3	3.9	-3.7	-1.9	-4.1
Residential	7.6	9.9	6.7	5.0	4.3	3.4	1.6	-1.3	-4.2	-9.3
Tertiary	3.4	4.3	2.8	1.8	1.2	0.9	0.5	-2.1	-8.0	-8.2
Transport	21.8	24.4	24.0	21.7	20.9	19.1	17.7	1.0	-1.4	-1.6
CO2 Emissions (non energy and non land use related)	8.9	9.6	6.6	6.8	6.7	6.9	7.5	-2.9	0.1	1.2
Non-CO2 GHG emissions	26.1	23.6	22.6	19.3	16.9	15.4	14.0	-1.4	-2.9	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.1	129.9	113.0	98.4	90.4	79.8	58.1	-0.9	-2.2	-4.3
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.97	0.93	0.83	0.75	0.63	0.52	0.29	-1.6	-2.6	-7.5
Final energy demand (t of CO2/toe)	2.32	2.26	2.12	1.99	1.89	1.82	1.82	-0.9	-1.2	-0.4
Industry	2.35	2.13	1.96	1.91	1.78	1.65	1.41	-1.8	-0.9	-2.3
Residential	1.69	1.79	1.45	1.16	1.01	0.88	0.63	-1.5	-3.5	-4.7
Tertiary	1.41	1.38	1.01	0.76	0.53	0.43	0.36	-3.3	-6.3	-3.6
Transport	2.99	2.98	2.94	2.90	2.87	2.86	2.81	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	7.2	7.0	9.7	14.4	18.4	23.6	34.0			
RES-H&C share	13.6	12.8	17.4	24.8	30.1	33.5	39.7			
RES-E share	7.2	8.2	12.3	22.4	25.6	37.9	68.9			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	1.4	10.2	12.2	19.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	60	63	72	85	94	93	98	1.9	2.7	0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	74	78	108	124	135	140	155	3.8	2.2	1.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	15.2	20.2	26.7	26.6	31.5	33.6	37.2	5.8	1.6	1.7
as % of GDP	8.0	8.7	11.5	13.3	15.2	15.8	16.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Hungary: EU/CO-35			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	10	10	10	10	10	-0.2	-0.2	-0.1
GDP (in 000 M€13)	83	102	101	107	117	131	145	1.9	1.5	2.2
Gross Inland Consumption (ktoe)	25298	27611	25811	23493	24390	24540	22148	0.2	-0.6	-1.0
Solids	3850	3031	2730	2635	2330	1593	1274	-3.4	-1.6	-5.9
Oil	6964	7115	6699	6271	6312	6313	6203	-0.4	-0.6	-0.2
Natural gas	9657	12094	9816	7786	8517	6698	5016	0.2	-1.4	-5.2
Nuclear	3672	3585	4078	3666	3677	6045	6037	1.1	-1.0	5.1
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Renewable energy forms	859	1251	2042	1931	2692	3064	2928	9.0	2.8	0.8
Energy Branch Consumption	1164	1062	1095	1029	959	941	903	-0.6	-1.3	-0.6
Non-Energy Uses	1587	2169	1974	2275	2502	2826	3077	2.2	2.4	2.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	11598	10372	11065	10244	10107	11027	10717	-0.5	-0.9	0.6
Solids	2893	1748	1593	1794	1587	815	797	-5.8	0.0	-6.7
Oil	1699	1457	1150	795	619	274	191	-3.8	-6.0	-11.1
Natural gas	2475	2331	2235	1857	1195	518	478	-1.0	-6.1	-8.8
Nuclear	3672	3585	4078	3666	3677	6045	6037	1.1	-1.0	5.1
Renewable energy sources	859	1251	2010	2132	3029	3376	3214	8.9	4.2	0.6
Hydro	15	17	16	20	20	20	20	0.6	2.1	0.0
Biomass & Waste	758	1145	1844	1905	2651	2547	2130	9.3	3.7	-2.2
Wind	0	1	46	50	77	183	200	0.0	5.3	10.1
Solar and others	0	2	6	9	45	207	219	0.0	23.5	17.1
Geothermal	86	87	99	148	236	418	645	1.4	9.1	10.5
Net Imports (ktoe)	13956	17421	14988	13249	14283	13513	11431	0.7	-0.5	-2.2
Solids	1087	1299	1143	841	743	778	478	0.5	-4.2	-4.3
Oil	5291	5780	5637	5476	5694	6038	6012	0.6	0.1	0.5
Crude oil and Feedstocks	5887	5988	5806	5273	5500	5876	5906	-0.1	-0.5	0.7
Oil products	-596	-208	-169	203	194	163	106	-11.9	0.0	-5.8
Natural gas	7283	9808	7726	5929	7321	6180	4537	0.6	-0.5	-4.7
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Import Dependency (%)	55.2	63.1	58.1	56.4	58.6	55.1	51.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	35191	35756	37371	27859	33411	37292	34254	0.6	-1.1	0.2
Nuclear energy	14180	13634	15761	15087	15024	24706	24676	1.1	-0.5	5.1
Solids	9590	7023	6234	6436	5872	2876	2759	-4.2	-0.6	-7.3
Oil (including refinery gas)	4404	455	490	52	0	0	0	-19.7	-100.0	0.0
Gas (including derived gases)	6719	12502	11714	3383	8990	3282	529	5.7	-2.6	-24.7
Biomass-waste	120	1730	2449	2015	2241	2342	1793	35.2	-0.9	-2.2
Hydro (pumping excluded)	178	202	188	232	232	232	232	0.5	2.1	0.0
Wind	0	10	534	585	890	2133	2327	0.0	5.2	10.1
Solar	0	0	1	32	97	1656	1873	0.0	55.6	34.5
Geothermal and other renewables	0	0	0	38	65	65	65	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	8589	8297	8292	7495	7124	9754	11053	-0.4	-1.5	4.5
Nuclear energy	1920	1920	1920	1960	1960	3221	4482	0.0	0.2	8.6
Renewable energy	48	66	348	431	640	2661	2992	21.9	6.3	16.7
Hydro (pumping excluded)	48	49	53	57	57	57	57	1.0	0.7	0.0
Wind	0	17	293	329	477	1040	1169	0.0	5.0	9.4
Solar	0	0	2	45	106	1564	1766	0.0	48.7	32.5
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6621	6311	6024	5103	4524	3873	3579	-0.9	-2.8	-2.3
of which cogeneration units	1464	2047	1862	1144	1592	1143	522	2.4	-1.6	-10.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1747	1380	1155	1137	798	532	520	-4.1	-3.6	-4.2
Gas fired	4160	4622	4605	3496	3308	2921	2644	1.0	-3.3	-2.2
Oil fired	602	176	91	91	11	11	5	-17.2	-19.2	-7.3
Biomass-waste fired	112	133	173	349	356	358	358	4.4	7.5	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	30	52	52	52	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	42.9	45.7	47.7	39.3	50.4	41.4	33.5			
Efficiency of gross thermal power generation (%)	29.8	32.8	34.1	37.3	39.8	35.8	30.3			
% of gross electricity from CHP	13.5	19.1	19.6	14.4	12.5	8.2	6.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	41.1	44.1	50.7	64.6	55.5	83.5	90.4			
Fuel Inputs to Thermal Power Generation (ktoe)	6009	5692	5265	2752	3710	2056	1460	-1.3	-3.4	-8.9
Solids	2755	1924	1646	1611	1493	743	716	-5.0	-1.0	-7.1
Oil (including refinery gas)	1052	155	138	15	0	0	0	-18.4	-100.0	0.0
Gas (including derived gases)	2140	3079	2704	657	1509	584	162	2.4	-5.7	-20.0
Biomass & Waste	61	534	777	436	651	673	527	28.9	-1.7	-2.1
Geothermal heat	0	0	0	32	56	56	56	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12946	13165	14441	12781	12804	15119	14895	1.1	-1.2	1.5
Refineries	7638	8118	8427	6997	7085	7117	7029	1.0	-1.7	-0.1
Biofuels and hydrogen production	0	3	175	182	348	317	316	0.0	7.1	-1.0
District heating	471	627	474	648	634	605	753	0.1	3.0	1.7
Derived gases, cokeries etc.	4837	4417	5365	4954	4737	7080	6797	1.0	-1.2	3.7

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Hungary: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	80	84	84	86	95	103	110	0.5	1.3	1.4
Public road transport	19	18	16	17	18	18	19	-1.3	0.8	0.7
Private cars and motorcycles	47	51	54	54	60	63	67	1.4	1.1	1.1
Rail	12	12	10	11	12	14	16	-1.8	2.1	2.4
Aviation ⁽³⁾	2	4	4	4	5	6	8	5.9	3.0	5.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	27	35	34	35	38	41	45	2.3	1.1	1.8
Heavy goods and light commercial vehicles	17	24	23	23	24	26	28	2.7	0.8	1.5
Rail	9	9	9	10	11	12	14	0.0	2.0	2.6
Inland navigation	1	2	2	2	3	3	3	10.4	0.9	1.8
Energy demand in transport (ktoe) ⁽⁴⁾	3309	4308	4341	3958	4116	4042	4084	2.8	-0.5	-0.1
Public road transport	339	361	335	346	353	348	343	-0.1	0.5	-0.3
Private cars and motorcycles	1805	2191	2208	2035	2070	1945	1875	2.0	-0.6	-1.0
Heavy goods and light commercial vehicles	763	1341	1418	1214	1275	1254	1294	6.4	-1.1	0.1
Rail	171	154	150	152	171	192	206	-1.3	1.3	1.9
Aviation	230	261	230	207	243	300	361	0.0	0.6	4.0
Inland navigation	1	1	1	4	4	4	5	3.1	14.5	1.6
By transport activity										
Passenger transport	2449	2877	2826	2642	2729	2664	2654	1.4	-0.3	-0.3
Freight transport	860	1431	1515	1316	1387	1378	1430	5.8	-0.9	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	4.1	4.7	8.8	8.6	8.6			
ENERGY EFFICIENCY										
Primary energy consumption	23711	25442	23837	21219	21888	21714	19071	0.1	-0.8	-1.4
Final Energy Demand	16139	18218	16596	15895	16175	15339	12847	0.3	-0.3	-2.3
by sector										
Industry	3513	3369	2890	3081	3038	3143	2847	-1.9	0.5	-0.6
Energy intensive industries	2517	2267	1854	1941	1872	1901	1639	-3.0	0.1	-1.3
Other industrial sectors	996	1102	1036	1141	1166	1243	1208	0.4	1.2	0.3
Residential	5803	6464	5740	5253	5256	4817	3562	0.2	-0.9	-3.8
Tertiary	3712	4072	3625	3566	3726	3303	2325	-0.2	0.3	-4.6
Transport ⁽⁵⁾	3311	4313	4341	3995	4154	4076	4113	2.7	-0.4	-0.1
by fuel										
Solids	665	690	481	501	372	390	175	-3.2	-2.5	-7.2
Oil	4218	4904	4638	4261	4174	3936	3685	1.0	-1.0	-1.2
Gas	6503	7852	6261	5868	5819	5144	3850	-0.4	-0.7	-4.0
Electricity	2531	2780	2941	2977	3104	3355	3076	1.5	0.5	-0.1
Heat (from CHP and District Heating)	1447	1308	1090	985	1007	885	716	-2.8	-0.8	-3.3
Renewable energy forms	774	683	1184	1301	1694	1612	1321	4.3	3.6	-2.5
Other	0	0	0	1	5	17	23	0.0	0.0	17.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	305	271	257	219	208	187	153	-1.7	-2.1	-3.1
Industry (Energy on Value added, index 2000=100)	100	74	64	63	57	53	43	-4.4	-1.1	-2.7
Residential (Energy on Private Income, index 2000=100)	100	90	87	77	71	58	39	-1.4	-2.0	-5.8
Tertiary (Energy on Value added, index 2000=100)	100	90	81	75	71	56	36	-2.0	-1.3	-6.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	33	32	30	27	25	23	0.8	-1.7	-1.8
Freight transport (toe/Mtkm)	32	41	45	38	37	33	32	3.5	-2.0	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	79.8	76.9	67.7	59.4	56.4	47.9	41.3	-1.6	-1.8	-3.1
of which ETS sectors (2013 scope) GHG emissions		30.6	25.6	19.8	20.3	14.7	12.5		-2.3	-4.7
of which ESD sectors (2013 scope) GHG emissions		46.3	42.1	39.6	36.2	33.2	28.7		-1.5	-2.3
CO ₂ Emissions (energy related)	55.0	56.4	49.0	41.5	41.3	33.1	27.0	-1.1	-1.7	-4.1
Power generation/District heating	22.1	18.3	16.0	10.5	11.5	5.9	4.7	-3.2	-3.3	-8.6
Energy Branch	1.5	1.2	1.5	1.6	1.4	1.3	1.2	-0.3	-0.6	-1.3
Industry	6.8	6.7	5.3	5.8	5.0	4.8	3.4	-2.4	-0.6	-3.8
Residential	8.8	10.7	8.6	7.3	7.0	6.3	4.3	-0.2	-2.1	-4.8
Tertiary	6.1	6.7	5.2	5.2	5.2	4.0	2.7	-1.6	-0.1	-6.5
Transport	9.7	12.7	12.3	11.2	11.2	10.9	10.8	2.4	-1.0	-0.4
CO ₂ Emissions (non energy and non land use related)	4.5	4.9	3.7	4.4	4.8	5.1	5.4	-1.9	2.5	1.2
Non-CO2 GHG emissions	20.3	15.6	15.0	13.5	10.4	9.6	8.9	-3.0	-3.6	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.3	81.2	71.5	62.7	59.6	50.6	43.6	-1.6	-1.8	-3.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.34	0.31	0.26	0.25	0.12	0.11	-2.7	-2.2	-8.0
Final energy demand (t of CO ₂ /toe)	1.94	2.02	1.90	1.85	1.75	1.69	1.64	-0.2	-0.8	-0.6
Industry	1.92	2.00	1.84	1.87	1.65	1.52	1.20	-0.4	-1.1	-3.2
Residential	1.57	1.66	1.50	1.39	1.33	1.30	1.20	-0.4	-1.2	-1.0
Tertiary	1.65	1.65	1.44	1.45	1.39	1.22	1.14	-1.4	-0.4	-1.9
Transport	2.92	2.94	2.83	2.81	2.69	2.66	2.62	-0.3	-0.5	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.8	4.5	8.6	10.0	13.1	15.3	16.2			
RES-H&C share	7.6	6.0	11.1	13.4	17.0	19.0	21.8			
RES-E share	0.6	4.4	7.1	6.7	7.8	13.5	14.6			
RES-T share (based on ILUC formula)	0.0	0.3	4.7	6.0	9.9	10.5	10.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	48	60	67	76	69	77	94	3.5	0.3	3.1
Average Price of Electricity in Final demand sectors (€13/MWh)	78	107	132	113	128	138	167	5.4	-0.3	2.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	11.2	16.1	20.3	18.0	22.2	25.5	32.1	6.1	0.9	3.7
as % of GDP	13.5	15.9	20.2	16.7	18.9	19.5	22.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Ireland: EU/CO ₂ -35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	5	5	5	5	5	1.9	0.8	0.0
GDP (in 000 M€13)	130	165	165	183	208	225	245	2.4	2.3	1.6
Gross Inland Consumption (ktoe)	14425	15265	15191	14208	14486	14037	12094	0.5	-0.5	-1.8
Solids	2601	2664	1979	2028	1873	1653	1010	-2.7	-0.5	-6.0
Oil	8145	8589	7818	6926	6744	6361	5740	-0.4	-1.5	-1.6
Natural gas	3436	3470	4683	4016	4048	3959	3053	3.1	-1.4	-2.8
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Renewable energy forms	235	366	671	1152	1959	2212	2415	11.1	11.3	2.1
Energy Branch Consumption	254	300	243	250	207	202	167	-0.4	-1.6	-2.2
Non-Energy Uses	675	516	341	360	405	441	449	-6.6	1.7	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	2159	1647	1843	2031	1921	2153	2358	-1.6	0.4	2.1
Solids	965	820	981	740	0	1	1	0.2	-56.6	13.7
Oil	0	0	0	44	0	0	0	0.0	0.0	13.7
Natural gas	958	461	233	231	235	234	228	-13.2	0.1	-0.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	235	366	628	1016	1686	1918	2129	10.3	10.4	2.4
Hydro	73	54	52	62	66	65	65	-3.4	2.6	-0.2
Biomass & Waste	141	216	327	420	651	804	789	8.8	7.1	1.9
Wind	21	96	242	520	911	962	1183	27.7	14.2	2.6
Solar and others	0	1	8	13	57	85	89	54.0	22.6	4.5
Geothermal	0	0	0	0	0	1	2	0.0	0.0	18.2
Net Imports (ktoe)	12370	13765	13215	12285	12673	12000	9858	0.7	-0.4	-2.5
Solids	1681	1886	945	1288	1873	1651	1010	-5.6	7.1	-6.0
Oil	8203	8694	7706	6991	6852	6474	5847	-0.6	-1.2	-1.6
Crude oil and Feedstocks	3016	3166	2987	2873	2873	2650	2358	-0.1	-0.4	-2.0
Oil products	5186	5527	4718	4118	3979	3825	3489	-0.9	-1.7	-1.3
Natural gas	2478	3010	4480	3784	3814	3727	2839	6.1	-1.6	-2.9
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Import Dependency (%)	84.9	89.6	86.5	85.8	86.8	84.8	80.7			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	23673	25626	28425	26857	31222	32714	30349	1.8	0.9	-0.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	8587	8839	6384	6793	6206	5720	3557	-2.9	-0.3	-5.4
Oil (including refinery gas)	4638	3340	605	15	3	15	6	-18.4	-41.0	7.3
Gas (including derived gases)	9263	11574	17705	12617	12956	14134	11204	6.7	-3.1	-1.4
Biomass-waste	95	130	317	660	682	885	1055	12.8	8.0	4.5
Hydro (pumping excluded)	846	631	599	721	771	760	760	-3.4	2.6	-0.2
Wind	244	1112	2815	6049	10588	11185	13752	27.7	14.2	2.6
Solar	0	0	0	1	16	16	16	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	4452	5930	8091	9091	9591	9155	9470	6.2	1.7	-0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	355	751	1611	2724	4127	4317	5129	16.3	9.9	2.2
Hydro (pumping excluded)	236	234	237	237	258	258	258	0.0	0.8	0.0
Wind	119	517	1374	2486	3851	4041	4853	27.7	10.9	2.3
Solar	0	0	0	1	19	19	19	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	4097	5179	6480	6366	5464	4838	4341	4.7	-1.7	-2.3
of which cogeneration units	77	240	285	264	63	266	265	14.0	-14.0	15.4
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1369	1387	1213	1186	842	842	842	-1.2	-3.6	0.0
Gas fired	1872	2625	4081	3969	3624	3472	3128	8.1	-1.2	-1.5
Oil fired	842	1124	1143	1143	801	326	173	3.1	-3.5	-14.2
Biomass-waste fired	14	43	43	69	197	198	198	11.4	16.6	0.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	57.4	47.1	38.5	32.4	36.1	39.6	35.8			
Efficiency of gross thermal power generation (%)	40.7	43.2	46.8	47.2	47.6	47.1	47.1			
% of gross electricity from CHP	2.4	1.7	6.7	8.4	2.8	11.9	13.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	5.0	7.3	13.1	27.7	38.6	39.3	51.3			
Fuel Inputs to Thermal Power Generation (ktoe)	4775	4758	4600	3661	3583	3791	2891	-0.4	-2.5	-2.1
Solids	1930	1920	1358	1448	1373	1267	798	-3.5	0.1	-5.3
Oil (including refinery gas)	997	769	128	4	1	4	1	-18.5	-40.4	7.4
Gas (including derived gases)	1825	2040	3039	2066	2056	2309	1845	5.2	-3.8	-1.1
Biomass & Waste	24	30	75	143	153	211	247	12.2	7.5	4.9
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	3341	3204	3033	3024	3133	2922	2643	-1.0	0.3	-1.7
Refineries	3341	3203	2940	2933	2926	2697	2402	-1.3	0.0	-2.0
Biofuels and hydrogen production	0	1	93	89	199	189	188	0.0	7.9	-0.6
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	0	0	0	2	8	36	53	0.0	2204.6	21.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Ireland: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	50	65	70	69	78	86	92	3.4	1.1	1.6
Public road transport	7	8	8	9	9	9	9	2.0	0.3	0.6
Private cars and motorcycles	35	45	48	46	52	58	62	3.3	0.8	1.7
Rail	1	2	2	2	2	2	2	2.7	1.0	1.1
Aviation ⁽³⁾	6	10	10	11	14	16	17	5.2	3.2	1.9
Inland navigation	1	1	1	1	1	1	1	0.9	1.0	1.0
Freight transport activity (Gtkm)	12	17	11	12	14	15	17	-0.9	2.4	2.3
Heavy goods and light commercial vehicles	11	17	10	11	13	15	16	-0.5	2.4	2.3
Rail	0	0	0	0	0	0	0	-15.4	1.2	1.6
Inland navigation	0	0	0	0	0	0	0	-2.5	1.4	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	4082	5078	4715	4586	4763	4682	4694	1.5	0.1	-0.1
Public road transport	96	101	110	111	111	112	113	1.4	0.2	0.1
Private cars and motorcycles	2206	2577	2807	2583	2525	2369	2249	2.4	-1.1	-1.2
Heavy goods and light commercial vehicles	1086	1482	967	1019	1135	1206	1304	-1.2	1.6	1.4
Rail	40	42	44	44	47	49	50	0.8	0.7	0.7
Aviation	629	857	767	809	922	922	954	2.0	1.9	0.3
Inland navigation	25	18	20	21	22	23	24	-2.1	1.0	0.9
By transport activity										
Passenger transport	2958	3559	3724	3544	3602	3449	3363	2.3	-0.3	-0.7
Freight transport	1124	1519	990	1042	1160	1233	1331	-1.3	1.6	1.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.0	2.0	4.4	4.8	5.1			
ENERGY EFFICIENCY										
Primary energy consumption	13750	14749	14850	13848	14081	13596	11645	0.8	-0.5	-1.9
Final Energy Demand	10779	12597	11957	11423	11764	11175	9791	1.0	-0.2	-1.8
by sector										
Industry	2498	2582	2146	2453	2560	2421	2141	-1.5	1.8	-1.8
Energy intensive industries	1245	1341	1023	1166	1183	1027	845	-1.9	1.5	-3.3
Other industrial sectors	1252	1241	1123	1287	1377	1394	1296	-1.1	2.1	-0.6
Residential	2513	2954	3296	2823	2856	2685	1934	2.7	-1.4	-3.8
Tertiary	1684	1979	1799	1556	1580	1382	1017	0.7	-1.3	-4.3
Transport ⁽⁵⁾	4085	5082	4715	4590	4768	4687	4699	1.4	0.1	-0.1
by fuel										
Solids	671	751	604	567	500	385	213	-1.0	-1.9	-8.2
Oil	7045	8204	7270	6439	6229	5817	5199	0.3	-1.5	-1.8
Gas	1200	1364	1593	1883	1927	1588	1166	2.9	1.9	-4.9
Electricity	1745	2094	2186	2107	2267	2376	2235	2.3	0.4	-0.1
Heat (from CHP and District Heating)	0	0	0	1	14	37	57	0.0	0.0	14.8
Renewable energy forms	118	184	304	424	819	935	866	10.0	10.4	0.6
Other	0	0	0	2	8	36	56	0.0	1734.1	21.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	111	93	92	78	70	62	49	-1.9	-2.7	-3.4
Industry (Energy on Value added, index 2000=100)	100	85	75	80	73	64	53	-2.8	-0.3	-3.2
Residential (Energy on Private Income, index 2000=100)	100	95	98	86	75	62	39	-0.2	-2.7	-6.2
Tertiary (Energy on Value added, index 2000=100)	100	97	82	64	57	46	31	-1.9	-3.6	-5.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	51	46	46	43	38	33	30	-1.2	-1.8	-2.3
Freight transport (toe/Mtkm)	96	88	92	89	86	81	78	-0.3	-0.7	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.8	73.1	65.0	63.1	61.5	59.7	53.0	-1.0	-0.5	-1.5
of which ETS sectors (2013 scope) GHG emissions		25.4	20.0	18.5	17.9	17.4	13.7		-1.1	-2.6
of which ESD sectors (2013 scope) GHG emissions		47.8	45.0	44.6	43.6	42.3	39.3		-0.3	-1.1
CO ₂ Emissions (energy related)	43.2	47.3	42.0	37.8	36.3	34.0	27.3	-0.3	-1.4	-2.8
Power generation/District heating	15.6	15.3	13.3	11.0	10.5	10.6	7.6	-1.6	-2.4	-3.1
Energy Branch	0.3	0.4	0.3	0.3	0.3	0.2	0.2	-1.3	-1.1	-1.9
Industry	5.3	5.6	3.6	3.8	3.4	2.7	1.8	-3.9	-0.4	-6.0
Residential	6.4	7.2	7.8	6.5	6.1	5.2	3.1	2.1	-2.5	-6.4
Tertiary	3.4	3.5	3.1	2.5	2.4	1.9	1.2	-0.7	-2.8	-6.3
Transport	12.3	15.3	13.9	13.6	13.8	13.4	13.3	1.3	-0.1	-0.4
CO ₂ Emissions (non energy and non land use related)	2.9	2.7	1.4	1.8	1.9	1.9	1.8	-7.0	3.1	-0.5
Non-CO2 GHG emissions	25.6	23.1	21.5	23.5	23.2	23.8	23.8	-1.7	0.8	0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.2	126.5	112.3	109.1	106.4	103.2	91.6	-1.0	-0.5	-1.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.66	0.60	0.47	0.41	0.33	0.32	0.25	-3.4	-3.3	-3.0
Final energy demand (t of CO ₂ /toe)	2.53	2.51	2.38	2.32	2.18	2.07	1.99	-0.6	-0.9	-0.9
Industry	2.13	2.16	1.66	1.57	1.33	1.10	0.85	-2.5	-2.2	-4.3
Residential	2.53	2.44	2.37	2.30	2.12	1.92	1.63	-0.7	-1.1	-2.6
Tertiary	1.99	1.77	1.74	1.63	1.49	1.34	1.21	-1.3	-1.5	-2.1
Transport	3.00	3.01	2.96	2.96	2.89	2.86	2.83	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.0	2.8	5.6	8.7	15.2	18.2	23.2			
RES-H&C share	2.4	3.5	4.5	6.1	12.0	17.5	23.0			
RES-E share	4.8	7.2	14.5	26.5	40.6	41.4	53.9			
RES-T share (based on ILUC formula)	0.0	0.0	2.4	4.3	10.0	12.5	17.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	72	75	89	91	92	90	5.9	1.9	0.0
Average Price of Electricity in Final demand sectors (€13/MWh)	117	147	158	175	176	176	177	3.0	1.1	0.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.8	13.9	15.5	15.6	18.9	20.9	23.8	4.7	2.0	2.4
as % of GDP	7.5	8.4	9.4	8.5	9.1	9.3	9.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)											Italy: EU/CO+35
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
											Annual % Change
Population (in million)	57	58	59	61	62	63	64	0.4	0.5	0.3	
GDP (in 000 M€13)	1564	1643	1622	1565	1675	1776	1695	0.4	0.3	1.2	
Gross Inland Consumption (ktoe)	174219	187471	174761	159036	161332	150153	126901	0.0	-0.8	-2.5	
Solids	12550	16461	14170	16106	18613	12067	6785	1.2	2.8	-9.6	
Oil	89540	83963	69558	61171	56701	50489	43582	-2.5	-2.0	-2.6	
Natural gas	57945	70651	68057	56177	59908	57965	46363	1.6	-1.3	-2.5	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7	
Renewable energy forms	10371	12170	19180	21628	23532	26868	26118	6.3	2.1	1.0	
Energy Branch Consumption	7704	10052	9539	8520	8168	7223	6355	2.2	-1.5	-2.5	
Non-Energy Uses	9019	8607	9560	7050	7322	7453	7360	0.6	-2.6	0.1	
SECURITY OF SUPPLY											
Production (incl. recovery of products) (ktoe)	28400	27839	29560	30751	31721	33785	32835	0.4	0.7	0.3	
Solids	3	60	64	55	0	0	0	33.7	-100.0	0.0	
Oil	4915	6376	5687	5142	5667	5605	5582	1.5	0.0	-0.1	
Natural gas	13627	9886	6885	6760	5769	4600	3936	-6.6	-1.8	-3.8	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	9856	11516	16924	18793	20285	23581	23317	5.6	1.8	1.4	
Hydro	3800	3101	4395	4138	4087	4212	4210	1.5	-0.7	0.3	
Biomass & Waste	1736	3392	6670	10105	11359	12430	11047	14.4	5.5	-0.3	
Wind	48	202	785	1258	1260	1586	2295	32.1	4.8	6.2	
Solar and others	12	30	298	2199	2490	4191	4560	37.4	23.7	6.2	
Geothermal	4259	4791	4776	1092	1089	1162	1204	1.2	-13.7	1.0	
Net Imports (ktoe)	152069	160241	149804	131764	133191	120091	96609	-0.1	-1.2	-3.2	
Solids	13133	16367	14301	16050	18613	12067	6785	0.9	2.7	-9.6	
Oil	87599	79154	67826	59509	54559	48478	41494	-2.5	-2.2	-2.7	
Crude oil and Feedstocks	89451	94307	84882	68525	61696	54373	46595	-0.5	-3.1	-2.8	
Oil products	-1852	-15153	-17056	-9016	-7137	-5895	-5101	24.9	-8.3	-3.3	
Natural gas	47008	59840	61600	49416	54195	53495	42776	2.7	-1.3	-2.3	
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7	
Import Dependency (%)	86.5	84.5	84.3	81.1	80.8	78.0	74.6				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	269941	296840	298773	288971	318213	313307	278685	1.0	0.6	-1.3	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	26272	43606	39734	58856	67235	43209	22404	4.2	5.4	-10.4	
Oil (including refinery gas)	85878	47124	21714	8782	7796	6984	3075	-12.8	-9.7	-8.9	
Gas (including derived gases)	106398	156191	158215	110293	127919	116172	93906	4.0	-2.1	-3.0	
Biomass-waste	1908	6153	11586	18671	21446	29848	30371	19.8	6.4	3.5	
Hydro (pumping excluded)	44199	36067	51116	48122	47527	48980	48958	1.5	-0.7	0.3	
Wind	563	2344	9126	14628	14646	18437	26690	32.1	4.8	6.2	
Solar	17	31	1906	23409	25433	43466	47069	59.9	29.6	6.3	
Geothermal and other renewables	4706	5324	5376	6210	6210	6210	6210	1.3	1.5	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	71896	82950	104920	127454	122781	124338	119849	3.9	1.6	-0.2	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	16770	18701	26470	46375	47762	60305	65184	4.7	6.1	3.2	
Hydro (pumping excluded)	16390	17036	17563	18512	18805	18805	18805	0.7	0.7	0.0	
Wind	363	1635	5794	8958	8963	10125	12733	31.9	4.5	3.6	
Solar	17	30	3113	18905	19994	31375	33646	68.3	20.4	5.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	55126	64249	78450	81079	75019	64033	54665	3.6	-0.4	-3.1	
of which cogeneration units	6476	5888	7351	17220	16953	17373	12280	1.3	8.7	-3.2	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9518	8279	9511	9511	8858	5103	5098	0.0	-0.7	-5.4	
Gas fired	22819	36431	51677	52045	51359	46644	41126	8.5	-0.1	-2.2	
Oil fired	21763	17998	14748	13928	8629	5987	2173	-3.8	-5.2	-12.9	
Biomass-waste fired	436	870	1774	4810	5388	5514	5484	15.1	11.7	0.2	
Hydrogen plants	0	0	12	12	12	12	12	0.0	0.0	0.0	
Geothermal heat	590	671	728	773	773	773	773	2.1	0.6	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	40.8	39.1	31.3	24.8	28.4	27.8	25.8				
Efficiency of gross thermal power generation (%)	39.4	37.7	37.7	45.5	45.6	46.0	46.2				
% of gross electricity from CHP	8.3	9.0	11.5	15.3	15.4	10.9	10.6				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	19.0	16.8	26.5	38.4	36.2	46.9	57.2				
Fuel Inputs to Thermal Power Generation (ktoe)	49150	58911	53964	38349	43445	37841	29055	0.9	-2.1	-3.9	
Solids	6045	10399	9484	12963	14712	8782	4548	4.6	4.5	-11.1	
Oil (including refinery gas)	18954	12079	7365	1905	1675	1530	845	-9.0	-13.8	-6.6	
Gas (including derived gases)	19668	29585	28966	18745	21788	20176	16417	3.9	-2.8	-2.8	
Biomass & Waste	438	2270	3527	3795	4330	6412	6305	23.2	2.1	3.8	
Geothermal heat	4046	4578	4623	941	941	941	941	1.3	-14.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	101609	106909	97409	78677	74317	66626	58162	-0.4	-2.7	-2.4	
Refineries	95900	101959	91472	74873	68918	61673	53863	-0.5	-2.8	-2.4	
Biofuels and hydrogen production	0	177	1419	1593	2218	1934	1813	0.0	4.6	-2.0	
District heating	0	0	110	121	123	121	101	0.0	1.1	-2.0	
Derived gases, cokeries etc.	5709	4773	4408	2090	3058	2897	2386	-2.6	-3.6	-2.5	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)									Italy: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030		'00-'10	'10-'20	'20-'30
TRANSPORT									Annual % Change		
Passenger transport activity (Gpkm)	943	931	952	967	1020	1031	1068		0.1	0.7	0.5
Public road transport	93	101	102	105	107	108	109		0.9	0.5	0.2
Private cars and motorcycles	756	727	740	746	781	778	801		-0.2	0.5	0.2
Rail	55	56	54	55	63	70	77		-0.2	1.5	2.1
Aviation ⁽¹⁾	34	43	51	56	63	70	75		4.3	2.2	1.7
Inland navigation	5	5	5	5	5	5	6		-0.3	0.5	1.2
Freight transport activity (Gtkm)	253	303	268	271	290	300	319		0.6	0.8	1.0
Heavy goods and light commercial vehicles	192	226	202	203	217	221	235		0.5	0.7	0.8
Rail	23	23	19	20	22	24	26		-2.0	1.7	1.6
Inland navigation	38	54	48	48	51	55	58		2.4	0.5	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	42174	44377	41220	39856	38989	36095	34720		-0.2	-0.6	-1.2
Public road transport	1061	1231	1245	1278	1308	1288	1272		1.6	0.5	-0.3
Private cars and motorcycles	27882	27505	25835	24747	23387	20549	19116		-0.8	-1.0	-2.0
Heavy goods and light commercial vehicles	7944	10062	8686	8259	8425	8168	8208		0.9	-0.3	-0.3
Rail	526	492	463	487	522	564	589		-1.3	1.2	1.2
Aviation	3491	3700	3863	4073	4282	4382	4344		1.0	1.0	0.1
Inland navigation	1269	1387	1128	1012	1065	1144	1189		-1.2	-0.6	1.1
<i>By transport activity</i>											
Passenger transport	33399	32865	31375	30531	29435	26714	25251		-0.6	-0.6	-1.5
Freight transport	8775	11512	9844	9324	9555	9381	9468		1.2	-0.3	-0.1
<i>Other indicators</i>											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.6				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	3.5	4.1	5.8	5.7	5.5				
ENERGY EFFICIENCY											
Primary energy consumption	165200	178864	165201	151985	154010	142700	118240		0.0	-0.7	-2.6
Final Energy Demand	125579	134544	124781	122385	122450	115575	96551		-0.1	-0.2	-2.3
<i>by sector</i>											
Industry	40502	39858	30905	27952	28631	27239	23666		-2.7	-0.8	-1.9
Energy intensive industries	25289	25477	19382	16985	17642	16856	14207		-2.6	-0.9	-2.1
Other industrial sectors	15214	14382	11523	10966	10990	10383	9459		-2.7	-0.5	-1.5
Residential	27656	31313	31959	34859	34801	33139	24275		1.5	0.9	-3.5
Tertiary	14901	18537	20182	19017	19285	18341	13135		3.1	-0.5	-3.8
Transport ⁽⁵⁾	42519	44836	41734	40557	39733	36856	35476		-0.2	-0.5	-1.1
<i>by fuel</i>											
Solids	3586	3980	2910	2094	2644	2236	1256		-2.1	-1.0	-7.2
Oil	57249	59005	48733	45659	41835	36392	30957		-1.6	-1.5	-3.0
Gas	38022	40609	38499	36390	37264	36933	29218		0.1	-0.3	-2.4
Electricity	23472	25871	25736	25288	26291	26277	23733		0.9	0.2	-1.0
Heat (from CHP and District Heating)	1449	3082	3332	3592	3780	3845	3101		8.7	1.3	-2.0
Renewable energy forms	1802	1997	5570	9356	10618	9800	8105		11.9	6.7	-2.7
Other	0	0	0	6	17	91	182		0.0	0.0	26.5
Energy intensity indicators											
Gross Int. Cons./GDP (toe/ME13)	111	114	108	102	96	85	67		-0.3	-1.1	-3.6
Industry (Energy on Value added, index 2000=100)	100	100	83	79	77	71	60		-1.8	-0.7	-2.5
Residential (Energy on Private Income, index 2000=100)	100	109	110	123	114	102	70		0.9	0.4	-4.7
Tertiary (Energy on Value added, index 2000=100)	100	117	126	121	114	102	68		2.3	-1.0	-5.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	33	33	30	29	26	23	21		-1.0	-1.5	-2.1
Freight transport (toe/Mtkm)	35	38	37	34	33	31	30		0.6	-1.1	-1.0
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	558.5	592.5	509.9	457.0	458.9	401.5	327.9		-0.9	-1.0	-3.3
of which ETS sectors (2013 scope) GHG emissions	261.5	213.8	172.1	188.5	154.4	118.7			-1.3	-4.5	
of which ESD sectors (2013 scope) GHG emissions	331.0	296.1	284.8	270.4	247.1	209.2			-0.9	-2.5	
CO₂ Emissions (energy related)	432.5	470.4	404.2	354.7	361.5	310.4	242.1		-0.7	-1.1	-3.9
Power generation/District heating	137.1	158.5	135.9	106.9	122.2	92.0	64.1		-0.1	-1.1	-6.2
Energy Branch	15.9	18.4	16.4	14.1	12.9	11.2	9.9		0.4	-2.4	-2.6
Industry	78.0	72.5	49.5	42.3	42.7	38.0	28.5		-4.5	-1.5	-4.0
Residential	53.4	59.9	53.6	51.4	49.7	46.9	30.8		0.0	-0.8	-4.7
Tertiary	24.4	29.3	30.2	26.0	25.4	23.3	15.8		2.2	-1.7	-4.7
Transport	123.7	131.8	118.6	114.0	108.7	99.0	93.0		-0.4	-0.9	-1.5
CO₂ Emissions (non energy and non land use related)	28.6	30.8	24.1	21.1	21.8	21.8	21.7		-1.7	-1.0	-0.1
Non-CO2 GHG emissions	97.3	91.3	81.6	81.2	75.5	69.2	64.1		-1.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	106.3	112.8	97.1	87.0	87.4	76.4	62.4		-0.9	-1.0	-3.3
Carbon Intensity indicators											
Electricity and Steam production (t of CO ₂ /MWh)	0.47	0.45	0.38	0.31	0.32	0.25	0.19		-2.0	-1.7	-4.9
Final energy demand (t of CO ₂ /toe)	2.23	2.18	2.02	1.91	1.85	1.79	1.74		-1.0	-0.9	-0.6
Industry	1.93	1.82	1.60	1.51	1.49	1.40	1.20		-1.8	-0.7	-2.1
Residential	1.93	1.91	1.68	1.48	1.43	1.41	1.27		-1.4	-1.6	-1.2
Tertiary	1.64	1.58	1.50	1.37	1.32	1.27	1.20		-0.9	-1.3	-0.9
Transport	2.91	2.94	2.84	2.81	2.73	2.69	2.62		-0.2	-0.4	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	5.8	10.5	18.2	19.8	24.8	31.2				
RES-H&C share	2.9	4.6	10.4	20.1	22.3	27.3	37.5				
RES-E share	15.7	16.3	20.1	33.6	32.5	42.0	50.6				
RES-T share (based on ILUC formula)	0.6	1.1	5.0	7.1	10.7	13.5	18.3				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	66	77	90	86	92	96	98		3.2	0.2	0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	140	130	153	152	156	164	171		0.9	0.2	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	134.7	151.9	164.9	170.7	190.4	204.2	243.9		2.0	1.4	2.5
as % of GDP	8.6	9.2	10.2	10.9	11.4	11.5	12.9				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Latvia: EU CO ₂ 35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	2	2	2	2	2	2	2	-1.2	-1.0	-1.4
GDP (in 000 M€13)	13	20	19	23	27	29	31	3.6	3.5	1.7
Gross Inland Consumption (ktoe)	3864	4592	4629	4341	4528	4589	3878	1.8	-0.2	-1.5
Solids	132	82	109	84	72	51	27	-1.9	-4.1	-9.3
Oil	1295	1487	1521	1464	1433	1366	1226	1.6	-0.6	-1.5
Natural gas	1092	1358	1462	867	917	1131	647	3.0	-4.6	-3.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6
Renewable energy forms	1191	1481	1463	1758	1962	1967	1809	2.1	3.0	-0.8
Energy Branch Consumption	39	42	48	33	36	40	27	2.1	-2.9	-2.7
Non-Energy Uses	75	97	73	105	127	138	144	-0.3	5.7	1.3
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	1411	1868	1979	2228	2490	2467	2241	3.4	2.3	-1.0
Solids	16	3	2	1	0	0	0	-17.4	-100.0	0.0
Oil	2	7	2	0	0	0	0	1.1	-100.0	0.0
Natural gas	0	0	0	0	0	0	0	2.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1393	1858	1975	2228	2490	2467	2241	3.6	2.3	-1.0
Hydro	242	286	303	248	272	272	272	2.2	-1.1	0.0
Biomass & Waste	1150	1568	1668	1972	2163	2138	1862	3.8	2.6	-1.5
Wind	0	4	4	8	54	55	105	30.2	29.1	6.9
Solar and others	0	0	0	0	1	2	2	0.0	0.0	6.6
Geothermal	0	0	0	0	0	0	0	0.0	0.0	12.5
Net Imports (ktoe)	2361	3097	2220	2456	2398	2491	2014	-0.6	0.8	-1.7
Solids	61	77	112	84	72	51	27	6.3	-4.3	-9.3
Oil	1235	1783	1671	1807	1788	1723	1574	3.1	0.7	-1.3
Crude oil and Feedstocks	87	4	2	0	0	0	0	-31.8	-100.0	0.0
Oil products	1148	1779	1669	1807	1788	1723	1574	3.8	0.7	-1.3
Natural gas	1113	1434	903	867	923	1142	677	-2.1	0.2	-3.0
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6
Import Dependency (%)	61.0	63.9	45.5	52.4	49.1	50.2	47.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	4136	4906	6627	5587	6675	8076	6552	4.8	0.1	-0.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	78	0	2	78	108	111	71	-30.7	49.0	-4.1
Oil (including refinery gas)	107	6	2	0	0	0	0	-32.8	-100.0	0.0
Gas (including derived gases)	1128	1486	2988	2023	2116	3389	1217	10.2	-3.4	-5.4
Biomass-waste	0	41	66	511	662	774	881	0.0	25.9	2.9
Hydro (pumping excluded)	2819	3326	3520	2878	3160	3160	3160	2.2	-1.1	0.0
Wind	4	47	49	95	628	640	1221	28.5	29.1	6.9
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2089	2162	2546	2837	3101	3105	3347	2.0	2.0	0.8
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	1515	1562	1606	1652	1872	1873	2096	0.6	1.5	1.1
Hydro (pumping excluded)	1513	1536	1576	1589	1589	1589	1589	0.4	0.1	0.0
Wind	2	26	30	62	281	283	505	31.1	25.1	6.0
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	574	600	940	1185	1229	1231	1251	5.1	2.7	0.2
of which cogeneration units	254	586	870	1026	1028	1038	1099	13.1	1.7	0.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	23	2	21	21	21	21	21	-0.9	0.0	0.0
Gas fired	522	572	893	1098	1098	1089	1089	5.5	2.1	-0.1
Oil fired	27	15	15	15	15	15	15	-5.4	0.0	0.0
Biomass-waste fired	2	10	10	50	95	105	125	17.8	24.9	2.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.2	23.3	27.2	20.9	23.0	28.0	21.3			
Efficiency of gross thermal power generation (%)	20.7	21.9	32.3	45.9	45.5	46.1	35.9			
% of gross electricity from CHP	31.4	30.7	45.0	38.6	33.8	45.5	24.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.3	69.6	54.9	62.4	66.7	56.7	80.3			
Fuel Inputs to Thermal Power Generation (ktoe)	545	602	815	490	545	798	520	4.1	-3.9	-0.5
Solids	53	1	9	13	17	18	11	-15.9	6.4	-4.3
Oil (including refinery gas)	84	19	10	0	0	0	0	-19.3	-100.0	0.0
Gas (including derived gases)	408	562	767	360	384	587	282	6.5	-6.7	-3.0
Biomass & Waste	0	22	29	117	144	193	227	0.0	17.4	4.6
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	570	479	383	344	426	399	309	-3.9	1.1	-3.2
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	3	27	37	89	72	66	0.0	12.6	-2.9
District heating	569	476	356	307	337	325	240	-4.6	-0.5	-3.4
Derived gases, cokeries etc.	1	0	0	0	0	2	4	-95.3	1788.1	28.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Latvia: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	15	17	18	18	20	21	22	1.5	1.0	1.1
Public road transport	2	3	2	2	2	3	3	-0.2	0.7	0.3
Private cars and motorcycles	12	12	13	13	14	14	14	0.8	0.7	0.5
Rail	1	1	1	1	1	1	1	-1.2	1.8	3.1
Aviation ⁽³⁾	0	1	2	2	2	3	4	20.4	2.2	3.6
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	15	24	21	24	26	30	33	3.1	2.2	2.4
Heavy goods and light commercial vehicles	2	4	4	4	5	5	5	5.8	2.2	1.4
Rail	13	20	17	20	21	24	27	2.6	2.2	2.6
Inland navigation	0	0	0	0	0	0	0	179.2	1.5	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	746	1064	1200	1158	1194	1168	1119	4.9	-0.1	-0.6
Public road transport	51	67	68	65	66	67	67	2.9	-0.3	0.1
Private cars and motorcycles	502	603	673	613	590	518	456	3.0	-1.3	-2.5
Heavy goods and light commercial vehicles	89	242	260	255	292	309	306	11.2	1.2	0.5
Rail	76	94	76	87	91	101	110	0.1	1.8	2.0
Aviation	27	59	118	132	148	166	172	15.9	2.3	1.5
Inland navigation	0	0	5	6	7	8	8	0.0	3.5	1.1
By transport activity										
Passenger transport	582	729	861	811	805	751	696	4.0	-0.7	-1.4
Freight transport	163	335	340	347	389	417	423	7.6	1.4	0.9
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.3	2.3	3.3	7.6	6.5	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	3789	4495	4556	4237	4401	4451	3733	1.9	-0.3	-1.6
Final Energy Demand	3254	4018	4120	4104	4247	4148	3489	2.4	0.3	-1.9
by sector										
Industry	576	699	774	912	991	1016	908	3.0	2.5	-0.9
Energy intensive industries	229	282	305	277	305	303	257	2.9	0.0	-1.7
Other industrial sectors	348	417	469	635	686	713	650	3.0	3.9	-0.5
Residential	1327	1504	1389	1286	1298	1237	915	0.5	-0.7	-3.4
Tertiary	602	749	756	744	761	724	545	2.3	0.1	-3.3
Transport ⁽⁵⁾	749	1067	1201	1162	1197	1172	1122	4.8	0.0	-0.6
by fuel										
Solids	62	74	94	70	54	33	16	4.2	-5.4	-11.5
Oil	1056	1323	1446	1355	1306	1227	1082	3.2	-1.0	-1.9
Gas	329	508	498	391	437	451	362	4.2	-1.3	-1.9
Electricity	385	493	534	568	621	662	641	3.3	1.5	0.3
Heat (from CHP and District Heating)	598	603	575	524	570	550	406	-0.4	-0.1	-3.3
Renewable energy forms	824	1018	973	1194	1259	1223	975	1.7	2.6	-2.5
Other	0	0	0	0	0	3	7	0.0	0.0	35.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	293	235	246	189	171	157	124	-1.8	-3.6	-3.2
Industry (Energy on Value added, index 2000=100)	100	87	102	98	93	87	73	0.2	-1.0	-2.3
Residential (Energy on Private Income, index 2000=100)	100	74	67	51	45	38	26	-4.0	-3.9	-5.1
Tertiary (Energy on Value added, index 2000=100)	100	83	82	67	59	51	35	-2.0	-3.2	-5.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	37	41	44	41	37	32	28	1.7	-1.8	-2.8
Freight transport (toe/Mtkm)	11	14	16	14	15	14	13	4.4	-0.8	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.5	11.3	12.3	10.6	10.1	10.2	8.5	1.6	-1.9	-1.8
of which ETS sectors (2013 scope) GHG emissions		3.1	3.6	2.4	2.5	3.0	1.9		-3.7	-2.4
of which ESD sectors (2013 scope) GHG emissions		8.2	8.7	8.3	7.6	7.2	6.5		-1.3	-1.6
CO2 Emissions (energy related)	6.8	7.7	8.3	6.5	6.4	6.6	4.9	2.0	-2.6	-2.6
Power generation/District heating	2.6	2.2	2.4	1.2	1.2	1.7	0.7	-0.9	-6.7	-5.0
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.0	1.1	1.0	0.8	0.8	0.7	0.5	0.0	-2.9	-4.3
Residential	0.3	0.4	0.6	0.4	0.4	0.4	0.3	6.5	-2.1	-5.0
Tertiary	0.7	0.8	0.8	0.7	0.7	0.6	0.4	2.1	-1.8	-4.8
Transport	2.2	3.2	3.5	3.4	3.3	3.2	3.0	4.9	-0.6	-0.9
CO2 Emissions (non energy and non land use related)	0.2	0.2	0.5	0.7	0.7	0.7	0.7	10.4	2.8	0.0
Non-CO2 GHG emissions	3.5	3.3	3.4	3.4	3.0	2.9	2.8	-0.1	-1.3	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	39.5	42.5	46.3	40.0	38.1	38.4	31.9	1.6	-1.9	-1.8
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.21	0.17	0.16	0.09	0.08	0.11	0.06	-2.2	-6.5	-3.3
Final energy demand (t of CO2/toe)	1.29	1.37	1.45	1.30	1.23	1.19	1.21	1.1	-1.6	-0.2
Industry	1.80	1.55	1.34	0.85	0.78	0.71	0.55	-2.9	-5.3	-3.4
Residential	0.22	0.29	0.40	0.35	0.34	0.31	0.29	6.0	-1.5	-1.6
Tertiary	1.14	1.10	1.12	0.98	0.92	0.82	0.79	-0.2	-1.9	-1.6
Transport	2.93	2.97	2.93	2.90	2.76	2.76	2.69	0.0	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	33.5	32.4	30.5	37.5	40.4	41.9	46.0			
RES-H&C share	40.1	43.0	40.9	51.2	51.9	55.3	62.2			
RES-E share	52.7	43.0	42.1	46.2	53.3	51.1	61.9			
RES-T share (based on ILUC formula)	2.1	1.5	3.5	5.2	10.2	12.2	18.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	107	86	93	77	84	90	110	-1.4	-0.9	2.7
Average Price of Electricity in Final demand sectors (€13/MWh)	57	66	107	102	114	122	132	6.5	0.7	1.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.0	3.4	5.1	4.4	5.1	5.9	7.5	10.0	0.1	3.8
as % of GDP	14.8	17.3	27.0	19.0	19.4	20.1	23.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Lithuania: EU/CO ₂ -35			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	4	3	3	3	3	3	2	-1.1	-1.0	-1.8
GDP (in 000 M€13)	19	27	29	35	40	42	43	4.4	3.3	0.7
Gross Inland Consumption (ktoe)	7063	8711	6787	6651	6567	6357	6460	-0.4	-0.3	-0.2
Solids	91	185	213	254	197	136	81	8.8	-0.8	-8.5
Oil	2125	2710	2502	2432	2367	2235	1945	1.6	-0.6	-1.9
Natural gas	2064	2477	2492	2122	2090	2307	1438	1.9	-1.7	-3.7
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Renewable energy forms	675	881	1065	1249	1347	1285	1100	4.7	2.4	-2.0
Energy Branch Consumption	610	853	743	680	612	599	570	2.0	-1.9	-0.7
Non-Energy Uses	662	804	714	717	793	785	756	0.8	1.1	-0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3269	3900	1318	1358	1477	1409	3240	-8.7	1.1	8.2
Solids	12	20	9	19	7	8	8	-3.0	-2.1	1.2
Oil	352	267	125	77	77	73	68	-9.9	-4.7	-1.2
Natural gas	0	0	0	0	0	0	0	4.2	-100.0	0.0
Nuclear	2223	2713	0	0	0	0	2010	-100.0	0.0	0.0
Renewable energy sources	682	900	1185	1262	1393	1329	1154	5.7	1.6	-1.9
Hydro	29	39	46	38	38	38	38	4.7	-2.0	0.0
Biomass & Waste	653	858	1114	1158	1282	1107	909	5.5	1.4	-3.4
Wind	0	0	19	60	60	161	161	0.0	12.0	10.4
Solar and others	0	0	0	5	8	7	11	0.0	0.0	3.7
Geothermal	0	3	5	1	6	15	35	0.0	3.1	19.2
Net Imports (ktoe)	4247	5026	5668	5454	5255	5117	3390	2.9	-0.8	-4.3
Solids	80	174	196	235	190	129	73	9.4	-0.3	-9.1
Oil	2223	2622	2607	2516	2451	2324	2034	1.6	-0.6	-1.8
Crude oil and Feedstocks	4760	9029	9339	9639	9123	8568	7892	7.0	-0.2	-1.4
Oil products	-2537	-6408	-6732	-7123	-6672	-6244	-5858	10.3	-0.1	-1.3
Natural gas	2065	2493	2485	2122	2093	2315	1451	1.9	-1.7	-3.6
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Import Dependency (%)	59.4	56.8	81.8	80.1	78.1	78.4	51.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	11121	14415	4994	5066	6007	8389	13158	-7.7	1.9	8.2
Nuclear energy	8419	10337	0	0	0	0	9377	-100.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	655	401	647	182	0	0	0	-0.1	-100.0	0.0
Gas (including derived gases)	1707	3217	3436	3028	4083	5382	883	7.2	1.7	-14.2
Biomass-waste	0	7	147	657	725	634	525	0.0	17.3	-3.2
Hydro (pumping excluded)	340	451	540	440	440	440	440	4.7	-2.0	0.0
Wind	0	2	224	695	695	1869	1869	0.0	12.0	10.4
Solar	0	0	0	64	64	64	64	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	5539	4135	2878	3443	2423	2883	3782	-6.3	-1.7	4.6
Nuclear energy	2880	1440	0	0	0	0	1117	-100.0	0.0	0.0
Renewable energy	103	118	249	614	614	1225	1225	9.2	9.4	7.1
Hydro (pumping excluded)	103	117	116	116	116	116	116	1.2	0.0	0.0
Wind	0	1	133	424	424	1035	1035	0.0	12.3	9.3
Solar	0	0	0	74	74	74	74	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2556	2577	2629	2829	1809	1659	1441	0.3	-3.7	-2.3
of which cogeneration units	650	1038	1100	1799	577	1076	877	5.4	-6.2	4.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	3	3	0	0	0	0	0	-100.0	0.0	0.0
Gas fired	1736	1781	1822	1992	1520	1520	1349	0.5	-1.8	-1.2
Oil fired	817	793	770	770	200	48	0	-0.6	-12.6	-55.4
Biomass-waste fired	0	0	37	67	90	91	92	0.0	9.3	0.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.1	36.5	18.3	15.0	26.5	31.4	37.7			
Efficiency of gross thermal power generation (%)	22.0	25.1	28.4	36.6	47.4	46.4	24.3			
% of gross electricity from CHP	15.5	15.5	34.6	45.5	49.8	42.1	7.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	78.8	74.9	18.2	36.6	32.0	35.9	93.3			
Fuel Inputs to Thermal Power Generation (ktoe)	924	1240	1282	909	871	1115	498	3.3	-3.8	-5.4
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil (including refinery gas)	200	178	100	49	0	0	0	-6.7	-100.0	0.0
Gas (including derived gases)	723	1057	1117	725	709	940	332	4.4	-4.4	-7.3
Biomass & Waste	1	5	65	135	163	175	167	59.7	9.7	0.2
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	7911	12651	9987	10232	9878	9329	10509	2.4	-0.1	0.6
Refineries	5032	9415	9446	9704	9277	8800	8128	6.5	-0.2	-1.3
Biofuels and hydrogen production	0	3	45	59	113	99	91	0.0	9.7	-2.1
District heating	656	520	496	468	488	429	278	-2.7	-0.2	-5.5
Derived gases, cokeries etc.	2223	2713	0	0	0	1	2012	0.0	0.0	154.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Lithuania: EU CO ₂ +35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	30	40	38	39	41	43	44	2.3	1.0	0.6
Public road transport	3	4	3	3	3	3	3	-0.2	0.6	0.2
Private cars and motorcycles	26	35	33	34	36	37	38	2.4	0.8	0.5
Rail	1	0	0	0	1	1	1	-4.8	3.4	1.7
Aviation ⁽⁵⁾	0	1	1	2	2	2	2	14.6	4.2	2.4
Inland navigation	0	0	0	0	0	0	0	0.4	1.4	0.8
Freight transport activity (Gtkm)	11	17	19	20	24	26	27	5.3	2.6	1.3
Heavy goods and light commercial vehicles	2	4	5	6	7	7	7	9.1	2.8	0.3
Rail	9	12	13	14	17	19	20	4.2	2.5	1.6
Inland navigation	0	0	0	0	0	0	0	0.4	1.7	0.6
Energy demand in transport (ktoe) ⁽⁴⁾	1054	1413	1521	1582	1630	1553	1446	3.7	0.7	-1.2
Public road transport	40	51	40	41	41	41	39	0.0	0.3	-0.4
Private cars and motorcycles	705	845	919	881	871	793	707	2.7	-0.5	-2.1
Heavy goods and light commercial vehicles	204	387	443	517	555	547	534	8.1	2.3	-0.4
Rail	76	79	65	67	78	81	80	-1.5	1.8	0.3
Aviation	27	46	49	69	79	85	78	6.1	4.9	-0.1
Inland navigation	3	5	6	6	7	7	7	7.2	1.3	0.5
By transport activity										
Passenger transport	777	947	1013	998	998	926	832	2.7	-0.2	-1.8
Freight transport	277	466	508	584	632	627	615	6.2	2.2	-0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.3			
Biofuels in total fuels (excl. hydrogen and electricity) (%)	0.0	0.2	3.0	3.8	7.0	6.5	6.5			
ENERGY EFFICIENCY										
Primary energy consumption	6401	7907	6073	5934	5775	5572	5704	-0.5	-0.5	-0.1
Final Energy Demand	3767	4601	4763	4996	5041	4728	3786	2.4	0.6	-2.8
by sector										
Industry	780	987	898	1172	1193	1200	958	1.4	2.9	-2.2
Energy intensive industries	363	436	486	689	695	697	547	3.0	3.6	-2.4
Other industrial sectors	416	551	412	483	498	503	412	-0.1	1.9	-1.9
Residential	1368	1509	1599	1498	1435	1281	894	1.6	-1.1	-4.6
Tertiary	563	672	720	718	757	668	467	2.5	0.5	-4.7
Transport ⁽⁵⁾	1057	1433	1546	1608	1656	1578	1467	3.9	0.7	-1.2
by fuel										
Solids	82	177	208	238	180	118	62	9.8	-1.4	-10.2
Oil	1356	1616	1613	1664	1692	1575	1380	1.7	0.5	-2.0
Gas	363	519	567	649	607	597	419	4.6	0.7	-3.6
Electricity	533	686	717	832	895	904	808	3.0	2.2	-1.0
Heat (from CHP and District Heating)	827	905	922	870	911	866	584	1.1	-0.1	-4.4
Renewable energy forms	605	698	738	743	755	667	531	2.0	0.2	-3.5
Other	0	0	0	0	0	1	3	0.0	0.0	32.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	374	317	234	191	164	150	151	-4.6	-3.5	-0.8
Industry (Energy on Value added, Index 2000=100)	100	80	66	74	69	67	53	-4.1	0.5	-2.6
Residential (Energy on Private Income, Index 2000=100)	100	72	76	59	50	41	28	-2.7	-4.2	-5.4
Tertiary (Energy on Value added, Index 2000=100)	100	88	87	72	65	54	37	-1.3	-2.9	-5.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	26	23	27	25	24	21	18	0.3	-1.2	-2.4
Freight transport (toe/Mtkm)	25	27	27	29	26	24	23	0.9	-0.3	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO ₂ eq.)	19.8	24.8	23.0	21.3	19.5	19.1	15.7	1.5	-1.6	-2.1
of which ETS sectors (2013 scope) GHG emissions		11.7	9.4	7.8	7.0	7.5	5.1		-2.9	-3.0
of which ESD sectors (2013 scope) GHG emissions			13.2	13.6	13.4	12.5	11.6	10.5		-0.8
CO ₂ Emissions (energy related)	10.3	12.4	12.3	11.4	10.7	10.6	7.5	1.8	-1.4	-3.5
Power generation/District heating	4.0	4.0	3.7	2.4	2.1	2.7	1.0	-0.8	-5.5	-7.2
Energy Branch	1.1	1.7	1.6	1.5	1.4	1.3	1.1	3.8	-1.4	-2.1
Industry	1.1	1.3	1.2	1.5	1.5	1.4	0.9	0.7	2.4	-5.2
Residential	0.5	0.6	0.8	0.8	0.6	0.4	0.3	3.7	-2.6	-7.6
Tertiary	0.5	0.6	0.6	0.6	0.6	0.4	0.3	2.2	-0.6	-8.0
Transport	3.1	4.2	4.5	4.6	4.6	4.4	4.0	3.7	0.2	-1.4
CO ₂ Emissions (non energy and non land use related)	1.5	3.1	2.8	2.3	2.4	2.4	2.2	6.0	-1.4	-0.7
Non-CO ₂ GHG emissions	8.0	9.3	7.9	7.6	6.4	6.2	6.0	0.0	-2.1	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	41.1	51.5	47.7	44.1	40.4	39.6	32.5	1.5	-1.6	-2.1
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.14	0.21	0.14	0.12	0.14	0.05	2.3	-5.6	-8.5
Final energy demand (t of CO ₂ /toe)	1.39	1.47	1.48	1.50	1.43	1.40	1.42	0.6	-0.3	-0.1
Industry	1.38	1.35	1.29	1.31	1.22	1.19	0.89	-0.7	-0.5	-3.1
Residential	0.40	0.43	0.50	0.51	0.42	0.33	0.31	2.1	-1.6	-3.1
Tertiary	0.88	0.84	0.86	0.82	0.76	0.62	0.54	-0.3	-1.1	-3.4
Transport	2.94	2.94	2.89	2.87	2.76	2.76	2.72	-0.2	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	15.7	17.0	19.7	22.8	24.2	24.5	25.8			
RES-H&C share	26.1	30.4	33.2	36.7	38.4	36.3	42.5			
RES-E share	4.0	3.8	7.4	15.6	15.4	23.5	24.8			
RES-T share (based on ILUC formula)	0.1	0.3	3.5	4.7	10.2	10.8	11.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	57	174	124	108	105	111	8.7	-4.6	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	64	73	112	104	118	132	159	5.7	0.5	3.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.7	4.0	5.6	5.9	7.1	8.0	9.2	7.6	2.5	2.6
as % of GDP	14.2	14.4	19.3	16.8	17.9	18.8	21.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Luxembourg: EU CO ₂ 35				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	0	0	1	1	1	1	1	1.5	2.5	2.2	
GDP (in 000 M€13)	32	38	41	45	52	60	68	2.6	2.3	2.8	
Gross Inland Consumption (ktoe)	3654	4800	4642	4616	4727	4689	4402	2.4	0.2	-0.7	
Solids	108	77	66	51	44	32	17	-4.8	-4.0	-9.4	
Oil	2320	3160	2869	2908	2862	2712	2694	2.2	0.0	-0.6	
Natural gas	671	1176	1197	1031	1045	1149	859	6.0	-1.3	-1.9	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Renewable energy forms	64	106	160	245	391	409	412	9.6	9.4	0.5	
Energy Branch Consumption	26	30	50	51	55	61	65	6.9	1.0	1.7	
Non-Energy Uses	55	29	33	39	42	43	46	-5.1	2.5	0.9	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	64	111	122	148	265	291	288	6.7	8.1	0.8	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil	0	0	0	0	0	0	0	11.5	-100.0	0.0	
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	64	111	122	148	265	291	288	6.7	8.1	0.8	
Hydro	11	8	9	9	9	10	11	-1.4	0.2	1.8	
Biomass & Waste	51	97	105	119	186	203	171	7.5	5.9	-0.8	
Wind	2	5	5	7	43	42	48	7.4	24.8	1.1	
Solar and others	0	2	3	13	27	36	57	0.0	25.2	8.0	
Geothermal	0	0	0	0	0	0	0	0.0	0.0	15.6	
Net Imports (ktoe)	3639	4671	4503	4468	4462	4398	4113	2.2	-0.1	-0.8	
Solids	108	77	66	51	44	32	17	-4.8	-4.0	-9.4	
Oil	2368	3141	2852	2908	2862	2712	2694	1.9	0.0	-0.6	
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil products	2368	3141	2852	2908	2862	2712	2694	1.9	0.0	-0.6	
Natural gas	671	1176	1197	1031	1045	1149	859	6.0	-1.3	-1.9	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Import Dependency (%)	99.6	97.3	97.0	96.8	94.4	93.8	93.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	422	3348	3230	2762	3281	4008	3645	22.6	0.2	1.1	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	0	1	1	0	3	3	3	0.0	11.2	0.0	
Gas (including derived gases)	215	3107	2916	2304	2370	3070	2431	29.8	-2.1	0.3	
Biomass-waste	56	76	129	158	175	210	197	8.7	3.1	1.2	
Hydro (pumping excluded)	124	94	108	110	110	114	132	-1.4	0.2	1.8	
Wind	27	52	55	78	501	491	560	7.4	24.7	1.1	
Solar	0	17	21	112	121	121	322	0.0	19.2	10.2	
Geothermal and other renewables	0	1	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	163	574	597	702	971	949	1206	13.8	5.0	2.2	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	47	93	107	212	467	454	726	8.6	15.9	4.5	
Hydro (pumping excluded)	33	34	34	34	34	35	41	0.3	0.0	1.8	
Wind	14	35	44	58	302	288	323	12.1	21.2	0.7	
Solar	0	24	29	120	131	131	362	0.0	16.2	10.7	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	116	481	490	490	504	496	481	15.5	0.3	-0.5	
of which cogeneration units	63	101	121	229	181	123	120	6.7	4.1	-4.1	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0	
Gas fired	103	468	469	469	469	457	442	16.4	0.0	-0.6	
Oil fired	5	5	4	1	2	2	2	-2.3	-7.8	0.0	
Biomass-waste fired	9	9	17	20	34	37	37	7.1	7.1	0.8	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.9	66.2	61.4	44.1	38.0	47.5	34.0				
Efficiency of gross thermal power generation (%)	24.3	47.5	47.4	50.5	50.0	48.4	48.8				
% of gross electricity from CHP	17.7	10.1	9.6	23.3	15.9	7.5	5.9				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	49.1	7.2	9.7	16.6	27.7	23.3	33.2				
Fuel Inputs to Thermal Power Generation (ktoe)	96	576	553	419	438	583	463	19.1	-2.3	0.6	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	1	0	0	0	0	0	0	-100.0	0.0	0.0	
Gas (including derived gases)	66	544	520	383	393	526	408	22.8	-2.8	0.4	
Biomass & Waste	29	32	33	36	46	57	55	1.5	3.2	2.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1	3	46	113	153	148	164	57.2	12.7	0.7	
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biofuels and hydrogen production	0	1	42	108	147	141	159	0.0	13.4	0.8	
District heating	1	2	4	5	5	5	4	23.1	2.3	-2.5	
Derived gases, cokeries etc.	0	0	0	0	0	2	2	0.0	0.0	18.4	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Luxembourg: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	7	8	9	9	10	12	13	1.6	2.0	2.2
Public road transport	1	1	1	1	1	1	1	4.2	1.7	1.3
Private cars and motorcycles	6	6	7	7	8	9	10	1.5	2.0	2.2
Rail	0	0	0	0	0	1	1	0.4	3.1	3.0
Aviation ⁽³⁾	1	1	1	1	1	1	1	-0.5	2.4	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	3	3	3	3	4	4	5	0.8	3.6	1.7
Heavy goods and light commercial vehicles	2	2	2	3	3	4	4	2.8	4.1	1.6
Rail	1	0	0	0	0	0	1	-6.5	2.0	3.2
Inland navigation	0	0	0	0	0	0	0	-0.5	0.9	1.8
Energy demand in transport (ktoe) ⁽⁴⁾	1914	2781	2604	2697	2760	2652	2737	3.1	0.6	-0.1
Public road transport	60	92	106	115	122	120	125	5.9	1.4	0.2
Private cars and motorcycles	1153	1521	1341	1311	1216	1086	1125	1.5	-1.0	-0.8
Heavy goods and light commercial vehicles	364	721	709	818	956	942	944	6.9	3.0	-0.1
Rail	12	11	13	14	16	18	20	0.8	1.9	2.3
Aviation	321	432	431	435	446	482	520	3.0	0.3	1.5
Inland navigation	4	3	4	3	3	3	3	-1.0	-1.8	1.6
By transport activity										
Passenger transport	1535	2046	1880	1863	1786	1691	1771	2.0	-0.5	-0.1
Freight transport	379	735	724	834	974	962	966	6.7	3.0	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.6	4.0	5.4	5.3	5.3			
ENERGY EFFICIENCY										
Primary energy consumption	3599	4771	4609	4576	4685	4646	4356	2.5	0.2	-0.7
Final Energy Demand	3505	4477	4327	4382	4469	4343	4092	2.1	0.3	-0.9
by sector										
Industry	714	754	739	585	590	560	474	0.4	-2.2	-2.2
Energy intensive industries	583	598	601	438	432	397	317	0.3	-3.2	-3.0
Other industrial sectors	130	156	139	148	158	163	157	0.6	1.3	-0.1
Residential	468	525	508	498	520	532	399	0.8	0.3	-2.6
Tertiary	409	418	477	601	600	598	481	1.5	2.3	-2.2
Transport ⁽⁵⁾	1914	2781	2604	2697	2760	2652	2737	3.1	0.6	-0.1
by fuel										
Solids	108	77	66	51	44	32	17	-4.8	-4.0	-9.4
Oil	2261	3106	2835	2869	2820	2669	2648	2.3	-0.1	-0.6
Gas	605	631	675	645	652	623	451	1.1	-0.4	-3.6
Electricity	497	529	568	557	600	656	638	1.4	0.5	0.6
Heat (from CHP and District Heating)	13	75	74	80	75	77	59	19.2	0.2	-2.4
Renewable energy forms	22	59	108	181	277	282	264	17.2	9.9	-0.5
Other	0	0	0	0	1	4	16	0.0	0.0	38.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	115	126	113	103	91	79	64	-0.1	-2.1	-3.4
Industry (Energy on Value added, index 2000=100)	100	101	133	100	92	79	60	2.9	-3.7	-4.2
Residential (Energy on Private Income, index 2000=100)	100	103	93	90	83	74	48	-0.7	-1.1	-5.3
Tertiary (Energy on Value added, index 2000=100)	100	85	86	98	84	73	51	-1.5	-0.1	-5.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	204	244	209	188	161	136	128	0.3	-2.5	-2.3
Freight transport (toe/Mtkm)	139	268	247	245	234	215	195	5.9	-0.5	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.7	14.1	13.3	12.9	12.8	12.5	11.6	2.2	-0.4	-0.9
of which ETS sectors (2013 scope) GHG emissions		4.2	3.8	3.5	3.4	3.7	3.4		-1.0	-0.2
of which ESD sectors (2013 scope) GHG emissions		9.9	9.5	9.5	9.4	8.8	8.3		-0.2	-1.2
CO ₂ Emissions (energy related)	8.9	12.6	11.8	11.4	11.3	11.0	10.2	2.9	-0.4	-1.0
Power generation/District heating	0.2	1.3	1.2	0.9	0.9	1.2	1.0	22.6	-2.8	0.4
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.2	1.1	1.0	0.8	0.8	0.6	0.4	-2.0	-2.8	-5.4
Residential	1.1	1.2	1.1	1.1	1.0	1.0	0.6	0.5	-1.1	-4.4
Tertiary	0.6	0.5	0.6	0.7	0.6	0.6	0.4	-0.6	0.6	-4.6
Transport	5.8	8.4	7.8	7.9	7.9	7.6	7.7	3.1	0.2	-0.2
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.6	0.5	0.5	0.5	0.5	-2.1	-1.1	-0.8
Non-CO2 GHG emissions	1.1	0.9	1.0	1.0	1.0	1.0	1.0	-0.9	0.1	-0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	80.3	106.5	100.3	97.4	96.3	94.0	87.6	2.2	-0.4	-0.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.30	0.30	0.25	0.22	0.25	0.22	0.7	-2.9	0.0
Final energy demand (t of CO ₂ /toe)	2.49	2.52	2.43	2.40	2.31	2.25	2.25	-0.2	-0.5	-0.3
Industry	1.71	1.47	1.36	1.39	1.28	1.14	0.91	-2.3	-0.6	-3.3
Residential	2.29	2.28	2.22	2.14	1.93	1.80	1.61	-0.3	-1.4	-1.8
Tertiary	1.59	1.25	1.28	1.23	1.08	0.97	0.84	-2.1	-1.6	-2.5
Transport	3.01	3.04	2.99	2.92	2.88	2.86	2.83	-0.1	-0.4	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.8	1.4	2.9	5.0	8.2	8.9	9.9			
RES-H&C share	1.4	3.6	4.8	6.4	12.3	15.0	18.8			
RES-E share	2.1	3.2	3.8	6.1	12.0	11.2	14.8			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	7.5	10.1	10.8	11.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	87	63	78	82	95	91	100	-1.1	2.0	0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	108	119	110	116	121	130	136	0.1	1.0	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.0	4.4	4.6	4.7	5.9	6.6	8.0	4.3	2.5	3.1
as % of GDP	9.5	11.5	11.2	10.4	11.4	11.0	11.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Malta: EU/CO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
											Annual % Change	
Population (in million)	0	0	0	0	0	0	0	0	0.9	0.6	0.4	
GDP (in 000 M€13)	6	6	7	8	8	9	10	1.8	2.1	1.9		
Gross Inland Consumption (ktoe)	802	972	908	675	746	709	628	1.3	-1.9	-1.7		
Solids	0	0	0	0	0	0	0	0.0	0.0	-13.0		
Oil	802	972	903	579	342	323	295	1.2	-9.2	-1.5		
Natural gas	0	0	0	0	339	312	256	0.0	0.0	-2.8		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Renewable energy forms	0	1	5	21	49	57	58	0.0	25.7	1.7		
Energy Branch Consumption	10	2	10	6	5	4	3	0.5	-7.2	-4.4		
Non-Energy Uses	0	20	9	11	12	12	12	0.0	3.4	-0.2		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	0	1	4	16	38	48	51	0.0	24.3	3.1		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	0	1	4	16	38	48	51	0.0	24.3	3.1		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	0	0	1	3	1	2	2	0.0	9.5	4.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar and others	0	1	4	13	36	46	49	0.0	25.6	3.1		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	0.7		
Net Imports (ktoe)	1458	1630	2362	2099	2097	2085	2048	4.9	-1.2	-0.2		
Solids	0	0	0	0	0	0	0	0.0	0.0	-13.0		
Oil	1458	1630	2361	2019	1719	1721	1651	4.9	-3.1	-0.4		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	1458	1630	2361	2019	1719	1721	1651	4.9	-3.1	-0.4		
Natural gas	0	0	0	0	350	337	373	0.0	0.0	0.6		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Import Dependency (%)	100.3	100.0	99.0	99.2	98.2	97.8	97.6					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	1917	2240	2115	1402	2491	2574	2212	1.0	1.6	-1.2		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1917	2240	2113	1293	0	0	0	1.0	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	2157	2205	1816	0.0	0.0	-1.7		
Biomass-waste	0	0	0	6	8	11	13	0.0	0.0	5.0		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	0	103	326	359	383	0.0	0.0	1.6		
Geothermal and other renewables	0	0	2	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	577	577	579	541	790	945	850	0.0	3.2	0.7		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	2	60	185	207	221	0.0	57.2	1.8		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	2	60	185	207	221	0.0	57.2	1.8		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	577	577	577	481	606	737	629	0.0	0.5	0.4		
of which cogeneration units	0	0	0	1	1	1	1	0.0	0.0	-5.8		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	242	482	482	0.0	0.0	7.1		
Oil fired	577	577	577	479	361	253	144	0.0	-4.6	-8.8		
Biomass-waste fired	0	0	0	2	2	3	3	0.0	0.0	2.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	35.6	43.8	39.3	28.2	35.2	30.6	29.2					
Efficiency of gross thermal power generation (%)	35.4	29.3	31.7	45.4	54.8	61.0	61.3					
% of gross electricity from CHP	0.0	0.0	0.0	0.4	0.3	0.3	0.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	0.1	7.7	13.4	14.4	17.9					
Fuel Inputs to Thermal Power Generation (ktoe)	465	658	573	246	340	313	257	2.1	-5.1	-2.8		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	465	658	573	245	0	0	0	2.1	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	339	311	256	0.0	0.0	-2.8		
Biomass & Waste	0	0	0	1	1	1	1	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	0	0	1	3	7	7	6	0.0	23.3	-2.8		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	1	3	7	7	5	0.0	23.3	-2.8		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	0	0.0	0.0	21.8		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Malta: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	5	5	5	6	7	7	8	1.2	2.2	1.2
Public road transport	0	0	1	1	1	1	1	0.8	0.5	0.3
Private cars and motorcycles	2	2	2	2	2	2	2	2.0	0.5	0.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	2	2	3	3	4	4	5	0.7	3.8	1.8
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	0	0	0	0	0	0	0	0.3	1.3	1.6
Heavy goods and light commercial vehicles	0	0	0	0	0	0	0	0.3	1.3	1.6
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	268	242	255	256	270	267	263	-0.5	0.6	-0.3
Public road transport	12	13	12	12	12	11	11	-0.3	-0.2	-0.8
Private cars and motorcycles	97	105	110	109	102	89	82	1.2	-0.7	-2.2
Heavy goods and light commercial vehicles	36	37	31	31	34	35	36	-1.5	0.7	0.8
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	122	87	102	105	122	132	134	-1.8	1.9	0.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	232	205	224	225	236	232	226	-0.4	0.5	-0.4
Freight transport	36	37	31	31	34	35	36	-1.5	0.7	0.8
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.9	2.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.4	1.2	2.7	2.6	2.1			
ENERGY EFFICIENCY										
Primary energy consumption	802	952	899	664	734	696	614	1.2	-2.0	-1.8
Final Energy Demand	483	478	476	501	548	542	488	-0.1	1.4	-1.2
by sector										
Industry	83	74	48	51	52	53	51	-5.4	0.8	-0.1
Energy intensive industries	13	19	8	8	8	8	8	-4.8	0.0	-0.4
Other industrial sectors	70	55	40	44	44	45	44	-5.5	1.0	-0.1
Residential	76	77	80	85	101	97	76	0.5	2.4	-2.8
Tertiary	55	85	94	108	125	126	98	5.4	2.9	-2.4
Transport ⁽⁵⁾	268	242	255	256	270	267	263	-0.5	0.6	-0.3
by fuel										
Solids	0	0	0	0	0	0	0	0.0	0.0	-13.0
Oil	348	309	316	323	330	311	283	-1.0	0.4	-1.5
Gas	0	0	0	0	0	0	0	0.0	0.0	9.4
Electricity	135	168	155	166	197	205	180	1.4	2.4	-0.9
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0.0	0.0	-2.3
Renewable energy forms	0	1	5	11	20	25	24	0.0	14.2	1.9
Other	0	0	0	0	0	0	0	0.0	0.0	33.1
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	142	162	134	89	90	77	62	-0.6	-4.0	-3.6
Industry (Energy on Value added, index 2000=100)	100	116	74	73	67	64	57	-2.9	-1.0	-1.6
Residential (Energy on Private Income, index 2000=100)	100	93	89	91	97	83	59	-1.1	0.9	-4.9
Tertiary (Energy on Value added, index 2000=100)	100	137	123	125	131	119	83	2.1	0.6	-4.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	40	39	37	33	30	28	-1.3	-1.8	-1.7
Freight transport (toe/Mtkm)	139	135	116	113	110	106	101	-1.7	-0.6	-0.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	2.8	3.3	3.1	2.1	2.1	1.9	1.7	1.0	-3.9	-2.2
of which ETS sectors (2013 scope) GHG emissions	2.4	2.4	2.1	1.1	1.2	1.1	1.0		-6.0	-1.5
of which ESD sectors (2013 scope) GHG emissions	1.0	1.0	1.0	1.0	0.9	0.8	0.7		-0.4	-3.2
CO2 Emissions (energy related)	2.5	3.0	2.8	1.8	1.8	1.7	1.5	0.9	-4.4	-2.0
Power generation/District heating	1.5	2.1	1.8	0.8	0.8	0.7	0.6	2.1	-8.1	-2.8
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-9.7	0.5	-7.2
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-1.2	2.4	-11.8
Tertiary	0.0	0.0	0.1	0.1	0.1	0.1	0.0	6.2	-0.7	-4.5
Transport	0.8	0.7	0.8	0.8	0.8	0.8	0.8	-0.5	0.3	-0.3
CO2 Emissions (non energy and non land use related)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-17.5	1.7
Non-CO2 GHG emissions	0.3	0.3	0.3	0.3	0.3	0.3	0.2	1.6	-0.5	-3.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	127.9	150.8	141.1	95.1	94.8	87.5	75.8	1.0	-3.9	-2.2
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.78	0.95	0.87	0.56	0.32	0.28	0.27	1.1	-9.6	-1.6
Final energy demand (t of CO2/toe)	2.17	1.94	1.99	1.93	1.80	1.72	1.75	-0.9	-1.0	-0.3
Industry	1.55	1.43	0.97	1.00	0.94	0.85	0.45	-4.6	-0.3	-7.1
Residential	1.02	0.80	0.86	0.91	0.86	0.56	0.33	-1.7	0.0	-9.3
Tertiary	0.67	0.40	0.72	0.73	0.50	0.45	0.41	0.7	-3.5	-2.1
Transport	3.00	3.00	2.99	2.96	2.92	2.91	2.91	0.0	-0.2	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	0.0	0.1	1.0	6.0	11.7	14.1	16.0			
RES-H&C share	0.0	1.0	7.0	17.5	23.9	35.0	46.6			
RES-E share	0.0	0.0	0.1	4.8	12.5	13.4	16.4			
RES-T share (based on ILUC formula)	0.0	0.0	0.5	4.2	10.0	10.7	10.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	78	111	173	117	89	93	101	8.4	-6.4	1.3
Average Price of Electricity in Final demand sectors (€13/MWh)	75	84	201	177	168	161	153	10.4	-1.8	-0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	0.4	0.5	0.8	0.8	1.1	1.2	1.3	8.2	2.3	2.3
as % of GDP	6.8	8.9	12.5	11.2	12.7	13.0	13.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Netherlands: EU/CO+35				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
	Annual % Change										
Population (in million)	16	16	17	17	17	17	18	0.4	0.3	0.2	
GDP (in 000 M€13)	537	573	613	620	668	706	738	1.3	0.9	1.0	
Gross Inland Consumption (ktoe)	75572	81469	86612	83760	83523	80762	70818	1.4	-0.4	-1.6	
Solids	7852	8195	7596	9274	7996	9336	6536	-0.3	0.5	-2.0	
Oil	28245	32464	34649	34892	34343	32696	30886	2.1	-0.1	-1.1	
Natural gas	35009	35334	39309	33859	30968	29709	24218	1.2	-2.4	-2.4	
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4	
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0	
Renewable energy forms	1827	2872	3796	3906	9184	8677	8767	7.6	9.2	-0.5	
Energy Branch Consumption	5353	6336	5088	5606	5440	5032	4741	-0.5	0.7	-1.4	
Non-Energy Uses	10491	13013	17582	13895	14822	15339	15338	5.3	-1.7	0.3	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	57555	62220	70219	51471	52931	45332	37185	2.0	-2.8	-3.5	
Solids	7	8	6	0	0	0	0	-2.0	-100.0	0.0	
Oil	2405	2328	1985	1381	1414	955	737	-1.9	-3.3	-6.3	
Natural gas	52203	56276	63534	44126	40619	33812	25725	2.0	-4.4	-4.5	
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4	
Renewable energy sources	1926	2577	3671	5009	9942	9574	9734	6.7	10.5	-0.2	
Hydro	12	8	9	9	9	9	9	-3.0	-0.1	0.1	
Biomass & Waste	1831	2371	3282	4236	7005	6528	6526	6.0	7.9	-0.7	
Wind	71	178	343	618	2342	2342	2342	17.0	21.2	0.0	
Solar and others	11	21	29	123	546	620	715	9.8	34.1	2.7	
Geothermal	0	0	8	24	41	76	142	0.0	18.2	13.3	
Net Imports (ktoe)	33759	37076	30549	47678	45970	51498	50799	-1.0	4.2	1.0	
Solids	7998	8312	9228	9274	7996	9336	6536	1.4	-1.4	-2.0	
Oil	41425	47836	45167	48901	48027	47216	45893	0.9	0.6	-0.5	
Crude oil and Feedstocks	61018	61724	60676	53468	45063	47819	45164	-0.1	-1.8	-1.1	
Oil products	-19594	-13888	-15508	-5057	-2666	-604	729	-2.3	-16.1	0.0	
Natural gas	-17191	-20941	-24211	-10267	-9372	-3510	-85	3.5	-9.1	-37.5	
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0	
Import Dependency (%)	38.0	37.7	30.4	48.1	46.5	53.2	57.7				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	89631	100219	118140	107589	123462	135827	124615	2.8	0.4	0.1	
Nuclear energy	3926	3997	3969	3907	3907	4047	4047	0.1	-0.2	0.4	
Solids	24276	23500	22588	29437	24101	32805	22193	-0.7	0.7	-0.8	
Oil (including refinery gas)	2641	2262	1253	799	0	57	57	-7.2	-100.0	0.0	
Gas (including derived gases)	54606	61588	77566	56704	47208	54295	52612	3.6	-4.8	1.1	
Biomass-waste	3203	6683	8606	8343	15910	12286	13368	10.4	6.3	-1.7	
Hydro (pumping excluded)	142	88	105	100	104	105	105	-3.0	-0.1	0.1	
Wind	829	2067	3993	7185	27228	27228	27228	17.0	21.2	0.0	
Solar	8	34	60	1113	5003	5003	5004	22.2	55.5	0.0	
Geothermal and other renewables	0	0	0	0	0	0	0	12.8	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _d)	21048	21728	25072	30866	38231	36326	32729	1.8	4.3	-1.5	
Nuclear energy	485	485	485	485	485	485	485	0.0	0.0	0.0	
Renewable energy	497	1312	2362	4706	15624	15624	15624	16.9	20.8	0.0	
Hydro (pumping excluded)	37	37	37	37	37	37	37	0.0	0.0	0.0	
Wind	447	1224	2237	3431	10001	10001	10001	17.5	16.2	0.0	
Solar	13	51	88	1238	5586	5586	5586	21.1	51.4	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	20066	19931	22225	25674	22123	20217	16620	1.0	0.0	-2.8	
of which cogeneration units	7372	7162	9300	8514	2413	4390	4821	2.4	-12.6	7.2	
of which CCS units	0	0	0	0	0	250	250	0.0	0.0	0.0	
Solids fired	4394	4394	4394	6975	5388	5054	4429	0.0	2.1	-1.9	
Gas fired	14667	14529	16575	17356	14403	12828	9869	1.2	-1.4	-3.7	
Oil fired	490	218	218	204	77	77	66	-7.8	-9.9	-1.6	
Biomass-waste fired	514	790	1037	1138	2254	2257	2257	7.3	8.1	0.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	50.5	52.1	38.3	35.6	41.1	41.9				
Efficiency of gross thermal power generation (%)	41.6	41.4	44.5	45.4	43.7	43.6	44.8				
% of gross electricity from CHP	37.6	29.4	33.2	37.8	16.9	19.4	23.2				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	1.4	1.7				
% of carbon free (RES, nuclear) gross electricity generation	9.0	12.8	14.2	19.2	42.2	35.8	39.9				
Fuel Inputs to Thermal Power Generation (ktoe)	17516	19517	21244	18047	17179	19616	16921	1.9	-2.1	-0.2	
Solids	4998	4958	4669	6490	4920	6628	4480	-0.7	0.5	-0.9	
Oil (including refinery gas)	634	553	342	177	0	20	20	-6.0	-80.0	276.4	
Gas (including derived gases)	10671	11953	13773	9489	7813	9357	8998	2.6	-5.5	1.4	
Biomass & Waste	1213	2052	2460	1892	4446	3612	3423	7.3	6.1	-2.6	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	86454	91417	68924	63771	61741	59146	56254	-2.2	-1.1	-0.9	
Refineries	82233	86869	64188	58847	56695	54683	52155	-2.4	-1.2	-0.8	
Biofuels and hydrogen production	0	0	230	579	485	457	511	0.0	7.8	0.5	
District heating	398	436	499	366	338	316	264	2.3	-3.8	-2.4	
Derived gases, cokeries etc.	3824	4113	4007	3979	4222	3690	3324	0.5	0.5	-2.4	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Netherlands: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	184	195	183	191	200	203	211	-0.1	0.9	0.5
Public road transport	11	12	12	13	13	14	14	0.8	0.9	0.6
Private cars and motorcycles	143	152	138	141	147	145	148	-0.4	0.6	0.1
Rail	16	17	17	19	21	23	25	0.5	2.1	1.9
Aviation ⁽³⁾	13	14	15	17	18	20	22	1.1	2.4	1.7
Inland navigation	1	1	1	1	1	1	1	0.1	1.2	1.7
Freight transport activity (Gtkm)	94	100	106	111	121	126	133	1.3	1.3	0.9
Heavy goods and light commercial vehicles	48	51	54	55	61	60	62	1.2	1.3	0.2
Rail	5	6	6	6	7	8	8	2.7	1.5	1.9
Inland navigation	41	42	47	50	53	58	62	1.2	1.3	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	14297	15197	14986	14817	14210	12908	12171	0.5	-0.5	-1.5
Public road transport	212	224	260	267	271	264	258	2.1	0.4	-0.5
Private cars and motorcycles	8007	8288	8206	7708	6904	5848	5299	0.2	-1.7	-2.6
Heavy goods and light commercial vehicles	2184	2594	2715	2594	2740	2549	2530	2.2	0.1	-0.8
Rail	184	172	182	189	204	221	229	-0.1	1.1	1.2
Aviation	3382	3712	3463	3821	3837	3748	3564	0.2	1.0	-0.7
Inland navigation	328	207	159	239	253	277	292	-7.0	4.8	1.4
By transport activity										
Passenger transport	11703	12265	11985	11861	11081	9937	9201	0.2	-0.8	-1.8
Freight transport	2594	2933	3001	2957	3128	2971	2970	1.5	0.4	-0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.1	2.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	4.0	3.6	4.1	4.5			
ENERGY EFFICIENCY										
Primary energy consumption	65081	68457	69030	69864	68701	65423	55479	0.6	0.0	-2.1
Final Energy Demand	50505	51654	51835	50854	50347	46405	38528	0.3	-0.3	-2.6
by sector										
Industry	14804	14814	12208	12815	13602	12705	11118	-1.9	1.1	-2.0
Energy intensive industries	10277	10532	8224	8734	9333	8715	7683	-2.2	1.3	-1.9
Other industrial sectors	4527	4281	3984	4082	4269	3990	3436	-1.3	0.7	-2.1
Residential	10299	10143	11518	10892	10510	9949	7390	1.1	-0.9	-3.5
Tertiary	11104	11499	13124	12329	12026	10843	7848	1.7	-0.9	-4.2
Transport ⁽⁵⁾	14297	15198	14985	14817	14210	12908	12171	0.5	-0.5	-1.5
by fuel										
Solids	1330	1515	1270	1402	1592	1566	1028	-0.5	2.3	-4.3
Oil	16505	17382	16113	15746	14876	13035	11591	-0.2	-0.8	-2.5
Gas	21011	20346	22378	21405	20294	17535	12583	0.6	-1.0	-4.7
Electricity	8408	8986	9189	9034	9572	9825	8940	0.9	0.4	-0.7
Heat (from CHP and District Heating)	2893	2981	2106	2038	2149	2261	1909	-3.1	0.2	-1.2
Renewable energy forms	358	444	780	1223	1837	2066	2256	8.1	8.9	2.1
Other	0	0	0	8	27	117	222	-100.0	0.0	23.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	141	142	141	135	125	114	96	0.0	-1.2	-2.6
Industry (Energy on Value added, index 2000=100)	100	96	75	75	74	65	55	-2.9	-0.2	-2.9
Residential (Energy on Private Income, index 2000=100)	100	94	106	98	87	77	53	0.6	-2.0	-4.8
Tertiary (Energy on Value added, index 2000=100)	100	96	101	94	85	72	50	0.1	-1.7	-5.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	40	37	32	27	24	-0.4	-2.4	-2.9
Freight transport (toe/Mtkm)	28	29	28	27	26	24	22	0.2	-0.9	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	222.8	221.6	216.9	209.7	193.4	186.4	156.6	-0.3	-1.1	-2.1
of which ETS sectors (2013 scope) GHG emissions	103.3	95.6	95.8	95.8	85.5	89.5	74.3	-1.1	-1.4	-1.4
of which ESD sectors (2013 scope) GHG emissions	118.2	121.4	113.8	107.9	96.9	96.9	82.3	-1.2	-2.7	-2.7
CO2 Emissions (energy related)	168.5	175.7	175.0	171.3	156.2	150.0	120.5	0.4	-1.1	-2.6
Power generation/District heating	51.9	55.5	57.7	54.3	44.0	52.1	42.2	1.1	-2.7	-0.4
Energy Branch	11.1	12.3	8.8	10.4	9.9	8.7	8.0	-2.3	1.2	-2.2
Industry	26.6	26.5	22.9	26.6	27.6	23.5	17.3	-1.5	1.9	-4.6
Residential	18.9	17.9	20.6	19.1	17.5	15.6	10.1	0.9	-1.7	-5.3
Tertiary	17.5	18.3	21.1	18.7	16.6	13.7	9.5	1.9	-2.4	-5.4
Transport	42.4	45.3	43.9	42.3	40.6	36.3	33.5	0.4	-0.8	-1.9
CO2 Emissions (non energy and non land use related)	7.1	8.8	8.6	8.5	8.9	8.9	8.8	2.0	0.3	0.0
Non-CO2 GHG emissions	47.3	37.0	33.3	29.9	28.3	27.5	27.2	-3.4	-1.6	-0.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.0	98.4	96.4	93.2	85.9	82.8	69.6	-0.3	-1.1	-2.1
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.40	0.38	0.37	0.38	0.28	0.30	0.27	-0.6	-2.9	-0.3
Final energy demand (t of CO2/toe)	2.09	2.09	2.09	2.10	2.03	1.92	1.83	0.0	-0.3	-1.1
Industry	1.80	1.79	1.87	2.07	2.03	1.85	1.56	0.4	0.8	-2.6
Residential	1.84	1.77	1.79	1.75	1.66	1.57	1.37	-0.2	-0.7	-1.9
Tertiary	1.58	1.59	1.61	1.51	1.38	1.27	1.21	0.2	-1.5	-1.3
Transport	2.97	2.98	2.93	2.86	2.86	2.82	2.75	-0.1	-0.3	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	1.3	2.3	3.9	5.2	13.0	14.0	17.2			
RES-H&C share	1.5	2.1	2.9	2.9	7.8	9.5	12.8			
RES-E share	2.6	6.3	9.7	12.9	37.5	33.6	37.4			
RES-T share (based on ILUC formula)	0.1	0.2	3.1	9.3	10.7	13.8	18.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	65	73	83	85	90	2.7	2.4	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	118	130	129	120	136	138	148	0.9	0.5	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	47.8	60.9	67.3	65.0	78.2	84.8	99.9	3.5	1.5	2.5
as % of GDP	8.9	10.6	11.0	10.5	11.7	12.0	13.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Poland: EU CO ₂ 35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	38	38	38	38	38	38	37	0.0	0.1	-0.2
GDP (in 000 M€13)	253	294	371	425	492	559	623	3.9	2.9	2.4
Gross Inland Consumption (ktoe)	88648	92226	100730	101934	105670	103533	92526	1.3	0.5	-1.3
Solids	56291	54612	54608	53011	50467	46188	38418	-0.3	-0.8	-2.7
Oil	19037	21696	25747	25895	26600	24919	23243	3.1	0.3	-1.3
Natural gas	9964	12237	12807	13159	16173	17514	16121	2.5	2.4	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-548	-962	-116	6	64	167	82	-14.4	0.0	2.5
Renewable energy forms	3905	4643	7684	9863	12365	14745	14662	7.0	4.9	1.7
Energy Branch Consumption	6664	6104	6095	6243	6155	5483	5147	-0.9	0.1	-1.8
Non-Energy Uses	4357	4573	4961	5545	6359	6995	7345	1.3	2.5	1.5
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	79590	78592	67394	70900	70523	65920	58174	-1.6	0.5	-1.9
Solids	71299	68857	55381	55586	52215	44869	35356	-2.5	-0.6	-3.8
Oil	1062	1143	1063	1539	1581	1531	1483	0.0	4.0	-0.6
Natural gas	3317	3887	3696	3947	4582	4849	6740	1.1	2.2	3.9
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3912	4705	7254	9829	12145	14670	14596	6.4	5.3	1.9
Hydro	181	189	251	206	209	223	227	3.3	-1.8	0.8
Biomass & Waste	3728	4493	6838	8749	10833	12036	11273	6.3	4.7	0.4
Wind	0	12	143	832	984	2168	2571	80.0	21.3	10.1
Solar and others	0	0	8	22	81	198	211	0.0	25.5	10.0
Geothermal	3	11	13	21	38	47	314	16.1	11.0	23.5
Net Imports (ktoe)	8773	15932	31567	31285	35438	37932	34694	13.7	1.2	-0.2
Solids	-16353	-13039	-2814	-2575	-1748	1319	3062	-16.1	-4.6	0.0
Oil	19067	21466	25187	24607	25307	23698	22079	2.8	0.0	-1.4
Crude oil and Feedstocks	17616	17893	22965	24633	24821	23036	21238	2.7	0.8	-1.5
Oil products	1451	3573	2222	-26	486	662	841	4.4	-14.1	5.6
Natural gas	6607	8531	8874	9213	11595	12674	9405	3.0	2.7	-2.1
Electricity	-548	-962	-116	6	64	167	82	-14.4	0.0	2.5
Import Dependency (%)	9.9	17.2	31.3	30.6	33.4	36.5	37.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	143174	155359	157089	162367	178565	192023	188286	0.9	1.3	0.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	135888	142161	136592	137628	143498	133629	125353	0.1	0.5	-1.3
Oil (including refinery gas)	1916	2757	2892	9	0	470	470	4.2	-100.0	0.0
Gas (including derived gases)	2961	6573	6689	2968	9685	17526	14518	8.5	3.8	4.1
Biomass-waste	298	1532	6332	9667	11451	12533	15331	35.7	6.1	3.0
Hydro (pumping excluded)	2106	2201	2920	2397	2427	2590	2636	3.3	-1.8	0.8
Wind	5	135	1664	9669	11437	25208	29893	78.7	21.3	10.1
Solar	0	0	0	29	67	67	84	0.0	0.0	2.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	30310	31721	33411	38260	33842	39127	39900	1.0	0.1	1.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	821	1036	2044	6084	6756	13043	15126	9.6	12.7	8.4
Hydro (pumping excluded)	817	915	936	949	949	997	1008	1.4	0.1	0.6
Wind	4	121	1108	5100	5728	11967	14018	75.5	17.9	9.4
Solar	0	0	0	35	79	79	99	0.0	0.0	2.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	29489	30685	31367	32176	27086	26084	24775	0.6	-1.5	-0.9
of which cogeneration units	9354	8313	8693	6564	6588	7922	5554	-0.7	-2.7	-1.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	28214	28608	29158	28543	23232	20958	19530	0.3	-2.2	-1.7
Gas fired	764	1548	1592	1659	1703	2902	2981	7.6	0.7	5.8
Oil fired	396	396	396	398	171	162	155	0.0	-8.1	-0.9
Biomass-waste fired	115	133	221	1574	1980	2063	2108	6.8	24.5	0.6
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.0	51.1	48.8	44.3	55.3	52.0	50.1			
Efficiency of gross thermal power generation (%)	33.1	33.9	34.2	35.2	37.5	37.5	37.7			
% of gross electricity from CHP	16.1	16.8	17.6	18.2	21.5	18.3	14.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	1.7	2.5	6.9	13.4	14.2	21.0	25.5			
Fuel Inputs to Thermal Power Generation (ktoe)	36625	38771	38341	36695	37781	37672	35504	0.5	-0.1	-0.6
Solids	35247	36349	34345	33735	33374	31593	29574	-0.3	-0.3	-1.2
Oil (including refinery gas)	245	184	171	2	0	154	154	-3.5	-74.4	286.6
Gas (including derived gases)	1032	1805	2179	913	1946	3182	2638	7.8	-1.1	3.1
Biomass & Waste	102	434	1645	2046	2460	2743	3138	32.1	4.1	2.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	32964	31279	38694	40301	40607	37433	32744	1.6	0.5	-2.1
Refineries	18969	18975	24192	27120	27434	25645	23803	2.5	1.3	-1.4
Biofuels and hydrogen production	0	49	887	1100	1395	1348	1271	0.0	4.6	-0.9
District heating	4179	3465	3716	3183	3578	3201	2481	-1.2	-0.4	-3.6
Derived gases, cokeries etc.	9816	8789	9899	8898	8200	7238	5189	0.1	-1.9	-4.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Poland: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	225	233	268	302	344	370	404	1.7	2.6	1.6
Public road transport	59	49	42	44	46	48	49	-3.4	1.1	0.6
Private cars and motorcycles	134	156	194	223	254	267	288	3.8	2.7	1.3
Rail	29	23	22	24	31	39	47	-2.5	3.2	4.3
Aviation ⁽³⁾	3	5	9	11	13	16	20	12.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	-0.9	2.0	2.1
Freight transport activity (Gtkm)	114	140	170	201	228	256	286	4.0	3.0	2.3
Heavy goods and light commercial vehicles	59	90	121	150	167	185	206	7.4	3.3	2.1
Rail	54	50	49	51	61	71	80	-1.0	2.2	2.8
Inland navigation	1	0	0	0	0	0	0	-16.7	2.7	3.4
Energy demand in transport (ktoe) ⁽⁴⁾	9830	12265	17459	18691	19785	18959	18809	5.9	1.3	-0.5
Public road transport	654	581	610	632	668	682	672	-0.7	0.9	0.0
Private cars and motorcycles	6314	7213	9660	10120	10620	9503	9094	4.3	1.0	-1.5
Heavy goods and light commercial vehicles	2041	3678	6307	6957	7372	7522	7623	11.9	1.6	0.3
Rail	541	469	372	366	427	478	532	-3.7	1.4	2.2
Aviation	274	319	508	613	693	770	884	6.4	3.2	2.5
Inland navigation	6	5	3	3	4	4	5	-7.4	2.3	2.5
By transport activity										
Passenger transport	7317	8170	10823	11407	12035	11021	10727	4.0	1.1	-1.1
Freight transport	2514	4095	6636	7283	7750	7938	8081	10.2	1.6	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	5.2	6.0	7.2	7.3	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	84291	87654	95769	96389	99310	96538	85181	1.3	0.4	-1.5
Final Energy Demand	55260	58986	67070	68144	71694	69618	59988	2.0	0.7	-1.8
by sector										
Industry	18504	16147	14193	16600	17459	18206	16628	-2.6	2.1	-0.5
Energy intensive industries	13031	10951	9372	10814	11124	11183	9774	-3.2	1.7	-1.3
Other industrial sectors	5473	5196	4821	5786	6335	7024	6854	-1.3	2.8	0.8
Residential	17193	19454	22501	20556	21358	20100	14879	2.7	-0.5	-3.6
Tertiary	9644	10846	12664	12057	12818	12082	9425	2.8	0.1	-3.0
Transport ⁽⁵⁾	9919	12539	17712	18930	20058	19229	19056	6.0	1.3	-0.5
by fuel										
Solids	13215	12285	14494	13387	11186	9561	5673	0.9	-2.6	-6.6
Oil	15500	17844	20727	21289	21500	19516	17809	2.9	0.4	-1.9
Gas	7574	8780	9468	9673	11130	11009	9739	2.3	1.6	-1.3
Electricity	8482	9064	10238	11011	12370	13698	13394	1.9	1.9	0.8
Heat (from CHP and District Heating)	6886	7056	6547	6063	6917	6520	5550	-0.5	0.6	-2.2
Renewable energy forms	3602	3957	5596	6721	8591	9301	7762	4.5	4.4	-1.0
Other	0	0	0	1	1	14	61	0.0	0.0	47.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	350	313	272	240	215	185	149	-2.5	-2.3	-3.6
Industry (Energy on Value added, index 2000=100)	100	64	36	36	32	29	23	-9.7	-1.3	-3.1
Residential (Energy on Private Income, index 2000=100)	100	98	93	74	66	54	36	-0.8	-3.4	-5.9
Tertiary (Energy on Value added, index 2000=100)	100	100	100	83	76	63	44	0.0	-2.7	-5.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	32	34	39	36	34	29	25	2.0	-1.5	-2.8
Freight transport (toe/Mtkm)	22	29	39	36	34	31	28	5.9	-1.4	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	400.5	403.1	411.9	407.8	400.8	377.2	334.0	0.3	-0.3	-1.8
of which ETS sectors (2013 scope) GHG emissions		222.2	210.3	208.8	207.0	197.6	175.7		-0.2	-1.6
of which ESD sectors (2013 scope) GHG emissions		180.9	201.6	199.0	193.8	179.6	158.3		-0.4	-2.0
CO ₂ Emissions (energy related)	303.3	307.5	320.7	311.8	307.8	286.3	245.2	0.6	-0.4	-2.2
Power generation/District heating	167.4	171.0	165.6	157.9	159.3	153.4	137.6	-0.1	-0.4	-1.5
Energy Branch	10.2	7.7	8.5	9.6	9.1	7.8	7.4	-1.8	0.7	-2.1
Industry	51.9	36.9	30.4	35.0	31.9	29.1	21.9	-5.2	0.5	-3.7
Residential	27.4	35.5	44.9	37.8	34.6	29.7	18.1	5.1	-2.6	-6.3
Tertiary	18.4	20.7	21.9	19.1	18.1	14.1	9.4	1.7	-1.9	-6.3
Transport	28.0	35.8	49.3	52.4	54.8	52.1	50.9	5.8	1.1	-0.7
CO ₂ Emissions (non energy and non land use related)	22.3	20.8	20.2	22.9	25.5	26.4	26.7	-1.0	2.4	0.5
Non-CO ₂ GHG emissions	75.0	74.7	71.0	73.2	67.5	64.6	62.1	-0.5	-0.5	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.4	84.9	86.8	85.9	84.5	79.5	70.4	0.3	-0.3	-1.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.71	0.69	0.67	0.65	0.59	0.55	0.53	-0.6	-1.2	-1.2
Final energy demand (t of CO ₂ /toe)	2.27	2.18	2.19	2.12	1.94	1.80	1.67	-0.4	-1.2	-1.5
Industry	2.81	2.28	2.14	2.11	1.82	1.60	1.32	-2.6	-1.6	-3.2
Residential	1.59	1.83	2.00	1.84	1.62	1.48	1.21	2.3	-2.1	-2.8
Tertiary	1.91	1.91	1.73	1.59	1.41	1.17	1.00	-1.0	-2.0	-3.4
Transport	2.82	2.85	2.79	2.77	2.73	2.71	2.67	-0.1	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.5	6.9	9.2	11.8	15.1	17.9	19.8			
RES-H&C share	9.6	10.2	11.6	13.8	19.1	21.6	24.7			
RES-E share	1.6	2.7	6.6	13.4	14.2	20.9	25.4			
RES-T share (based on ILUC formula)	0.2	0.7	6.1	7.5	10.1	10.5	10.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	38	40	49	67	70	74	79	2.6	3.7	1.2
Average Price of Electricity in Final demand sectors (€13/MWh)	77	93	128	121	128	131	136	5.2	0.0	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	34.0	46.3	66.0	71.1	93.1	109.1	136.0	6.9	3.5	3.9
as % of GDP	13.4	15.7	17.8	16.7	18.9	19.5	21.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Portugal: EU/CO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	10	10	11	10	10	10	10	0.3	-0.4	-0.4
GDP (in 000 M€13)	169	176	181	174	187	204	217	0.7	0.4	1.5
Gross Inland Consumption (ktoe)	25285	27475	24205	22984	21385	20350	16929	-0.4	-1.2	-2.3
Solids	3805	3349	1658	3347	856	10	4	-8.0	-6.4	-41.6
Oil	15475	16174	12215	10669	10365	9593	8656	-2.3	-1.6	-1.8
Natural gas	2078	3751	4489	3446	3427	3663	1587	8.0	-2.7	-7.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Renewable energy forms	3846	3615	5618	5328	6286	6583	6245	3.9	1.1	-0.1
Energy Branch Consumption	1028	1235	1195	1417	1209	1219	1127	1.5	0.1	-0.7
Non-Energy Uses	2393	2587	1728	1470	1485	1524	1509	-3.2	-1.5	0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3891	3615	5800	5217	6155	6468	6105	4.1	0.6	-0.1
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0
Natural gas	45	0	0	0	0	0	0	-96.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3846	3615	5800	5217	6155	6468	6105	4.2	0.6	-0.1
Hydro	974	407	1389	820	1596	1563	1623	3.6	1.4	0.2
Biomass & Waste	2770	2967	3375	3181	3273	3240	2535	2.0	-0.3	-2.5
Wind	14	153	790	1004	1012	1061	1337	49.2	2.5	2.8
Solar and others	19	23	66	136	199	527	531	13.6	11.6	10.3
Geothermal	70	66	181	76	76	77	79	10.0	-8.3	0.4
Net Imports (ktoe)	22072	24845	18588	18330	15783	14421	11348	-1.7	-1.6	-3.2
Solids	3914	3225	1629	3347	856	10	4	-8.4	-6.2	-41.6
Oil	16039	17140	12436	11231	10913	10119	9147	-2.5	-1.3	-1.7
Crude oil and Feedstocks	12316	13795	11875	14608	14054	13136	12091	-0.4	1.7	-1.5
Oil products	3723	3345	561	-3376	-3141	-3017	-2944	-17.2	0.0	-0.6
Natural gas	2039	3893	4505	3446	3433	3675	1620	8.2	-2.7	-7.2
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Import Dependency (%)	85.1	88.6	75.1	77.8	71.9	69.0	65.0			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	43372	46188	53688	50198	48576	50491	42924	2.2	-1.0	-1.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	14595	15226	7100	14862	3710	0	0	-7.0	-6.3	-100.0
Oil (including refinery gas)	8421	8791	3008	770	1922	1253	608	-9.8	-4.4	-10.9
Gas (including derived gases)	7231	13606	14900	9528	8569	10119	511	7.5	-5.4	-24.6
Biomass-waste	1553	1987	2942	2936	3055	3996	2783	6.6	0.4	-0.9
Hydro (pumping excluded)	11323	4731	16148	9539	18557	18170	18870	3.6	1.4	0.2
Wind	168	1773	9182	11676	11767	12342	15541	49.2	2.5	2.8
Solar	1	3	212	680	789	4403	4403	68.3	14.1	18.8
Geothermal and other renewables	80	71	196	208	208	208	208	9.4	0.6	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	10989	13461	18921	21094	21871	22579	24047	5.6	1.5	1.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	4619	6083	9036	12611	14827	17035	18597	6.9	5.1	2.3
Hydro (pumping excluded)	4535	5017	5106	7065	9183	9408	9971	1.2	6.0	0.8
Wind	83	1064	3796	5079	5113	5295	6294	46.6	3.0	2.1
Solar	1	2	134	467	531	2332	2332	63.2	14.8	16.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6370	7378	9885	8484	7044	5544	5450	4.5	-3.3	-2.5
of which cogeneration units	1676	1079	1310	1491	1671	1386	1118	-2.4	2.5	-3.9
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1774	1728	1728	1728	578	0	0	-0.3	-10.4	-100.0
Gas fired	1542	2477	4799	5062	5012	4157	4082	12.0	0.4	-2.0
Oil fired	2819	2915	2990	1144	783	695	669	0.6	-12.5	-1.6
Biomass-waste fired	221	244	343	521	643	663	671	4.5	6.5	0.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	14	14	25	29	29	29	29	6.0	1.5	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	43.5	37.8	31.6	26.3	24.9	25.2	20.2			
Efficiency of gross thermal power generation (%)	42.0	43.1	41.8	42.2	43.7	41.3	29.1			
% of gross electricity from CHP	10.0	11.6	11.8	17.0	22.6	13.2	9.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	30.3	18.5	53.4	49.9	70.8	77.5	97.4			
Fuel Inputs to Thermal Power Generation (ktoe)	6520	7914	5787	5770	3433	3247	1214	-1.2	-5.1	-9.9
Solids	3198	3319	1597	3329	841	0	0	-6.7	-6.2	-100.0
Oil (including refinery gas)	1683	1793	574	185	454	296	144	-10.2	-2.3	-10.9
Gas (including derived gases)	1215	2309	2775	1560	1404	1833	140	8.6	-6.6	-20.6
Biomass & Waste	356	428	662	621	659	1043	856	6.4	0.0	2.7
Geothermal heat	69	65	180	75	75	75	75	10.1	-8.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	13004	13953	12457	15231	14671	13717	12627	-0.4	1.6	-1.5
Refineries	12555	13953	12148	14807	14244	13318	12246	-0.3	1.6	-1.5
Biofuels and hydrogen production	0	0	309	422	423	376	349	0.0	3.2	-1.9
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	449	0	0	1	4	23	31	0.0	0.0	22.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Portugal: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	105	115	116	121	125	133	141	1.0	0.8	1.2
Public road transport	12	6	6	6	6	7	7	-6.4	0.5	1.1
Private cars and motorcycles	73	87	86	86	86	90	95	1.7	0.1	1.0
Rail	5	5	5	5	6	7	8	1.4	1.7	2.6
Aviation ⁽³⁾	16	17	18	23	26	29	31	1.6	3.3	1.9
Inland navigation	0	0	0	0	0	0	0	1.0	0.9	1.6
Freight transport activity (Gtkm)	26	32	27	28	30	32	34	0.5	0.9	1.3
Heavy goods and light commercial vehicles	20	25	20	20	21	23	24	-0.4	0.9	1.0
Rail	2	2	2	2	3	3	3	0.6	1.5	2.6
Inland navigation	4	5	5	6	6	6	7	4.6	0.6	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	6636	7188	7226	6867	6638	6261	6069	0.9	-0.8	-0.9
Public road transport	237	135	129	129	128	133	142	-5.9	0.0	1.1
Private cars and motorcycles	4590	5056	5149	4730	4385	3878	3631	1.2	-1.6	-1.9
Heavy goods and light commercial vehicles	891	1026	835	797	844	847	836	-0.6	0.1	-0.1
Rail	89	67	57	50	56	58	63	-4.3	-0.3	1.2
Aviation	784	888	1012	1124	1186	1304	1354	2.6	1.6	1.3
Inland navigation	45	18	45	37	39	41	43	0.1	-1.5	1.2
By transport activity										
Passenger transport	5689	6109	6318	6007	5727	5341	5155	1.1	-1.0	-1.0
Freight transport	947	1079	908	860	911	920	914	-0.4	0.0	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	2.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	4.3	6.2	6.5	6.4	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	22892	24889	22477	21514	19900	18825	15420	-0.2	-1.2	-2.5
Final Energy Demand	17919	19009	18022	16789	16843	15717	13518	0.1	-0.7	-2.2
by sector										
Industry	6323	5796	5453	5066	5174	4963	4256	-1.5	-0.5	-1.9
Energy intensive industries	4179	3889	3634	3613	3674	3540	2969	-1.4	0.1	-2.1
Other industrial sectors	2144	1907	1819	1452	1500	1423	1287	-1.6	-1.9	-1.5
Residential	2804	3224	2976	2632	2762	2356	1693	0.6	-0.7	-4.8
Tertiary	2157	2801	2368	2224	2269	2137	1501	0.9	-0.4	-4.0
Transport ⁽⁵⁾	6636	7188	7226	6867	6638	6261	6069	0.9	-0.8	-0.9
by fuel										
Solids	466	17	50	17	15	10	4	-20.0	-11.4	-12.4
Oil	10713	10812	9199	8142	7697	7003	6284	-1.5	-1.8	-2.0
Gas	873	1307	1564	1691	1836	1654	1287	6.0	1.6	-3.5
Electricity	3300	3983	4290	3865	4054	4286	3684	2.7	-0.6	-1.0
Heat (from CHP and District Heating)	134	328	338	325	364	300	275	9.7	0.8	-2.8
Renewable energy forms	2434	2563	2581	2748	2873	2440	1945	0.6	1.1	-3.8
Other	0	0	0	1	4	24	40	0.0	0.0	25.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	150	156	134	132	114	100	78	-1.1	-1.6	-3.8
Industry (Energy on Value added, Index 2000=100)	100	93	89	85	82	75	62	-1.2	-0.8	-2.9
Residential (Energy on Private Income, Index 2000=100)	100	108	94	87	86	67	45	-0.6	-0.9	-6.3
Tertiary (Energy on Value added, Index 2000=100)	100	120	94	91	86	74	49	-0.6	-0.9	-5.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	47	46	41	37	32	29	-0.3	-2.2	-2.5
Freight transport (toe/Mtkm)	36	33	33	31	30	29	27	-0.9	-0.8	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.9	90.7	73.4	73.2	59.8	54.1	44.8	-1.7	-2.0	-2.8
of which ETS sectors (2013 scope) GHG emissions		40.6	27.7	32.3	22.1	19.5	14.2		-2.2	-4.3
of which ESD sectors (2013 scope) GHG emissions		50.1	45.7	40.9	37.7	34.5	30.6		-1.9	-2.1
CO2 Emissions (energy related)	61.0	64.6	49.6	50.1	38.9	33.5	25.7	-2.1	-2.4	-4.0
Power generation/District heating	21.7	24.9	14.9	18.0	8.2	5.3	0.8	-3.6	-5.8	-20.9
Energy Branch	2.5	3.1	2.5	3.1	2.6	2.7	2.6	-0.2	0.6	-0.2
Industry	11.6	8.2	6.3	5.7	5.5	5.2	3.9	-5.9	-1.2	-3.5
Residential	2.0	2.3	2.6	2.0	2.0	1.2	0.7	2.5	-2.4	-10.1
Tertiary	3.4	4.4	2.4	2.0	1.7	1.5	1.0	-3.2	-3.3	-5.6
Transport	19.9	21.7	20.9	19.5	18.8	17.6	16.9	0.5	-1.1	-1.1
CO2 Emissions (non energy and non land use related)	6.6	7.0	5.4	6.1	6.1	6.2	6.2	-2.0	1.1	0.3
Non-CO2 GHG emissions	19.3	19.1	18.4	16.9	14.8	14.3	12.8	-0.4	-2.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	139.7	145.8	118.0	117.7	96.1	86.9	72.0	-1.7	-2.0	-2.8
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.48	0.50	0.25	0.32	0.15	0.09	0.02	-6.3	-5.0	-19.8
Final energy demand (t of CO2/toe)	2.05	1.92	1.78	1.73	1.66	1.62	1.65	-1.4	-0.7	-0.1
Industry	1.83	1.42	1.15	1.12	1.07	1.04	0.91	-4.5	-0.7	-1.6
Residential	0.71	0.72	0.86	0.75	0.73	0.53	0.41	1.9	-1.7	-5.6
Tertiary	1.55	1.56	1.02	0.88	0.76	0.69	0.65	-4.1	-2.9	-1.6
Transport	3.00	3.01	2.89	2.84	2.83	2.81	2.78	-0.4	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	19.1	19.4	24.3	25.3	33.4	36.4	41.5			
RES-H&C share	30.4	32.1	33.9	36.8	38.5	39.1	41.2			
RES-E share	28.3	27.7	40.7	47.4	63.6	69.3	87.0			
RES-T share (based on ILUC formula)	0.4	0.4	5.7	1.3	10.9	13.6	21.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	67	76	79	98	112	113	106	1.6	3.6	-0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	118	120	104	128	139	142	149	-1.3	3.0	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.8	22.3	24.4	23.5	28.6	31.7	35.9	3.8	1.6	2.3
as % of GDP	10.0	12.7	13.5	13.5	15.3	15.5	16.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Romania: EU CO ₂ 35			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
	Annual % Change										
Population (in million)	22	21	20	20	20	19	19	-1.0	-0.3	-0.4	
GDP (in 000 M€13)	87	114	130	145	163	181	195	4.1	2.3	1.8	
Gross Inland Consumption (ktoe)	36650	39207	35800	33091	35010	35453	36003	-0.2	-0.2	-1.5	
Solids	7493	8788	7008	6207	6461	5192	3157	-0.7	-0.8	-6.9	
Oil	9992	10286	9310	8775	8528	8298	7594	-0.7	-0.9	-1.2	
Natural gas	13680	13923	10788	9688	10782	10155	6840	-2.3	0.0	-4.4	
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3	
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1	
Renewable energy forms	4137	5026	5891	6299	6970	6951	7613	3.6	1.7	0.9	
Energy Branch Consumption	3675	4105	2839	2480	2445	2337	2040	-2.5	-1.5	-1.8	
Non-Energy Uses	1883	2467	1473	1754	2001	2202	2346	-2.4	3.1	1.6	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	28465	28224	27824	26642	28367	30102	28628	-0.2	0.2	0.1	
Solids	5604	5795	5904	5042	5111	3954	2215	0.5	-1.4	-8.0	
Oil	6355	6226	4565	3643	3646	3652	3637	-3.3	-2.2	0.0	
Natural gas	10968	9701	8619	8848	9979	9960	9598	-2.4	1.5	-0.4	
Nuclear	1407	1433	2998	2838	2846	5749	5749	7.9	-0.5	7.3	
Renewable energy sources	4131	5070	5739	6271	6786	6788	7428	3.3	1.7	0.9	
Hydro	1271	1738	1710	1386	1438	1443	1443	3.0	-1.7	0.0	
Biomass & Waste	2854	3314	3980	4135	4559	4468	3972	3.4	1.4	-1.4	
Wind	0	0	26	557	560	560	1521	0.0	35.8	10.5	
Solar and others	0	0	0	163	183	249	354	0.0	111.9	6.8	
Geothermal	7	18	23	30	46	68	139	13.1	7.1	11.8	
Net Imports (ktoe)	8009	10867	7827	6473	6674	5388	1417	-0.2	-1.6	-14.4	
Solids	1920	2939	1234	1165	1350	1239	941	-4.3	0.9	-3.5	
Oil	3437	3988	4838	5156	4913	4683	3996	3.5	0.2	-2.0	
Crude oil and Feedstocks	4801	8857	6233	5504	4994	4568	3872	2.6	-2.2	-2.5	
Oil products	-1364	-4870	-1395	-348	-81	115	124	0.2	-24.8	0.0	
Natural gas	2712	4190	1816	839	804	196	-2756	-3.9	-7.8	0.0	
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1	
Import Dependency (%)	21.8	27.7	21.9	19.5	19.0	15.2	4.7				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	51560	59413	60619	67527	70788	75993	72470	1.6	1.6	0.2	
Nuclear energy	5456	5555	11623	11890	11922	23792	23606	7.9	0.3	7.1	
Solids	18926	21916	20681	21982	22416	16934	9021	0.9	0.8	-8.7	
Oil (including refinery gas)	3399	1894	692	625	406	227	200	-14.7	-5.2	-6.9	
Gas (including derived gases)	9001	9834	7323	8032	10097	8328	253	-2.0	3.3	-30.8	
Biomass-waste	0	7	111	522	763	971	1626	0.0	21.3	7.9	
Hydro (pumping excluded)	14778	20207	19883	16111	16723	16777	16779	3.0	-1.7	0.0	
Wind	0	0	306	6473	6512	6512	17685	0.0	35.8	10.5	
Solar	0	0	0	1891	1950	2452	3301	0.0	0.0	5.4	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	20197	19153	20120	24896	23907	22653	25235	0.0	1.7	0.5	
Nuclear energy	672	672	1344	1414	1414	2828	2828	7.2	0.5	7.2	
Renewable energy	6242	6289	6863	11413	11457	11707	15735	1.0	5.3	3.2	
Hydro (pumping excluded)	6242	6289	6474	6645	6645	6645	6645	0.4	0.3	0.0	
Wind	0	0	389	2976	2989	2989	6480	0.0	22.6	8.0	
Solar	0	0	0	1792	1824	2074	2611	0.0	0.0	3.7	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	13283	12192	11913	12070	11035	8118	6672	-1.1	-0.8	-4.9	
of which cogeneration units	3431	5246	4582	4234	4098	2256	1936	2.9	-1.1	-7.2	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	7602	7057	6643	6441	5626	3094	1909	-1.3	-1.6	-10.2	
Gas fired	3728	3439	3488	4173	4138	4085	3874	-0.7	1.7	-0.7	
Oil fired	1806	1691	1759	1360	1132	771	676	-0.3	-4.3	-5.0	
Biomass-waste fired	147	5	23	96	139	169	213	-16.9	19.7	4.3	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.5	33.1	31.5	28.5	31.2	35.8	31.3				
Efficiency of gross thermal power generation (%)	25.3	28.0	28.6	39.2	39.0	39.3	34.1				
% of gross electricity from CHP	32.3	26.2	10.8	12.0	12.3	8.8	6.2				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	39.2	43.4	52.7	54.6	53.5	66.5	86.9				
Fuel Inputs to Thermal Power Generation (ktoe)	10788	10329	8675	6836	7427	5790	2801	-2.2	-1.5	-9.3	
Solids	5462	6085	5929	5216	5337	4139	2322	0.8	-1.0	-8.0	
Oil (including refinery gas)	1736	799	327	176	130	73	64	-15.4	-8.8	-6.9	
Gas (including derived gases)	3579	3437	2399	1331	1791	1359	62	-3.9	-2.9	-28.5	
Biomass & Waste	12	9	21	113	169	219	352	6.1	23.3	7.6	
Geothermal heat	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	16275	19666	15568	13664	13411	15774	14773	-0.4	-1.5	1.0	
Refineries	11250	15219	11480	9680	9157	8710	7977	0.2	-2.2	-1.4	
Biofuels and hydrogen production	0	0	115	273	558	512	481	0.0	17.1	-1.5	
District heating	1738	825	749	702	679	620	417	-8.1	-1.0	-4.8	
Derived gases, cokeries etc.	3287	3621	3223	3009	3017	5932	5898	-0.2	-0.7	6.9	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Romania: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	85	93	110	118	130	143	157	2.6	1.7	1.9
Public road transport	12	12	12	12	13	13	14	0.0	0.8	0.6
Private cars and motorcycles	54	63	78	85	92	102	111	3.9	1.7	1.8
Rail	18	15	13	13	15	16	17	-3.3	1.6	1.6
Aviation ⁽³⁾	2	3	7	8	10	12	15	15.1	3.4	4.7
Inland navigation	0	0	0	0	0	0	0	-2.5	2.1	2.7
Freight transport activity (Gtkm)	27	56	43	51	61	69	76	4.7	3.5	2.3
Heavy goods and light commercial vehicles	8	31	16	20	25	29	32	7.2	4.4	2.4
Rail	16	17	12	15	18	21	23	-2.7	3.9	2.5
Inland navigation	3	8	14	15	18	20	21	18.4	2.1	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	3336	4186	5073	5448	5726	5772	5765	4.3	1.2	0.1
Public road transport	293	260	359	373	378	374	372	2.0	0.5	-0.2
Private cars and motorcycles	2082	2416	3214	3381	3371	3222	3082	4.4	0.5	-0.9
Heavy goods and light commercial vehicles	363	1182	946	1142	1356	1457	1508	10.1	3.7	1.1
Rail	357	159	222	245	274	303	321	-4.6	2.1	1.6
Aviation	128	128	272	265	298	363	425	7.8	0.9	3.6
Inland navigation	113	42	59	42	47	52	56	-6.2	-2.2	1.7
By transport activity										
Passenger transport	2648	2855	3921	4091	4131	4051	3976	4.0	0.5	-0.4
Freight transport	689	1331	1152	1356	1595	1720	1789	5.3	3.3	1.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.3	5.1	10.0	9.2	8.7			
ENERGY EFFICIENCY										
Primary energy consumption	34767	36740	34326	31337	33009	33251	27657	-0.1	-0.4	-1.8
Final Energy Demand	22772	24714	22591	23117	24606	24258	20570	-0.1	0.9	-1.8
by sector										
Industry	9296	10007	6876	7316	8153	8310	7237	-3.0	1.7	-1.2
Energy intensive industries	6510	7208	4759	4794	5395	5369	4479	-3.1	1.3	-1.8
Other industrial sectors	2787	2799	2117	2522	2758	2941	2758	-2.7	2.7	0.0
Residential	8409	7990	8102	7825	8135	7675	5672	-0.4	0.0	-3.5
Tertiary	1606	2441	2489	2468	2529	2435	1831	4.5	0.2	-3.2
Transport ⁽⁵⁾	3460	4276	5124	5507	5789	5838	5831	4.0	1.2	0.1
by fuel										
Solids	1046	1611	939	815	939	856	670	-1.1	0.0	-3.3
Oil	5526	6628	6184	6765	6594	6420	5812	1.1	0.6	-1.3
Gas	6910	7754	6189	6337	6829	6681	4901	-1.1	1.0	-3.3
Electricity	2918	3341	3553	3683	4088	4301	4200	2.0	1.4	0.3
Heat (from CHP and District Heating)	3570	2136	1650	1493	1623	1672	1310	-7.4	-0.2	-2.1
Renewable energy forms	2802	3244	4077	4023	4532	4324	3667	3.8	1.1	-2.1
Other	0	0	0	0	1	3	11	-100.0	0.0	27.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	423	343	275	229	215	196	154	-4.2	-2.5	-3.3
Industry (Energy on Value added, index 2000=100)	100	78	44	41	40	37	29	-7.8	-1.0	-3.0
Residential (Energy on Private Income, index 2000=100)	100	59	49	43	39	33	23	-6.9	-2.1	-5.4
Tertiary (Energy on Value added, index 2000=100)	100	119	114	102	92	80	55	1.4	-2.1	-5.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	31	31	35	34	32	28	25	1.3	-1.2	-2.3
Freight transport (toe/Mtkm)	25	24	27	27	26	25	23	0.5	-0.2	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	145.9	151.3	125.5	118.7	118.5	110.2	89.5	-1.5	-0.6	-2.8
of which ETS sectors (2013 scope) GHG emissions		74.8	55.8	46.9	48.8	41.7	27.4		-1.3	-5.6
of which ESD sectors (2013 scope) GHG emissions		76.5	69.6	71.8	69.7	68.5	62.1		0.0	-1.2
CO2 Emissions (energy related)	88.8	95.8	77.4	71.5	73.8	65.9	46.9	-1.4	-0.5	-4.4
Power generation/District heating	42.0	39.0	33.6	27.2	28.6	22.0	10.5	-2.2	-1.6	-9.6
Energy Branch	6.8	7.7	5.1	4.0	3.8	3.6	3.3	-2.8	-2.9	-1.3
Industry	21.6	25.2	14.4	14.7	15.6	14.9	11.0	-4.0	0.9	-3.4
Residential	6.6	7.3	5.8	6.5	6.9	6.7	4.7	-1.2	1.7	-3.7
Tertiary	1.9	4.2	3.6	3.5	3.5	3.1	2.0	6.7	-0.4	-5.3
Transport	9.9	12.4	14.8	15.5	15.4	15.6	15.4	4.1	0.4	0.0
CO2 Emissions (non energy and non land use related)	13.4	8.7	7.1	7.4	7.8	7.8	7.6	-6.1	0.9	-0.2
Non-CO2 GHG emissions	43.8	46.7	40.9	39.8	36.9	36.5	34.9	-0.7	-1.0	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	57.4	59.5	49.4	46.7	46.6	43.4	35.2	-1.5	-0.6	-2.8
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.41	0.42	0.39	0.30	0.30	0.22	0.11	-0.6	-2.5	-9.3
Final energy demand (t of CO2/toe)	1.76	1.99	1.71	1.74	1.68	1.66	1.61	-0.3	-0.2	-0.4
Industry	2.33	2.52	2.09	2.01	1.92	1.79	1.53	-1.1	-0.8	-2.3
Residential	0.79	0.92	0.72	0.83	0.85	0.88	0.84	-0.8	1.6	-0.1
Tertiary	1.17	1.70	1.44	1.42	1.37	1.26	1.09	2.2	-0.5	-2.2
Transport	2.86	2.90	2.89	2.81	2.67	2.67	2.63	0.1	-0.8	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.9	17.6	23.3	25.1	26.2	26.7	34.1			
RES-H&C share	16.1	17.9	27.4	25.9	26.4	27.3	31.6			
RES-E share	30.2	28.8	30.4	42.3	40.6	40.8	64.2			
RES-T share (based on ILUC formula)	2.3	1.9	3.8	7.5	10.2	10.2	16.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	72	70	76	74	72	73	5.0	0.6	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	52	105	90	101	107	114	124	5.7	1.8	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.9	19.1	23.0	26.7	32.5	37.5	46.9	8.8	3.5	3.7
as % of GDP	11.5	16.8	17.7	18.4	20.0	20.8	24.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovakia: EU/CO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	5	5	5	5	5	5	5	0.0	0.0	-0.2
GDP (in 000 M€13)	43	55	69	76	89	102	117	4.8	2.6	2.7
Gross Inland Consumption (ktoe)	18302	19029	17864	16867	18361	18460	16729	-0.2	0.3	-0.9
Solids	4278	4231	3897	3247	3132	2873	1847	-0.9	-2.2	-5.1
Oil	3415	3711	3692	3346	3438	3337	3338	0.8	-0.7	-0.3
Natural gas	5777	5884	5007	4939	5007	4963	3786	-1.4	0.0	-2.8
Nuclear	4255	4626	3819	3569	4953	5375	6141	-1.1	2.6	2.2
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Renewable energy forms	810	859	1360	1551	2036	2141	1854	5.3	4.1	-0.9
Energy Branch Consumption	623	1297	963	942	937	861	793	4.5	-0.3	-1.7
Non-Energy Uses	1365	1279	1053	1597	1738	1869	2012	-2.6	5.1	1.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	6389	6684	6345	6192	7966	8105	8294	-0.1	2.3	0.4
Solids	1018	637	613	593	523	444	159	-4.9	-1.6	-11.2
Oil	165	383	387	297	264	0	0	8.9	-3.7	-100.0
Natural gas	133	126	88	120	107	71	72	-4.0	2.0	-4.0
Nuclear	4255	4626	3819	3569	4953	5375	6141	-1.1	2.6	2.2
Renewable energy sources	818	912	1438	1613	2120	2215	1922	5.8	4.0	-1.0
Hydro	397	399	452	407	468	432	431	1.3	0.4	-0.8
Biomass & Waste	421	505	972	1148	1573	1615	1292	8.7	4.9	-2.0
Wind	0	1	1	1	2	71	71	0.0	16.2	41.3
Solar and others	0	0	6	51	63	70	76	0.0	26.8	2.0
Geothermal	0	8	8	6	14	28	52	0.0	5.4	14.1
Net Imports (ktoe)	11997	12428	11230	10675	10395	10355	8435	-0.7	-0.8	-2.1
Solids	3432	3739	2951	2654	2609	2430	1689	-1.5	-1.2	-4.3
Oil	3090	3274	3266	3048	3174	3337	3338	0.6	-0.3	0.5
Crude oil and Feedstocks	5720	5429	5282	5716	5602	5568	5357	-0.8	0.6	-0.4
Oil products	-2630	-2155	-2015	-2667	-2428	-2231	-2019	-2.6	1.9	-1.8
Natural gas	5707	5735	5003	4819	4899	4892	3715	-1.3	-0.2	-2.7
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Import Dependency (%)	65.5	65.3	62.9	63.3	56.6	56.1	50.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	30798	31352	27464	27068	34131	36808	35409	-1.1	2.2	0.4
Nuclear energy	16494	17727	14574	14662	20320	22049	26334	-1.2	3.4	2.6
Solids	5584	5535	3570	4120	4682	3813	1450	-4.4	2.7	-11.1
Oil (including refinery gas)	202	741	600	164	8	90	90	11.5	-34.7	26.7
Gas (including derived gases)	3871	2629	2716	1730	1187	2761	219	-3.5	-7.9	-15.6
Biomass-waste	32	76	726	1129	1930	1717	856	36.6	10.3	-7.8
Hydro (pumping excluded)	4615	4638	5255	4738	5445	5019	5014	1.3	0.4	-0.8
Wind	0	6	6	6	26	827	827	0.0	15.8	41.3
Solar	0	0	17	520	532	532	619	0.0	40.8	1.5
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	6919	7103	6715	7497	7700	8259	9037	-0.3	1.4	1.6
Nuclear energy	2707	2707	1845	1940	2820	2820	4020	-3.8	4.3	3.6
Renewable energy	1685	1601	1624	2220	2356	2995	3055	-0.4	3.8	2.6
Hydro (pumping excluded)	1685	1596	1600	1607	1718	1718	1718	-0.5	0.7	0.0
Wind	0	5	5	5	19	657	657	0.0	14.3	42.4
Solar	0	0	19	608	620	620	680	0.0	41.7	0.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2526	2795	3246	3337	2523	2445	1962	2.5	-2.5	-2.5
of which cogeneration units	618	5411	2821	1020	839	876	744	16.4	-11.4	-1.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1618	1617	1313	1274	792	711	454	-2.1	-4.9	-5.4
Gas fired	821	1067	1674	1738	1325	1323	1099	7.4	-2.3	-1.9
Oil fired	81	81	81	84	84	84	84	0.0	0.4	0.0
Biomass-waste fired	7	30	177	241	322	326	326	38.2	6.1	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.2	46.9	42.6	38.8	47.7	48.1	42.6			
Efficiency of gross thermal power generation (%)	31.4	29.0	25.6	36.3	37.3	36.7	28.9			
% of gross electricity from CHP	18.4	15.3	15.9	25.6	22.1	18.4	7.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.6	71.6	74.9	77.8	82.8	81.9	95.0			
Fuel Inputs to Thermal Power Generation (ktoe)	2656	2664	2555	1692	1801	1962	779	-0.4	-3.4	-8.0
Solids	1619	1677	1205	1089	1148	1035	415	-2.9	-0.5	-9.7
Oil (including refinery gas)	31	100	293	34	3	30	30	25.4	-37.2	26.7
Gas (including derived gases)	1002	847	793	314	215	498	102	-2.3	-12.3	-7.2
Biomass & Waste	4	40	264	255	436	400	231	51.0	5.1	-6.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12901	13989	12558	12416	13527	13494	13648	-0.3	0.7	0.1
Refineries	5959	6398	6011	6450	6334	6063	5878	0.1	0.5	-0.7
Biofuels and hydrogen production	0	11	98	118	176	165	166	0.0	6.0	-0.5
District heating	674	718	497	367	376	363	247	-3.0	-2.8	-4.1
Derived gases, cokeries etc.	6268	6862	5952	5481	6642	6903	7357	-0.5	1.1	1.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovakia: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	37	39	36	38	45	50	56	-0.2	2.2	2.3
Public road transport	9	9	5	6	6	7	8	-5.5	2.0	2.0
Private cars and motorcycles	24	26	27	28	34	38	42	1.2	2.1	2.1
Rail	3	3	3	3	3	4	5	-2.1	2.9	3.3
Aviation ⁽³⁾	0	2	1	1	1	2	2	15.3	3.0	4.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	20	21	22	23	26	29	32	1.1	1.8	2.1
Heavy goods and light commercial vehicles	7	11	13	14	15	16	17	6.0	1.9	1.4
Rail	11	9	8	8	10	11	13	-3.2	1.8	3.0
Inland navigation	1	1	1	1	1	1	2	-1.5	1.1	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	1455	1794	2241	2205	2346	2260	2296	4.4	0.5	-0.2
Public road transport	193	185	132	141	154	161	171	-3.7	1.5	1.0
Private cars and motorcycles	830	992	1194	1155	1208	1116	1117	3.7	0.1	-0.8
Heavy goods and light commercial vehicles	308	527	821	814	872	854	862	10.3	0.6	-0.1
Rail	83	42	40	41	48	55	62	-7.1	1.8	2.6
Aviation	27	39	41	44	53	62	71	4.5	2.5	3.0
Inland navigation	14	7	12	10	11	12	13	-2.0	-0.4	1.4
By transport activity										
Passenger transport	1064	1223	1374	1346	1423	1347	1368	2.6	0.3	-0.4
Freight transport	390	570	867	859	924	912	928	8.3	0.6	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.6	4.4	5.5	7.7	7.9	8.0			
ENERGY EFFICIENCY										
Primary energy consumption	16937	17751	16811	15270	16623	16591	14716	-0.1	-0.1	-1.2
Final Energy Demand	10980	11561	11546	11225	11715	11352	9727	0.5	0.1	-1.8
by sector										
Industry	4532	4713	4361	4420	4605	4603	4087	-0.4	0.5	-1.2
Energy intensive industries	3678	3887	3637	3655	3772	3733	3214	-0.1	0.4	-1.6
Other industrial sectors	854	826	723	765	833	870	873	-1.7	1.4	0.5
Residential	2586	2540	2312	2176	2215	2118	1550	-1.1	-0.4	-3.5
Tertiary	2407	1916	2240	2038	2164	1996	1466	-0.7	-0.3	-3.8
Transport ⁽⁵⁾	1455	2392	2633	2591	2731	2635	2624	6.1	0.4	-0.4
by fuel										
Solids	1747	1572	1637	1294	1246	1177	877	-0.6	-2.7	-3.4
Oil	1703	2184	2301	2230	2287	2142	2084	3.1	-0.1	-0.9
Gas	4698	4540	4119	4011	4070	3698	2849	-1.3	-0.1	-3.5
Electricity	1893	1965	2075	2219	2355	2557	2465	0.9	1.3	0.5
Heat (from CHP and District Heating)	619	951	851	726	813	779	535	3.2	-0.5	-4.1
Renewable energy forms	320	349	562	745	941	990	902	5.8	5.3	-0.4
Other	0	0	0	0	2	9	15	0.0	0.0	25.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	424	347	259	221	206	181	143	-4.8	-2.3	-3.6
Industry (Energy on Value added, index 2000=100)	100	61	39	37	34	30	24	-8.9	-1.4	-3.5
Residential (Energy on Private Income, index 2000=100)	100	78	59	51	44	36	23	-5.1	-2.9	-6.4
Tertiary (Energy on Value added, index 2000=100)	100	72	68	54	49	39	25	-3.8	-3.2	-6.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	31	37	35	31	26	24	2.7	-1.8	-2.6
Freight transport (toe/Mtkm)	20	27	40	37	35	32	29	7.2	-1.1	-2.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	54.1	54.7	50.8	45.0	42.4	39.8	31.6	-0.6	-1.8	-2.9
of which ETS sectors (2013 scope) GHG emissions		29.2	24.7	20.4	19.0	18.1	12.4		-2.6	-4.2
of which ESD sectors (2013 scope) GHG emissions		25.5	26.1	24.6	23.4	21.7	19.2		-1.1	-2.0
CO ₂ Emissions (energy related)	38.7	41.6	38.7	33.6	32.4	30.0	22.1	0.0	-1.7	-3.8
Power generation/District heating	11.1	11.2	9.2	6.3	5.9	6.3	2.7	-1.8	-4.3	-7.7
Energy Branch	1.6	3.4	2.5	2.2	2.0	1.8	1.6	4.4	-2.0	-2.4
Industry	13.3	14.1	12.8	12.0	11.3	10.0	7.8	-0.4	-1.2	-3.6
Residential	4.1	3.6	3.4	2.8	2.7	2.4	1.6	-2.0	-2.2	-5.2
Tertiary	4.5	2.7	3.5	3.1	3.1	2.4	1.5	-2.5	-1.1	-6.9
Transport	4.1	6.6	7.3	7.1	7.3	7.0	6.9	5.9	0.1	-0.6
CO ₂ Emissions (non energy and non land use related)	6.7	3.9	3.2	3.5	3.5	3.5	3.5	-7.0	0.9	-0.1
Non-CO2 GHG emissions	8.7	9.1	8.9	7.8	6.4	6.3	6.0	0.2	-3.2	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	71.5	72.3	67.2	59.5	56.1	52.6	41.8	-0.6	-1.8	-2.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.27	0.25	0.23	0.17	0.13	0.13	0.06	-1.4	-5.7	-7.2
Final energy demand (t of CO ₂ /toe)	2.37	2.34	2.33	2.24	2.09	1.93	1.83	-0.2	-1.1	-1.3
Industry	2.94	2.99	2.94	2.72	2.46	2.18	1.92	0.0	-1.8	-2.5
Residential	1.60	1.40	1.47	1.30	1.22	1.15	1.02	-0.9	-1.8	-1.8
Tertiary	1.85	1.43	1.55	1.54	1.44	1.22	1.04	-1.8	-0.7	-3.2
Transport	2.82	2.77	2.77	2.74	2.69	2.66	2.63	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.3	5.8	9.0	11.7	14.4	15.7	16.8			
RES-H&C share	1.2	4.9	7.8	10.3	13.0	15.4	18.4			
RES-E share	11.9	13.5	17.8	21.7	25.1	23.8	22.5			
RES-T share (based on ILUC formula)	1.7	1.5	5.3	6.6	10.1	10.8	11.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	62	60	70	80	81	73	87	1.2	1.4	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	94	102	143	128	131	137	148	4.3	-0.8	1.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	7.1	8.5	11.5	11.2	13.7	15.9	19.6	4.9	1.8	3.6
as % of GDP	16.4	15.6	16.6	14.7	15.4	15.5	16.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Slovenia: EU/CO-35			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	2	2	2	2	2	2	2	0.3	0.2	0.0
GDP (in 000 M€13)	28	34	37	38	41	45	48	2.7	1.0	1.6
Gross Inland Consumption (ktoe)	6451	7325	7226	6776	7005	6847	6104	1.1	-0.3	-1.4
Solids	1305	1539	1451	1268	1353	1296	1125	1.1	-0.7	-1.8
Oil	2419	2580	2579	2360	2274	2024	1749	0.6	-1.2	-2.6
Natural gas	826	929	863	681	692	735	559	0.4	-2.2	-2.1
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Renewable energy forms	788	787	1054	1182	1395	1413	1384	3.0	2.8	-0.1
Energy Branch Consumption	107	100	112	99	105	95	94	0.5	-0.6	-1.1
Non-Energy Uses	238	310	209	114	120	126	126	-1.3	-5.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3085	3492	3687	3441	3764	3762	3663	1.8	0.2	-0.3
Solids	1062	1184	1196	1023	1127	1042	979	1.2	-0.6	-1.4
Oil	1	0	0	0	0	0	0	-95.0	-100.0	0.0
Natural gas	6	3	6	3	4	11	15	0.0	-3.8	13.8
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Renewable energy sources	788	787	1025	1094	1260	1281	1240	2.7	2.1	-0.2
Hydro	330	298	388	380	391	407	408	1.6	0.1	0.4
Biomass & Waste	458	489	601	632	724	680	573	2.7	1.9	-2.3
Wind	0	0	0	0	24	24	42	0.0	0.0	5.6
Solar and others	0	0	9	36	54	117	179	0.0	19.2	12.6
Geothermal	0	0	27	45	66	52	38	0.0	9.4	-5.4
Net Imports (ktoe)	3415	3855	3581	3356	3261	3105	2462	0.5	-0.9	-2.8
Solids	244	323	279	245	226	254	147	1.4	-2.1	-4.2
Oil	2466	2634	2596	2380	2295	2044	1769	0.5	-1.2	-2.6
Crude oil and Feedstocks	152	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	2314	2634	2596	2380	2295	2044	1769	1.2	-1.2	-2.6
Natural gas	820	925	857	678	689	724	545	0.4	-2.2	-2.3
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Import Dependency (%)	52.9	52.5	49.4	49.4	46.4	45.2	40.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	13624	15117	16248	15127	16469	17410	17685	1.8	0.1	0.7
Nuclear energy	4761	5884	5657	5421	5628	5801	5801	1.7	-0.1	0.3
Solids	4611	5271	5288	4858	5182	4797	4142	1.4	-0.2	-2.2
Oil (including refinery gas)	55	42	8	0	0	0	0	-17.5	-100.0	0.0
Gas (including derived gases)	293	339	548	14	142	403	85	6.5	-12.7	-5.0
Biomass-waste	70	120	222	111	300	336	556	12.2	3.0	6.4
Hydro (pumping excluded)	3834	3461	4512	4424	4542	4735	4747	1.6	0.1	0.4
Wind	0	0	0	5	284	284	489	0.0	0.0	5.6
Solar	0	0	13	295	391	1054	1865	0.0	40.8	16.9
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2955	3111	3186	3490	3886	4301	4914	0.8	2.0	2.4
Nuclear energy	700	700	700	700	700	700	700	0.0	0.0	0.0
Renewable energy	843	979	1086	1385	1773	2393	3282	2.6	5.0	6.4
Hydro (pumping excluded)	843	979	1074	1119	1220	1220	1220	2.5	1.3	0.0
Wind	0	0	0	4	200	200	337	0.0	0.0	5.3
Solar	0	0	12	262	352	973	1725	0.0	40.2	17.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1412	1432	1400	1405	1414	1208	932	-0.1	0.1	-4.1
of which cogeneration units	648	336	333	228	213	238	202	-6.4	-4.4	-0.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	923	923	792	792	792	678	632	-1.5	0.0	-2.2
Gas fired	278	284	372	470	468	389	165	3.0	2.3	-9.9
Oil fired	176	190	185	92	29	16	16	0.5	-16.9	-5.7
Biomass-waste fired	35	35	51	51	124	124	118	3.9	9.3	-0.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.4	51.9	54.5	46.4	45.4	44.0	39.3			
Efficiency of gross thermal power generation (%)	33.2	32.9	33.4	34.4	34.6	33.2	32.6			
% of gross electricity from CHP	6.4	7.3	6.9	8.9	8.5	5.8	4.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	63.6	62.6	64.0	67.8	67.7	70.1	76.1			
Fuel Inputs to Thermal Power Generation (ktoe)	1302	1508	1562	1247	1399	1435	1262	1.8	-1.1	-1.0
Solids	1215	1412	1381	1217	1301	1253	1104	1.3	-0.6	-1.6
Oil (including refinery gas)	13	9	3	0	0	0	0	-13.3	-100.0	0.0
Gas (including derived gases)	59	58	113	3	25	88	27	6.7	-14.0	0.7
Biomass & Waste	15	30	65	27	73	94	131	15.5	1.2	6.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1479	1607	1562	1481	1580	1623	1611	0.6	0.1	0.2
Refineries	171	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	46	98	145	139	144	0.0	12.3	-0.1
District heating	80	89	57	61	62	54	36	-3.2	0.8	-5.4
Derived gases, cokeries etc.	1228	1518	1459	1322	1373	1431	1431	1.7	-0.6	0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovenia: EUCO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	25	27	30	31	34	35	36	2.0	1.0	0.8
Public road transport	4	3	3	3	3	3	3	-1.0	0.2	0.3
Private cars and motorcycles	20	23	26	27	29	30	31	2.4	1.0	0.6
Rail	1	1	1	1	1	2	2	1.4	4.1	3.9
Aviation ⁽³⁾	0	0	0	0	0	1	1	2.0	3.3	3.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	6	11	11	12	15	18	20	5.6	3.3	2.7
Heavy goods and light commercial vehicles	4	8	8	8	10	11	12	7.9	3.1	1.9
Rail	3	3	3	4	5	6	7	1.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	1249	1492	1806	1838	1906	1814	1726	3.8	0.5	-1.0
Public road transport	78	71	92	94	96	95	92	1.8	0.3	-0.4
Private cars and motorcycles	1025	1047	1304	1319	1300	1166	1056	2.4	0.0	-2.1
Heavy goods and light commercial vehicles	98	323	355	370	444	478	495	13.8	2.3	1.1
Rail	24	28	26	27	33	38	43	1.0	2.2	2.8
Aviation	25	23	28	28	34	38	41	1.3	2.1	1.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	1132	1146	1430	1447	1437	1306	1198	2.4	0.0	-1.8
Freight transport	117	346	376	391	469	508	529	12.4	2.2	1.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.3	2.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.5	5.4	7.7	7.9	8.6			
ENERGY EFFICIENCY										
Primary energy consumption	6214	7016	7017	6662	6885	6721	5978	1.2	-0.2	-1.4
Final Energy Demand	4457	4897	4927	4954	5046	4806	4149	1.0	0.2	-1.9
by sector										
Industry	1424	1644	1273	1332	1412	1437	1267	-1.1	1.0	-1.1
Energy intensive industries	836	1028	788	890	944	949	807	-0.6	1.8	-1.6
Other industrial sectors	588	616	485	442	468	488	460	-1.9	-0.4	-0.2
Residential	1077	1140	1191	1145	1099	998	743	1.0	-0.8	-3.8
Tertiary	697	620	657	638	628	556	411	-0.6	-0.4	-4.2
Transport ⁽⁵⁾	1259	1493	1806	1839	1907	1815	1727	3.7	0.5	-1.0
by fuel										
Solids	90	80	47	51	52	43	22	-6.3	1.1	-8.4
Oil	2264	2409	2447	2239	2154	1899	1625	0.8	-1.3	-2.8
Gas	569	665	620	635	644	615	512	0.9	0.4	-2.3
Electricity	905	1096	1029	1098	1160	1285	1223	1.3	1.2	0.5
Heat (from CHP and District Heating)	195	196	192	197	205	200	152	-0.2	0.7	-3.0
Renewable energy forms	435	452	592	735	832	762	610	3.1	3.5	-3.1
Other	0	0	0	0	0	2	6	0.0	0.0	34.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	227	215	195	181	171	153	127	-1.5	-1.3	-2.9
Industry (Energy on Value added, index 2000=100)	100	93	70	74	72	66	54	-3.6	0.3	-2.8
Residential (Energy on Private Income, index 2000=100)	100	93	85	87	77	63	43	-1.6	-1.1	-5.6
Tertiary (Energy on Value added, index 2000=100)	100	74	70	66	59	48	33	-3.5	-1.6	-5.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	42	46	46	42	36	32	0.3	-1.0	-2.6
Freight transport (toe/Mtkm)	18	32	34	33	31	29	27	6.4	-1.0	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.0	20.2	19.2	17.5	17.4	16.3	14.3	0.1	-1.0	-2.0
of which ETS sectors (2013 scope) GHG emissions		8.9	8.2	7.2	7.6	7.4	6.2		-0.8	-1.9
of which ESD sectors (2013 scope) GHG emissions		11.3	11.0	10.2	9.8	9.0	8.0		-1.1	-2.0
CO ₂ Emissions (energy related)	14.1	15.5	15.3	13.8	13.9	13.0	11.0	0.9	-1.0	-2.3
Power generation/District heating	5.5	6.3	6.2	5.3	5.6	5.5	4.7	1.3	-1.0	-1.7
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.9	-4.9	13.8
Industry	2.4	2.3	1.7	1.7	1.7	1.5	1.1	-3.0	-0.5	-4.4
Residential	1.3	1.5	1.2	0.9	0.8	0.6	0.4	-1.0	-4.0	-6.7
Tertiary	1.2	1.0	0.9	0.7	0.6	0.4	0.2	-3.0	-4.1	-8.0
Transport	3.7	4.4	5.3	5.2	5.3	4.9	4.5	3.8	0.0	-1.5
CO ₂ Emissions (non energy and non land use related)	1.0	1.2	0.8	0.7	0.7	0.8	0.8	-1.7	-1.1	0.5
Non-CO2 GHG emissions	3.9	3.5	3.0	3.0	2.7	2.6	2.5	-2.6	-1.0	-1.0
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.0	108.4	103.1	93.8	93.4	87.7	76.6	0.1	-1.0	-2.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.34	0.35	0.33	0.30	0.29	0.28	0.24	-0.3	-1.2	-1.9
Final energy demand (t of CO ₂ /toe)	1.91	1.88	1.85	1.72	1.64	1.54	1.51	-0.4	-1.2	-0.9
Industry	1.66	1.41	1.37	1.29	1.18	1.03	0.84	-1.9	-1.5	-3.3
Residential	1.24	1.28	1.01	0.79	0.73	0.61	0.54	-2.0	-3.2	-3.0
Tertiary	1.68	1.63	1.32	1.03	0.91	0.73	0.60	-2.4	-3.7	-4.0
Transport	2.90	2.97	2.93	2.85	2.76	2.71	2.63	0.1	-0.6	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.6	15.9	19.1	21.9	25.2	26.8	29.9			
RES-H&C share	18.9	19.0	25.5	29.8	34.5	36.2	37.7			
RES-E share	30.9	28.7	32.2	33.0	35.7	38.2	48.0			
RES-T share (based on ILUC formula)	1.0	0.8	3.2	6.1	10.1	12.3	18.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	49	47	45	67	69	56	60	-0.7	4.3	-1.5
Average Price of Electricity in Final demand sectors (€13/MWh)	109	86	111	106	107	108	111	0.2	-0.4	0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.8	4.7	6.1	6.4	7.5	8.1	9.1	5.0	2.1	2.0
as % of GDP	13.3	13.8	16.5	17.1	18.4	18.2	19.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Spain: EU CO ₂ 35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	40	43	46	46	46	45	44	1.5	-0.2	-0.3
GDP (in 000 M€13)	893	1048	1093	1094	1207	1327	1447	2.0	1.0	1.8
Gross Inland Consumption (ktoe)	123642	144223	129868	124583	125262	114637	96346	0.5	-0.4	-2.4
Solids	20938	20566	7906	15768	15864	10382	4452	-9.3	7.2	-11.9
Oil	63967	70457	60436	53990	50066	46146	41950	-0.6	-1.9	-1.8
Natural gas	15305	29886	31162	25155	25432	21077	13677	7.4	-2.0	-6.0
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Renewable energy forms	7005	8587	15090	15611	19349	22312	23727	8.0	2.5	2.1
Energy Branch Consumption	6259	6666	7878	7994	7436	6535	5908	2.3	-0.6	-2.3
Non-Energy Uses	9407	8362	7046	5744	6094	6366	6374	-2.8	-1.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	31478	30047	34166	33101	36708	37802	38609	0.8	0.7	0.5
Solids	7966	6265	3296	2973	2911	1078	387	-8.4	-1.2	-18.3
Oil	228	167	124	377	365	344	359	-5.9	11.4	-0.2
Natural gas	234	185	78	42	47	53	57	-10.4	-4.9	1.8
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Renewable energy sources	7005	8587	14677	15536	19213	22153	23634	7.7	2.7	2.1
Hydro	2430	1582	3638	2853	2862	2877	2882	4.1	-2.4	0.1
Biomass & Waste	4131	5113	6183	6934	9588	8976	8074	4.1	4.5	-1.7
Wind	406	1821	3807	4443	4844	5288	6640	25.1	2.4	3.2
Solar and others	33	65	1035	1288	1896	4959	5987	41.3	6.2	12.2
Geothermal	5	7	16	18	24	54	49	11.5	4.3	7.3
Net Imports (ktoe)	99342	123832	106084	100729	97904	86167	69165	0.7	-0.8	-3.4
Solids	12840	14418	6726	12795	12953	9305	4065	-6.3	6.8	-10.9
Oil	70653	79281	68704	62860	58969	54953	50529	-0.3	-1.5	-1.5
Crude oil and Feedstocks	59023	60650	56496	66666	63016	58867	54536	-0.4	1.1	-1.4
Oil products	11631	18630	12208	-3806	-4047	-3914	-4007	0.5	0.0	-0.1
Natural gas	15467	30248	30950	25113	25467	21204	14111	7.2	-1.9	-5.7
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Import Dependency (%)	76.6	81.4	76.8	75.3	72.7	69.5	64.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	220921	289445	298320	275295	284903	287519	263951	3.0	-0.5	-0.8
Nuclear energy	62206	57539	61990	58066	58066	57757	57521	0.0	-0.7	-0.1
Solids	79094	84047	25493	57621	58341	34895	13316	-10.7	8.6	-13.7
Oil (including refinery gas)	22578	24420	16562	4988	566	1700	1598	-3.1	-28.7	10.9
Gas (including derived gases)	21942	80725	95840	53218	56352	40040	9050	15.9	-5.2	-16.7
Biomass-waste	2100	3104	4674	4514	5972	7481	8912	8.3	2.5	4.1
Hydro (pumping excluded)	28256	18393	42304	33177	33274	33452	33516	4.1	-2.4	0.1
Wind	4727	21176	44271	51665	56322	61491	77209	25.1	2.4	3.2
Solar	17	41	6423	12046	16011	50704	62829	80.6	9.6	14.6
Geothermal and other renewables	1	0	763	0	0	0	0	105.9	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	52405	73568	99270	104515	104565	119730	124510	6.6	0.5	1.8
Nuclear energy	7869	7869	7845	7399	7399	7399	7399	0.0	-0.6	0.0
Renewable energy	17760	25774	41432	46783	51047	69939	80295	8.8	2.1	4.6
Hydro (pumping excluded)	15542	15796	16086	16632	16795	16795	16795	0.3	0.4	0.0
Wind	2206	9918	20693	23025	24977	26619	31532	25.1	1.9	2.4
Solar	12	60	4653	7126	9275	26525	31968	81.5	7.1	13.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	26776	39924	49994	50333	46120	42392	36815	6.4	-0.8	-2.2
of which cogeneration units	4570	6597	3382	6216	5491	3736	5637	-3.0	5.0	0.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	11556	11359	10389	10316	9331	7376	3966	-1.1	-1.1	-8.2
Gas fired	4713	17647	29569	31333	30272	29749	28056	20.2	0.2	-0.8
Oil fired	10028	10043	8964	7496	4752	3422	2950	-1.1	-6.1	-4.7
Biomass-waste fired	478	876	1072	1188	1764	1844	1843	8.4	5.1	0.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.9	43.1	33.1	28.9	29.9	26.7	23.7			
Efficiency of gross thermal power generation (%)	40.8	46.7	48.9	42.5	42.6	41.5	37.2			
% of gross electricity from CHP	9.2	4.0	7.4	9.8	8.7	5.4	6.7			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	44.0	34.6	53.8	57.9	59.5	73.3	90.9			
Fuel Inputs to Thermal Power Generation (ktoe)	26472	35403	25226	24328	24482	17451	7605	-0.5	-0.3	-11.0
Solids	18245	17623	5561	13703	13789	8319	3207	-11.2	9.5	-13.6
Oil (including refinery gas)	4455	5249	3391	948	133	402	379	-2.7	-27.7	11.0
Gas (including derived gases)	3075	11140	14839	8684	9260	6910	1945	17.0	-4.6	-14.4
Biomass & Waste	697	1391	1435	994	1300	1820	2075	7.5	-1.0	4.8
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	79871	79435	78129	80766	79050	75197	71050	-0.2	0.1	-1.1
Refineries	60685	61323	58480	63161	60977	57405	53515	-0.4	0.4	-1.3
Biofuels and hydrogen production	70	256	1412	1419	2061	1868	1915	35.0	3.9	-0.7
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	19115	17857	18237	16187	16012	15923	15620	-0.5	-1.3	-0.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Spain: EUO+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	476	535	542	561	609	656	710	1.3	1.2	1.5
Public road transport	50	53	51	52	53	54	56	0.1	0.5	0.4
Private cars and motorcycles	310	346	352	354	372	392	420	1.3	0.5	1.2
Rail	25	28	29	29	37	44	52	1.2	2.5	3.5
Aviation ⁽³⁾	89	106	109	124	145	164	181	2.1	3.0	2.2
Inland navigation	2	2	2	2	2	2	2	0.8	1.4	1.5
Freight transport activity (Gtkm)	180	265	227	228	247	261	278	2.3	0.9	1.2
Heavy goods and light commercial vehicles	138	217	190	191	206	215	229	3.2	0.8	1.1
Rail	12	12	9	10	12	13	15	-2.3	2.3	2.6
Inland navigation	31	36	28	28	30	32	34	-1.1	0.7	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	33084	39797	37180	35033	34469	32669	32077	1.2	-0.8	-0.7
Public road transport	1354	1408	1319	1329	1325	1297	1270	-0.3	0.0	-0.4
Private cars and motorcycles	18655	20608	19876	18098	16537	14383	13615	0.6	-1.8	-1.9
Heavy goods and light commercial vehicles	6486	9874	8641	8122	8353	8125	8290	2.9	-0.3	-0.1
Rail	708	1029	899	772	874	979	1052	2.4	-0.3	1.9
Aviation	4486	5323	5389	6005	6623	7066	6986	1.9	2.1	0.5
Inland navigation	1395	1555	1057	707	757	819	864	-2.7	-3.3	1.3
By transport activity										
Passenger transport	25151	27727	26960	25730	24840	23155	22322	0.7	-0.8	-1.1
Freight transport	7933	12069	10220	9303	9629	9513	9755	2.6	-0.6	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	3.8	4.1	6.1	5.9	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	114235	135861	122822	118838	119169	108270	91972	0.7	-0.3	-2.6
Final Energy Demand	79885	97754	89072	85314	86317	80417	70750	1.1	-0.3	-2.0
by sector										
Industry	25368	30967	21435	21275	22287	21498	19273	-1.7	0.4	-1.4
Energy intensive industries	17349	20338	13379	13268	14044	13286	11648	-2.6	0.5	-1.9
Other industrial sectors	8020	10628	8056	8007	8243	8212	7624	0.0	0.2	-0.8
Residential	12000	15132	16920	15550	15509	13769	10230	3.5	-0.9	-4.1
Tertiary	9287	11712	13526	13441	14036	12464	9153	3.8	0.4	-4.2
Transport ⁽⁵⁾	33230	39944	37192	35048	34485	32686	32095	1.1	-0.8	-0.7
by fuel										
Solids	1775	1712	1261	1123	1314	1308	545	-3.4	0.4	-8.4
Oil	46297	53449	46775	43129	40264	36304	32399	0.1	-1.5	-2.1
Gas	12141	17978	14645	14743	14346	12562	10315	1.9	-0.2	-3.2
Electricity	16205	20827	21049	20057	21337	21998	20242	2.7	0.1	-0.5
Heat (from CHP and District Heating)	0	0	0	8	118	298	482	0.0	0.0	15.1
Renewable energy forms	3469	3788	5343	6252	8927	7894	6619	4.4	5.3	-2.9
Other	0	0	0	3	10	53	148	0.0	1431.1	30.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	139	138	119	114	104	86	68	-1.5	-1.3	-4.1
Industry (Energy on Value added, index 2000=100)	100	114	87	87	83	75	62	-1.4	-0.4	-2.9
Residential (Energy on Private Income, index 2000=100)	100	106	115	103	93	75	51	1.4	-2.1	-5.8
Tertiary (Energy on Value added, index 2000=100)	100	108	110	107	101	81	54	1.0	-0.9	-6.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	46	42	38	34	29	26	-1.1	-2.2	-2.7
Freight transport (toe/Mtkm)	44	46	45	41	39	36	35	0.3	-1.5	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	398.8	447.7	364.3	356.5	342.2	294.1	236.2	-0.9	-0.6	-3.6
of which ETS sectors (2013 scope) GHG emissions		216.2	146.4	157.9	158.0	128.1	88.2		0.8	-5.7
of which ESD sectors (2013 scope) GHG emissions		231.5	218.0	198.6	184.2	166.0	148.0		-1.7	-2.2
CO ₂ Emissions (energy related)	291.6	347.3	272.6	271.0	259.3	214.2	159.4	-0.7	-0.5	-4.8
Power generation/District heating	98.8	117.7	70.3	81.2	80.2	53.5	20.8	-3.4	1.3	-12.6
Energy Branch	13.4	13.5	16.2	16.1	14.3	12.6	11.5	1.9	-1.2	-2.2
Industry	50.4	59.2	42.3	39.8	39.6	35.8	27.3	-1.7	-0.7	-3.6
Residential	17.1	20.9	20.5	16.5	13.6	10.0	4.5	1.9	-4.0	-10.4
Tertiary	13.2	16.5	15.0	15.5	13.9	10.3	6.8	1.3	-0.7	-6.9
Transport	98.7	119.5	108.3	101.9	97.7	92.0	88.5	0.9	-1.0	-1.0
CO ₂ Emissions (non energy and non land use related)	26.2	29.5	21.8	17.7	18.9	19.4	19.7	-1.8	-1.4	0.4
Non-CO2 GHG emissions	81.1	71.0	69.9	67.7	64.0	60.5	57.1	-1.5	-0.9	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	134.6	151.1	123.0	120.3	115.5	99.3	79.7	-0.9	-0.6	-3.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.45	0.41	0.24	0.29	0.28	0.18	0.08	-6.2	1.7	-12.2
Final energy demand (t of CO ₂ /toe)	2.25	2.21	2.09	2.04	1.91	1.84	1.80	-0.7	-0.9	-0.6
Industry	1.99	1.91	1.97	1.87	1.78	1.67	1.42	-0.1	-1.1	-2.2
Residential	1.42	1.38	1.21	1.06	0.88	0.73	0.44	-1.6	-3.2	-6.6
Tertiary	1.43	1.41	1.11	1.15	0.99	0.83	0.74	-2.5	-1.1	-2.9
Transport	2.97	2.99	2.91	2.91	2.83	2.81	2.76	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	8.1	8.4	13.8	15.4	21.0	26.1	32.2			
RES-H&C share	11.0	9.4	12.6	16.1	22.5	23.8	27.0			
RES-E share	16.6	19.1	29.8	36.9	38.5	52.1	68.1			
RES-T share (based on ILUC formula)	0.6	1.3	5.1	0.8	10.1	12.6	19.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	58	62	75	90	97	89	81	2.5	2.6	-1.8
Average Price of Electricity in Final demand sectors (€13/MWh)	105	101	149	173	171	164	165	3.5	1.4	-0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	74.3	101.3	120.1	122.7	144.9	153.2	172.6	4.9	1.9	1.8
as % of GDP	8.3	9.7	11.0	11.2	12.0	11.6	11.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Sweden: EU/CO ₂ -35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	9	9	9	10	10	11	11	0.5	0.9	0.8
GDP (in 000 M€13)	296	337	366	404	448	497	552	2.2	2.1	2.1
Gross Inland Consumption (ktoe)	48898	50993	50783	47002	45929	44892	41121	0.4	-1.0	-1.1
Solids	2452	2629	2492	2263	1987	1906	1294	0.2	-2.2	-4.2
Oil	15377	14136	14199	11663	10830	9598	8496	-0.8	-2.7	-2.4
Natural gas	816	886	1484	679	3063	2680	973	6.2	7.5	-10.8
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Renewable energy forms	15066	15308	17512	19146	19612	20230	20095	1.5	1.1	0.2
Energy Branch Consumption	1141	1326	1469	1414	1365	1327	1312	2.6	-0.7	-0.4
Non-Energy Uses	3143	2460	2113	2183	2281	2398	2436	-3.9	0.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	30052	34233	32685	33372	31499	32056	31791	0.8	-0.4	0.1
Solids	162	211	238	210	86	94	0	4.0	-9.6	-100.0
Oil	0	0	0	0	0	0	0	7.8	-100.0	0.0
Natural gas	40	44	18	0	0	0	0	-7.6	-100.0	0.0
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0
Renewable energy sources	15066	15308	17512	18801	19220	19770	19599	1.5	0.9	0.2
Hydro	6757	6260	5709	6203	6158	6083	6079	-1.7	0.8	-0.1
Biomass & Waste	8264	8961	11490	11434	11782	11254	10606	3.4	0.3	-1.0
Wind	39	81	301	1147	1249	2377	2822	22.6	15.3	8.5
Solar and others	5	6	11	17	31	54	85	7.4	10.9	10.6
Geothermal	0	0	0	0	0	2	6	0.0	0.0	34.0
Net Imports (ktoe)	20436	19460	19294	15820	16748	15265	11880	-0.6	-1.4	-3.4
Solids	2409	2556	2548	2054	1901	1812	1294	0.6	-2.9	-3.8
Oil	16849	16698	15102	13853	13100	11919	10666	-1.1	-1.4	-2.0
Crude oil and Feedstocks	21606	19369	19139	15905	15013	13770	12593	-1.2	-2.4	-1.7
Oil products	-4757	-2671	-4038	-2052	-1913	-1851	-1927	-1.6	-7.2	0.1
Natural gas	776	843	1466	679	3111	2788	1352	6.6	7.8	-8.0
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Import Dependency (%)	40.7	36.8	36.6	32.2	34.7	32.3	27.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	145231	158365	148460	160491	173014	179877	175930	0.2	1.5	0.2
Nuclear energy	57316	72377	57828	57851	49379	49379	49738	0.1	-1.6	0.1
Solids	1706	1169	1770	1540	1118	786	621	0.4	-4.5	-5.7
Oil (including refinery gas)	1533	1379	1774	249	363	198	0	1.5	-14.7	-100.0
Gas (including derived gases)	1292	1342	3782	471	15487	12471	2088	11.3	15.1	-18.2
Biomass-waste	4342	8357	13397	14846	20465	18590	19903	11.9	4.3	-0.3
Hydro (pumping excluded)	78584	72803	66398	72128	71601	70735	70687	-1.7	0.8	-0.1
Wind	457	936	3502	13335	14526	27643	32819	22.6	15.3	8.5
Solar	1	2	8	69	75	75	75	21.5	24.9	0.0
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	34594	33587	36947	39676	37504	41969	43580	0.7	0.1	1.5
Nuclear energy	10122	9532	9532	9532	6949	6949	6949	-0.6	-3.1	0.0
Renewable energy	16718	16799	18654	22501	23533	27772	29390	1.1	2.4	2.2
Hydro (pumping excluded)	16506	16302	16624	16395	16938	16938	16938	0.1	0.2	0.0
Wind	209	493	2019	6025	6507	10747	12364	25.5	12.4	6.6
Solar	3	4	11	81	88	88	88	13.9	23.1	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7754	7256	8761	7643	7022	7247	7241	1.2	-2.2	0.3
of which cogeneration units	4940	3488	5100	4504	6293	6115	4168	0.3	2.1	-4.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	337	348	356	356	136	136	128	0.5	-9.2	-0.6
Gas fired	547	469	1168	1168	3217	3355	3354	7.9	10.7	0.4
Oil fired	4472	3974	3963	2958	867	867	867	-1.2	-14.1	0.0
Biomass-waste fired	2398	2465	3274	3161	2802	2889	2892	3.2	-1.5	0.3
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	52.5	44.9	45.1	51.3	47.8	44.9			
Efficiency of gross thermal power generation (%)	21.3	23.0	27.3	25.6	41.0	38.5	34.9			
% of gross electricity from CHP	5.9	6.7	12.5	10.7	21.3	16.2	9.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	96.9	97.5	95.1	98.6	90.2	92.5	98.5			
Fuel Inputs to Thermal Power Generation (ktoe)	3582	4575	6518	5747	7852	7150	5576	6.2	1.9	-3.4
Solids	462	508	597	566	266	286	154	2.6	-7.8	-5.3
Oil (including refinery gas)	530	317	431	70	103	64	0	-2.0	-13.3	-100.0
Gas (including derived gases)	508	591	998	225	2488	2063	419	7.0	9.6	-16.3
Biomass & Waste	2084	3158	4491	4886	4995	4736	5003	8.0	1.1	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	40980	42243	39786	34628	31710	30618	29116	-0.3	-2.2	-0.9
Refineries	22901	20082	21039	16927	16156	15140	14021	-0.8	-2.6	-1.4
Biofuels and hydrogen production	0	134	376	733	817	862	1066	0.0	8.1	2.7
District heating	1564	1525	1735	1424	1362	1179	764	1.0	-2.4	-5.6
Derived gases, cokeries etc.	16516	20501	16636	15543	13375	13438	13264	0.1	-2.2	-0.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Sweden: EU20+35		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	142	148	151	160	167	174	185	0.7	1.0	1.1
Public road transport	9	9	9	9	9	10	11	-1.0	0.9	1.2
Private cars and motorcycles	102	108	109	114	116	119	124	0.7	0.7	0.6
Rail	10	11	13	15	16	18	20	2.8	2.1	2.0
Aviation ⁽³⁾	14	13	15	17	18	20	23	0.3	2.3	2.4
Inland navigation	6	6	6	5	6	7	7	-0.3	0.2	1.5
Freight transport activity (Gtkm)	70	78	81	81	90	97	104	1.5	1.1	1.4
Heavy goods and light commercial vehicles	43	47	45	46	49	51	53	0.4	1.1	0.7
Rail	19	22	23	24	28	31	35	1.9	1.6	2.3
Inland navigation	7	9	13	11	13	15	16	5.6	0.4	2.2
Energy demand in transport (ktoe) ⁽⁴⁾	8192	8609	8620	8260	7891	7174	6765	0.5	-0.9	-1.5
Public road transport	189	179	184	187	193	203	211	-0.3	0.5	0.9
Private cars and motorcycles	4879	5236	5250	4890	4394	3651	3218	0.7	-1.8	-3.1
Heavy goods and light commercial vehicles	1740	1959	1951	1921	1939	1847	1829	1.2	-0.1	-0.6
Rail	299	246	208	232	264	288	310	-3.6	2.4	1.6
Aviation	928	846	840	945	1002	1078	1081	-1.0	1.8	0.8
Inland navigation	156	142	188	85	98	107	116	1.8	-6.3	1.7
<i>By transport activity</i>										
Passenger transport	6165	6361	6387	6089	5667	5016	4597	0.4	-1.2	-2.1
Freight transport	2027	2248	2234	2171	2225	2159	2168	1.0	0.0	-0.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.7	2.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	1.6	4.7	9.2	10.8	12.4	15.3			
ENERGY EFFICIENCY										
Primary energy consumption	45755	48533	48670	44819	43648	42495	38686	0.6	-1.1	-1.2
Final Energy Demand	33561	33492	34077	31885	31937	30638	26670	0.2	-0.6	-1.8
<i>by sector</i>										
Industry	12854	12464	12205	11531	12089	12108	11105	-0.5	-0.1	-0.8
Energy intensive industries	9198	9252	9141	8370	8744	8605	7770	-0.1	-0.4	-1.2
Other industrial sectors	3656	3212	3064	3161	3344	3503	3335	-1.8	0.9	0.0
Residential	7300	7305	7557	7197	7048	6608	5083	0.3	-0.7	-3.2
Tertiary	5214	5114	5720	4897	4909	4747	3717	0.9	-1.5	-2.7
Transport ⁽⁵⁾	8192	8609	8595	8260	7891	7174	6765	0.5	-0.9	-1.5
<i>by fuel</i>										
Solids	1114	1346	1202	1122	1135	975	577	0.8	-0.6	-6.5
Oil	11861	11256	10038	8856	7990	6714	5663	-1.7	-2.3	-3.4
Gas	673	765	728	677	798	882	820	0.8	0.9	0.3
Electricity	11068	11238	11283	11102	11596	12193	11631	0.2	0.3	0.0
Heat (from CHP and District Heating)	3550	4174	5141	4420	4467	3917	2476	3.8	-1.4	-5.7
Renewable energy forms	5294	4714	5685	5705	5947	5943	5409	0.7	0.5	-0.9
Other	0	0	0	3	3	15	94	0.0	0.0	39.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	165	151	139	116	103	90	75	-1.7	-3.0	-3.1
Industry (Energy on Value added, index 2000=100)	100	76	70	62	59	54	46	-3.5	-1.7	-2.5
Residential (Energy on Private Income, index 2000=100)	100	90	84	71	62	52	35	-1.7	-3.0	-5.5
Tertiary (Energy on Value added, index 2000=100)	100	89	91	70	63	54	38	-0.9	-3.7	-4.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	41	41	39	35	31	26	22	-0.5	-2.2	-3.2
Freight transport (toe/Mtkm)	29	29	28	27	25	22	21	-0.5	-1.2	-1.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.6	69.0	65.1	55.7	56.7	50.6	40.0	-0.9	-1.4	-3.4
of which ETS sectors (2013 scope) GHG emissions		25.9	25.6	19.9	23.7	21.8	14.9		-0.7	-4.5
of which ESD sectors (2013 scope) GHG emissions		43.0	39.5	35.8	33.0	28.8	25.1		-1.8	-2.7
CO₂ Emissions (energy related)	52.2	52.1	49.0	40.6	42.2	36.8	26.7	-0.6	-1.5	-4.5
Power generation/District heating	7.7	7.7	9.1	4.4	8.7	8.0	3.1	1.7	-0.4	-9.8
Energy Branch	2.0	1.9	2.0	2.1	1.8	1.8	1.7	0.4	-1.0	-0.6
Industry	11.9	13.3	10.5	10.1	9.5	7.9	5.3	-1.2	-1.0	-5.7
Residential	3.0	1.5	0.4	0.2	0.1	0.1	0.1	-17.9	-6.6	-9.6
Tertiary	4.5	3.2	2.9	1.7	1.4	0.8	0.5	-4.2	-6.8	-9.7
Transport	23.2	24.6	24.1	22.0	20.5	18.1	16.0	0.4	-1.6	-2.5
CO₂ Emissions (non energy and non land use related)	3.2	3.2	3.7	3.4	3.4	3.4	3.3	1.5	-0.8	-0.4
Non-CO₂ GHG emissions	16.2	13.6	12.3	11.7	11.1	10.5	10.1	-2.7	-1.1	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	97.8	94.2	89.0	76.1	77.5	69.2	54.7	-0.9	-1.4	-3.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.04	0.04	0.04	0.02	0.04	0.04	0.02	0.6	-1.2	-8.9
Final energy demand (t of CO ₂ /toe)	1.27	1.27	1.11	1.07	0.99	0.88	0.82	-1.3	-1.1	-1.9
Industry	0.93	1.07	0.86	0.87	0.79	0.65	0.48	-0.7	-0.9	-4.9
Residential	0.41	0.20	0.05	0.03	0.03	0.02	0.01	-18.2	-6.0	-6.5
Tertiary	0.86	0.62	0.51	0.35	0.29	0.17	0.14	-5.1	-5.4	-7.2
Transport	2.83	2.86	2.80	2.66	2.60	2.53	2.36	-0.1	-0.7	-1.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	38.6	40.3	46.8	56.8	56.7	60.8	66.8			
RES-H&C share	48.7	52.4	60.9	72.7	68.9	72.6	80.3			
RES-E share	51.7	51.6	56.6	67.3	69.2	72.6	79.8			
RES-T share (based on ILUC formula)	4.8	5.7	8.9	18.7	22.3	27.3	41.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	57	51	57	63	62	55	57	-0.1	0.8	-0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	83	107	144	142	140	141	142	5.7	-0.2	0.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	31.7	39.3	46.2	43.5	49.1	52.8	61.8	3.9	0.6	2.3
as % of GDP	10.7	11.6	12.6	10.8	11.0	10.6	11.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								United Kingdom: EU/CO ₂ -35				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	59	60	63	65	67	69	71	0.6	0.7	0.5		
GDP (in 000 M€13)	1538	1780	1810	1976	2120	2247	2423	1.6	1.6	1.3		
Gross Inland Consumption (ktoe)	230560	233992	212234	199641	189079	174774	152116	-0.8	-1.1	-2.2		
Solids	36516	37737	30761	30896	19261	8286	4485	-1.7	-4.6	-13.6		
Oil	81031	84449	72986	71030	65608	59113	53066	-1.0	-1.1	-2.1		
Natural gas	87399	85473	85050	67578	61711	61090	36826	-0.3	-3.2	-5.0		
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5		
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7		
Renewable energy forms	2453	4564	7179	12764	25783	31258	32946	11.3	13.6	2.5		
Energy Branch Consumption	14909	16092	13761	10879	8804	8733	7700	-0.8	-3.3	-2.4		
Non-Energy Uses	11330	11213	7524	8461	8861	8961	8834	-4.0	1.6	0.0		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	268546	204420	147634	115064	109898	98348	94649	-5.8	-2.9	-1.5		
Solids	18658	11899	10751	6067	5387	3136	1847	-5.4	-6.7	-10.1		
Oil	127939	87930	63788	48199	40963	32836	26125	-6.7	-4.3	-4.4		
Natural gas	97554	79397	51468	34247	26693	22632	15364	-6.2	-6.4	-5.4		
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5		
Renewable energy sources	2453	4141	5598	10759	21481	25884	27538	8.6	14.4	2.5		
Hydro	437	423	307	477	453	457	457	-3.5	4.0	0.1		
Biomass & Waste	1922	3437	4314	6434	11793	15283	16409	8.4	10.6	3.4		
Wind	81	250	875	2969	7891	8533	9139	26.8	24.6	1.5		
Solar and others	11	30	101	878	1341	1601	1511	24.5	29.5	1.2		
Geothermal	1	1	1	1	3	11	23	0.0	13.3	23.2		
Net Imports (ktoe)	-39220	31596	61239	87711	82384	79588	60622	0.0	3.0	-3.0		
Solids	14454	27222	16045	24829	13874	5150	2637	1.0	-1.4	-15.3		
Oil	-45582	-2738	11181	25966	27813	29363	29898	0.0	9.5	0.7		
Crude oil and Feedstocks	-39093	4558	13213	20985	23623	25960	27331	0.0	6.0	1.5		
Oil products	-6489	-7296	-2032	4981	4190	3402	2567	-11.0	0.0	-4.8		
Natural gas	-9311	5973	32205	33331	35054	38535	21660	0.0	0.9	-4.7		
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7		
Import Dependency (%)	-16.9	13.4	28.5	43.3	42.8	44.7	39.0					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	374375	395425	378558	357132	373882	382763	362657	0.1	-0.1	-0.3		
Nuclear energy	85063	81618	62140	64689	62974	59946	107051	-3.1	0.1	5.4		
Solids	119950	134637	107694	96299	53779	12099	3676	-1.1	-6.7	-23.5		
Oil (including refinery gas)	8446	5339	4804	4252	2853	2673	2646	-5.5	-5.1	-0.7		
Gas (including derived gases)	150427	154339	176759	117631	97049	125920	57215	1.6	-5.8	-5.1		
Biomass-waste	4455	11658	13373	26283	51006	68361	71241	11.6	14.3	3.4		
Hydro (pumping excluded)	5086	4922	3568	5550	5265	5309	5314	-3.5	4.0	0.1		
Wind	947	2904	10180	34520	91759	99219	106270	26.8	24.6	1.5		
Solar	1	8	41	7899	8985	8985	8985	42.7	71.6	0.0		
Geothermal and other renewables	0	0	-1	8	212	252	258	15.7	0.0	2.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	78130	82074	88395	92944	118964	111457	110247	1.2	3.0	-0.8		
Nuclear energy	12086	11376	10027	9374	8884	7811	13107	-1.9	-1.2	4.0		
Renewable energy	1900	3077	7128	25020	45184	47613	49819	14.1	20.3	1.0		
Hydro (pumping excluded)	1485	1501	1637	1693	1739	1739	1739	1.0	0.6	0.0		
Wind	412	1565	5396	13603	32301	34712	36915	29.3	19.6	1.3		
Solar	2	11	94	9721	11043	11043	11043	47.0	61.1	0.0		
Other renewables (tidal etc.)	1	0	1	4	102	119	122	0.0	58.7	1.9		
Thermal power	64144	67621	71240	58550	64896	56033	47321	1.1	-0.9	-3.1		
of which cogeneration units	5794	5440	6102	5051	5464	5291	10476	0.5	-1.1	6.7		
of which CCS units	0	0	0	0	833	833	833	0.0	0.0	0.0		
Solids fired	27533	26230	25549	18735	11149	2323	501	-0.7	-8.0	-26.7		
Gas fired	24512	29106	33292	33953	35273	35300	28501	3.1	0.6	-2.1		
Oil fired	9696	9323	9064	2227	1235	1167	1123	-0.7	-18.1	-0.9		
Biomass-waste fired	2403	2961	3335	3634	17238	17244	17196	3.3	17.9	0.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	52.3	52.5	46.8	41.7	34.3	37.7	36.0					
Efficiency of gross thermal power generation (%)	41.1	42.1	43.6	41.3	42.6	46.3	43.1					
% of gross electricity from CHP	6.1	6.8	6.2	5.4	4.8	4.1	4.2					
% of electricity from CCS	0.0	0.0	0.0	0.0	1.4	1.5	1.8					
% of carbon free (RES, nuclear) gross electricity generation	25.5	25.6	23.6	38.9	58.9	63.2	82.5					
Fuel Inputs to Thermal Power Generation (ktoe)	59321	62482	59738	50947	41304	38829	26888	0.1	-3.6	-4.2		
Solids	28425	29812	23816	23961	13402	2974	779	-1.8	-5.6	-24.8		
Oil (including refinery gas)	1453	1060	789	920	638	598	592	-5.9	-2.1	-0.7		
Gas (including derived gases)	28139	28415	31452	20339	16312	20446	9752	1.1	-6.4	-5.0		
Biomass & Waste	1305	3194	3681	5727	10952	14811	15765	10.9	11.5	3.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	118459	115207	97492	88112	83361	76759	81056	-1.9	-1.6	-0.3		
Refineries	88821	88399	75162	65526	61268	55921	50935	-1.7	-2.0	-1.8		
Biofuels and hydrogen production	0	80	1130	1361	2136	1934	1906	0.0	6.6	-1.1		
District heating	15	14	13	13	11	15	8	-0.9	-2.2	-3.3		
Derived gases, cokeries etc.	29623	26714	21187	21212	19947	18889	28207	-3.3	-0.6	3.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							United Kingdom: EUco+35			
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	822	872	849	878	935	961	1011	0.3	1.0	0.8
Public road transport	49	44	46	46	47	48	49	-0.5	0.2	0.4
Private cars and motorcycles	644	673	649	659	702	714	747	0.1	0.8	0.6
Rail	47	53	66	76	80	87	93	3.5	2.0	1.6
Aviation ⁽³⁾	77	97	83	90	100	107	115	0.7	1.8	1.5
Inland navigation	6	6	5	5	6	6	7	-0.3	0.8	1.2
Freight transport activity (Gtkm)	237	248	216	242	253	260	273	-0.9	1.6	0.7
Heavy goods and light commercial vehicles	183	183	164	187	195	198	207	-1.1	1.8	0.6
Rail	18	21	19	22	23	25	26	0.3	2.1	1.4
Inland navigation	36	43	33	34	35	37	39	-0.9	0.5	1.1
Energy demand in transport (ktoe) ⁽⁴⁾	52386	55501	51470	52014	49604	45451	43085	-0.2	-0.4	-1.4
Public road transport	559	499	515	511	504	493	478	-0.8	-0.2	-0.5
Private cars and motorcycles	29150	30049	29058	27657	25099	21509	19922	0.0	-1.5	-2.3
Heavy goods and light commercial vehicles	9809	9612	8396	9457	9043	8712	8435	-1.5	0.7	-0.7
Rail	821	988	966	1108	1155	1223	1274	1.6	1.8	1.0
Aviation	11115	13069	11650	12400	12889	12551	11976	0.5	1.0	-0.7
Inland navigation	933	1282	884	881	913	962	999	-0.5	0.3	0.9
By transport activity										
Passenger transport	41504	44033	41640	40984	38934	35009	32848	0.0	-0.7	-1.7
Freight transport	10882	11467	9830	11030	10669	10442	10236	-1.0	0.8	-0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.6	3.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	2.2	2.7	4.5	5.4	5.7			
ENERGY EFFICIENCY										
Primary energy consumption	219230	222779	204710	191181	180218	165812	143282	-0.7	-1.3	-2.3
Final Energy Demand	153236	152728	142723	138484	135324	126207	104714	-0.7	-0.5	-2.5
by sector										
Industry	36930	33388	26923	25432	25507	23444	19447	-3.1	-0.5	-2.7
Energy intensive industries	19392	16472	12350	11464	11263	9771	7442	-4.4	-0.9	-4.1
Other industrial sectors	17537	16916	14573	13968	14244	13673	12005	-1.8	-0.2	-1.7
Residential	43034	44151	44715	40936	39861	38347	28045	0.4	-1.1	-3.5
Tertiary	20377	19686	19633	20101	20352	18965	14137	-0.4	0.4	-3.6
Transport ⁽⁵⁾	52895	55503	51452	52014	49604	45451	43085	-0.3	-0.4	-1.4
by fuel										
Solids	5954	4530	4133	4583	3838	3147	1670	-3.6	-0.7	-8.0
Oil	63674	65851	59524	58175	53032	46946	41397	-0.7	-1.1	-2.4
Gas	52180	50380	47246	43853	42425	38364	25720	-1.0	-1.1	-4.9
Electricity	28360	29998	28286	27707	29002	29643	27769	0.0	0.3	-0.4
Heat (from CHP and District Heating)	2439	1268	1266	1255	1341	1430	1248	-6.3	0.6	-0.7
Renewable energy forms	630	702	2268	2885	5590	6191	6157	13.7	9.4	1.0
Other	0	0	0	26	97	486	752	-100.0	0.0	22.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	150	131	117	101	89	78	63	-2.4	-2.7	-3.5
Industry (Energy on Value added, index 2000=100)	100	93	79	71	68	61	48	-2.3	-1.5	-3.4
Residential (Energy on Private Income, index 2000=100)	100	87	87	75	68	62	42	-1.4	-2.4	-4.9
Tertiary (Energy on Value added, index 2000=100)	100	81	77	71	67	58	40	-2.6	-1.4	-5.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	38	36	35	33	29	25	22	-0.8	-1.9	-2.7
Freight transport (toe/Mtkm)	46	46	46	46	42	40	38	-0.1	-0.8	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	720.6	727.6	636.4	585.9	494.6	421.7	321.4	-1.2	-2.5	-4.2
of which ETS sectors (2013 scope) GHG emissions		314.0	273.9	244.9	183.4	143.3	96.7		-3.9	-6.2
of which ESD sectors (2013 scope) GHG emissions		413.6	362.5	341.0	311.1	278.4	224.6		-1.5	-3.2
CO ₂ Emissions (energy related)	568.2	573.4	518.3	477.6	395.0	329.2	238.9	-0.9	-2.7	-4.9
Power generation/District heating	194.2	199.6	178.4	155.5	97.2	64.9	30.3	-0.8	-5.9	-11.0
Energy Branch	31.3	35.2	29.4	20.9	18.7	16.3	13.6	-0.6	-4.4	-3.1
Industry	77.4	67.5	52.1	49.6	46.1	38.6	24.4	-3.9	-1.2	-6.2
Residential	82.6	80.4	83.1	74.7	68.8	63.8	40.5	0.1	-1.9	-5.2
Tertiary	27.0	25.3	24.8	25.3	22.6	18.1	11.9	-0.9	-0.9	-6.2
Transport	155.6	165.4	150.6	151.7	141.6	127.6	118.2	-0.3	-0.6	-1.8
CO ₂ Emissions (non energy and non land use related)	20.8	21.0	15.6	17.7	18.7	18.2	16.8	-2.8	1.9	-1.1
Non-CO ₂ GHG emissions	131.6	133.2	102.5	90.5	80.9	74.3	65.6	-2.5	-2.3	-2.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	88.0	88.8	77.7	71.5	60.4	51.5	39.2	-1.2	-2.5	-4.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.49	0.45	0.42	0.25	0.16	0.08	-0.6	-5.9	-10.7
Final energy demand (t of CO ₂ /toe)	2.24	2.22	2.18	2.18	2.06	1.97	1.86	-0.3	-0.5	-1.0
Industry	2.10	2.02	1.93	1.95	1.81	1.65	1.25	-0.8	-0.7	-3.6
Residential	1.92	1.82	1.86	1.82	1.73	1.66	1.44	-0.3	-0.7	-1.8
Tertiary	1.32	1.29	1.26	1.26	1.11	0.95	0.84	-0.5	-1.3	-2.7
Transport	2.94	2.98	2.93	2.92	2.86	2.81	2.74	-0.1	-0.2	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.9	1.4	3.3	6.9	14.5	17.7	22.4			
RES-H&C share	0.8	0.8	1.8	3.4	7.0	8.5	12.5			
RES-E share	2.6	4.1	7.4	19.3	40.0	45.6	50.9			
RES-T share (based on ILUC formula)	0.1	0.2	3.0	6.0	11.4	17.5	24.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	49	59	95	113	113	115	3.4	6.8	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	124	91	129	166	169	176	181	0.3	2.7	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	159.7	179.7	203.0	231.2	253.8	299.9	1.5	2.6	2.6
as % of GDP	10.1	9.0	9.9	10.3	10.9	11.3	12.4			

Source: PRIMES

- (1) For years 2000 to 2010, total gross electricity by source as reported in this table and total gross electricity generation reported as part of the energy balances, slightly differ because of differences in the respective statistical sources
- (2) Electricity generated over maximum potential generation based on net power capacity
- (3) Excluding international extra-EU aviation.
- (4) Excluding pipeline transport and other non-specified transport.
- (5) Including pipeline transport and other non-specified transport.
- (6) Calculated by taking into account domestic, international intra-EU flights, and extra-EU flights for aviation.
- (7) Including the part of electricity and heat generated from renewables
- (8) Excluding payments for auctioned emission allowances and disutilities (if applicable)

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are mainly based on EUROSTAT and on the publications "EU Energy in Figures" of the Directorate General for Energy and "EU Transport in Figures" of the Directorate General for Mobility and Transport. Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight or passenger transport, which are measured in tonnes of oil equivalent per million tonne-km and in tonnes of oil equivalent per million passenger-km, respectively.

For modelling purposes, some assumptions had to be made for calculating air and maritime transport performance and allocating it by MS. The transport volumes (number of passengers and tonnes) and distance matrices have been used for this purpose. By assumption, 50% of the calculated transport performance is allocated to the origin country and 50% to the destination country. The same "50%-50%" principle allocation applies to the EFTA countries and the candidate countries. For the international extra-EU activity, where the corresponding partner is outside EU-28 and is not an EFTA or candidate country, 100% of transport performance is allocated to the declaring EU MS country. These assumptions are used only for modelling purposes and shall be considered as model estimates and not as official data.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Units

toe: tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ (Gigajoule)
ktoe: 1000 toe
MW: Megawatt or 10^6 watt
MWh: megawatt-hour or 10^6 watt-hours
GWh: gigawatt-hour or 10^9 watt-hours
t: metric tonnes, or 1000 kilogrammes
Mt: Million metric tonnes
km: kilometre
pkm: passenger-kilometre (one passenger transported a distance of one kilometre)
tkm: tonne-kilometre (one tonne transported a distance of one kilometre)
Gpkm: Giga passenger-kilometre, or 10^9 passenger-kilometre
Gtkm: Giga tonne-kilometre, or 10^9 tonne-kilometre

Appendix I.e: EUCO+40 scenario - Summary energy balances, emissions and indicators

SUMMARY ENERGY BALANCE AND INDICATORS (A)								EU28: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	484	492	500	505	510	513	516	0.3	0.2	0.1
GDP (in 000 M€13)	11231	12351	12895	13427	14550	15585	16682	1.4	1.2	1.4
Gross Inland Consumption (ktoe)	1726888	1824722	1760315	1666601	1649340	1548299	1245033	0.2	-0.6	-2.8
Solids	321292	318127	282994	277891	264096	230305	151030	-1.3	-0.7	-5.4
Oil	660025	677021	612954	579805	544762	490255	429147	-0.7	-1.2	-2.4
Natural gas	396144	445263	447394	387731	382320	366622	231985	1.2	-1.6	-4.9
Nuclear	243841	257516	236562	213043	188974	174739	166320	-0.3	-2.2	-1.3
Electricity	2030	1412	712	1761	1247	523	-41	-9.9	5.8	0.0
Renewable energy forms	103557	125383	179699	206371	267941	285856	266592	5.7	4.1	-0.1
Energy Branch Consumption	86261	91922	86455	81622	76456	69489	60099	0.0	-1.2	-2.4
Non-Energy Uses	113106	116080	110230	106709	112513	116501	115867	-0.3	0.2	0.3
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	944996	903986	835772	758584	763236	724679	629594	-1.2	-0.9	-1.9
Solids	214596	196030	164837	148196	140890	126184	86208	-2.6	-1.6	-4.8
Oil	173901	135553	100408	78529	69695	57455	47118	-5.3	-3.6	-3.8
Natural gas	209436	190771	159948	118438	106295	91791	73687	-2.7	-4.0	-3.6
Nuclear	243841	257516	236562	213043	188974	174739	166320	-0.3	-2.2	-1.3
Renewable energy sources	103222	124116	174017	200379	257381	274510	256262	5.4	4.0	0.0
Hydro	30703	26859	32312	31167	32354	32404	32511	0.5	0.0	0.0
Biomass & Waste	65583	85060	119573	132613	164736	163279	133831	6.2	3.3	-2.1
Wind	1913	6058	12836	23588	39321	46989	53831	21.0	11.8	3.2
Solar and others	436	827	3775	11001	17756	28115	30826	24.1	16.7	5.7
Geothermal	4587	5312	5521	2009	3214	3723	5262	1.9	-5.3	5.1
Net Imports (ktoe)	826349	979676	955004	962880	942306	881333	675369	1.5	-0.1	-3.3
Solids	98320	125363	111814	129695	123206	104121	64823	1.3	1.0	-6.2
Oil	532226	597491	558847	556140	530519	488522	436735	0.5	-0.5	-1.9
Crude oil and Feedstocks	514686	578712	537586	515210	492611	458333	418749	0.4	-0.9	-1.6
Oil products	17540	18779	21261	40930	37908	30189	17985	1.9	6.0	-7.2
Natural gas	193432	254054	278015	269292	276774	276822	163523	3.7	0.0	-5.1
Electricity	2030	1412	712	1761	1247	523	-41	-9.9	5.8	0.0
Import Dependency (%)	46.7	52.3	52.8	55.9	55.2	54.9	51.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3005548	3289991	3332773	3251290	3397439	3547724	3034509	1.0	0.2	-1.1
Nuclear energy	944993	997699	916610	867402	772986	717746	690508	-0.3	-1.7	-1.1
Solids	933855	965565	830393	846894	820301	713547	458766	-1.2	-0.1	-5.6
Oil (including refinery gas)	181296	142772	86899	34610	20979	20256	11061	-7.1	-13.2	-6.2
Gas (including derived gases)	514267	705961	798645	566057	571104	647946	309901	4.5	-3.3	-5.9
Biomass-waste	46401	87831	145814	188754	215446	261095	257911	12.1	4.0	1.8
Hydro (pumping excluded)	357072	312372	375785	362411	376208	376787	378029	0.5	0.0	0.0
Wind	22254	70455	149278	274278	457217	546388	625945	21.0	11.8	3.2
Solar	117	1458	22502	103798	154737	255043	292657	69.1	21.3	6.6
Geothermal and other renewables	5293	5878	6847	7086	8461	8916	9732	2.6	2.1	1.4
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	683507	739589	858628	965588	1030076	1070937	1079946	2.3	1.8	0.5
Nuclear energy	139595	136829	132606	120798	114204	105051	109905	-0.5	-1.5	-0.4
Renewable energy	128990	162194	238638	366738	473672	567214	622797	6.3	7.1	2.8
Hydro (pumping excluded)	115841	119177	122922	127470	131601	132292	132983	0.6	0.7	0.1
Wind	12730	40485	85701	141580	205578	233036	262629	21.0	9.1	2.5
Solar	178	2292	29774	97443	136007	201196	226150	66.9	16.4	5.2
Other renewables (tidal etc.)	241	240	241	244	486	690	1036	0.0	7.3	7.9
Thermal power	414922	440565	487384	478053	442200	398672	347244	1.6	-1.0	-2.4
of which cogeneration units	92439	107819	107430	112311	86271	86836	65546	1.5	-2.2	-2.7
of which CCS units	0	0	0	0	833	1083	1083	0.0	0.0	2.7
Solids fired	194525	185353	180110	176559	147338	118886	100558	-0.8	-2.0	-3.7
Gas fired	123821	163333	215485	219628	210679	205687	178410	5.7	-0.2	-1.6
Oil fired	83315	74582	69295	53085	31403	20776	15348	-1.8	-7.6	-6.9
Biomass-waste fired	12657	16610	21719	27908	51736	52279	51885	5.5	9.1	0.0
Hydrogen plants	0	0	13	13	13	13	13	0.0	0.3	0.0
Geothermal heat	604	687	762	860	1030	1030	1030	2.4	3.1	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.5	48.1	42.1	36.5	35.9	36.2	30.9			
Efficiency of gross thermal power generation (%)	37.2	38.1	38.6	40.2	40.3	41.0	39.6			
% of gross electricity from CHP	11.3	12.5	12.6	12.2	10.3	9.6	7.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.2	0.2	0.3			
% of carbon free (RES, nuclear) gross electricity generation	45.8	44.9	48.5	55.5	58.4	61.1	74.3			
Fuel Inputs to Thermal Power Generation (ktoe)	388346	430899	416477	351894	349049	346354	226735	0.7	-1.8	-4.2
Solids	223608	229335	197694	200223	189673	162946	104024	-1.2	-0.4	-5.8
Oil (including refinery gas)	40868	32485	20566	7340	4825	4958	3004	-6.6	-13.5	-4.6
Gas (including derived gases)	105105	137667	151968	100069	96963	110678	55552	3.8	-4.4	-5.4
Biomass & Waste	14651	26766	41420	43077	55657	65841	62224	11.0	3.0	1.1
Geothermal heat	4114	4645	4828	1184	1932	1932	1932	1.6	-8.8	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1067893	1101207	997991	908897	859903	795974	722462	-0.7	-1.5	-1.7
Refineries	735106	756042	667606	609584	582491	538748	488828	-1.0	-1.4	-1.7
Biofuels and hydrogen production	709	3279	13086	16149	20791	18610	18602	33.8	4.7	-1.1
District heating	15899	17445	19101	16261	16261	14065	9302	1.9	-1.6	-5.4
Derived gases, cokeries etc.	316179	324441	298197	266904	240360	224551	205730	-0.6	-2.1	-1.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								EU28: EU20+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5964	6295	6449	6735	7160	7392	7773	0.8	1.1	0.8
Public road transport	549	541	528	546	568	580	595	-0.4	0.7	0.5
Private cars and motorcycles	4466	4721	4843	5001	5255	5319	5529	0.8	0.8	0.5
Rail	450	464	499	540	599	675	742	1.0	1.8	2.2
Aviation ⁽³⁾	458	528	539	608	695	773	859	1.7	2.6	2.1
Inland navigation	42	42	40	40	43	45	48	-0.3	0.6	1.1
Freight transport activity (Gtkm)	2295	2612	2556	2704	2982	3152	3406	1.1	1.6	1.3
Heavy goods and light commercial vehicles	1589	1853	1809	1915	2110	2175	2347	1.3	1.6	1.1
Rail	405	416	394	428	483	547	603	-0.3	2.1	2.3
Inland navigation	300	343	354	361	390	430	455	1.7	1.0	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	341525	364526	359402	358062	350517	322082	309255	0.5	-0.2	-1.2
Public road transport	8775	8725	8834	9040	9253	9155	9037	0.1	0.5	-0.2
Private cars and motorcycles	206270	212102	211618	204765	189793	162016	148611	0.3	-1.1	-2.4
Heavy goods and light commercial vehicles	67279	79273	76918	78507	81617	78658	79325	1.3	0.6	-0.3
Rail	8168	7668	7129	7395	7898	8539	8968	-1.4	1.0	1.3
Aviation	44876	49959	49230	53303	56615	58014	57362	0.9	1.4	0.1
Inland navigation	6156	6798	5673	5051	5341	5700	5951	-0.8	-0.6	1.1
By transport activity										
Passenger transport	266294	275041	273897	271237	259968	233754	219736	0.3	-0.5	-1.7
Freight transport	75231	89484	85505	86825	90549	88328	89519	1.3	0.6	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.5	3.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.9	3.7	4.6	6.1	6.6	6.7			
ENERGY EFFICIENCY										
Primary energy consumption	1613782	1708642	1650085	1559892	1536827	1431799	1129166	0.2	-0.7	-3.0
Final Energy Demand	1129427	1186370	1155879	1133457	1136033	1051690	825450	0.2	-0.2	-3.1
by sector										
Industry	330627	327576	283437	284539	295380	287113	236846	-1.5	0.4	-2.2
Energy intensive industries	215899	215115	182721	182407	188901	181110	147667	-1.7	0.3	-2.4
Other industrial sectors	114728	112461	100716	102132	106479	106003	89179	-1.3	0.6	-1.8
Residential	288564	307594	313829	299747	298632	268096	168632	0.8	-0.5	-5.6
Tertiary	166677	183368	196770	188333	188617	171516	108042	1.7	-0.4	-5.4
Transport ⁽⁵⁾	343558	367831	361842	360838	353404	324966	311930	0.5	-0.2	-1.2
by fuel										
Solids	61977	53988	50512	47694	45874	41291	26892	-2.0	-1.0	-5.2
Oil	487065	502509	455207	437598	404492	350633	296476	-0.7	-1.2	-3.1
Gas	267588	281191	273366	265878	263820	236710	159049	0.2	-0.4	-4.9
Electricity	217644	239548	244471	241010	253236	265678	226855	1.2	0.4	-1.1
Heat (from CHP and District Heating)	46044	52425	52875	49062	50732	48117	31085	1.4	-0.4	-4.8
Renewable energy forms	49109	56708	79448	92104	117505	107074	81411	4.9	4.0	-3.6
Other	0	0	0	111	375	2187	3682	0.0	0.0	25.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	154	148	137	124	113	99	75	-1.2	-1.8	-4.1
Industry (Energy on Value added, index 2000=100)	100	93	80	77	75	69	54	-2.2	-0.6	-3.2
Residential (Energy on Private Income, index 2000=100)	100	97	94	87	79	66	39	-0.6	-1.7	-7.0
Tertiary (Energy on Value added, index 2000=100)	100	99	100	91	84	71	41	0.0	-1.7	-6.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	39	37	36	33	30	25	22	-0.8	-1.8	-2.7
Freight transport (toe/Mtkm)	33	34	33	32	30	28	26	0.2	-1.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	5326.4	5349.2	4875.0	4583.4	4321.9	3926.4	3041.5	-0.9	-1.2	-3.5
of which ETS sectors (2013 scope) GHG emissions		2501.2	2175.1	2016.7	1934.5	1802.5	1294.4		-1.2	-3.9
of which ESD sectors (2013 scope) GHG emissions		2847.9	2699.9	2566.6	2387.4	2123.9	1747.2		-1.2	-3.1
CO2 Emissions (energy related)	3992.2	4127.1	3782.3	3524.1	3325.8	2970.1	2131.9	-0.5	-1.3	-4.3
Power generation/District heating	1406.3	1486.8	1344.0	1177.9	1109.7	1027.1	630.9	-0.5	-1.9	-5.5
Energy Branch	167.3	170.7	155.2	148.7	133.2	117.5	101.6	-0.7	-1.5	-2.7
Industry	691.0	634.1	511.8	505.5	495.2	443.1	306.6	-3.0	-0.3	-4.7
Residential	468.0	484.2	466.9	422.7	384.4	320.7	164.0	0.0	-1.9	-8.2
Tertiary	257.9	271.6	267.9	245.8	221.0	175.5	99.7	0.4	-1.9	-7.7
Transport	1001.7	1079.8	1036.6	1023.4	982.4	886.1	829.1	0.3	-0.5	-1.7
CO2 Emissions (non energy and non land use related)	277.3	282.4	237.3	238.8	250.0	249.4	246.0	-1.5	0.5	-0.2
Non-CO2 GHG emissions	1057.0	939.6	855.4	820.5	746.1	706.9	663.6	-2.1	-1.4	-1.2
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	92.5	92.9	84.7	79.6	75.1	68.2	52.8	-0.9	-1.2	-3.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.39	0.37	0.33	0.30	0.27	0.24	0.18	-1.6	-2.0	-3.9
Final energy demand (t of CO2/toe)	2.14	2.08	1.98	1.94	1.83	1.74	1.70	-0.8	-0.7	-0.8
Industry	2.09	1.94	1.81	1.78	1.68	1.54	1.29	-1.5	-0.7	-2.6
Residential	1.62	1.57	1.49	1.41	1.29	1.20	0.97	-0.9	-1.4	-2.8
Tertiary	1.55	1.48	1.36	1.31	1.17	1.02	0.92	-1.3	-1.5	-2.4
Transport	2.92	2.94	2.86	2.84	2.78	2.73	2.66	-0.2	-0.3	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.5	8.7	12.4	16.1	21.0	24.1	28.4			
RES-H&C share	9.0	10.3	14.0	17.4	22.4	24.5	28.3			
RES-E share	13.3	14.8	19.7	28.2	35.1	40.3	51.1			
RES-T share (based on ILUC formula)	0.9	1.7	5.2	6.9	11.2	15.5	22.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	57	65	85	91	88	89	2.1	3.4	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	0	117	136	144	149	154	163	0.0	0.9	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1055.8	1282.5	1467.9	1505.9	1802.4	1942.4	2483.3	3.4	2.1	3.3
as % of GDP	9.4	10.4	11.4	11.2	12.4	12.5	14.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Austria: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	8	8	8	9	9	9	9	0.4	0.5	0.5
GDP (in 000 M€13)	257	279	298	316	345	373	406	1.5	1.5	1.5
Gross Inland Consumption (ktoe)	28996	34373	34604	32933	33481	31613	26575	1.8	-0.3	-2.7
Solids	3597	4000	3365	3333	3474	3056	2253	-0.7	0.3	-4.2
Oil	12173	14448	12833	12275	11719	10419	9079	0.5	-0.9	-2.5
Natural gas	6519	8159	8215	6454	7650	7043	3927	2.3	-0.7	-6.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Renewable energy forms	6825	7537	9991	9810	10198	10760	10012	3.9	0.2	-0.2
Energy Branch Consumption	1306	1566	1504	1593	1504	1378	1192	1.4	0.0	-2.3
Non-Energy Uses	1718	1717	1850	2037	2202	2330	2356	0.7	1.8	0.7
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9776	10012	12114	11277	11462	11263	10168	2.2	-0.6	-1.2
Solids	293	0	0	0	0	0	0	-51.8	-100.0	0.0
Oil	1092	1003	1036	813	673	341	110	-0.5	-4.2	-16.5
Natural gas	1533	1404	1486	1270	1139	665	423	-0.3	-2.6	-9.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	6859	7605	9592	9195	9650	10257	9635	3.4	0.1	0.0
Hydro	3597	3154	3299	3527	3698	3812	3845	-0.9	1.1	0.4
Biomass & Waste	3169	4214	5914	5018	5147	4883	3786	6.4	-1.4	-3.0
Wind	6	114	178	340	382	700	1059	40.8	8.0	10.7
Solar and others	63	93	168	260	359	778	817	10.3	7.9	8.6
Geothermal	25	30	35	49	64	84	128	3.4	6.3	7.2
Net Imports (ktoe)	18970	24517	21577	21656	22019	20350	15407	1.3	0.2	-3.5
Solids	3019	3971	3358	3333	3474	3056	2253	1.1	0.3	-4.2
Oil	10850	13204	11510	11462	11046	10078	8969	0.6	-0.4	-2.1
Crude oil and Feedstocks	7791	8100	7011	8001	7807	7419	6870	-1.1	1.1	-1.3
Oil products	3059	5104	4499	3461	3239	2658	2100	3.9	-3.2	-4.2
Natural gas	5253	7153	6115	5184	6511	6378	3504	1.5	0.6	-6.0
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6
Import Dependency (%)	65.4	71.3	62.4	65.8	65.8	64.4	60.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	59874	64066	67933	59618	72246	77836	70879	1.3	0.6	-0.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	5727	7165	4918	4194	5280	3281	1533	-1.5	0.7	-11.6
Oil (including refinery gas)	1702	1641	1273	208	215	71	66	-2.9	-16.3	-11.1
Gas (including derived gases)	8864	14347	16137	6774	14527	12202	1856	6.2	-1.0	-18.6
Biomass-waste	1675	2882	5088	2592	3598	4343	3978	11.8	-3.4	1.0
Hydro (pumping excluded)	41836	36677	38363	41010	42998	44321	44710	-0.9	1.1	0.4
Wind	67	1331	2064	3958	4443	8135	12316	40.9	8.0	10.7
Solar	3	21	88	871	1174	5472	6409	38.2	29.5	18.5
Geothermal and other renewables	0	2	2	11	11	11	11	0.0	21.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	17911	19092	21503	22989	23361	28292	30121	1.8	0.8	2.6
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	11668	12440	13841	16437	17371	22834	25059	1.7	2.3	3.7
Hydro (pumping excluded)	11613	11632	12706	13149	13699	13702	13797	0.9	0.8	0.1
Wind	50	778	981	2412	2583	4245	5551	34.7	10.2	8.0
Solar	5	30	154	876	1090	4887	5712	40.9	21.6	18.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6243	6652	7662	6552	5990	5458	5063	2.1	-2.4	-1.7
of which cogeneration units	2632	3253	3157	3005	3053	2929	1281	1.8	-0.3	-8.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1887	1660	1359	873	835	809	809	-3.2	-4.8	-0.3
Gas fired	2816	3389	4512	4074	3560	3318	2982	4.8	-2.3	-1.8
Oil fired	1260	1145	1139	971	815	483	423	-1.0	-3.3	-6.4
Biomass-waste fired	280	456	650	633	778	847	847	8.8	1.8	0.9
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	2	1	2	2	2	2	0.0	7.2	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	36.8	36.7	35.1	28.4	33.9	30.4	26.1			
Efficiency of gross thermal power generation (%)	39.9	41.3	41.3	39.7	43.9	39.9	30.6			
% of gross electricity from CHP	10.4	15.4	15.4	17.7	22.7	17.5	6.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	72.8	63.9	67.1	81.3	72.3	80.0	95.1			
Fuel Inputs to Thermal Power Generation (ktoe)	3877	5421	5713	2988	4631	4293	2094	4.0	-2.1	-7.6
Solids	1216	1507	1019	908	1137	741	373	-1.8	1.1	-10.5
Oil (including refinery gas)	278	262	176	60	69	23	22	-4.5	-8.9	-10.9
Gas (including derived gases)	1961	2836	2868	1406	2574	2411	574	3.9	-1.1	-13.9
Biomass & Waste	421	814	1649	604	842	1108	1115	14.6	-6.5	2.8
Geothermal heat	0	2	1	10	10	10	10	0.0	23.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	11349	11946	11472	12554	11804	10859	9472	0.1	0.3	-2.2
Refineries	8865	9275	8040	9141	8770	8006	7173	-1.0	0.9	-2.0
Biofuels and hydrogen production	16	50	495	571	445	396	392	41.2	-1.1	-1.3
District heating	558	613	869	678	636	575	363	4.5	-3.1	-5.5
Derived gases, cokeries etc.	1910	2009	2068	2164	1953	1882	1545	0.8	-0.6	-2.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Austria: EU20+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	96	101	107	112	119	124	129	1.1	1.1	0.8
Public road transport	9	9	10	10	10	11	11	0.4	0.7	0.6
Private cars and motorcycles	68	72	75	78	80	82	84	1.0	0.7	0.4
Rail	12	13	15	16	18	21	22	1.9	2.2	1.9
Aviation ⁽³⁾	6	7	8	9	10	11	12	2.0	2.6	2.2
Inland navigation	0	0	0	0	0	0	0	-0.6	0.6	1.5
Freight transport activity (Gtkm)	50	54	61	65	70	73	78	2.0	1.3	1.1
Heavy goods and light commercial vehicles	31	33	39	43	46	46	49	2.3	1.6	0.7
Rail	17	19	20	20	22	24	26	1.8	0.9	1.9
Inland navigation	2	2	2	2	3	3	3	-0.3	0.9	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	6787	8815	8507	8480	8019	7180	6836	2.3	-0.6	-1.6
Public road transport	92	97	101	103	106	107	106	0.9	0.5	0.0
Private cars and motorcycles	4520	5616	5043	4708	4261	3574	3226	1.1	-1.7	-2.7
Heavy goods and light commercial vehicles	1290	2135	2387	2622	2589	2399	2360	6.3	0.8	-0.9
Rail	267	242	247	249	264	277	283	-0.8	0.7	0.7
Aviation	591	679	707	776	775	797	833	1.8	0.9	0.7
Inland navigation	28	45	22	23	24	27	27	-2.1	0.8	1.2
<i>By transport activity</i>										
Passenger transport	5260	6438	5894	5634	5194	4534	4224	1.1	-1.3	-2.0
Freight transport	1527	2377	2613	2846	2825	2646	2612	5.5	0.8	-0.8
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.2	2.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	6.0	6.9	5.8	6.3	6.5			
ENERGY EFFICIENCY										
Primary energy consumption	27277	32657	32754	30896	31279	29283	23219	1.8	-0.5	-2.9
Final Energy Demand	23692	28185	28423	28425	28031	26199	20972	1.8	-0.1	-2.9
<i>by sector</i>										
Industry	7283	8825	9195	9724	9947	9715	8210	2.4	0.8	-1.9
Energy intensive industries	5321	6148	6212	6588	6649	6393	5374	1.6	0.7	-2.1
Other industrial sectors	1962	2676	2983	3136	3298	3322	2836	4.3	1.0	-1.5
Residential	6332	6828	6797	6669	6502	5925	3684	0.7	-0.4	-5.5
Tertiary	3070	3449	3686	3285	3279	3101	1996	1.8	-1.2	-4.8
Transport ⁽⁵⁾	7007	9082	8744	8746	8303	7458	7083	2.2	-0.5	-1.6
<i>by fuel</i>										
Solids	1403	1466	1169	1135	1189	1242	979	-1.8	0.2	-1.9
Oil	9818	12084	10539	9934	9319	8001	6743	0.7	-1.2	-3.2
Gas	4464	5125	5259	5142	5123	4637	3291	1.7	-0.3	-4.3
Electricity	4432	5013	5358	5436	5820	6150	5671	1.9	0.8	-0.3
Heat (from CHP and District Heating)	1020	1353	1832	2008	1906	1874	1118	6.0	0.4	-5.2
Renewable energy forms	2555	3145	4266	4769	4669	4251	3103	5.3	0.9	-4.0
Other	0	0	0	2	5	44	68	0.0	0.0	29.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	113	123	116	104	97	85	64	0.3	-1.8	-4.1
Industry (Energy on Value added, index 2000=100)	100	111	108	109	104	96	76	0.8	-0.4	-3.1
Residential (Energy on Private Income, index 2000=100)	100	100	93	85	76	64	37	-0.7	-2.0	-7.0
Tertiary (Energy on Value added, index 2000=100)	100	103	101	85	77	67	40	0.1	-2.7	-6.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	54	47	43	37	30	27	0.1	-2.6	-3.1
Freight transport (toe/Mtkm)	30	44	43	44	40	36	33	3.4	-0.5	-1.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.1	96.8	89.0	82.8	82.5	73.9	57.5	0.3	-0.8	-3.5
of which ETS sectors (2013 scope) GHG emissions		38.3	35.2	32.8	34.6	31.3	22.0		-0.2	-4.4
of which ESD sectors (2013 scope) GHG emissions		58.4	53.7	50.0	47.8	42.6	35.5		-1.2	-2.9
CO₂ Emissions (energy related)	65.6	78.6	71.5	65.7	66.0	58.1	42.9	0.9	-0.8	-4.2
Power generation/District heating	12.5	17.0	15.1	11.2	14.3	12.4	6.6	1.9	-0.5	-7.4
Energy Branch	3.3	3.7	3.8	4.1	3.6	3.3	2.8	1.3	-0.3	-2.7
Industry	16.8	18.5	17.6	17.8	17.2	15.8	11.6	0.5	-0.2	-3.8
Residential	8.9	8.6	7.7	6.8	6.4	5.1	2.6	-1.5	-1.8	-8.7
Tertiary	3.9	4.4	3.2	2.0	1.8	1.5	0.8	-1.8	-5.8	-8.1
Transport	20.2	26.5	24.1	23.9	22.8	20.0	18.5	1.8	-0.6	-2.0
CO₂ Emissions (non energy and non land use related)	4.6	5.0	5.4	5.3	5.3	5.2	5.2	1.6	-0.2	-0.3
Non-CO₂ GHG emissions	15.8	13.2	12.1	11.7	11.1	10.5	9.5	-2.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	108.2	121.6	111.8	104.0	103.6	92.8	72.3	0.3	-0.8	-3.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.21	0.17	0.13	0.15	0.12	0.08	-0.3	-1.1	-6.3
Final energy demand (t of CO ₂ /toe)	2.10	2.06	1.85	1.77	1.72	1.62	1.60	-1.3	-0.8	-0.7
Industry	2.31	2.10	1.92	1.83	1.73	1.63	1.42	-1.9	-1.0	-2.0
Residential	1.41	1.26	1.13	1.02	0.98	0.87	0.69	-2.2	-1.4	-3.4
Tertiary	1.26	1.27	0.88	0.60	0.54	0.47	0.38	-3.6	-4.7	-3.4
Transport	2.88	2.91	2.76	2.73	2.74	2.68	2.62	-0.4	0.0	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	24.6	23.6	30.5	34.5	35.1	38.3	43.6			
RES-H&C share	20.4	22.0	29.7	37.0	36.3	34.9	37.0			
RES-E share	66.9	62.4	65.7	68.0	68.2	77.1	91.8			
RES-T share (based on ILUC formula)	6.8	4.8	10.9	11.4	12.6	19.0	28.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	68	68	69	58	64	70	70	0.0	-0.7	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	130	115	143	131	139	149	146	0.9	-0.3	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	21.8	28.6	32.9	32.2	38.8	43.3	54.8	4.2	1.7	3.5
as % of GDP	8.5	10.2	11.0	10.2	11.3	11.6	13.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Belgium: EU CO ₂ 40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	11	11	12	12	13	0.6	0.9	0.9
GDP (in 000 M€13)	324	350	372	385	414	443	479	1.4	1.1	1.5
Gross Inland Consumption (ktoe)	59302	59008	61346	54681	54719	49271	40034	0.3	-1.1	-3.1
Solids	7922	5081	3673	3205	2007	2107	1634	-7.4	-5.9	-2.0
Oil	24136	24721	24699	23472	21993	20394	18196	0.2	-1.2	-1.9
Natural gas	13369	14728	16999	14941	14140	16730	11763	2.4	-1.8	-1.8
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Renewable energy forms	1081	1658	3560	4242	6207	6630	5986	12.7	5.7	-0.4
Energy Branch Consumption	2366	2403	2246	2406	2216	2125	1990	-0.5	-0.1	-1.1
Non-Energy Uses	6739	7516	8541	8464	8523	8620	8509	2.4	0.0	0.0
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	13607	13718	15356	10620	14088	7156	5526	1.2	-0.9	-8.9
Solids	206	57	0	0	0	0	0	-97.1	-100.0	0.0
Oil	0	6	-7	-14	-14	-13	-13	1692.2	7.2	-0.6
Natural gas	2	0	0	0	0	0	0	0.0	-100.0	0.0
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0
Renewable energy sources	977	1377	2996	3725	5469	5929	5539	11.9	6.2	0.1
Hydro	40	25	27	31	32	45	49	-3.8	1.7	4.5
Biomass & Waste	931	1327	2793	2944	3956	3825	3222	11.6	3.5	-2.0
Wind	1	20	111	431	1032	1465	1573	54.9	25.0	4.3
Solar and others	1	3	60	313	442	582	668	50.7	22.0	4.2
Geothermal	3	3	4	6	8	12	26	3.0	6.5	12.4
Net Imports (ktoe)	50502	53396	53753	52611	49710	51539	44297	0.6	-0.8	-1.1
Solids	7220	5150	3591	3205	2007	2107	1634	-6.7	-5.7	-2.0
Oil	29527	32605	32752	32035	31039	29375	26794	1.0	-0.5	-1.5
Crude oil and Feedstocks	34177	32251	31004	27409	27194	26561	25366	-1.0	-1.3	-0.7
Oil products	-4650	354	1749	4626	3845	2814	1428	0.0	8.2	-9.4
Natural gas	13278	14817	16791	14941	14186	17186	12967	2.4	-1.7	-0.9
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5
Import Dependency (%)	78.1	80.1	78.0	83.2	77.9	87.8	88.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	82773	85709	93764	69728	73955	71913	57423	1.3	-2.3	-2.5
Nuclear energy	48157	47595	47944	28180	35207	5071	0	0.0	-3.0	-100.0
Solids	12916	8199	4190	2975	195	288	42	-10.6	-26.4	-14.2
Oil (including refinery gas)	797	1740	406	96	659	683	697	-6.5	5.0	0.6
Gas (including derived gases)	19091	25143	33178	23812	18284	39025	27964	5.7	-5.8	4.3
Biomass-waste	1336	2516	5882	5914	3231	3949	3722	16.0	-5.8	1.4
Hydro (pumping excluded)	460	288	312	365	368	522	571	-3.8	1.7	4.5
Wind	16	227	1292	5009	11998	17039	18291	55.1	25.0	4.3
Solar	0	1	560	3376	4013	5336	6136	0.0	21.8	4.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	14674	14867	17071	18515	20994	22774	21706	1.5	2.1	0.3
Nuclear energy	5921	5921	5921	3907	5055	3041	0	0.0	-1.6	-100.0
Renewable energy	117	274	1934	5560	8494	11460	12641	32.4	15.9	4.1
Hydro (pumping excluded)	103	105	118	119	119	163	177	1.4	0.1	4.1
Wind	14	167	912	2229	4558	6241	6668	51.8	17.5	3.9
Solar	0	2	904	3212	3818	5056	5796	0.0	15.5	4.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	8636	8672	9216	9048	7445	8273	9064	0.7	-2.1	2.0
of which cogeneration units	1112	1893	2575	1552	655	1391	1122	8.8	-12.8	5.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2290	1450	1184	825	43	43	16	-6.4	-28.2	-9.7
Gas fired	4392	5201	6468	6799	6270	7197	8013	3.9	-0.3	2.5
Oil fired	1581	1494	836	646	265	265	234	-6.2	-10.9	-1.2
Biomass-waste fired	373	527	727	777	867	768	802	6.9	1.8	-0.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	61.5	63.0	60.3	41.2	38.8	35.2	29.6			
Efficiency of gross thermal power generation (%)	41.4	42.1	44.8	44.7	44.4	47.8	49.1			
% of gross electricity from CHP	6.5	8.5	16.0	17.4	8.0	15.6	16.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	60.4	59.1	59.7	61.4	74.1	44.4	50.0			
Fuel Inputs to Thermal Power Generation (ktoe)	7090	7677	8386	6315	4335	7898	5680	1.7	-6.4	2.7
Solids	2629	1833	936	761	47	66	9	-9.8	-25.8	-15.7
Oil (including refinery gas)	180	411	57	29	218	226	231	-10.8	14.3	0.6
Gas (including derived gases)	3790	4612	5671	4111	2951	6347	4330	4.1	-6.3	3.9
Biomass & Waste	492	821	1722	1414	1118	1259	1111	13.4	-4.2	-0.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	54711	52964	50595	41255	42571	34793	31921	-0.8	-1.7	-2.8
Refineries	38602	37483	35454	31882	31697	31086	29788	-0.8	-1.1	-0.6
Biofuels and hydrogen production	0	0	352	341	872	750	712	0.0	9.5	-2.0
District heating	45	29	6	15	19	17	16	-18.1	11.9	-1.7
Derived gases, cokeries etc.	16064	15452	14782	9016	9984	2940	1405	-0.8	-3.8	-17.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Belgium: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	137	145	154	158	169	174	182	1.2	1.0	0.7
Public road transport	13	18	17	18	18	18	18	2.7	0.2	0.0
Private cars and motorcycles	107	109	115	117	126	127	132	0.8	0.9	0.5
Rail	9	10	12	12	13	15	17	3.1	1.2	2.4
Aviation ⁽³⁾	8	8	9	10	12	13	15	0.9	2.5	2.5
Inland navigation	0	0	0	0	0	0	0	-0.3	1.4	1.6
Freight transport activity (Gtkm)	70	65	63	66	76	82	91	-1.1	1.8	1.8
Heavy goods and light commercial vehicles	55	48	46	47	54	57	62	-1.7	1.6	1.4
Rail	8	8	7	8	9	11	13	-0.3	2.1	3.5
Inland navigation	8	9	9	12	13	14	15	2.2	2.9	2.4
Energy demand in transport (ktoe) ⁽⁴⁾	9747	9972	10593	10179	10011	9461	9352	0.8	-0.6	-0.7
Public road transport	158	204	292	290	287	276	267	6.4	-0.2	-0.7
Private cars and motorcycles	4815	4463	5177	4757	4252	3650	3404	0.7	-1.9	-2.2
Heavy goods and light commercial vehicles	2857	3618	3413	3397	3642	3568	3658	1.8	0.7	0.0
Rail	184	186	177	181	210	239	264	-0.4	1.7	2.3
Aviation	1530	1281	1382	1389	1445	1536	1547	-1.0	0.4	0.7
Inland navigation	204	219	152	164	175	192	211	-2.9	1.4	1.9
By transport activity										
Passenger transport	6608	6016	6932	6518	6073	5562	5326	0.5	-1.3	-1.3
Freight transport	3139	3956	3661	3660	3938	3899	4026	1.6	0.7	0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.6	3.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	3.4	3.4	9.1	9.6	9.5			
ENERGY EFFICIENCY										
Primary energy consumption	52563	51491	52805	46217	46196	40651	31524	0.0	-1.3	-3.7
Final Energy Demand	37766	36705	37534	36239	36438	34118	27060	-0.1	-0.3	-2.9
by sector										
Industry	14218	11775	11688	11055	11232	10792	8818	-1.9	-0.4	-2.4
Energy intensive industries	10700	9088	8641	8013	8012	7725	6236	-2.1	-0.8	-2.5
Other industrial sectors	3518	2686	3047	3042	3221	3067	2582	-1.4	0.6	-2.2
Residential	8974	9299	9266	9230	9318	8627	5344	0.3	0.1	-5.4
Tertiary	4827	5658	5982	5722	5826	5185	3501	2.2	-0.3	-5.0
Transport ⁽⁵⁾	9747	9973	10598	10232	10062	9514	9396	0.8	-0.5	-0.7
by fuel										
Solids	3403	2019	1621	1505	1358	1291	1018	-7.2	-1.8	-2.8
Oil	16661	16586	15314	14610	13012	11377	9379	-0.8	-1.6	-3.2
Gas	10010	10009	11147	10465	10558	9849	6772	1.1	-0.5	-4.3
Electricity	6667	6896	7163	7033	7244	7552	6663	0.7	0.1	-0.8
Heat (from CHP and District Heating)	492	428	640	567	605	662	498	2.7	-0.6	-1.9
Renewable energy forms	533	767	1650	2058	3638	3251	2553	12.0	8.2	-3.5
Other	0	0	0	3	23	136	177	0.0	0.0	22.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	183	168	165	142	132	111	84	-1.0	-2.2	-4.5
Industry (Energy on Value added, index 2000=100)	100	82	88	81	77	70	54	-1.3	-1.3	-3.6
Residential (Energy on Private Income, index 2000=100)	100	98	90	84	78	67	38	-1.1	-1.4	-7.0
Tertiary (Energy on Value added, index 2000=100)	100	107	105	97	91	76	47	0.5	-1.4	-6.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	43	38	39	35	30	26	24	-1.1	-2.5	-2.3
Freight transport (toe/Mtkm)	45	61	58	55	52	47	44	2.6	-1.1	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	154.0	148.3	136.1	127.3	112.1	112.5	90.8	-1.2	-1.9	-2.1
of which ETS sectors (2013 scope) GHG emissions		70.1	58.6	52.1	42.8	50.7	41.8		-3.1	-0.2
of which ESD sectors (2013 scope) GHG emissions		78.3	77.6	75.2	69.3	61.8	49.0		-1.1	-3.4
CO2 Emissions (energy related)	122.7	114.2	106.4	97.8	84.6	86.9	66.8	-1.4	-2.3	-2.3
Power generation/District heating	25.1	24.0	20.4	15.8	9.0	18.9	13.8	-2.0	-7.9	4.4
Energy Branch	4.9	4.4	3.9	4.6	4.0	3.8	3.6	-2.3	0.4	-1.1
Industry	34.5	24.8	22.1	19.7	18.3	16.4	12.6	-4.4	-1.8	-3.7
Residential	20.3	20.5	18.9	18.4	16.9	15.1	7.8	-0.7	-1.1	-7.4
Tertiary	8.7	10.6	10.2	9.5	9.0	7.3	4.4	1.6	-1.3	-6.8
Transport	29.2	29.9	30.9	29.7	27.4	25.4	24.5	0.6	-1.2	-1.1
CO2 Emissions (non energy and non land use related)	8.1	13.3	9.5	10.2	9.9	9.4	8.9	1.6	0.4	-1.1
Non-CO2 GHG emissions	23.2	20.9	20.2	19.3	17.5	16.2	15.2	-1.3	-1.4	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.5	98.7	90.6	84.7	74.6	74.9	60.4	-1.2	-1.9	-2.1
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.28	0.26	0.20	0.20	0.11	0.23	0.21	-3.5	-5.8	6.9
Final energy demand (t of CO2/toe)	2.45	2.34	2.19	2.14	1.97	1.88	1.82	-1.1	-1.1	-0.7
Industry	2.43	2.11	1.89	1.78	1.63	1.52	1.42	-2.5	-1.5	-1.4
Residential	2.26	2.21	2.04	2.00	1.81	1.75	1.47	-1.0	-1.2	-2.1
Tertiary	1.80	1.87	1.71	1.66	1.54	1.40	1.27	-0.5	-1.0	-2.0
Transport	2.99	3.00	2.91	2.91	2.72	2.67	2.61	-0.3	-0.7	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	1.3	2.3	5.6	8.6	14.0	15.9	18.0			
RES-H&C share	1.9	3.4	6.1	8.5	13.9	13.9	15.1			
RES-E share	1.1	2.4	7.1	15.2	20.0	26.8	32.5			
RES-T share (based on ILUC formula)	0.0	0.1	4.1	4.6	10.1	13.9	18.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	49	59	86	104	112	112	3.2	5.9	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	128	116	139	141	145	154	163	0.9	0.4	1.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	32.9	35.9	48.6	47.3	59.4	65.7	85.7	4.0	2.0	3.7
as % of GDP	10.2	10.3	13.1	12.3	14.3	14.8	17.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Bulgaria: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	8	8	7	7	7	7	6	-1.0	-0.7	-0.7
GDP (in 000 M€13)	25	33	38	40	45	50	53	4.1	1.8	1.7
Gross Inland Consumption (ktoe)	18523	19754	17770	16469	16502	15441	12766	-0.4	-0.7	-2.5
Solids	6433	6895	6887	5983	5983	4906	3129	0.7	-1.4	-6.3
Oil	4068	4725	3888	3732	3540	3368	3115	-0.5	-0.9	-1.3
Natural gas	2931	2804	2300	2118	1957	1707	1237	-2.4	-1.6	-4.5
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0
Electricity	-397	-652	-726	-1011	-914	-915	-852	6.2	2.3	-0.7
Renewable energy forms	788	1156	1465	1870	2160	2600	2361	6.4	4.0	0.9
Energy Branch Consumption	905	911	1032	907	884	787	665	1.3	-1.5	-2.8
Non-Energy Uses	980	851	422	427	498	570	598	-8.1	1.7	1.9
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	9867	10629	10531	9856	11013	10484	9127	0.7	0.4	-1.9
Solids	4295	4178	4942	4055	4967	3993	2907	1.4	0.0	-5.2
Oil	68	58	61	17	20	25	29	-1.2	-10.7	3.9
Natural gas	12	384	59	125	125	126	131	17.0	7.8	0.5
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0
Renewable energy sources	792	1182	1512	1883	2125	2564	2285	6.7	3.5	0.7
Hydro	230	373	435	349	373	364	363	6.6	-1.5	-0.3
Biomass & Waste	562	776	975	1283	1478	1387	936	5.7	4.2	-4.5
Wind	0	0	59	98	102	402	569	0.0	5.7	18.8
Solar and others	0	0	12	118	138	385	401	0.0	28.2	11.3
Geothermal	0	33	33	34	35	25	16	0.0	0.7	-7.3
Net Imports (ktoe)	8544	9276	7075	6717	5636	5118	3812	-1.9	-2.2	-3.8
Solids	2258	2553	1700	1928	1016	913	221	-2.8	-5.0	-14.1
Oil	3944	4943	4025	3820	3665	3501	3247	0.2	-0.9	-1.2
Crude oil and Feedstocks	5228	6145	5916	6308	5989	5657	5289	1.2	0.1	-1.2
Oil products	-1284	-1202	-1891	-2489	-2324	-2155	-2041	3.9	2.1	-1.3
Natural gas	2742	2458	2131	1993	1833	1583	1119	-2.5	-1.5	-4.8
Electricity	-397	-652	-726	-1011	-914	-915	-852	6.2	2.3	-0.7
Import Dependency (%)	46.0	46.7	39.6	40.5	33.9	32.8	29.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	40646	43972	46017	48844	49167	49341	42793	1.2	0.7	-1.4
Nuclear energy	18178	18653	15249	15662	15326	15326	15326	-1.7	0.1	0.0
Solids	16941	18458	22606	23317	24249	19787	12526	2.9	0.7	-6.4
Oil (including refinery gas)	661	606	393	440	70	0	0	-5.1	-15.8	-100.0
Gas (including derived gases)	2178	1896	1967	3035	2690	1375	53	-1.0	3.2	-32.4
Biomass-waste	15	17	49	54	164	389	414	12.6	12.9	9.7
Hydro (pumping excluded)	2673	4337	5057	4063	4333	4235	4218	6.6	-1.5	-0.3
Wind	0	5	681	1144	1183	4674	6614	0.0	5.7	18.8
Solar	0	0	15	1129	1152	3553	3640	0.0	54.2	12.2
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	10471	10635	9943	11968	11820	13332	13806	-0.5	1.7	1.6
Nuclear energy	3610	2765	1920	1920	1920	1920	1920	-6.1	0.0	0.0
Renewable energy	1016	1992	2697	4081	4110	6929	7598	10.3	4.3	6.3
Hydro (pumping excluded)	1016	1984	2184	2338	2338	2338	2338	8.0	0.7	0.0
Wind	0	8	488	691	703	1847	2457	0.0	3.7	13.3
Solar	0	0	25	1052	1069	2744	2804	0.0	45.6	10.1
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	5845	5878	5326	5967	5790	4483	4287	-0.9	0.8	-3.0
of which cogeneration units	1129	1191	1017	1814	1702	1584	861	-1.0	5.3	-6.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5100	5100	4703	5313	4991	3674	3563	-0.8	0.6	-3.3
Gas fired	689	737	607	626	746	714	627	-1.3	2.1	-1.7
Oil fired	57	42	13	13	2	2	2	-13.6	-18.4	0.0
Biomass-waste fired	0	0	3	15	51	94	95	0.0	32.3	6.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	39.9	42.8	47.7	42.3	43.5	39.4	33.3			
Efficiency of gross thermal power generation (%)	28.4	27.0	28.5	36.8	38.6	37.9	36.9			
% of gross electricity from CHP	7.8	6.1	8.0	12.0	12.3	8.6	6.7			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	51.3	52.3	45.7	45.1	45.1	57.1	70.6			
Fuel Inputs to Thermal Power Generation (ktoe)	5986	6689	7553	6282	6055	4890	3031	2.4	-2.2	-6.7
Solids	4928	5817	6610	5466	5544	4573	2916	3.0	-1.7	-6.2
Oil (including refinery gas)	171	174	219	110	17	0	0	2.5	-22.6	-100.0
Gas (including derived gases)	884	697	720	692	456	226	18	-2.0	-4.5	-27.7
Biomass & Waste	3	2	4	15	38	91	97	1.4	26.0	9.7
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12213	13505	11285	10638	10376	10008	9583	-0.8	-0.8	-0.8
Refineries	5310	6421	6041	6617	6289	5948	5559	1.3	0.4	-1.2
Biofuels and hydrogen production	0	0	13	106	188	173	181	0.0	30.2	-0.4
District heating	324	368	304	96	98	94	59	-0.6	-10.7	-5.0
Derived gases, cokeries etc.	6579	6717	4927	3819	3801	3792	3784	-2.9	-2.6	0.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Bulgaria: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	48	56	65	72	76	79	83	3.2	1.4	1.0
Public road transport	15	14	11	11	11	12	12	-3.1	0.6	0.4
Private cars and motorcycles	28	36	48	53	54	56	58	5.7	1.3	0.6
Rail	4	3	3	3	4	4	4	-2.5	1.7	1.9
Aviation ⁽²⁾	2	4	4	5	6	8	10	8.8	4.9	4.4
Inland navigation	0	0	0	0	0	0	0	-1.8	0.9	1.4
Freight transport activity (Gtkm)	11	16	18	20	22	25	26	5.7	2.0	1.7
Heavy goods and light commercial vehicles	5	11	9	10	11	12	13	7.0	2.0	1.2
Rail	6	5	3	3	4	4	5	-5.7	2.0	2.5
Inland navigation	0	1	6	6	7	8	9	34.4	2.0	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	1841	2682	2719	2837	2879	2768	2740	4.0	0.6	-0.5
Public road transport	399	362	262	263	270	269	264	-4.1	0.3	-0.2
Private cars and motorcycles	956	1389	1581	1628	1559	1372	1305	5.2	-0.1	-1.8
Heavy goods and light commercial vehicles	305	652	590	646	699	709	698	6.8	1.7	0.0
Rail	78	69	52	44	49	53	56	-4.0	-0.6	1.4
Aviation	101	201	182	207	244	300	349	6.1	3.0	3.6
Inland navigation	3	10	53	49	58	65	68	34.5	0.9	1.7
<i>By transport activity</i>										
Passenger transport	1473	1965	2034	2106	2083	1952	1929	3.3	0.2	-0.8
Freight transport	369	718	685	731	796	816	811	6.4	1.5	0.2
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.9	1.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	3.8	6.6	6.5	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	17543	18903	17348	16042	16005	14871	12169	-0.1	-0.8	-2.7
Final Energy Demand	9106	10184	8843	9205	9477	9120	7454	-0.3	0.7	-2.4
<i>by sector</i>										
Industry	3967	4037	2561	2709	2794	2829	2348	-4.3	0.9	-1.7
Energy intensive industries	3124	3161	1789	1929	1934	1913	1555	-5.4	0.8	-2.2
Other industrial sectors	843	876	772	780	860	916	793	-0.9	1.1	-0.8
Residential	2155	2117	2246	2307	2371	2182	1443	0.4	0.5	-4.8
Tertiary	972	1128	1174	1179	1270	1190	789	1.9	0.8	-4.6
Transport ⁽⁵⁾	2013	2903	2862	3011	3043	2920	2874	3.6	0.6	-0.6
<i>by fuel</i>										
Solids	879	979	414	487	416	312	201	-7.3	0.0	-7.0
Oil	3026	3712	3125	3134	3042	2878	2646	0.3	-0.3	-1.4
Gas	1681	1565	1058	1052	1085	1032	804	-4.5	0.3	-3.0
Electricity	2085	2211	2331	2382	2525	2618	2268	1.1	0.8	-1.1
Heat (from CHP and District Heating)	880	939	960	841	863	857	558	0.9	-1.1	-4.3
Renewable energy forms	555	778	956	1309	1546	1418	969	5.6	4.9	-4.6
Other	0	0	0	0	0	5	8	0.0	0.0	37.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	733	599	472	415	366	309	239	-4.3	-2.5	-4.2
Industry (Energy on Value added, Index 2000=100)	100	68	37	39	35	32	25	-9.4	-0.5	-3.5
Residential (Energy on Private Income, Index 2000=100)	100	72	67	67	58	48	29	-3.9	-1.4	-6.6
Tertiary (Energy on Value added, Index 2000=100)	100	91	81	76	71	60	37	-2.1	-1.3	-6.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	34	30	28	26	23	22	0.0	-1.3	-1.9
Freight transport (toe/Mtkm)	35	44	37	37	36	33	31	0.7	-0.5	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	64.4	67.0	61.2	55.6	52.0	45.9	36.4	-0.5	-1.6	-3.5
of which ETS sectors (2013 scope) GHG emissions		39.4	35.6	30.0	29.4	24.5	16.4		-1.9	-5.7
of which ESD sectors (2013 scope) GHG emissions		27.6	25.6	25.6	22.7	21.4	20.1		-1.2	-1.2
CO₂ Emissions (energy related)	44.3	49.1	45.9	40.1	39.1	33.3	23.9	0.4	-1.6	-4.8
Power generation/District heating	24.6	27.9	31.2	25.1	24.7	20.0	12.4	2.4	-2.3	-6.6
Energy Branch	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.8	-1.8	-1.5
Industry	10.6	9.8	3.7	4.0	4.0	3.7	2.6	-10.0	0.7	-4.1
Residential	1.4	1.2	1.0	1.0	0.7	0.4	0.2	-3.1	-4.1	-13.5
Tertiary	1.2	1.1	0.8	0.7	0.7	0.6	0.3	-4.0	-1.7	-7.2
Transport	5.7	8.3	8.3	8.4	8.3	7.9	7.7	3.7	0.1	-0.7
CO₂ Emissions (non energy and non land use related)	3.5	4.0	3.0	3.0	3.1	3.2	3.2	-1.5	0.4	0.4
Non-CO₂ GHG emissions	16.7	14.0	12.3	12.5	9.8	9.4	9.3	-3.0	-2.2	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	58.5	60.9	55.6	50.5	47.2	41.7	33.1	-0.5	-1.6	-3.5
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.46	0.49	0.51	0.41	0.40	0.33	0.25	1.2	-2.4	-4.8
Final energy demand (t of CO ₂ /toe)	2.07	2.01	1.55	1.53	1.43	1.38	1.45	-2.8	-0.8	0.1
Industry	2.67	2.43	1.44	1.47	1.42	1.29	1.11	-6.0	-0.2	-2.4
Residential	0.63	0.58	0.44	0.41	0.28	0.19	0.11	-3.5	-4.6	-9.1
Tertiary	1.24	0.97	0.69	0.61	0.53	0.47	0.41	-5.8	-2.5	-2.7
Transport	2.85	2.88	2.88	2.80	2.73	2.72	2.68	0.1	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	6.6	9.1	14.1	18.7	20.9	25.9	28.6			
RES-H&C share	10.5	14.1	25.2	30.8	33.8	33.9	33.7			
RES-E share	4.0	8.5	12.3	17.4	17.9	33.5	45.7			
RES-T share (based on ILUC formula)	0.3	0.4	1.1	5.4	9.9	11.3	14.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	55	58	68	63	69	74	0.8	1.0	1.6
Average Price of Electricity in Final demand sectors (€13/MWh)	44	56	75	89	98	118	126	5.4	2.7	2.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	5.2	7.4	9.5	10.5	12.9	14.4	19.1	6.2	3.1	4.0
as % of GDP	20.7	22.3	25.3	26.5	28.5	28.9	35.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Croatia: EU/CO-40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	4	4	4	4	4	-0.4	-0.3	-0.3
GDP (in 000 M€13)	36	45	46	45	49	52	55	2.4	0.5	1.3
Gross Inland Consumption (ktoe)	7793	8888	8561	8018	8316	7771	6039	0.9	-0.3	-3.1
Solids	431	683	683	751	885	427	276	4.7	2.6	-11.0
Oil	3929	4490	3699	3414	3229	2981	2585	-0.6	-1.3	-2.2
Natural gas	2210	2370	2632	2144	2373	2519	1305	1.8	-1.0	-5.8
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Renewable energy forms	880	906	1138	1195	1416	1493	1464	2.6	2.2	0.3
Energy Branch Consumption	821	825	745	726	713	614	551	-1.0	-0.4	-2.6
Non-Energy Uses	656	675	596	514	529	535	534	-0.9	-1.2	0.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3580	3799	4222	3368	3599	3454	3044	1.7	-1.6	-1.7
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	1345	1029	767	466	461	435	387	-5.5	-5.0	-1.7
Natural gas	1355	1865	2215	1431	1488	1308	1051	5.0	-3.9	-3.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	880	906	1240	1471	1650	1711	1605	3.5	2.9	-0.3
Hydro	505	545	716	533	544	549	550	3.6	-2.7	0.1
Biomass & Waste	375	360	500	859	1020	958	715	2.9	7.4	-3.5
Wind	0	1	12	56	56	56	177	0.0	16.6	12.2
Solar and others	0	0	5	16	23	141	151	0.0	15.9	20.8
Geothermal	0	0	7	7	8	7	12	0.0	1.2	4.8
Net Imports (ktoe)	4134	5208	4461	4657	4724	4324	3002	0.8	0.6	-4.4
Solids	478	624	699	751	885	427	276	3.9	2.4	-11.0
Oil	2406	3583	2980	2955	2775	2553	2204	2.2	-0.7	-2.3
Crude oil and Feedstocks	3952	4334	3647	2979	2837	2693	2444	-0.8	-2.5	-1.5
Oil products	-1546	-751	-667	-24	-63	-139	-240	-8.1	-21.1	14.4
Natural gas	905	562	476	713	885	1211	254	-6.2	6.4	-11.7
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Import Dependency (%)	52.9	58.4	52.1	58.0	56.8	55.6	49.7			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	10684	12354	13999	11996	14284	14914	10913	2.7	0.2	-2.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	1551	2328	2385	2671	3604	1453	673	4.4	4.2	-15.5
Oil (including refinery gas)	1687	1855	560	77	24	217	205	-10.4	-27.0	23.9
Gas (including derived gases)	1571	1814	2553	2232	3338	4620	149	5.0	2.7	-26.7
Biomass-waste	1	14	33	98	276	360	212	41.9	23.7	-2.6
Hydro (pumping excluded)	5874	6333	8329	6200	6323	6387	6392	3.6	-2.7	0.1
Wind	0	10	139	650	650	650	2054	0.0	16.7	12.2
Solar	0	0	0	68	68	1228	1228	0.0	0.0	33.6
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	3786	3945	4216	4884	4876	5503	6051	1.1	1.5	2.2
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2079	2066	2220	2668	2668	3477	4181	0.7	1.9	4.6
Hydro (pumping excluded)	2079	2060	2141	2190	2190	2190	2190	0.3	0.2	0.0
Wind	0	6	79	423	423	423	1126	0.0	18.3	10.3
Solar	0	0	0	55	55	864	864	0.0	0.0	31.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1707	1879	1996	2216	2208	2025	1870	1.6	1.0	-1.6
of which cogeneration units	558	515	486	298	613	585	590	-1.4	2.4	-0.4
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	311	311	311	311	656	656	656	0.0	7.7	0.0
Gas fired	781	919	1031	1706	1378	1187	1073	2.8	2.9	-2.5
Oil fired	615	646	649	185	150	156	112	0.5	-13.6	-2.9
Biomass-waste fired	0	3	5	13	24	27	29	0.0	17.3	1.9
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	31.0	34.4	36.6	27.3	32.4	30.3	20.4			
Efficiency of gross thermal power generation (%)	33.1	34.9	37.5	44.0	46.0	45.4	28.4			
% of gross electricity from CHP	16.8	0.0	14.3	15.5	17.7	16.6	9.1			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	55.0	51.5	60.7	58.5	51.2	57.8	90.6			
Fuel Inputs to Thermal Power Generation (ktoe)	1249	1479	1269	993	1354	1260	375	0.2	0.6	-12.1
Solids	357	537	532	612	757	323	219	4.1	3.6	-11.7
Oil (including refinery gas)	395	447	120	14	8	64	62	-11.3	-23.7	22.8
Gas (including derived gases)	497	490	611	350	536	803	44	2.1	-1.3	-22.1
Biomass & Waste	0	4	7	17	53	69	49	36.6	22.9	-0.8
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	5394	5327	4409	3555	3567	3373	3043	-2.0	-2.1	-1.6
Refineries	5299	5210	4304	3414	3268	3098	2812	-2.1	-2.7	-1.5
Biofuels and hydrogen production	0	0	3	70	223	194	172	0.0	56.1	-2.6
District heating	83	104	97	70	74	71	45	1.6	-2.7	-4.8
Derived gases, cokeries etc.	12	13	4	1	2	11	14	-10.0	-5.7	19.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Croatia: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	27	31	34	36	39	41	43	2.5	1.4	0.9
Public road transport	3	3	3	3	4	4	4	-0.3	1.0	0.4
Private cars and motorcycles	21	25	27	28	30	31	33	2.4	1.2	0.8
Rail	2	2	2	2	3	3	3	2.7	1.3	0.9
Aviation ⁽³⁾	1	1	2	3	3	3	4	12.0	3.8	2.6
Inland navigation	0	0	0	0	0	0	0	212.2	1.1	1.8
Freight transport activity (Gtkm)	4	12	12	12	14	15	16	10.2	1.5	1.4
Heavy goods and light commercial vehicles	3	9	8	8	10	10	11	12.1	1.5	1.4
Rail	2	3	3	3	3	3	3	3.9	1.4	1.4
Inland navigation	0	0	1	1	1	1	1	30.9	1.4	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	1544	1921	2068	2074	2134	1998	1935	3.0	0.3	-1.0
Public road transport	41	39	61	63	66	64	63	3.9	0.8	-0.3
Private cars and motorcycles	1192	1192	1332	1324	1319	1178	1102	1.1	-0.1	-1.8
Heavy goods and light commercial vehicles	161	508	479	465	510	502	506	11.5	0.6	-0.1
Rail	46	52	50	48	52	53	55	0.8	0.5	0.5
Aviation	76	98	108	134	145	154	162	3.6	2.9	1.1
Inland navigation	29	33	38	39	43	45	47	2.8	1.3	1.0
By transport activity										
Passenger transport	1329	1340	1514	1535	1543	1411	1342	1.3	0.2	-1.4
Freight transport	215	581	554	540	591	587	594	9.9	0.7	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.1	2.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.1	3.5	10.7	10.5	9.9			
ENERGY EFFICIENCY										
Primary energy consumption	7138	8213	7965	7504	7787	7236	5505	1.1	-0.2	-3.4
Final Energy Demand	5371	6343	6347	6190	6320	5938	4695	1.7	0.0	-2.9
by sector										
Industry	1378	1563	1366	1394	1409	1323	1075	-0.1	0.3	-2.7
Energy intensive industries	847	907	752	745	738	680	547	-1.2	-0.2	-3.0
Other industrial sectors	531	656	614	649	671	643	529	1.5	0.9	-2.4
Residential	1666	1922	1893	1784	1776	1672	1060	1.3	-0.6	-5.0
Tertiary	781	935	1018	934	997	942	623	2.7	-0.2	-4.6
Transport ⁽⁵⁾	1547	1923	2070	2078	2138	2001	1938	3.0	0.3	-1.0
by fuel										
Solids	74	146	150	139	129	104	57	7.3	-1.6	-7.8
Oil	2683	3108	2902	2755	2562	2309	1948	0.8	-1.2	-4.7
Gas	1009	1236	1288	1170	1239	1170	790	2.5	-0.4	-4.4
Electricity	1018	1240	1364	1317	1401	1413	1181	3.0	0.3	-1.7
Heat (from CHP and District Heating)	213	258	246	226	240	246	162	1.4	-0.2	-3.9
Renewable energy forms	375	356	397	582	747	686	543	0.6	6.5	-3.1
Other	0	0	0	1	2	11	15	0.0	0.0	20.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	214	196	184	179	170	150	109	-1.5	-0.8	-4.3
Industry (Energy on Value added, index 2000=100)	100	97	88	93	88	79	62	-1.3	0.0	-3.5
Residential (Energy on Private Income, index 2000=100)	100	91	88	84	76	67	40	-1.2	-1.6	-6.3
Tertiary (Energy on Value added, index 2000=100)	100	97	99	95	91	81	50	-0.1	-0.8	-5.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	41	43	41	38	33	30	-1.2	-1.2	-2.3
Freight transport (toe/Mtkm)	48	49	47	45	43	40	38	-0.2	-0.8	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	26.3	30.7	28.5	25.4	25.5	22.9	18.1	0.8	-1.1	-3.4
of which ETS sectors (2013 scope) GHG emissions		12.7	10.8	9.6	10.6	9.1	6.1		-0.3	-5.3
of which ESD sectors (2013 scope) GHG emissions		17.9	17.7	15.7	15.0	13.9	11.9		-1.6	-2.2
CO2 Emissions (energy related)	17.0	20.2	18.6	17.0	17.6	15.2	10.6	0.9	-0.6	-5.0
Power generation/District heating	4.1	5.1	4.3	3.5	4.6	3.5	1.2	0.3	0.7	-12.2
Energy Branch	2.0	2.0	1.8	1.7	1.7	1.5	1.3	-1.0	-0.5	-2.6
Industry	2.9	3.5	2.8	2.9	2.7	2.4	1.5	-0.2	-0.4	-5.7
Residential	1.9	2.4	2.1	1.7	1.7	1.6	0.8	1.0	-2.1	-7.4
Tertiary	1.5	1.5	1.4	1.2	1.2	1.0	0.7	-0.6	-1.7	-5.7
Transport	4.5	5.7	6.2	6.0	5.7	5.3	5.0	3.1	-0.8	-1.2
CO2 Emissions (non energy and non land use related)	2.6	3.1	2.5	2.4	2.6	2.6	2.5	-0.3	0.2	-0.3
Non-CO2 GHG emissions	6.7	7.4	7.4	5.9	5.4	5.2	5.0	0.9	-3.1	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	74.2	86.5	80.4	71.5	72.0	64.7	51.0	0.8	-1.1	-3.4
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.30	0.32	0.25	0.23	0.26	0.19	0.09	-2.1	0.5	-9.8
Final energy demand (t of CO2/toe)	2.01	2.06	1.97	1.90	1.79	1.72	1.70	-0.2	-1.0	-0.5
Industry	2.09	2.23	2.08	2.08	1.93	1.79	1.41	-0.1	-0.7	-3.1
Residential	1.15	1.24	1.12	0.95	0.96	0.93	0.75	-0.3	-1.5	-2.5
Tertiary	1.89	1.57	1.37	1.26	1.18	1.10	1.05	-3.2	-1.5	-1.2
Transport	2.94	2.97	2.97	2.88	2.65	2.63	2.60	0.1	-1.1	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	14.8	12.8	14.3	18.5	21.1	23.9	29.9			
RES-H&C share	13.0	10.9	13.1	18.0	18.6	20.2	25.2			
RES-E share	36.2	32.8	34.2	39.1	38.4	45.6	63.2			
RES-T share (based on ILUC formula)	1.2	0.9	1.1	5.1	10.0	12.3	17.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	83	75	67	59	63	75	84	-2.1	-0.6	2.9
Average Price of Electricity in Final demand sectors (€13/MWh)	96	84	109	110	117	127	132	1.3	0.7	1.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	4.4	5.9	7.6	7.5	9.0	10.4	13.7	5.5	1.7	4.3
as % of GDP	12.2	12.9	16.4	16.8	18.5	20.1	24.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Cyprus: EU/CO-40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	1	1	1	1	1	1	1	1	1.7	0.9	0.3	
GDP (in 000 M€13)	14	16	18	16	19	21	22	2.8	0.2	1.9		
Gross Inland Consumption (ktoe)	2412	2539	2740	2157	2157	1999	1698	1.3	-2.4	-2.4		
Solids	33	36	17	0	0	0	0	-6.5	-53.4	-14.6		
Oil	2334	2446	2611	1995	1353	1178	1062	1.1	-6.4	-2.4		
Natural gas	0	0	0	0	558	550	392	0.0	0.0	-3.5		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy forms	46	57	112	162	246	271	243	9.4	8.2	-0.1		
Energy Branch Consumption	54	22	19	17	15	8	5	-9.7	-2.3	-10.1		
Non-Energy Uses	86	73	85	38	42	44	44	-0.1	-7.0	0.5		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	44	51	89	137	196	2150	2914	7.2	8.2	31.0		
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	1925	2714	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	44	51	89	137	196	225	200	7.2	8.2	0.2		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	9	10	24	28	37	45	44	10.5	4.4	1.9		
Wind	0	0	3	21	36	36	39	0.0	29.7	0.6		
Solar and others	36	41	61	86	118	140	114	5.6	6.8	-0.3		
Geothermal	0	0	1	2	5	5	2	0.0	18.9	-6.4		
Net Imports (ktoe)	2565	2843	2945	2243	2205	115	-932	1.4	-2.9	0.0		
Solids	33	43	11	0	0	0	0	-10.4	-51.4	-14.6		
Oil	2531	2794	2910	2218	1594	1439	1322	1.4	-5.8	-1.9		
Crude oil and Feedstocks	1160	0	0	0	0	0	0	-100.0	0.0	0.0		
Oil products	1371	2794	2910	2218	1594	1439	1322	7.8	-5.8	-1.9		
Natural gas	0	0	0	0	561	-1370	-2298	0.0	0.0	0.0		
Electricity	0	0	0	0	0	0	0	0.0	0.0	16.0		
Import Dependency (%)	98.6	100.7	100.8	94.3	91.9	5.1	-47.0					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	3370	4376	5322	4573	4956	5303	4219	4.7	-0.7	-1.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	3370	4376	5249	4086	457	22	22	4.5	-21.7	-26.0		
Gas (including derived gases)	0	0	0	0	3443	3885	2752	0.0	0.0	-2.2		
Biomass-waste	0	0	35	45	59	102	122	0.0	5.4	7.6		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	31	248	422	422	450	0.0	29.8	0.6		
Solar	0	0	6	195	576	872	872	0.0	58.4	4.2		
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _d)	983	1119	1498	1755	1980	2156	2169	4.3	2.8	0.9		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	89	292	554	701	714	0.0	20.1	2.6		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	82	158	216	216	229	0.0	10.2	0.6		
Solar	0	0	7	135	338	485	485	0.0	47.4	3.7		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	983	1119	1409	1462	1426	1455	1455	3.7	0.1	0.2		
of which cogeneration units	0	5	22	2	2	1	2	0.0	-21.8	0.4		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	34	514	514	0.0	0.0	31.3		
Oil fired	983	1119	1406	1452	1382	930	930	3.6	-0.2	-3.9		
Biomass-waste fired	0	0	3	10	10	10	11	0.0	12.7	0.2		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	37.2	42.1	38.9	28.5	27.5	27.6	21.9					
Efficiency of gross thermal power generation (%)	32.9	34.9	38.4	48.0	51.8	60.7	60.8					
% of gross electricity from CHP	0.0	0.3	1.0	1.7	1.6	1.0	0.9					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	1.4	10.6	21.3	26.3	34.2					
Fuel Inputs to Thermal Power Generation (ktoe)	881	1077	1182	741	657	568	410	3.0	-5.7	-4.6		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	881	1077	1178	731	86	0	0	2.9	-23.0	-100.0		
Gas (including derived gases)	0	0	0	0	558	549	390	0.0	0.0	-3.5		
Biomass & Waste	0	0	4	10	13	19	19	0.0	12.6	3.9		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	1178	0	15	17	41	36	33	-35.4	10.5	-2.0		
Refineries	1178	0	0	0	0	0	0	-100.0	0.0	0.0		
Biofuels and hydrogen production	0	0	15	17	41	36	33	0.0	10.5	-2.1		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	1	0.0	0.0	15.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Cyprus: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	12	14	15	15	18	20	22	1.9	2.4	1.9
Public road transport	1	1	1	1	1	1	1	1	1.4	0.8
Private cars and motorcycles	4	5	6	6	7	7	7	7	4.0	0.9
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation ⁽³⁾	7	8	7	8	10	12	14	0.5	3.6	2.8
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Freight transport activity (Gtkm)	1	1	1	1	1	1	1	-1.6	0.7	1.2
Heavy goods and light commercial vehicles	1	1	1	1	1	1	1	-1.6	0.7	1.2
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	860	982	1050	916	964	929	913	2.0	-0.9	-0.5
Public road transport	32	35	37	37	38	37	35	1.5	0.3	-0.7
Private cars and motorcycles	373	444	577	490	483	414	365	4.5	-1.8	-2.8
Heavy goods and light commercial vehicles	173	197	152	125	126	123	124	-1.3	-1.8	-0.2
Rail	0	0	0	0	0	0	0	0	0.0	0.0
Aviation	282	306	284	263	317	355	390	0.1	1.1	2.1
Inland navigation	0	0	0	0	0	0	0	0	0.0	0.0
By transport activity										
Passenger transport	687	785	898	791	837	806	790	2.7	-0.7	-0.6
Freight transport	173	197	152	125	126	123	124	-1.3	-1.8	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.7	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.4	1.8	4.2	3.8	3.2			
ENERGY EFFICIENCY										
Primary energy consumption	2326	2466	2655	2118	2116	1955	1654	1.3	-2.2	-2.4
Final Energy Demand	1650	1834	1926	1700	1766	1704	1472	1.6	-0.9	-1.8
by sector										
Industry	445	320	235	202	209	204	185	-6.2	-1.2	-1.2
Energy intensive industries	240	221	171	141	148	149	140	-3.3	-1.5	-0.6
Other industrial sectors	205	98	63	61	60	54	45	-11.1	-0.5	-2.8
Residential	211	322	333	323	315	288	194	4.7	-0.5	-4.7
Tertiary	134	209	309	259	279	283	179	8.7	-1.0	-4.3
Transport ⁽⁵⁾	860	983	1050	916	964	929	913	2.0	-0.9	-0.5
by fuel										
Solids	32	36	17	0	0	0	0	-6.4	-53.4	-14.6
Oil	1317	1403	1384	1226	1226	1135	1018	0.5	-1.2	-1.8
Gas	0	0	0	0	0	1	2	0.0	0.0	14.6
Electricity	258	341	420	360	392	426	337	5.0	-0.7	-1.5
Heat (from CHP and District Heating)	0	0	0	1	1	1	1	0.0	25.4	-4.7
Renewable energy forms	42	54	105	114	147	140	110	9.6	3.4	-2.9
Other	0	0	0	0	0	1	4	-100.0	0.0	37.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	175	157	151	131	116	97	76	-1.5	-2.6	-4.2
Industry (Energy on Value added, index 2000=100)	100	70	56	57	54	49	41	-5.6	-0.4	-2.6
Residential (Energy on Private Income, index 2000=100)	100	129	114	116	102	85	54	1.3	-1.1	-6.2
Tertiary (Energy on Value added, index 2000=100)	100	133	166	151	143	130	75	5.2	-1.5	-6.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	50	51	53	44	38	33	29	0.5	-3.2	-2.6
Freight transport (toe/Mtkm)	129	135	133	109	104	95	90	0.3	-2.5	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	11.3	10.4	10.3	8.2	7.3	6.9	6.3	-0.9	-3.4	-1.5
of which ETS sectors (2013 scope) GHG emissions		6.0	5.7	4.1	3.5	3.3	3.1		-4.8	-1.2
of which ESD sectors (2013 scope) GHG emissions		4.4	4.5	4.2	3.8	3.5	3.1		-1.8	-1.9
CO ₂ Emissions (energy related)	7.2	8.0	8.1	6.1	5.4	4.8	4.1	1.2	-4.0	-2.7
Power generation/District heating	2.8	3.5	3.8	2.4	1.6	1.3	0.9	2.9	-8.3	-5.3
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.0
Industry	1.4	1.0	0.6	0.6	0.5	0.5	0.4	-7.6	-1.4	-3.5
Residential	0.2	0.5	0.4	0.3	0.3	0.2	0.1	4.7	-2.4	-14.3
Tertiary	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	-2.0	-7.3
Transport	2.6	3.0	3.1	2.7	2.8	2.7	2.6	1.8	-1.2	-0.5
CO ₂ Emissions (non energy and non land use related)	0.9	0.9	0.6	0.5	0.6	0.6	0.7	-3.5	-0.5	2.3
Non-CO ₂ GHG emissions	3.2	1.5	1.6	1.6	1.4	1.4	1.5	-6.9	-1.5	0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	179.4	166.0	163.7	131.1	116.0	109.0	99.6	-0.9	-3.4	-1.5
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.85	0.80	0.71	0.52	0.32	0.24	0.22	-1.7	-7.7	-3.8
Final energy demand (t of CO ₂ /toe)	2.57	2.45	2.24	2.22	2.13	2.05	2.14	-1.3	-0.5	0.0
Industry	3.16	3.11	2.70	2.73	2.63	2.47	2.08	-1.6	-0.3	-2.4
Residential	1.11	1.44	1.11	1.04	0.91	0.66	0.32	0.0	-1.9	-10.0
Tertiary	0.00	0.43	0.69	0.73	0.63	0.50	0.46	0.0	-1.0	-3.1
Transport	3.02	3.00	2.95	2.94	2.86	2.87	2.86	-0.2	-0.3	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	2.9	3.1	5.9	9.1	14.8	17.4	19.3			
RES-H&C share	7.9	10.0	18.2	21.8	24.2	27.3	31.2			
RES-E share	0.0	0.0	1.4	10.6	21.3	26.3	34.2			
RES-T share (based on ILUC formula)	0.0	0.0	2.0	1.3	10.3	11.1	12.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	114	115	154	84	109	106	117	3.1	-3.4	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	132	146	181	204	194	179	193	3.2	0.6	0.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.1	1.9	2.5	2.5	3.1	3.4	4.1	8.1	2.1	3.1
as % of GDP	8.3	12.0	13.7	14.9	16.4	16.3	18.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Czech Republic: EU/CO-40				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	10	11	11	11	11	0.2	0.2	0.1	
GDP (in 000 M€13)	112	137	157	165	181	197	216	3.4	1.4	1.8	
Gross Inland Consumption (ktoe)	41097	45124	44681	41122	41486	40492	34064	0.8	-0.7	-2.0	
Solids	21643	20248	18364	15061	15318	14846	12209	-1.6	-1.8	-2.2	
Oil	7881	9899	9306	8965	8807	8342	7973	1.7	-0.5	-1.0	
Natural gas	7500	7703	8070	7797	7215	6723	4117	0.7	-1.1	-5.5	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Renewable energy forms	1429	1955	2980	3521	3938	4397	3664	7.6	2.8	-0.7	
Energy Branch Consumption	1768	1796	2068	1808	1799	1777	1537	1.6	-1.4	-1.6	
Non-Energy Uses	2093	2948	2783	2447	2583	2687	2725	2.9	-0.7	0.5	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30536	32861	31570	27296	28362	29079	25057	0.3	-1.1	-1.2	
Solids	25049	23570	20730	16524	17294	17546	14336	-1.9	-1.8	-1.9	
Oil	386	591	290	223	222	210	189	-2.8	-2.7	-1.6	
Natural gas	169	154	202	191	181	170	154	1.8	-1.1	-1.6	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Renewable energy sources	1426	2142	3101	3560	3867	4354	3580	8.1	2.2	-0.8	
Hydro	151	205	240	208	218	211	215	4.7	-0.9	-0.2	
Biomass & Waste	1275	1933	2770	3106	3317	3589	2557	8.1	1.8	-2.6	
Wind	0	2	29	44	65	231	482	76.2	8.5	22.1	
Solar and others	0	3	62	202	265	320	304	0.0	15.7	1.4	
Geothermal	0	0	0	0	2	3	22	0.0	0.0	27.4	
Net Imports (ktoe)	9414	12641	11447	13826	13124	11413	9008	2.0	1.4	-3.7	
Solids	-4721	-3270	-2968	-1463	-1976	-2700	-2127	-4.5	-4.0	0.7	
Oil	7512	9649	8974	8742	8585	8133	7785	1.8	-0.4	-1.0	
Crude oil and Feedstocks	5596	7730	7837	6115	6047	5808	5634	3.4	-2.6	-0.7	
Oil products	1916	1919	1137	2627	2538	2324	2150	-5.1	8.4	-1.6	
Natural gas	7482	7535	6846	7606	7035	6552	3963	-0.9	0.3	-5.6	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Import Dependency (%)	22.9	28.0	25.6	33.6	31.6	28.2	26.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	72911	81931	85319	82069	82180	84868	77448	1.6	-0.4	-0.6	
Nuclear energy	13590	24728	27998	27596	27596	27596	27594	7.5	-0.1	0.0	
Solids	52752	49522	47113	41095	43904	42102	35021	-1.1	-0.7	-2.2	
Oil (including refinery gas)	372	326	159	231	0	0	0	-8.1	-100.0	0.0	
Gas (including derived gases)	3907	4215	4121	5851	3804	4863	2384	0.5	-0.8	-4.6	
Biomass-waste	531	739	2188	2216	1359	2704	1828	15.2	-4.6	3.0	
Hydro (pumping excluded)	1758	2380	2789	2421	2541	2449	2497	4.7	-0.9	-0.2	
Wind	1	21	335	508	759	2687	5604	78.9	8.5	22.1	
Solar	0	0	615	2149	2214	2466	2518	0.0	13.7	1.3	
Geothermal and other renewables	0	0	1	0	2	2	2	0.0	9.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _d)	13990	16314	17995	18816	18571	19637	19980	2.5	0.3	0.7	
Nuclear energy	1958	4006	4006	4006	4006	4006	4006	7.4	0.0	0.0	
Renewable energy	953	1043	2989	3628	3816	4763	6101	12.1	2.5	4.8	
Hydro (pumping excluded)	952	1020	1049	1080	1080	1085	1095	1.0	0.3	0.1	
Wind	1	22	213	282	408	1116	2389	70.9	6.7	19.3	
Solar	0	1	1727	2266	2328	2563	2617	0.0	3.0	1.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	11079	11265	11000	11182	10749	10868	9873	-0.1	-0.2	-0.8	
of which cogeneration units	3733	5199	4792	3838	3904	3115	2131	2.5	-2.0	-5.9	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9823	9935	9571	9656	9487	9414	8797	-0.3	-0.1	-0.8	
Gas fired	1097	1110	1176	1220	931	1131	736	0.7	-2.3	-2.3	
Oil fired	140	140	117	134	72	64	64	-1.8	-4.7	-1.2	
Biomass-waste fired	19	80	136	171	259	259	276	21.7	6.6	0.6	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	55.0	52.9	50.0	46.3	46.9	45.9	41.4				
Efficiency of gross thermal power generation (%)	31.4	30.0	30.3	31.9	33.0	32.3	31.1				
% of gross electricity from CHP	17.9	16.8	14.2	17.4	19.2	14.4	10.8				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	21.8	34.0	39.8	42.5	41.9	44.7	51.7				
Fuel Inputs to Thermal Power Generation (ktoe)	15744	15702	15219	13299	12791	13209	10846	-0.3	-1.7	-1.6	
Solids	13945	14025	13445	10677	11429	11254	9632	-0.4	-1.6	-1.7	
Oil (including refinery gas)	311	161	78	59	0	0	0	-12.9	-100.0	0.0	
Gas (including derived gases)	1236	1292	1134	1938	1009	1203	751	-0.9	-1.2	-2.9	
Biomass & Waste	253	224	562	626	350	750	461	8.3	-4.6	2.8	
Geothermal heat	0	0	0	0	2	2	2	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	15035	19758	20049	17183	17147	16760	15671	2.9	-1.6	-0.9	
Refineries	6151	8144	8337	6497	6442	6202	6004	3.1	-2.5	-0.7	
Biofuels and hydrogen production	62	3	231	285	594	513	501	14.1	9.9	-1.7	
District heating	975	916	787	650	693	659	388	-2.1	-1.3	-5.6	
Derived gases, cokeries etc.	7846	10696	10693	9751	9418	9386	8778	3.1	-1.3	-0.7	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Czech Republic: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	103	112	108	113	124	135	145	0.5	1.4	1.6
Public road transport	16	16	17	17	19	20	21	0.5	0.9	1.2
Private cars and motorcycles	67	72	67	68	75	80	86	0.0	1.1	1.4
Rail	15	15	16	18	20	22	24	0.1	2.6	1.9
Aviation ⁽³⁾	5	10	9	9	11	12	14	5.6	2.3	2.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	46	49	48	50	55	59	64	0.3	1.4	1.5
Heavy goods and light commercial vehicles	29	34	34	35	38	40	43	1.7	1.1	1.3
Rail	17	15	14	15	17	19	21	-2.4	2.1	2.0
Inland navigation	0	0	0	0	0	0	0	-7.0	1.1	2.2
Energy demand in transport (ktoe) ⁽⁴⁾	4252	5983	6121	6178	6305	5876	5774	3.7	0.3	-0.9
Public road transport	233	296	379	385	401	405	411	5.0	0.6	0.3
Private cars and motorcycles	2563	3389	3394	3319	3296	2881	2698	2.8	-0.3	-2.0
Heavy goods and light commercial vehicles	1038	1753	1810	1914	1996	1930	1952	5.7	1.0	-0.2
Rail	216	197	193	211	235	249	265	-1.1	2.0	1.2
Aviation	197	343	341	345	373	406	443	5.6	0.9	1.7
Inland navigation	5	5	4	4	4	4	5	-2.2	-0.7	2.0
By transport activity										
Passenger transport	3107	4132	4229	4175	4215	3846	3718	3.1	0.0	-1.2
Freight transport	1145	1850	1892	2003	2090	2029	2056	5.1	1.0	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	1.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	1.5	0.0	3.8	4.7	9.7	9.2	9.1			
ENERGY EFFICIENCY										
Primary energy consumption	39004	42175	41899	38675	38903	37806	31339	0.7	-0.7	-2.1
Final Energy Demand	24798	26026	24853	24635	25462	24081	18860	0.0	0.2	-3.0
by sector										
Industry	10129	9681	7933	7883	8207	8099	6617	-2.4	0.3	-2.1
Energy intensive industries	6420	6748	5015	5079	5156	5038	3927	-2.4	0.3	-2.7
Other industrial sectors	3709	2934	2919	2804	3051	3062	2690	-2.4	0.4	-1.3
Residential	6150	6345	6665	6340	6583	6124	3837	0.8	-0.1	-5.3
Tertiary	4151	3904	3979	4098	4213	3823	2473	-0.4	0.6	-5.2
Transport ⁽⁵⁾	4368	6095	6276	6315	6458	6034	5933	3.7	0.3	-0.8
by fuel										
Solids	5134	3769	2424	2616	2255	1965	1250	-7.2	-0.7	-5.7
Oil	5322	6817	6541	6366	6148	5594	5198	2.1	-0.6	-1.7
Gas	6491	6741	6662	6128	6356	5755	3804	0.3	-0.5	-5.0
Electricity	4246	4754	4919	5012	5417	5628	5055	1.5	1.0	-0.7
Heat (from CHP and District Heating)	2624	2478	2249	2102	2276	2282	1467	-1.5	0.1	-4.3
Renewable energy forms	981	1467	2058	2411	3009	2844	2052	7.7	3.9	-3.8
Other	0	0	0	1	2	14	33	-100.0	0.0	32.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	366	329	285	250	229	206	158	-2.5	-2.1	-3.7
Industry (Energy on Value added, index 2000=100)	100	69	44	43	41	37	28	-7.8	-0.8	-3.7
Residential (Energy on Private Income, index 2000=100)	100	87	80	75	70	59	33	-2.2	-1.4	-7.3
Tertiary (Energy on Value added, index 2000=100)	100	82	76	73	68	56	33	-2.7	-1.1	-7.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	35	36	34	31	26	23	2.2	-1.5	-2.9
Freight transport (toe/Mtkm)	25	38	40	40	38	35	32	4.8	-0.4	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	153.1	150.6	140.8	128.6	123.5	118.0	97.0	-0.8	-1.3	-2.4
of which ETS sectors (2013 scope) GHG emissions		87.1	79.4	68.7	67.9	67.1	54.7		-1.6	-2.1
of which ESD sectors (2013 scope) GHG emissions		63.6	61.4	59.9	55.7	50.9	42.4		-1.0	-2.7
CO ₂ Emissions (energy related)	125.7	124.3	114.6	102.9	101.1	96.4	77.1	-0.9	-1.2	-2.7
Power generation/District heating	66.8	66.2	63.2	52.9	53.3	53.0	44.3	-0.6	-1.7	-1.8
Energy Branch	2.6	2.2	3.1	2.7	2.6	2.6	2.2	1.6	-1.6	-1.8
Industry	28.3	24.7	17.5	17.0	16.0	15.1	9.9	-4.7	-0.9	-4.8
Residential	8.8	8.4	8.3	7.8	7.5	6.4	3.5	-0.6	-1.0	-7.3
Tertiary	6.8	4.9	4.9	4.8	4.6	3.5	1.9	-3.3	-0.5	-8.3
Transport	12.4	17.8	17.6	17.6	17.0	15.8	15.3	3.6	-0.4	-1.1
CO ₂ Emissions (non energy and non land use related)	5.6	5.3	4.8	5.2	5.3	5.2	5.0	-1.7	1.2	-0.6
Non-CO ₂ GHG emissions	21.7	21.1	21.5	20.5	17.1	16.4	14.9	-0.1	-2.3	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	77.5	76.3	71.3	65.1	62.5	59.7	49.1	-0.8	-1.3	-2.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.60	0.55	0.52	0.46	0.46	0.45	0.44	-1.4	-1.3	-0.3
Final energy demand (t of CO ₂ /toe)	2.27	2.15	1.94	1.92	1.77	1.70	1.62	-1.6	-0.9	-0.9
Industry	2.79	2.55	2.21	2.16	1.96	1.87	1.49	-2.3	-1.2	-2.7
Residential	1.43	1.33	1.24	1.24	1.14	1.05	0.91	-1.4	-0.9	-2.2
Tertiary	1.63	1.26	1.22	1.18	1.10	0.90	0.78	-2.9	-1.1	-3.3
Transport	2.85	2.92	2.81	2.79	2.63	2.62	2.58	-0.1	-0.7	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	6.1	9.5	11.9	13.7	15.5	16.6			
RES-H&C share	5.9	9.1	12.6	15.5	17.5	19.3	20.4			
RES-E share	3.4	3.8	7.5	10.3	9.1	13.2	17.9			
RES-T share (based on ILUC formula)	1.8	0.3	4.4	5.5	10.2	10.2	11.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	60	83	77	81	74	2.0	2.5	-0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	66	83	142	128	123	123	121	7.9	-1.5	-0.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	14.7	20.3	28.4	27.5	32.4	35.3	46.8	6.8	1.4	3.7
as % of GDP	13.1	14.8	18.1	16.7	17.9	18.0	21.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Denmark: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	5	5	6	6	6	6	6	0.4	0.4	0.5
GDP (in 000 M€13)	233	248	247	256	289	321	350	0.6	1.6	1.9
Gross Inland Consumption (ktoe)	19733	19553	20040	16820	16849	15656	13223	0.2	-1.7	-2.4
Solids	3985	3713	3809	1860	1766	957	429	-0.5	-7.4	-13.2
Oil	9101	8063	7568	6738	6243	5620	4878	-1.8	-1.9	-2.4
Natural gas	4465	4413	4435	3680	2579	2385	1607	-0.1	-5.3	-4.6
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Renewable energy forms	2124	3246	4326	3795	5646	5989	5943	7.4	2.7	0.5
Energy Branch Consumption	1121	1205	1132	911	890	742	606	0.1	-2.4	-3.8
Non-Energy Uses	301	289	263	283	313	339	344	-1.3	1.8	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	27958	30781	22915	15259	15895	13531	11076	-2.0	-3.6	-3.5
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil	18465	18464	12040	8158	7711	6396	4395	-4.2	-4.4	-5.5
Natural gas	7428	9397	7356	4188	3848	2447	1732	-0.1	-6.3	-7.7
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	2065	2920	3520	2913	4337	4687	4949	5.5	2.1	1.3
Hydro	3	2	2	2	2	2	2	-3.6	0.2	0.0
Biomass & Waste	1688	2335	2825	1819	2832	2950	2537	5.3	0.0	-1.1
Wind	365	569	672	1007	1318	1493	1734	6.3	7.0	2.8
Solar and others	8	10	16	80	100	125	117	7.2	19.9	1.6
Geothermal	1	4	5	6	85	117	559	13.8	32.6	20.7
Net Imports (ktoe)	-7370	-10130	-3257	2304	1756	2976	3052	-7.8	0.0	5.7
Solids	3783	3505	2642	1860	1766	957	429	-3.5	-3.9	-13.2
Oil	-8386	-9068	-3586	-676	-673	57	1304	-8.1	-15.4	0.0
Crude oil and Feedstocks	-8783	-10933	-5033	-669	-742	7	1382	-5.4	-17.4	0.0
Oil products	397	1865	1447	-7	69	50	-78	13.8	-26.3	0.0
Natural gas	-2882	-5010	-3022	-508	-1262	-45	-40	0.5	-8.4	-29.2
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Import Dependency (%)	-35.1	-49.9	-15.7	13.1	9.9	18.0	21.6			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	36053	36246	38862	26963	30749	31035	32266	0.8	-2.3	0.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	16673	15463	17006	6498	5519	2915	1768	0.2	-10.6	-10.8
Oil (including refinery gas)	4439	1375	774	214	7	79	46	-16.0	-37.5	20.5
Gas (including derived gases)	8774	8780	7906	4589	645	1355	944	-1.0	-22.2	3.9
Biomass-waste	1895	3989	5340	3164	8463	8542	8558	10.9	4.7	0.1
Hydro (pumping excluded)	30	23	21	21	21	21	21	-3.5	0.2	0.0
Wind	4241	6614	7809	11709	15325	17355	20161	6.3	7.0	2.8
Solar	1	2	6	768	768	768	768	17.5	63.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	11787	13021	13419	15207	13634	13186	12672	1.3	0.2	-0.7
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2401	3141	3818	5910	6456	6682	7441	4.7	5.4	1.4
Hydro (pumping excluded)	10	11	9	9	9	9	9	-1.0	0.0	0.0
Wind	2390	3127	3802	5064	5609	5835	6594	4.8	4.0	1.6
Solar	1	3	7	837	838	838	838	21.5	61.4	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	9386	9880	9601	9297	7179	6504	5232	0.2	-2.9	-3.1
of which cogeneration units	5578	5685	5806	7114	5925	5038	2583	0.4	0.2	-8.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5214	5061	4466	4225	2366	2090	1472	-1.5	-6.2	-4.6
Gas fired	1862	2278	2274	2274	1135	1078	672	2.0	-6.7	-5.1
Oil fired	860	860	1017	1017	492	223	218	1.7	-7.0	-7.8
Biomass-waste fired	1449	1681	1844	1781	3186	3113	2870	2.4	5.6	-1.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	33.4	30.2	31.4	19.6	24.7	26.0	28.2			
Efficiency of gross thermal power generation (%)	34.9	35.7	35.3	32.4	33.0	33.2	35.7			
% of gross electricity from CHP	52.6	52.1	49.2	53.6	45.6	37.7	24.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	17.1	29.3	33.9	58.1	79.9	86.0	91.5			
Fuel Inputs to Thermal Power Generation (ktoe)	7834	7127	7624	3838	3814	3335	2723	-0.3	-6.7	-3.3
Solids	3669	3444	3770	1696	1616	860	374	0.3	-8.1	-13.6
Oil (including refinery gas)	1354	346	221	65	2	22	15	-16.6	-39.0	25.0
Gas (including derived gases)	2112	1996	1812	1197	177	334	222	-1.5	-20.7	2.3
Biomass & Waste	699	1341	1821	880	2019	2120	2113	10.0	1.0	0.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	9001	8288	8139	8416	8095	7447	6953	-1.0	-0.1	-1.5
Refineries	8435	7700	7175	7493	6969	6397	5770	-1.6	-0.3	-1.9
Biofuels and hydrogen production	0	0	27	277	433	353	301	0.0	32.1	-3.6
District heating	549	575	923	644	682	648	816	5.3	-3.0	1.8
Derived gases, cokeries etc.	17	13	13	3	10	49	65	-2.9	-2.2	20.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Denmark: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	75	76	78	83	90	94	99	0.4	1.3	1.0
Public road transport	7	7	7	7	8	8	8	-0.7	0.9	0.5
Private cars and motorcycles	51	51	52	54	58	59	61	0.1	1.1	0.5
Rail	6	6	7	7	8	9	10	1.8	1.7	2.3
Aviation ⁽³⁾	8	9	10	12	13	14	17	2.7	2.5	2.2
Inland navigation	3	3	3	3	3	4	4	-0.7	1.1	1.1
Freight transport activity (Gtkm)	21	22	23	25	29	30	32	0.6	2.3	1.2
Heavy goods and light commercial vehicles	18	18	18	20	23	25	26	0.2	2.5	1.1
Rail	2	2	2	2	3	3	3	1.0	1.6	1.9
Inland navigation	2	2	2	2	3	3	3	3.6	1.0	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4816	5324	5180	5009	4963	4591	4420	0.7	-0.4	-1.2
Public road transport	203	202	199	204	213	211	208	-0.2	0.7	-0.2
Private cars and motorcycles	2627	2866	2828	2599	2396	2015	1851	0.7	-1.6	-2.5
Heavy goods and light commercial vehicles	864	1003	1011	971	1059	1039	1019	1.6	0.5	-0.4
Rail	103	107	113	118	125	131	136	0.9	1.0	0.8
Aviation	856	955	874	960	999	1014	1019	0.2	1.3	0.2
Inland navigation	163	192	156	158	171	180	186	-0.4	0.9	0.9
By transport activity										
Passenger transport	3874	4197	4049	3915	3773	3416	3261	0.4	-0.7	-1.4
Freight transport	942	1128	1132	1094	1190	1175	1159	1.9	0.5	-0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.2	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	5.6	9.0	8.9	8.4			
ENERGY EFFICIENCY										
Primary energy consumption	19432	19264	19777	16536	16537	15318	12878	0.2	-1.8	-2.5
Final Energy Demand	14717	15497	15606	14800	14753	13879	10932	0.6	-0.6	-3.0
by sector										
Industry	2934	2864	2417	2568	2704	2657	2157	-1.9	1.1	-2.2
Energy intensive industries	1156	1107	849	908	930	856	682	-3.0	0.9	-3.0
Other industrial sectors	1778	1757	1569	1659	1775	1801	1474	-1.2	1.2	-1.8
Residential	4162	4453	4916	4345	4178	3896	2545	1.7	-1.6	-4.8
Tertiary	2805	2856	3094	2879	2907	2735	1811	1.0	-0.6	-4.6
Transport ⁽⁵⁾	4816	5324	5179	5009	4963	4591	4420	0.7	-0.4	-1.2
by fuel										
Solids	290	253	166	163	150	97	54	-5.4	-1.0	-9.7
Oil	7058	7293	6759	6083	5651	5011	4299	-0.4	-1.8	-2.7
Gas	1667	1708	1771	1744	1817	1620	1079	0.6	0.3	-5.1
Electricity	2791	2877	2783	2733	2853	2980	2802	0.0	0.2	-0.2
Heat (from CHP and District Heating)	2255	2424	2840	2556	2504	2338	1365	2.3	-1.3	-5.9
Renewable energy forms	656	943	1287	1519	1768	1783	1258	7.0	3.2	-3.3
Other	0	0	0	3	10	50	74	-100.0	0.0	21.7
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	85	79	81	66	58	49	38	-0.4	-3.3	-4.2
Industry (Energy on Value added, index 2000=100)	100	101	91	94	90	81	61	-0.9	-0.1	-3.9
Residential (Energy on Private Income, index 2000=100)	100	96	102	84	71	59	35	0.2	-3.6	-6.8
Tertiary (Energy on Value added, index 2000=100)	100	96	101	91	80	68	41	0.1	-2.3	-6.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	44	46	43	39	34	29	26	-0.4	-2.2	-2.7
Freight transport (toe/Mtkm)	44	51	50	44	42	39	36	1.3	-1.7	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.7	66.3	63.9	50.5	45.9	39.8	33.0	-1.1	-3.2	-3.2
of which ETS sectors (2013 scope) GHG emissions		29.3	27.9	18.0	14.8	11.5	8.4		-6.1	-5.6
of which ESD sectors (2013 scope) GHG emissions		37.0	36.0	32.5	31.1	28.3	24.6		-1.5	-2.3
CO2 Emissions (energy related)	53.3	50.0	48.8	35.8	31.3	25.5	19.2	-0.9	-4.4	-4.7
Power generation/District heating	24.5	20.3	21.2	10.6	7.3	4.6	2.2	-1.4	-10.1	-11.3
Energy Branch	2.2	2.3	2.1	1.9	1.7	1.4	1.1	-0.5	-2.1	-4.5
Industry	5.4	5.1	3.9	4.1	4.1	3.5	2.1	-3.2	0.4	-6.7
Residential	3.9	3.6	3.2	2.6	2.2	1.9	1.0	-2.0	-3.7	-8.0
Tertiary	3.0	2.7	2.9	2.5	2.4	1.8	1.1	-0.3	-1.8	-7.8
Transport	14.3	15.9	15.5	14.2	13.5	12.4	11.8	0.8	-1.3	-1.3
CO2 Emissions (non energy and non land use related)	2.6	2.3	1.4	1.4	1.6	1.5	1.5	-6.1	1.2	-0.5
Non-CO2 GHG emissions	15.8	14.0	13.7	13.3	13.1	12.7	12.3	-1.4	-0.4	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.2	91.8	88.4	69.8	63.6	55.1	45.7	-1.1	-3.2	-3.2
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.36	0.28	0.26	0.17	0.11	0.07	0.04	-3.0	-8.1	-9.0
Final energy demand (t of CO2/toe)	1.81	1.76	1.63	1.58	1.51	1.41	1.46	-1.0	-0.8	-0.3
Industry	1.85	1.79	1.63	1.58	1.51	1.31	0.95	-1.3	-0.7	-4.5
Residential	0.95	0.80	0.66	0.59	0.53	0.49	0.38	-3.6	-2.2	-3.3
Tertiary	1.05	0.95	0.93	0.88	0.82	0.65	0.59	-1.2	-1.2	-3.3
Transport	2.97	2.99	2.99	2.83	2.72	2.71	2.68	0.0	-0.9	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	10.5	15.6	22.0	23.9	33.9	39.4	44.5			
RES-H&C share	15.3	22.2	30.8	28.3	36.8	44.7	51.1			
RES-E share	15.0	25.0	33.1	41.9	62.6	66.2	78.9			
RES-T share (based on ILUC formula)	0.3	0.5	1.3	8.0	13.1	17.2	25.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	87	89	108	106	109	100	1.8	1.7	-0.6
Average Price of Electricity in Final demand sectors (€13/MWh)	169	178	195	186	204	209	221	1.4	0.4	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	18.3	21.9	23.2	20.9	25.6	28.3	37.2	2.4	1.0	3.8
as % of GDP	7.9	8.8	9.4	8.2	8.9	8.8	10.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Estonia: EU/CO ₂ -40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	1	1	1	1	1	1	1	-0.5	-0.4	-0.6
GDP (in 000 M€13)	11	15	15	18	20	22	24	3.6	3.0	1.6
Gross Inland Consumption (ktoe)	4979	5622	6155	6344	6477	6229	4729	2.1	0.5	-3.1
Solids	2968	3190	3917	3589	3745	3641	2558	2.8	-0.4	-3.7
Oil	916	1182	1109	1065	974	868	785	1.9	-1.3	-2.1
Natural gas	662	800	563	796	841	788	430	-1.6	4.1	-6.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-80	-138	-280	-100	-114	-98	69	13.4	-8.6	0.0
Renewable energy forms	513	589	847	995	1032	1031	887	5.1	2.0	-1.5
Energy Branch Consumption	163	193	199	190	189	180	129	2.0	-0.5	-3.7
Non-Energy Uses	180	229	90	280	295	301	304	-6.7	12.6	0.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3435	4250	5467	5368	5464	5300	3985	4.8	0.0	-3.1
Solids	2669	3176	3943	3594	3748	3652	2566	4.0	-0.5	-3.7
Oil	249	375	532	681	647	570	493	7.9	2.0	-2.7
Natural gas	5	7	5	0	0	0	0	-1.7	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	512	692	988	1093	1069	1079	927	6.8	0.8	-1.4
Hydro	0	2	2	3	3	3	3	19.1	2.1	0.0
Biomass & Waste	512	686	962	1040	1007	1015	859	6.5	0.5	-1.6
Wind	0	5	24	49	57	57	57	0.0	9.2	0.0
Solar and others	0	0	0	0	2	3	6	0.0	0.0	14.4
Geothermal	0	0	0	0	0	0	1	0.0	0.0	21.1
Net Imports (ktoe)	1628	1489	862	1219	1249	1163	981	-6.2	3.8	-2.4
Solids	270	23	-22	-5	-3	-10	-7	0.0	-18.3	9.5
Oil	786	917	760	625	556	519	496	-0.3	-3.1	-1.1
Crude oil and Feedstocks	-125	-225	-394	-560	-522	-452	-384	12.2	2.9	-3.0
Oil products	911	1142	1153	1185	1078	971	880	2.4	-0.7	-2.0
Natural gas	657	792	558	796	847	801	463	-1.6	4.3	-5.9
Electricity	-80	-138	-280	-100	-114	-98	69	13.4	-8.6	0.0
Import Dependency (%)	32.0	25.9	13.5	18.5	18.6	18.0	19.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	8513	10205	12964	10765	11539	11574	7738	4.3	-1.2	-3.9
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	7682	9302	11167	8608	9372	9352	5703	3.8	-1.7	-4.8
Oil (including refinery gas)	56	32	41	0	0	0	0	-3.1	-100.0	0.0
Gas (including derived gases)	757	760	712	689	593	632	455	-0.6	-1.8	-2.6
Biomass-waste	13	35	740	859	873	893	878	49.8	1.7	0.1
Hydro (pumping excluded)	5	22	27	33	33	33	33	18.4	2.0	0.0
Wind	0	54	277	575	667	663	668	0.0	9.2	0.0
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2912	2684	2827	2689	2340	2291	2312	-0.3	-1.9	-0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2	36	114	312	343	343	343	49.8	11.6	0.0
Hydro (pumping excluded)	2	5	6	8	8	8	8	11.6	2.9	0.0
Wind	0	31	108	303	334	334	334	0.0	12.0	0.0
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2910	2648	2713	2377	1997	1948	1969	-0.7	-3.0	-0.1
of which cogeneration units	452	1604	447	438	226	249	549	-0.1	-6.6	9.3
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	2684	2411	2430	1871	1468	1468	1468	-1.0	-4.9	0.0
Gas fired	218	224	224	362	381	332	353	0.3	5.5	-0.8
Oil fired	8	8	8	0	0	0	0	0.0	-100.0	0.0
Biomass-waste fired	0	5	51	144	148	148	148	0.0	11.2	0.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	29.8	38.8	47.4	40.9	50.8	52.1	34.7			
Efficiency of gross thermal power generation (%)	30.0	33.5	34.9	34.3	34.2	33.8	33.8			
% of gross electricity from CHP	11.0	10.2	10.3	12.7	9.9	8.9	10.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	0.2	1.1	8.1	13.6	13.6	13.7	20.4			
Fuel Inputs to Thermal Power Generation (ktoe)	2442	2600	3115	2543	2723	2767	1789	2.5	-1.3	-4.1
Solids	2199	2353	2715	2171	2363	2386	1444	2.1	-1.4	-4.8
Oil (including refinery gas)	16	10	12	0	0	0	0	-3.0	-100.0	0.0
Gas (including derived gases)	226	227	209	168	152	167	134	-0.8	-3.1	-1.2
Biomass & Waste	2	10	179	205	208	214	211	55.3	1.5	0.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	926	1271	1523	1753	1788	1623	1335	5.1	1.6	-2.9
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0
Biofuels and hydrogen production	0	0	0	10	65	53	44	0.0	0.0	-3.8
District heating	454	489	446	418	436	400	250	-0.2	-0.2	-5.4
Derived gases, cokeries etc.	473	782	1077	1325	1287	1170	1041	8.6	1.8	-2.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Estonia: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	10	14	14	15	16	16	17	2.8	1.6	0.7
Public road transport	3	3	2	2	2	2	3	-2.4	1.5	0.5
Private cars and motorcycles	7	10	10	11	12	12	12	4.3	1.4	0.5
Rail	0	0	0	0	0	0	1	-1.3	3.0	2.6
Aviation ⁽³⁾	0	1	1	1	1	1	1	12.3	4.1	3.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.3	1.2
Freight transport activity (Gtkm)	10	13	9	10	11	12	14	-1.1	2.2	2.1
Heavy goods and light commercial vehicles	2	3	2	3	3	3	3	1.9	3.1	1.2
Rail	8	11	7	7	8	9	10	-2.0	1.9	2.4
Inland navigation	0	0	0	0	0	0	0	-6.9	1.0	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	580	766	781	811	795	716	678	3.0	0.2	-1.6
Public road transport	62	62	67	74	76	75	73	0.7	1.3	-0.3
Private cars and motorcycles	349	475	499	524	484	395	345	3.6	-0.3	-3.3
Heavy goods and light commercial vehicles	95	135	116	132	139	140	142	2.0	1.9	0.2
Rail	46	44	54	33	39	41	45	1.7	-3.2	1.5
Aviation	21	42	38	42	50	58	66	6.4	2.8	2.7
Inland navigation	7	8	8	6	7	7	7	1.2	-1.7	0.9
By transport activity										
Passenger transport	441	589	614	647	619	537	494	3.4	0.1	-2.2
Freight transport	138	178	167	164	176	179	184	1.9	0.5	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.2	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.0	1.3	8.2	7.8	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	4799	5394	6065	6064	6182	5929	4426	2.4	0.2	-3.3
Final Energy Demand	2434	2877	2907	3036	3096	2942	2263	1.8	0.6	-3.1
by sector										
Industry	571	718	575	713	749	748	614	0.1	2.7	-2.0
Energy intensive industries	245	273	231	294	305	302	256	-0.6	2.8	-1.8
Other industrial sectors	327	446	343	419	444	446	359	0.5	2.6	-2.1
Residential	929	890	1028	963	984	937	607	1.0	-0.4	-4.7
Tertiary	348	495	520	544	562	535	357	4.1	0.8	-4.4
Transport ⁽⁵⁾	586	774	785	816	801	722	685	3.0	0.2	-1.5
by fuel										
Solids	118	118	83	64	56	47	38	-3.4	-3.9	-3.8
Oil	772	982	941	966	858	743	653	2.0	-0.9	-2.7
Gas	177	263	207	286	327	321	182	1.6	4.7	-5.7
Electricity	431	519	594	614	668	695	582	3.3	1.2	-1.4
Heat (from CHP and District Heating)	511	547	531	484	513	485	314	0.4	-0.4	-4.8
Renewable energy forms	425	447	550	622	674	650	487	2.6	2.0	-3.2
Other	0	0	0	0	0	3	6	-100.0	0.0	38.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	465	372	405	346	317	280	197	-1.4	-2.4	-4.6
Industry (Energy on Value added, index 2000=100)	100	84	67	69	66	61	48	-4.0	-0.1	-3.2
Residential (Energy on Private Income, index 2000=100)	100	63	74	58	52	45	26	-2.9	-3.5	-6.6
Tertiary (Energy on Value added, index 2000=100)	100	104	108	93	85	74	46	0.8	-2.3	-6.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	44	41	37	31	27	0.3	-1.6	-3.1
Freight transport (toe/Mtkm)	14	13	19	17	16	15	14	3.1	-1.6	-1.6
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	17.0	18.2	18.8	16.5	16.9	16.5	11.2	1.0	-1.0	-4.0
of which ETS sectors (2013 scope) GHG emissions		13.0	13.8	11.3	12.2	12.2	7.6		-1.2	-4.7
of which ESD sectors (2013 scope) GHG emissions		5.1	5.0	5.1	4.7	4.3	3.6		-0.6	-2.5
CO ₂ Emissions (energy related)	14.0	15.5	16.4	14.1	14.7	14.3	9.2	1.6	-1.1	-4.6
Power generation/District heating	10.7	11.3	12.7	10.1	10.9	10.9	6.5	1.7	-1.5	-5.0
Energy Branch	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.5	3.0	-3.2
Industry	0.9	1.0	0.8	0.8	0.7	0.7	0.4	-1.8	-0.1	-5.7
Residential	0.3	0.2	0.2	0.2	0.2	0.2	0.1	-4.2	0.5	-6.7
Tertiary	0.3	0.5	0.4	0.5	0.5	0.4	0.2	2.1	1.7	-7.1
Transport	1.7	2.3	2.3	2.4	2.2	2.0	1.8	3.1	-0.6	-1.8
CO ₂ Emissions (non energy and non land use related)	0.7	0.7	0.4	0.5	0.5	0.5	0.5	-6.0	3.0	-0.3
Non-CO2 GHG emissions	2.3	1.9	2.0	1.9	1.8	1.8	1.6	-1.4	-1.0	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	42.2	45.2	46.7	41.0	42.2	41.1	28.0	1.0	-1.0	-4.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.67	0.64	0.63	0.59	0.60	0.61	0.56	-0.6	-0.5	-0.7
Final energy demand (t of CO ₂ /toe)	1.33	1.42	1.27	1.28	1.17	1.09	1.14	-0.5	-0.8	-0.2
Industry	1.58	1.43	1.31	1.07	1.00	0.95	0.67	-1.8	-2.7	-3.8
Residential	0.32	0.26	0.19	0.20	0.20	0.18	0.16	-5.2	0.9	-2.1
Tertiary	0.91	1.05	0.75	0.92	0.82	0.68	0.62	-2.0	0.9	-2.8
Transport	2.96	2.98	2.99	2.96	2.75	2.73	2.69	0.1	-0.8	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	17.9	17.4	24.6	24.2	25.4	26.4	28.2			
RES-H&C share	31.8	32.2	43.2	39.9	38.0	40.3	47.1			
RES-E share	0.2	1.1	10.4	14.4	14.6	14.4	17.5			
RES-T share (based on ILUC formula)	0.0	0.0	0.2	0.2	10.0	10.2	11.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	43	47	65	57	62	76	1.0	2.0	2.9
Average Price of Electricity in Final demand sectors (€13/MWh)	59	63	80	109	111	121	127	3.2	3.4	1.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.3	2.0	2.9	3.7	4.4	4.8	6.2	8.6	4.1	3.6
as % of GDP	12.0	13.5	19.3	20.0	21.4	21.6	25.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Finland: EU/CO-40			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	5	5	5	5	6	6	6	0.3	0.5	0.5	
GDP (in 000 M€13)	157	179	187	188	199	210	226	1.7	0.6	1.3	
Gross Inland Consumption (ktoe)	32531	34529	37124	33972	35243	34778	26064	1.3	-0.5	-2.3	
Solids	5131	4936	6874	4106	4589	4233	2769	3.0	-4.0	-4.9	
Oil	9342	10335	10121	9288	8361	7310	5791	0.8	-1.9	-3.6	
Natural gas	3422	3598	3838	2821	2684	2957	1831	1.2	-3.5	-3.8	
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7	
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8	
Renewable energy forms	7816	8195	9508	10767	10587	12062	10943	2.0	1.1	0.3	
Energy Branch Consumption	1168	1209	1529	1577	1549	1356	1245	2.7	0.1	-2.2	
Non-Energy Uses	1040	1155	1229	1157	1191	1240	1174	1.7	-0.3	-0.1	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	14892	16669	17662	18108	20994	22567	19234	1.7	1.7	-0.9	
Solids	1088	2136	1803	1007	1107	1268	1196	5.2	-4.8	0.8	
Oil	189	257	389	433	393	350	296	7.5	0.1	-2.8	
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0	
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7	
Renewable energy sources	7816	8273	9589	10905	10761	12216	11078	2.1	1.2	0.3	
Hydro	1261	1185	1111	1350	1215	1270	1269	-1.3	0.9	0.4	
Biomass & Waste	6549	7072	8451	9354	9069	10102	8976	2.6	0.7	-0.1	
Wind	7	15	25	198	464	819	819	14.2	33.8	5.9	
Solar and others	1	1	1	2	14	23	14	10.0	26.5	0.0	
Geothermal	0	0	0	0	0	2	1	0.0	0.0	14.2	
Net Imports (ktoe)	18337	18979	17869	16077	14455	12410	9025	-0.3	-2.1	-4.6	
Solids	3537	3341	3977	3099	3481	2965	1573	1.2	-1.3	-7.6	
Oil	10357	10655	9232	9068	8170	7151	5670	-1.1	-1.2	-3.6	
Crude oil and Feedstocks	11964	10713	11206	13148	11840	10621	9146	-0.7	0.6	-2.5	
Oil products	-1607	-58	-1974	-4080	-3669	-3470	-3476	2.1	6.4	-0.5	
Natural gas	3422	3598	3838	2821	2688	2965	1851	1.2	-3.5	-3.7	
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8	
Import Dependency (%)	55.2	54.2	47.9	47.0	40.8	35.5	31.9				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	69934	70538	80591	71480	84569	98617	80530	1.4	0.5	-0.5	
Nuclear energy	22479	23271	22800	23137	36999	37079	28850	0.1	5.0	-2.5	
Solids	12452	10998	20826	8559	11109	11933	7559	5.3	-6.1	-3.8	
Oil (including refinery gas)	587	500	484	635	46	361	13	-1.9	-20.9	-11.7	
Gas (including derived gases)	10816	11921	11847	7771	6488	9371	1723	0.9	-5.8	-12.4	
Biomass-waste	8860	9891	11413	13361	10406	15576	18093	2.6	-0.9	5.7	
Hydro (pumping excluded)	14660	13784	12922	15702	14123	14765	14751	-1.3	0.9	0.4	
Wind	78	170	294	2307	5392	9526	9526	14.2	33.8	5.9	
Solar	1	2	5	7	6	6	14	14.9	2.0	9.7	
Geothermal and other renewables	1	1	0	0	0	0	0	-8.4	-96.5	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	16012	16586	16691	18173	19639	20140	18373	0.4	1.6	-0.7	
Nuclear energy	2726	2726	2726	2726	4378	4378	3398	0.0	4.8	-2.5	
Renewable energy	2923	3121	3359	4289	5628	7061	7071	1.4	5.3	2.3	
Hydro (pumping excluded)	2882	3035	3155	3276	3276	3376	3376	0.9	0.4	0.3	
Wind	38	82	197	1001	2343	3676	3676	17.9	28.1	4.6	
Solar	3	4	7	12	9	9	19	8.8	2.5	7.8	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	10363	10739	10605	11158	9634	8702	7904	0.2	-1.0	-2.0	
of which cogeneration units	8280	5832	6168	6361	5475	5572	3543	-2.9	-1.2	-4.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	4676	4633	4532	4340	3303	2308	1763	-0.3	-3.1	-6.1	
Gas fired	2570	2481	2703	2698	2828	2907	2673	0.5	0.5	-0.6	
Oil fired	1519	1505	1194	1532	643	628	607	-2.4	-6.0	-0.6	
Biomass-waste fired	1597	2120	2176	2589	2860	2860	2860	3.1	2.8	0.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.9	46.7	52.8	43.2	47.2	53.7	47.9				
Efficiency of gross thermal power generation (%)	39.3	36.8	36.6	34.5	34.4	35.0	32.1				
% of gross electricity from CHP	36.4	38.9	36.2	33.7	27.4	28.5	20.4				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	65.9	66.8	58.9	76.3	79.1	78.0	88.5				
Fuel Inputs to Thermal Power Generation (ktoe)	7166	7782	10460	7561	7021	9143	7328	3.9	-3.9	0.4	
Solids	3181	2998	5098	2421	2886	2904	1795	4.8	-5.5	-4.6	
Oil (including refinery gas)	122	98	99	168	15	87	4	-2.1	-17.1	-11.6	
Gas (including derived gases)	2119	2385	2516	1493	1276	1645	386	1.7	-6.6	-11.3	
Biomass & Waste	1744	2302	2747	3480	2844	4507	5142	4.6	0.3	6.1	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	21306	21544	23155	24530	26267	24111	19176	0.8	1.3	-3.1	
Refineries	13059	12876	14265	15688	14222	12667	10724	0.9	0.0	-2.8	
Biofuels and hydrogen production	0	0	140	334	373	330	309	0.0	10.3	-1.9	
District heating	1059	1265	1600	1434	1509	1237	578	4.2	-0.6	-9.2	
Derived gases, cokeries etc.	7188	7403	7149	7074	10163	9877	7566	-0.1	3.6	-2.9	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Finland: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	80	87	91	94	97	100	104	1.2	0.7	0.6
Public road transport	8	8	8	8	8	8	8	-0.2	0.3	0.3
Private cars and motorcycles	57	63	66	68	69	69	71	1.5	0.4	0.3
Rail	4	4	4	5	5	6	6	1.4	1.5	1.6
Aviation ⁽³⁾	8	9	9	10	12	13	14	1.2	3.0	2.2
Inland navigation	4	4	4	4	4	4	4	-0.6	0.6	0.5
Freight transport activity (Gtkm)	42	42	42	43	46	48	52	-0.2	1.0	1.3
Heavy goods and light commercial vehicles	29	30	27	28	30	31	33	-0.5	0.8	1.1
Rail	10	10	10	10	11	12	13	-0.4	1.4	1.9
Inland navigation	3	3	5	5	5	5	6	3.0	0.8	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	4338	4624	4827	4896	4737	4360	4089	1.1	-0.2	-1.5
Public road transport	120	116	121	121	121	118	115	0.1	0.0	-0.5
Private cars and motorcycles	2334	2542	2693	2631	2400	2039	1806	1.4	-1.1	-2.8
Heavy goods and light commercial vehicles	1158	1186	1129	1145	1163	1118	1116	-0.3	0.3	-0.4
Rail	90	92	90	94	101	106	111	0.0	1.2	1.0
Aviation	469	526	619	746	786	807	763	2.8	2.4	-0.3
Inland navigation	167	163	175	159	166	172	178	0.5	-0.6	0.7
By transport activity										
Passenger transport	3086	3310	3549	3604	3418	3079	2800	1.4	-0.4	-2.0
Freight transport	1251	1314	1278	1292	1319	1281	1288	0.2	0.3	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.6	3.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.9	7.0	8.2	8.3	8.5			
ENERGY EFFICIENCY										
Primary energy consumption	31491	33375	35896	32815	34052	33537	26890	1.3	-0.5	-2.3
Final Energy Demand	24510	25239	26243	24732	24607	22820	17756	0.7	-0.6	-3.2
by sector										
Industry	12313	11922	11428	10647	10654	9940	8241	-0.7	-0.7	-2.5
Energy intensive industries	10172	9616	9017	8347	8313	7545	6218	-1.2	-0.8	-2.9
Other industrial sectors	2141	2306	2412	2299	2341	2395	2023	1.2	-0.3	-1.4
Residential	4544	5053	5804	5338	5400	4884	3035	2.5	-0.7	-5.6
Tertiary	3296	3616	4169	3837	3802	3624	2378	2.4	-0.9	-4.6
Transport ⁽⁵⁾	4356	4648	4842	4910	4751	4373	4102	1.1	-0.2	-1.5
by fuel										
Solids	1109	873	843	702	694	651	443	-2.7	-1.9	-4.4
Oil	7850	8102	7619	7073	6484	5375	4110	-0.3	-1.6	-4.5
Gas	1209	1082	1012	981	989	1099	1425	-1.8	-0.2	3.7
Electricity	6507	6942	7178	6788	6906	7281	6374	1.0	-0.4	-0.8
Heat (from CHP and District Heating)	3334	3972	4656	4143	4271	3786	2165	3.4	-0.9	-6.6
Renewable energy forms	4501	4268	4935	5042	5256	4604	3200	0.9	0.6	-4.8
Other	0	0	0	3	7	25	39	0.0	1586.2	19.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	207	193	199	181	177	165	124	-0.4	-1.2	-3.5
Industry (Energy on Value added, index 2000=100)	100	81	79	75	73	65	51	-2.3	-0.9	-3.5
Residential (Energy on Private Income, index 2000=100)	100	94	98	86	82	70	40	-0.2	-1.8	-6.8
Tertiary (Energy on Value added, index 2000=100)	100	100	110	100	92	83	51	0.9	-1.7	-5.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	36	36	34	32	29	26	22	-0.6	-1.5	-2.8
Freight transport (toe/Mtkm)	30	31	31	30	29	26	25	0.4	-0.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	73.1	71.5	78.2	61.1	58.7	53.7	40.6	0.7	-2.8	-3.6
of which ETS sectors (2013 scope) GHG emissions		37.2	43.9	30.8	31.5	30.0	19.9		-3.2	-4.5
of which ESD sectors (2013 scope) GHG emissions		34.3	34.3	30.3	27.1	23.7	20.7		-2.3	-2.7
CO ₂ Emissions (energy related)	58.1	57.7	65.3	48.5	47.5	42.9	30.1	1.2	-3.1	-4.5
Power generation/District heating	22.5	23.0	32.3	17.5	18.6	18.5	10.0	3.7	-5.4	-6.0
Energy Branch	2.5	2.5	2.8	3.1	2.8	2.2	1.9	1.2	0.0	-3.7
Industry	14.2	12.7	11.0	10.1	9.5	8.2	6.5	-2.5	-1.5	-3.8
Residential	2.4	2.3	1.8	1.4	1.3	0.9	0.3	-2.6	-3.5	-14.8
Tertiary	3.6	3.5	3.4	2.8	2.3	1.3	0.6	-0.6	-3.6	-12.3
Transport	12.9	13.8	14.0	13.6	13.0	11.8	10.8	0.8	-0.8	-1.8
CO ₂ Emissions (non energy and non land use related)	1.5	1.6	2.2	2.3	2.2	2.2	2.2	3.8	0.3	-0.4
Non-CO2 GHG emissions	13.6	12.2	10.8	10.3	9.0	8.6	8.4	-2.3	-1.8	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	101.1	98.9	108.1	84.4	81.1	74.3	56.2	0.7	-2.8	-3.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.20	0.19	0.23	0.14	0.13	0.13	0.09	1.4	-5.3	-3.7
Final energy demand (t of CO ₂ /toe)	1.35	1.28	1.15	1.13	1.06	0.97	1.02	-1.6	-0.8	-0.3
Industry	1.15	1.06	0.96	0.95	0.89	0.83	0.79	-1.8	-0.8	-1.3
Residential	0.52	0.45	0.32	0.26	0.24	0.19	0.08	-5.0	-2.8	-9.7
Tertiary	1.09	0.97	0.81	0.74	0.62	0.36	0.27	-2.9	-2.7	-8.1
Transport	2.97	2.97	2.89	2.77	2.73	2.69	2.64	-0.3	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	28.7	28.8	32.5	41.1	41.9	46.1	45.6			
RES-H&C share	38.2	39.1	44.4	55.2	57.5	61.0	57.6			
RES-E share	27.3	26.9	27.7	36.2	33.7	42.7	51.7			
RES-T share (based on ILUC formula)	0.8	0.9	4.3	16.3	18.9	23.3	28.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	52	55	59	95	91	86	93	1.4	4.4	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	68	80	98	122	130	136	140	3.7	2.9	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.9	20.3	25.8	27.4	32.8	35.3	45.1	4.4	2.4	3.2
as % of GDP	10.7	11.3	13.8	14.6	16.5	16.8	20.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								France: EUCO+40			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (In million)	57	60	61	63	64	66	67	0.7	0.5	0.4	
GDP (in 000 M€13)	1812	1962	2024	2091	2266	2417	2594	1.1	1.1	1.4	
Gross Inland Consumption (ktoe)	257565	276646	267546	255764	248933	231352	183919	0.4	-0.7	-3.0	
Solids	15048	14303	12076	8763	8588	6214	4439	-2.2	-3.4	-6.4	
Oil	88937	93185	82668	79806	75205	67066	58174	-0.7	-0.9	-2.5	
Natural gas	35766	41025	42540	38807	35911	33313	19293	1.7	-1.7	-6.0	
Nuclear	107093	116474	110539	109294	97019	94378	78444	0.3	-1.3	-2.1	
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3	
Renewable energy forms	16695	16847	22365	24473	37905	36068	29114	3.0	5.4	-2.6	
Energy Branch Consumption	10822	9989	9635	8309	7419	6513	5271	-1.2	-2.6	-3.4	
Non-Energy Uses	16851	16704	14290	14232	14666	14892	14648	-1.6	0.3	0.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	129790	136271	135095	135170	135974	131285	108322	0.4	0.1	-2.2	
Solids	2483	383	162	143	0	0	0	-23.9	-100.0	0.0	
Oil	2023	1604	1542	1217	1122	953	894	-2.7	-3.1	-2.3	
Natural gas	1505	909	646	304	294	284	262	-8.1	-7.6	-1.1	
Nuclear	107093	116474	110539	109294	97019	94378	78444	0.3	-1.3	-2.1	
Renewable energy sources	16688	16902	22206	24212	37539	35670	28722	2.9	5.4	-2.6	
Hydro	5771	4442	5364	5476	5753	5515	5516	-0.7	0.7	-0.4	
Biomass & Waste	10763	12159	15690	15780	23632	19650	12399	3.8	4.2	-6.2	
Wind	7	83	855	1850	4741	5620	5627	62.6	18.7	1.7	
Solar and others	21	26	118	870	3088	4505	4761	18.7	38.7	4.4	
Geothermal	126	192	180	236	326	381	419	3.6	6.1	2.6	
Net Imports (ktoe)	134082	144103	132149	123217	115710	102932	78564	-0.1	-1.3	-3.8	
Solids	13005	13511	12192	8620	8588	6214	4439	-0.6	-3.4	-6.4	
Oil	91265	95114	82886	81211	76779	68852	59908	-1.0	-0.8	-2.5	
Crude oil and Feedstocks	85329	85302	65254	46552	45753	42692	38818	-2.6	-3.5	-1.6	
Oil products	5936	9813	17632	34659	31027	26160	21091	11.5	5.8	-3.8	
Natural gas	35779	40720	39553	38504	35671	33156	19369	1.0	-1.0	-5.9	
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3	
Import Dependency (%)	51.5	51.6	49.0	47.7	46.0	43.9	42.0				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	535965	571353	563931	584202	597363	616836	514377	0.5	0.6	-1.5	
Nuclear energy	415162	451529	428521	444338	396167	385196	318466	0.3	-0.8	-2.2	
Solids	27004	27515	23359	8820	9109	765	0	-1.4	-9.0	-100.0	
Oil (including refinery gas)	7165	7925	5565	516	0	673	211	-2.5	-100.0	0.0	
Gas (including derived gases)	15365	26254	26385	25753	23559	36138	4657	5.6	-1.1	-15.0	
Biomass-waste	3559	5016	6675	10512	14131	18858	13124	6.5	7.8	-0.7	
Hydro (pumping excluded)	67121	51658	62388	63671	66898	64124	64140	-0.7	0.7	-0.4	
Wind	77	964	9942	21517	55129	65350	65426	62.6	18.7	1.7	
Solar	5	10	620	8601	31589	44533	46348	63.1	48.2	3.9	
Geothermal and other renewables	507	482	476	474	782	1198	2008	-0.6	5.1	9.9	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114543	114015	123033	127555	148954	154791	154803	0.7	1.9	0.4	
Nuclear energy	64293	64053	63679	63247	61327	59493	59493	-0.1	-0.4	-0.3	
Renewable energy	23570	24601	32099	40333	66684	77564	78778	3.1	7.6	1.7	
Hydro (pumping excluded)	23266	23571	23779	23635	23635	23635	23635	0.2	-0.1	0.0	
Wind	57	777	7050	10358	22130	25130	25150	61.9	12.1	1.3	
Solar	7	13	1030	6100	20535	28228	29078	64.7	34.9	3.5	
Other renewables (tidal etc.)	240	240	240	240	384	571	914	0.0	4.8	9.1	
Thermal power	26680	25361	27256	23974	20944	17734	16532	0.2	-2.6	-2.3	
of which cogeneration units	7013	5779	4606	10620	6057	4186	2711	-4.1	2.8	-7.7	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	10552	8637	7229	5385	3856	3834	3780	-3.7	-6.1	-0.2	
Gas fired	4116	6055	9334	9646	9183	8973	8002	8.5	-0.2	-1.4	
Oil fired	11328	9794	9643	7693	5008	1849	1676	-1.6	-6.3	-10.4	
Biomass-waste fired	684	876	1049	1249	2894	3075	3072	4.4	10.7	0.6	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	2	3	3	3	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	51.0	54.6	50.0	50.2	44.1	43.9	36.7				
Efficiency of gross thermal power generation (%)	34.9	33.3	30.0	39.7	38.7	41.1	33.6				
% of gross electricity from CHP	3.0	2.4	2.8	2.4	1.9	1.6	1.3				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	90.8	89.2	90.2	94.0	94.5	93.9	99.1				
Fuel Inputs to Thermal Power Generation (ktoe)	13278	17328	17887	9873	10400	11822	4610	3.0	-5.3	-7.8	
Solids	6559	6402	4717	2258	2335	193	0	-3.2	-6.8	-100.0	
Oil (including refinery gas)	1242	2160	1639	135	0	178	70	2.8	-79.3	251.8	
Gas (including derived gases)	4002	6298	8178	4941	3923	6318	1195	7.4	-7.1	-11.2	
Biomass & Waste	1476	2469	3352	2529	4127	5119	3330	8.5	2.1	-2.1	
Geothermal heat	0	0	0	10	15	15	15	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	205144	211862	191250	166425	153157	147258	126089	-0.7	-2.2	-1.9	
Refineries	90823	88392	73306	49009	48039	44823	40756	-2.1	-4.1	-1.6	
Biofuels and hydrogen production	325	651	2397	2746	3119	2770	2710	22.1	2.7	-1.4	
District heating	312	448	608	546	576	501	370	6.9	-0.5	-4.3	
Derived gases, cokeries etc.	113684	122371	114938	114124	101423	99163	82253	0.1	-1.2	-2.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								France: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	950	998	1033	1091	1169	1196	1249	0.8	1.2	0.7
Public road transport	42	42	50	55	60	62	65	1.7	1.9	0.8
Private cars and motorcycles	754	801	811	850	901	901	925	0.7	1.1	0.3
Rail	81	90	101	107	118	131	145	2.1	1.6	2.0
Aviation ⁽³⁾	69	62	68	76	86	97	110	-0.1	2.4	2.5
Inland navigation	3	3	3	3	3	4	4	-0.8	0.7	1.3
Freight transport activity (Gtkm)	412	409	392	413	470	504	563	-0.5	1.8	1.8
Heavy goods and light commercial vehicles	311	319	296	310	357	373	418	-0.5	1.9	1.6
Rail	58	41	30	37	42	51	60	-6.3	3.5	3.6
Inland navigation	43	49	66	66	71	80	85	4.4	0.8	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	50360	50194	49347	50154	49971	45715	43846	-0.2	0.1	-1.3
Public road transport	536	519	595	654	704	710	711	1.0	1.7	0.1
Private cars and motorcycles	31157	31368	31602	31615	29850	25282	22829	0.1	-0.6	-2.6
Heavy goods and light commercial vehicles	10961	10554	9424	9543	10233	9882	10329	-1.5	0.8	0.1
Rail	1134	980	932	1017	1080	1165	1232	-1.9	1.5	1.3
Aviation	6088	6291	6294	6827	7569	8085	8123	0.3	1.9	0.7
Inland navigation	483	481	500	499	535	591	623	0.4	0.7	1.5
By transport activity										
Passenger transport	38753	38887	39197	39839	38895	34879	32484	0.1	-0.1	-1.8
Freight transport	11607	11307	10150	10316	11076	10836	11362	-1.3	0.9	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	2.1	4.7			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.7	1.3	4.9	5.6	6.5	6.7	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	240713	259943	253256	241532	234267	216459	169271	0.5	-0.8	-3.2
Final Energy Demand	154639	160337	155397	155251	156430	140270	108246	0.0	0.1	-3.6
by sector										
Industry	36670	34356	28478	30330	31199	30047	25315	-2.5	0.9	-2.1
Energy intensive industries	20906	20576	16506	17590	17978	16993	14449	-2.3	0.9	-2.2
Other industrial sectors	15764	13780	11972	12740	13222	13055	10865	-2.7	1.0	-1.9
Residential	42153	45931	45463	44159	45074	37492	22314	0.8	-0.1	-6.8
Tertiary	25209	29569	31792	30270	29819	26622	16350	2.3	-0.6	-5.8
Transport ⁽⁵⁾	50607	50482	49664	50492	50337	46109	44268	-0.2	0.1	-1.3
by fuel										
Solids	5775	5218	4547	4076	4199	3762	2673	-2.4	-0.8	-4.4
Oil	72503	71421	64647	63583	58934	50861	42696	-1.1	-0.9	-3.2
Gas	30907	33744	32430	32675	30947	26508	17584	0.5	-0.5	-5.5
Electricity	33096	36352	38185	37788	38979	40733	33322	1.4	0.2	-1.6
Heat (from CHP and District Heating)	3236	4163	3525	3658	3406	2991	1724	0.9	-0.3	-6.6
Renewable energy forms	9123	9439	12064	13458	19919	15192	9833	2.8	5.1	-6.8
Other	0	0	0	12	46	222	413	0.0	0.0	24.6
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	142	141	132	122	110	96	71	-0.7	-1.8	-4.3
Industry (Energy on Value added, index 2000=100)	100	89	78	80	77	70	56	-2.5	-0.1	-3.1
Residential (Energy on Private Income, index 2000=100)	100	98	91	86	80	62	34	-0.9	-1.3	-8.1
Tertiary (Energy on Value added, index 2000=100)	100	108	110	101	92	76	43	1.0	-1.8	-7.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	34	33	32	30	27	23	20	-0.7	-1.6	-2.9
Freight transport (toe/Mtkm)	28	28	26	25	24	21	20	-0.9	-0.9	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	585.3	552.1	512.0	482.2	444.9	398.2	325.1	-1.3	-1.4	-3.1
of which ETS sectors (2013 scope) GHG emissions	173.2	147.3	147.3	131.7	125.5	119.4	93.6	-1.6	-2.9	
of which ESD sectors (2013 scope) GHG emissions	378.8	378.8	364.7	350.4	319.4	278.8	231.5	-1.3	-3.2	
CO ₂ Emissions (energy related)	388.3	394.4	360.0	332.5	307.8	267.2	199.4	-0.8	-1.6	-4.2
Power generation/District heating	46.7	53.6	48.1	26.7	22.5	21.2	8.1	0.3	-7.3	-9.7
Energy Branch	19.9	16.3	15.0	13.7	11.6	10.0	8.1	-2.7	-2.6	-3.5
Industry	74.6	67.0	54.1	59.8	57.5	51.3	37.2	-3.2	0.6	-4.2
Residential	59.3	64.8	57.2	51.5	43.7	32.6	14.0	-0.4	-2.7	-10.8
Tertiary	39.8	44.4	44.7	38.9	33.3	27.5	16.0	1.1	-2.9	-7.1
Transport	148.0	148.1	140.9	141.9	139.3	124.7	116.0	-0.5	-0.1	-1.8
CO ₂ Emissions (non energy and non land use related)	28.9	28.5	25.7	25.6	27.0	25.9	24.6	-1.2	0.5	-0.9
Non-CO2 GHG emissions	168.1	129.2	126.3	124.1	110.1	105.1	101.0	-2.8	-1.4	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	104.5	98.6	91.4	86.1	79.5	71.1	58.0	-1.3	-1.4	-3.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.08	0.09	0.08	0.04	0.04	0.03	0.02	-0.3	-7.8	-8.1
Final energy demand (t of CO ₂ /toe)	2.08	2.02	1.91	1.88	1.75	1.68	1.69	-0.8	-0.9	-0.3
Industry	2.03	1.95	1.90	1.97	1.84	1.71	1.47	-0.7	-0.3	-2.2
Residential	1.41	1.41	1.26	1.17	0.97	0.87	0.63	-1.1	-2.6	-4.3
Tertiary	1.58	1.50	1.41	1.29	1.12	1.03	0.98	-1.2	-2.3	-1.3
Transport	2.92	2.93	2.84	2.81	2.77	2.70	2.62	-0.3	-0.2	-0.6
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	9.5	9.5	12.5	15.5	23.6	25.2	26.7			
RES-H&C share	12.4	12.3	15.8	19.4	29.9	30.7	31.1			
RES-E share	14.7	13.7	14.9	19.8	31.5	35.0	42.2			
RES-T share (based on ILUC formula)	1.4	2.0	6.3	7.7	10.2	13.3	20.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	61	58	57	90	93	81	79	-0.7	5.1	-1.7
Average Price of Electricity in Final demand sectors (€13/MWh)	108	100	109	123	145	147	168	0.0	2.9	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	176.3	196.0	216.7	274.7	282.7	340.9	2.4	3.4	2.2
as % of GDP	8.5	9.0	9.7	10.4	12.1	11.7	13.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Germany: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	82	83	82	81	81	80	80	0.0	-0.1	-0.1
GDP (in 000 M€13)	2370	2442	2608	2790	2973	3126	3251	1.0	1.3	0.9
Gross Inland Consumption (ktoe)	342337	341916	332974	322609	309895	287685	222117	-0.3	-0.7	-3.3
Solids	84802	81952	78824	78036	79880	81199	54319	-0.7	0.1	-3.8
Oil	130980	121460	111798	111688	102610	89486	75146	-1.6	-0.9	-3.1
Natural gas	71878	77782	75905	74011	67738	63649	45552	0.5	-1.1	-3.9
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0
Renewable energy forms	10665	19054	31477	39195	50636	51966	45777	11.4	4.9	-1.0
Energy Branch Consumption	14566	14384	13378	13631	12344	11634	9300	-0.8	-0.8	-2.8
Non-Energy Uses	25064	24662	22582	24685	25861	26612	26310	-1.0	1.4	0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	135549	137356	129648	120921	111052	100662	77755	-0.4	-1.5	-3.5
Solids	60629	56484	45906	42340	38458	37774	23992	-2.7	-1.8	-4.6
Oil	4680	5782	4754	4964	3809	2908	2212	0.2	-2.2	-5.3
Natural gas	15825	14334	11113	10749	9877	8199	5970	-3.5	-1.2	-4.9
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0
Renewable energy sources	10665	18695	31618	39044	50434	51780	45581	11.5	4.8	-1.0
Hydro	1869	1689	1802	1925	1936	2047	2048	-0.4	0.7	0.6
Biomass & Waste	7876	14249	24988	27662	32546	31081	23476	12.2	2.7	-3.2
Wind	804	2341	3250	5689	9409	10256	10756	15.0	11.2	1.3
Solar and others	116	371	1493	3575	5518	7334	7882	29.1	14.0	3.6
Geothermal	0	46	86	192	1026	1062	1419	0.0	28.1	3.3
Net Imports (ktoe)	204709	208118	201696	204465	201840	190096	147557	-0.1	0.0	-3.1
Solids	21663	25972	31644	35695	41421	43424	30327	3.9	2.7	-3.1
Oil	125918	120239	109834	109501	101738	89518	75882	-1.4	-0.8	-2.9
Crude oil and Feedstocks	101441	111039	91612	87783	82306	73595	64027	-1.0	-1.1	-2.5
Oil products	24477	9200	18222	21718	19432	15922	11855	-2.9	0.6	-4.8
Natural gas	56865	61940	61645	63262	57920	55583	39830	0.8	-0.6	-3.7
Electricity	263	-393	-1286	-4145	558	1385	1322	0.0	0.0	9.0
Import Dependency (%)	59.4	60.4	60.1	62.8	64.5	65.4	65.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	572313	615800	626583	645694	602871	649690	530035	0.9	-0.4	-1.3
Nuclear energy	169606	163055	140556	96916	34469	0	0	-1.9	-13.1	-100.0
Solids	296687	288142	262896	272895	280843	295989	192040	-1.2	0.7	-3.7
Oil (including refinery gas)	4785	11997	8741	1079	941	2316	1245	6.2	-20.0	2.8
Gas (including derived gases)	59970	83608	100912	92808	69363	96648	72982	5.3	-3.7	0.5
Biomass-waste	10121	20849	42975	58714	35900	45339	38847	15.6	-1.8	0.8
Hydro (pumping excluded)	21732	19638	20953	22380	22508	23807	23809	-0.4	0.7	0.6
Wind	9352	27229	37793	66153	109411	119257	125065	15.0	11.2	1.3
Solar	60	1283	11727	34612	48465	65364	75078	69.3	15.2	4.5
Geothermal and other renewables	0	-1	30	137	969	969	969	0.0	41.4	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	114373	123973	154603	189032	207074	212550	213113	3.1	3.0	0.3
Nuclear energy	21644	20656	20656	12188	6907	0	0	-0.5	-10.4	-100.0
Renewable energy	11040	25641	50141	90293	120216	136211	149931	16.3	9.1	2.2
Hydro (pumping excluded)	4831	5210	5407	5590	5592	5855	5855	1.1	0.3	0.5
Wind	6095	18375	27180	44946	61821	61747	66501	16.1	8.6	0.7
Solar	114	2056	17554	39757	52803	68609	77574	65.5	11.6	3.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	81689	77676	83806	86551	79951	76339	63182	0.3	-0.5	-2.3
of which cogeneration units	14369	20840	24554	17084	6165	9679	8151	5.5	-12.9	2.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	50924	48087	47789	52819	49148	44031	36726	-0.6	0.3	-2.9
Gas fired	21336	21671	26890	25178	21891	23618	18157	2.3	-2.0	-1.9
Oil fired	8066	5686	5688	5028	1674	1457	1247	-3.4	-11.5	-2.9
Biomass-waste fired	1363	2232	3432	3501	7067	7062	6881	9.7	7.5	-0.3
Hydrogen plants	0	0	0	1	1	1	1	0.0	0.0	0.0
Geothermal heat	0	0	8	24	170	170	170	0.0	35.8	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	53.3	53.0	43.5	36.8	31.4	33.0	27.1			
Efficiency of gross thermal power generation (%)	37.8	38.6	39.4	40.5	37.6	39.3	40.3			
% of gross electricity from CHP	10.6	12.6	13.2	12.8	6.1	8.7	7.7			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	36.8	37.7	40.5	43.2	41.8	39.2	49.8			
Fuel Inputs to Thermal Power Generation (ktoe)	84562	90075	90587	90286	88734	96669	65378	0.7	-0.2	-3.0
Solids	67101	65740	59687	61356	62515	65051	41150	-1.2	0.5	-4.1
Oil (including refinery gas)	1411	1427	855	236	311	728	407	-4.9	-9.6	2.7
Gas (including derived gases)	12891	17808	19955	16546	12037	16517	12469	4.5	-4.9	0.4
Biomass & Waste	3158	5100	10066	12030	13038	13540	10518	12.3	2.6	-2.1
Geothermal heat	0	0	24	118	834	834	834	0.0	42.7	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	180304	187908	163048	142875	120688	100747	86777	-1.0	-3.0	-3.2
Refineries	119420	125092	103238	98875	92750	83180	72430	-1.4	-1.1	-2.4
Biofuels and hydrogen production	237	1859	2884	3011	2841	2517	2643	28.4	-0.1	-0.7
District heating	1198	3942	4754	4043	3524	2739	1773	14.8	-3.0	-6.6
Derived gases, cokeries etc.	59450	57015	52171	36947	21573	12311	9931	-1.3	-8.5	-7.5

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Germany: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	1066	1099	1130	1187	1209	1216	1246	0.6	0.7	0.3
Public road transport	69	67	62	63	66	67	68	-1.1	0.7	0.2
Private cars and motorcycles	850	876	905	942	949	936	951	0.6	0.5	0.0
Rail	90	92	100	111	116	131	140	1.1	1.4	1.9
Aviation ⁽³⁾	55	62	61	69	75	80	85	1.1	2.1	1.3
Inland navigation	2	2	2	2	2	3	3	-0.8	1.0	1.7
Freight transport activity (Gtkm)	493	545	592	619	682	697	745	1.9	1.4	0.9
Heavy goods and light commercial vehicles	342	385	422	439	486	479	515	2.1	1.4	0.6
Rail	83	95	107	116	126	139	148	2.6	1.6	1.6
Inland navigation	68	65	63	65	70	79	82	-0.7	1.1	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	65101	59797	58145	59791	56124	49805	46667	-1.1	-0.4	-1.8
Public road transport	1047	897	803	815	835	810	788	-2.6	0.4	-0.6
Private cars and motorcycles	42176	37675	35607	35814	31214	25874	23138	-1.7	-1.3	-2.9
Heavy goods and light commercial vehicles	12303	11057	11325	11780	12339	11279	11374	-0.8	0.9	-0.8
Rail	1947	1580	1414	1496	1456	1551	1552	-3.2	0.3	0.6
Aviation	7345	8265	8719	9601	9972	9949	9464	1.7	1.4	-0.5
Inland navigation	283	323	278	285	307	342	351	-0.2	1.0	1.3
By transport activity										
Passenger transport	51841	47805	45951	47113	42835	37503	34245	-1.2	-0.7	-2.2
Freight transport	13261	11992	12194	12678	13288	12303	12422	-0.8	0.9	-0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	2.1	4.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.4	3.2	5.1	5.2	5.3	6.0	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	317273	317254	310393	297924	284034	261073	195807	-0.2	-0.9	-3.7
Final Energy Demand	219989	218456	219721	217308	213384	193349	148782	0.0	-0.3	-3.5
by sector										
Industry	57570	59093	60563	62096	65206	63474	52053	0.5	0.7	-2.2
Energy intensive industries	39345	40705	42170	43510	45943	44496	36635	0.7	0.9	-2.2
Other industrial sectors	18225	18389	18393	18586	19263	18978	15418	0.1	0.5	-2.2
Residential	63072	63498	62442	58726	57212	49371	31254	-0.1	-0.9	-5.9
Tertiary	34239	35302	38222	36396	34565	30443	18604	1.1	-1.0	-6.0
Transport ⁽⁵⁾	65109	60563	58494	60090	56402	50060	46871	-1.1	-0.4	-1.8
by fuel										
Solids	10958	8238	9379	9284	10096	9861	8113	-1.5	0.7	-2.2
Oil	99738	90309	83168	82419	73071	59602	46716	-1.8	-1.3	-4.4
Gas	56064	55136	56501	56368	55302	46676	32434	0.1	-0.2	-5.2
Electricity	41570	44907	45781	44880	46183	50609	41379	1.0	0.1	-1.1
Heat (from CHP and District Heating)	6831	10751	11268	9856	9731	9136	6136	5.1	-1.5	-4.5
Renewable energy forms	4828	9116	13625	14468	18909	16967	13155	10.9	3.3	-3.6
Other	0	0	0	32	94	497	849	0.0	0.0	24.6
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	144	140	128	116	104	92	68	-1.2	-2.0	-4.1
Industry (Energy on Value added, index 2000=100)	100	96	93	90	90	84	67	-0.7	-0.3	-2.9
Residential (Energy on Private Income, index 2000=100)	100	99	94	83	76	61	37	-0.6	-2.2	-6.9
Tertiary (Energy on Value added, index 2000=100)	100	98	98	87	77	64	38	-0.2	-2.4	-6.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	37	33	32	28	24	21	-2.2	-1.7	-2.9
Freight transport (toe/Mtkm)	27	22	21	20	19	18	17	-2.6	-0.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO ₂ eq.)	1076.8	1015.8	957.1	943.5	899.4	844.5	634.7	-1.2	-0.6	-3.4
of which ETS sectors (2013 scope) GHG emissions	543.7	505.7	505.7	510.9	503.6	511.3	372.7		0.0	-3.0
of which ESD sectors (2013 scope) GHG emissions	472.1	451.3	451.3	432.6	395.9	333.2	262.0		-1.3	-4.0
CO ₂ Emissions (energy related)	852.1	825.2	787.8	777.7	740.4	691.6	490.8	-0.8	-0.6	-4.0
Power generation/District heating	330.6	344.9	324.5	317.5	310.3	330.6	219.3	-0.2	-0.4	-3.4
Energy Branch	28.1	26.2	23.5	25.9	22.2	19.7	16.0	-1.8	-0.6	-3.2
Industry	130.2	115.3	115.3	112.7	115.5	103.7	77.0	-1.2	0.0	-4.0
Residential	119.4	110.8	104.3	98.0	87.6	66.7	37.0	-1.3	-1.7	-8.3
Tertiary	58.5	55.9	56.3	55.4	47.7	35.2	18.5	-0.4	-1.6	-9.0
Transport	185.3	172.2	163.8	168.2	157.1	135.7	122.9	-1.2	-0.4	-2.4
CO ₂ Emissions (non energy and non land use related)	63.7	61.6	55.6	56.8	58.6	58.8	58.2	-1.4	0.5	-0.1
Non-CO ₂ GHG emissions	161.0	128.9	113.7	109.1	100.4	94.0	85.7	-3.4	-1.2	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	85.5	80.6	76.0	74.9	71.4	67.0	50.4	-1.2	-0.6	-3.4
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.50	0.46	0.42	0.41	0.43	0.43	0.36	-1.7	0.1	-1.7
Final energy demand (t of CO ₂ /toe)	2.24	2.08	2.00	2.00	1.91	1.77	1.72	-1.1	-0.5	-1.1
Industry	2.26	1.95	1.90	1.81	1.77	1.63	1.48	-1.7	-0.7	-1.8
Residential	1.89	1.74	1.67	1.67	1.53	1.35	1.18	-1.2	-0.9	-2.5
Tertiary	1.71	1.58	1.47	1.52	1.38	1.16	0.99	-1.5	-0.7	-3.2
Transport	2.85	2.84	2.80	2.80	2.79	2.71	2.62	-0.2	-0.1	-0.6
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	3.6	6.7	10.5	13.5	18.6	21.5	24.7			
RES-H&C share	4.2	6.7	9.6	10.6	17.5	19.6	20.7			
RES-E share	6.1	10.5	18.1	29.5	34.7	37.3	47.3			
RES-T share (based on ILUC formula)	0.8	4.2	6.9	8.8	10.4	16.7	24.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	51	62	86	101	95	97	3.7	5.0	-0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	132	171	164	160	164	170	178	2.2	0.0	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	225.6	285.4	302.7	290.0	345.7	366.2	471.0	3.0	1.3	3.1
as % of GDP	9.5	11.7	11.6	10.4	11.6	11.7	14.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Greece: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	11	11	11	11	11	10	10	0.3	-0.5	-0.6
GDP (in 000 M€13)	190	231	232	200	207	213	225	2.0	-1.1	0.8
Gross Inland Consumption (ktoe)	28292	31410	28725	26055	25315	23356	16312	0.2	-1.3	-4.3
Solids	9038	8944	7863	6765	5797	6141	2453	-1.4	-3.0	-8.2
Oil	16085	18119	14974	12997	12129	10226	8090	-0.7	-2.1	-4.0
Natural gas	1705	2354	3235	2979	3765	3326	1400	6.6	1.5	-9.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Renewable energy forms	1466	1668	2163	2714	3224	3417	4185	4.0	4.1	2.6
Energy Branch Consumption	1634	1820	1839	1906	1787	1709	1383	1.2	-0.3	-2.5
Non-Energy Uses	719	761	1108	824	846	843	826	4.4	-2.7	-0.2
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	10012	10326	9461	9027	8509	9113	6401	-0.6	-1.1	-2.8
Solids	8222	8538	7315	6430	5497	5865	2327	-1.2	-2.8	-8.2
Oil	282	101	132	75	73	70	67	-7.3	-5.7	-0.8
Natural gas	42	18	8	0	0	0	0	-15.8	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	1466	1668	2006	2521	2939	3178	4006	3.2	3.9	3.1
Hydro	318	431	641	506	508	477	480	7.3	-2.3	-0.6
Biomass & Waste	1009	1015	919	1157	1350	1266	1036	-0.9	3.9	-2.6
Wind	39	109	233	330	448	581	1548	19.7	6.7	13.2
Solar and others	99	101	197	514	618	837	929	7.1	12.1	4.2
Geothermal	2	12	16	16	15	17	14	25.9	-0.4	-0.8
Net Imports (ktoe)	22151	23498	21712	20057	19791	17171	12873	-0.2	-0.9	-4.2
Solids	769	364	401	335	300	276	126	-6.3	-2.9	-8.3
Oil	19695	20476	17433	15950	15006	13012	10798	-1.2	-1.5	-3.2
Crude oil and Feedstocks	20596	19488	20633	24349	23243	21317	19301	0.0	1.2	-1.8
Oil products	-900	988	-3200	-8399	-8237	-8305	-8504	13.5	9.9	0.3
Natural gas	1689	2332	3231	2979	3799	3398	1587	6.7	1.6	-8.4
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5
Import Dependency (%)	69.5	68.6	69.1	69.0	69.9	65.3	66.8			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	53425	59427	57367	54082	58882	60120	43567	0.7	0.3	-3.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	34313	35543	30797	26751	23820	26392	9883	-1.1	-2.5	-8.4
Oil (including refinery gas)	8885	9207	6089	4847	5122	2384	127	-3.7	-1.7	-30.9
Gas (including derived gases)	5920	8171	9830	8817	13735	11368	334	5.2	3.4	-31.0
Biomass-waste	163	222	319	195	382	676	846	6.9	1.8	8.3
Hydro (pumping excluded)	3693	5017	7460	5880	5901	5552	5577	7.3	-2.3	-0.6
Wind	451	1266	2714	3834	5207	6759	17996	19.7	6.7	13.2
Solar	0	1	158	3757	4715	6989	8803	0.0	40.4	6.4
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	11212	13208	15889	19208	19795	20684	24197	3.5	2.2	2.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	3298	3598	4715	8146	9363	11150	15534	3.6	7.1	5.2
Hydro (pumping excluded)	3072	3106	3215	3389	3579	3579	3579	0.5	1.1	0.0
Wind	226	491	1298	2152	2637	3118	6652	19.1	7.3	9.7
Solar	0	1	202	2605	3147	4454	5304	0.0	31.6	5.4
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7914	9610	11174	11062	10432	9534	8663	3.5	-0.7	-1.8
of which cogeneration units	195	3051	588	284	299	257	276	11.7	-6.5	-0.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	4454	4754	4312	3923	3133	3203	2948	-0.3	-3.1	-0.6
Gas fired	1157	2203	4189	5062	5295	5265	4730	13.7	2.4	-1.1
Oil fired	2302	2625	2618	2022	1824	834	732	1.3	-3.6	-8.7
Biomass-waste fired	1	28	55	55	180	232	252	50.5	12.6	3.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	50.3	47.7	38.3	29.6	31.7	31.0	19.9			
Efficiency of gross thermal power generation (%)	36.9	37.0	37.5	38.6	41.4	41.6	35.9			
% of gross electricity from CHP	2.1	7.8	4.3	3.0	3.2	2.5	2.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	8.1	10.9	18.6	25.3	27.5	33.2	76.3			
Fuel Inputs to Thermal Power Generation (ktoe)	11492	12344	10787	9041	8948	8431	2682	-0.6	-1.9	-11.4
Solids	8170	8694	7567	6558	5605	5980	2375	-0.8	-3.0	-8.2
Oil (including refinery gas)	1978	1992	1278	1005	1071	505	42	-4.3	-1.8	-27.7
Gas (including derived gases)	1280	1605	1863	1435	2190	1802	93	3.8	1.6	-27.1
Biomass & Waste	64	52	79	43	83	144	172	2.2	0.4	7.6
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	22570	21629	22585	24150	24032	22210	20250	0.0	0.6	-1.7
Refineries	22508	21536	22462	23941	23746	21925	19950	0.0	0.6	-1.7
Biofuels and hydrogen production	0	0	124	207	279	263	272	0.0	8.4	-0.2
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	62	93	0	2	7	21	27	-95.7	1750.6	15.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Greece: EUco+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	129	153	161	164	172	173	180	2.2	0.7	0.4
Public road transport	22	22	21	21	22	22	23	-0.3	0.6	0.1
Private cars and motorcycles	67	90	105	106	108	105	106	4.7	0.2	-0.2
Rail	3	3	3	3	3	4	4	-0.2	1.0	1.7
Aviation ⁽³⁾	30	31	24	26	32	35	40	-2.2	2.8	2.4
Inland navigation	7	7	7	7	7	7	7	-0.1	0.2	0.0
Freight transport activity (Gtkm)	38	34	37	37	39	40	41	-0.1	0.5	0.5
Heavy goods and light commercial vehicles	28	24	30	30	32	32	33	0.8	0.5	0.4
Rail	0	1	1	1	1	1	1	3.7	0.8	1.1
Inland navigation	9	9	6	6	7	7	7	-3.6	0.5	0.9
Energy demand in transport (ktoe) ⁽⁴⁾	7286	8174	8147	7472	7252	6630	6223	1.1	-1.2	-1.5
Public road transport	423	438	403	403	408	386	373	-0.5	0.1	-0.9
Private cars and motorcycles	3327	4435	4483	4018	3693	3127	2698	3.0	-1.9	-3.1
Heavy goods and light commercial vehicles	1668	1426	1601	1480	1486	1390	1339	-0.4	-0.7	-1.0
Rail	49	46	24	22	23	24	24	-6.8	-0.3	0.2
Aviation	1325	1181	919	936	1020	1095	1165	-3.6	1.0	1.3
Inland navigation	495	648	717	612	621	608	624	3.8	-1.4	0.1
By transport activity										
Passenger transport	5530	6460	6297	5784	5550	5020	4654	1.3	-1.3	-1.7
Freight transport	1756	1714	1850	1688	1701	1610	1569	0.5	-0.8	-0.8
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	2.8	3.9	4.2	4.6			
ENERGY EFFICIENCY										
Primary energy consumption	27573	30650	27617	25230	24469	22513	15486	0.0	-1.2	-4.5
Final Energy Demand	18676	20958	19197	17486	17144	15608	12195	0.3	-1.1	-3.3
by sector										
Industry	4450	4161	3672	3224	3318	3222	2582	-1.9	-1.0	-2.5
Energy intensive industries	2737	2588	2427	2157	2197	2105	1658	-1.2	-1.0	-2.8
Other industrial sectors	1714	1573	1245	1067	1120	1117	924	-3.1	-1.1	-1.9
Residential	4502	5510	4615	4351	4276	3724	2183	0.2	-0.8	-6.5
Tertiary	2426	3100	2752	2426	2286	2018	1193	1.3	-1.8	-6.3
Transport ⁽⁵⁾	7297	8188	8158	7484	7265	6644	6238	1.1	-1.2	-1.5
by fuel										
Solids	891	458	302	208	192	161	78	-10.3	-4.4	-8.5
Oil	12744	14413	12110	10307	9448	8205	6680	-0.5	-2.5	-3.4
Gas	257	586	982	1018	1035	988	760	14.3	0.5	-3.0
Electricity	3710	4377	4568	4397	4638	4584	3403	2.1	0.2	-3.0
Heat (from CHP and District Heating)	28	49	46	44	50	52	34	5.2	0.8	-4.0
Renewable energy forms	1046	1076	1191	1510	1774	1592	1195	1.3	4.1	-3.9
Other	0	0	0	2	7	26	44	0.0	0.0	19.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	149	136	124	130	122	110	73	-1.8	-0.1	-5.1
Industry (Energy on Value added, index 2000=100)	100	88	101	99	98	93	71	0.1	-0.4	-3.1
Residential (Energy on Private Income, index 2000=100)	100	99	80	88	88	75	43	-2.2	0.9	-7.0
Tertiary (Energy on Value added, index 2000=100)	100	101	86	88	80	68	38	-1.5	-0.8	-7.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	40	40	37	33	30	27	24	-0.9	-2.1	-2.3
Freight transport (toe/Mtkm)	46	51	50	45	43	40	38	0.7	-1.4	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	133.3	139.6	121.4	105.7	97.4	91.1	60.0	-0.9	-2.2	-4.7
of which ETS sectors (2013 scope) GHG emissions		77.2	64.9	57.3	53.8	52.8	27.5		-1.9	-6.5
of which ESD sectors (2013 scope) GHG emissions		62.4	56.5	48.4	43.6	38.3	32.5		-2.6	-9.9
CO2 Emissions (energy related)	98.4	106.4	92.1	79.6	73.8	68.7	38.4	-0.7	-2.2	-6.3
Power generation/District heating	52.1	55.6	47.9	40.9	37.9	37.1	12.8	-0.8	-2.3	-10.3
Energy Branch	3.1	3.4	3.6	3.9	3.5	3.3	2.9	1.6	-0.1	-2.0
Industry	10.4	8.9	7.2	6.2	5.9	5.3	3.6	-3.7	-2.0	-4.9
Residential	7.6	9.9	6.7	5.0	4.3	3.2	1.2	-1.3	-4.2	-11.9
Tertiary	3.4	4.3	2.8	1.8	1.2	0.9	0.4	-2.1	-8.1	-9.7
Transport	21.8	24.4	24.0	21.7	20.9	19.0	17.5	1.0	-1.4	-1.7
CO2 Emissions (non energy and non land use related)	8.9	9.6	6.6	6.8	6.7	6.9	7.5	-2.9	0.1	1.2
Non-CO2 GHG emissions	26.1	23.6	22.6	19.3	16.9	15.4	14.0	-1.4	-2.9	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.1	129.9	113.0	98.4	90.7	84.8	55.8	-0.9	-2.2	-4.7
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.97	0.93	0.83	0.75	0.64	0.61	0.29	-1.6	-2.6	-7.6
Final energy demand (t of CO2/toe)	2.32	2.26	2.12	1.99	1.88	1.82	1.86	-0.9	-1.2	-0.1
Industry	2.35	2.13	1.96	1.91	1.78	1.65	1.39	-1.8	-1.0	-2.4
Residential	1.69	1.79	1.45	1.16	1.02	0.86	0.56	-1.5	-3.5	-5.8
Tertiary	1.41	1.38	1.01	0.76	0.52	0.42	0.36	-3.3	-6.4	-3.6
Transport	2.99	2.98	2.94	2.90	2.87	2.85	2.81	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	7.2	7.0	9.7	14.4	18.4	21.6	34.4			
RES-H&C share	13.6	12.8	17.4	24.8	30.1	33.3	39.5			
RES-E share	7.2	8.2	12.3	22.4	25.5	31.7	73.5			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	1.4	10.2	12.2	20.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	60	63	72	85	91	90	98	1.9	2.3	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	74	78	108	124	131	137	156	3.8	1.9	1.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	15.2	20.2	26.7	26.6	31.5	33.3	39.2	5.8	1.7	2.2
as % of GDP	8.0	8.7	11.5	13.3	15.2	15.7	17.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Hungary: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	10	10	10	10	10	10	10	-0.2	-0.2	-0.1
GDP (in 000 M€13)	83	102	101	107	117	131	145	1.9	1.5	2.2
Gross Inland Consumption (ktoe)	25298	27611	25811	23493	24463	24491	20391	0.2	-0.5	-1.8
Solids	3850	3031	2730	2635	2434	1674	1332	-3.4	-1.1	-5.8
Oil	6964	7115	6699	6271	6311	6268	6102	-0.4	-0.6	-0.3
Natural gas	9657	12094	9816	7786	8498	6639	4312	0.2	-1.4	-6.6
Nuclear	3672	3585	4078	3666	3677	6045	5215	1.1	-1.0	3.6
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Renewable energy forms	859	1251	2042	1931	2681	3039	2740	9.0	2.8	0.2
Energy Branch Consumption	1164	1062	1095	1029	965	944	876	-0.6	-1.3	-1.0
Non-Energy Uses	1587	2169	1974	2275	2502	2826	3070	2.2	2.4	2.1
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	11598	10372	11065	10244	10207	11081	9757	-0.5	-0.8	-0.4
Solids	2893	1748	1593	1794	1700	899	870	-5.8	0.7	-6.5
Oil	1699	1457	1150	795	619	274	190	-3.8	-6.0	-11.1
Natural gas	2475	2331	2235	1857	1194	517	470	-1.0	-6.1	-8.9
Nuclear	3672	3585	4078	3666	3677	6045	5215	1.1	-1.0	3.6
Renewable energy sources	859	1251	2010	2132	3017	3346	3012	8.9	4.1	0.0
Hydro	15	17	16	20	20	20	20	0.6	2.1	0.0
Biomass & Waste	758	1145	1844	1905	2639	2518	1931	9.3	3.7	-3.1
Wind	0	1	46	50	77	183	209	0.0	5.3	10.6
Solar and others	0	2	6	9	45	208	220	0.0	23.5	17.1
Geothermal	86	87	99	148	236	417	632	1.4	9.1	10.3
Net Imports (ktoe)	13956	17421	14988	13249	14256	13411	10634	0.7	-0.5	-2.9
Solids	1087	1299	1143	841	733	775	462	0.5	-4.3	-4.5
Oil	5291	5780	5637	5476	5693	5994	5911	0.6	0.1	0.4
Crude oil and Feedstocks	5887	5988	5806	5273	5500	5844	5835	-0.1	-0.5	0.6
Oil products	-596	-208	-169	203	193	150	76	-11.9	0.0	-8.9
Natural gas	7283	9808	7726	5929	7304	6122	3842	0.6	-0.6	-6.2
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2
Import Dependency (%)	55.2	63.1	58.1	56.4	58.3	54.8	52.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	35191	35756	37371	27859	33656	37400	31025	0.6	-1.0	-0.8
Nuclear energy	14180	13634	15761	15087	15024	24706	21314	1.1	-0.5	3.6
Solids	9590	7023	6234	6436	6271	3177	3020	-4.2	0.1	-7.0
Oil (including refinery gas)	4404	455	490	52	0	0	0	-19.7	-100.0	0.0
Gas (including derived gases)	6719	12502	11714	3383	8837	3089	502	5.7	-2.8	-24.9
Biomass-waste	120	1730	2449	2015	2241	2344	1588	35.2	-0.9	-3.4
Hydro (pumping excluded)	178	202	188	232	232	232	232	0.5	2.1	0.0
Wind	0	10	534	585	890	2133	2432	0.0	5.2	10.6
Solar	0	0	1	32	97	1656	1873	0.0	55.6	34.5
Geothermal and other renewables	0	0	0	38	65	65	65	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	8589	8297	8292	7495	7156	9775	10974	-0.4	-1.5	4.4
Nuclear energy	1920	1920	1920	1960	1960	3221	4482	0.0	0.2	8.6
Renewable energy	48	66	348	431	640	2661	3037	21.9	6.3	16.9
Hydro (pumping excluded)	48	49	53	57	57	57	57	1.0	0.7	0.0
Wind	0	17	293	329	477	1040	1214	0.0	5.0	9.8
Solar	0	0	2	45	106	1564	1766	0.0	48.7	32.5
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6621	6311	6024	5103	4556	3893	3455	-0.9	-2.8	-2.7
of which cogeneration units	1464	2047	1862	1144	1571	1108	500	2.4	-1.7	-10.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1747	1380	1155	1137	851	585	574	-4.1	-3.0	-3.9
Gas fired	4160	4622	4605	3496	3287	2888	2467	1.0	-3.3	-2.8
Oil fired	602	176	91	91	11	11	5	-17.2	-19.2	-7.3
Biomass-waste fired	112	133	173	349	356	358	358	4.4	7.5	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	30	52	52	52	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	42.9	45.7	47.7	39.3	50.5	41.4	30.6			
Efficiency of gross thermal power generation (%)	29.8	32.8	34.1	37.3	39.5	35.4	30.7			
% of gross electricity from CHP	13.5	19.1	19.6	14.4	12.1	8.0	5.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	41.1	44.1	50.7	64.6	55.1	83.2	88.6			
Fuel Inputs to Thermal Power Generation (ktoe)	6009	5692	5265	2752	3789	2110	1450	-1.3	-3.2	-9.2
Solids	2755	1924	1646	1611	1596	819	783	-5.0	-0.3	-6.9
Oil (including refinery gas)	1052	155	138	15	0	0	0	-18.4	-100.0	0.0
Gas (including derived gases)	2140	3079	2704	657	1486	561	153	2.4	-5.8	-20.3
Biomass & Waste	61	534	777	436	651	674	458	28.9	-1.7	-3.5
Geothermal heat	0	0	0	32	56	56	56	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12946	13165	14441	12781	12807	15078	13931	1.1	-1.2	0.8
Refineries	7638	8118	8427	6997	7085	7080	6947	1.0	-1.7	-0.2
Biofuels and hydrogen production	0	3	175	182	348	312	311	0.0	7.1	-1.1
District heating	471	627	474	648	635	598	697	0.1	3.0	0.9
Derived gases, cokeries etc.	4837	4417	5365	4954	4739	7089	5975	1.0	-1.2	2.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Hungary: EU20+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	80	84	84	86	96	102	110	0.5	1.3	1.4
Public road transport	19	18	16	17	18	18	19	-1.3	0.8	0.7
Private cars and motorcycles	47	51	54	54	60	63	67	1.4	1.1	1.0
Rail	12	12	10	11	12	14	16	-1.8	2.1	2.4
Aviation ⁽³⁾	2	4	4	4	5	6	8	5.9	3.0	5.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	27	35	34	35	38	41	45	2.3	1.1	1.8
Heavy goods and light commercial vehicles	17	24	23	23	24	26	28	2.7	0.8	1.5
Rail	9	9	9	10	11	12	14	0.0	2.0	2.5
Inland navigation	1	2	2	2	3	3	3	10.4	0.9	1.8
Energy demand in transport (ktoe) ⁽⁴⁾	3309	4308	4341	3958	4116	3998	4031	2.8	-0.5	-0.2
Public road transport	339	361	335	346	353	348	343	-0.1	0.5	-0.3
Private cars and motorcycles	1805	2191	2208	2035	2070	1909	1831	2.0	-0.6	-1.2
Heavy goods and light commercial vehicles	763	1341	1418	1214	1275	1245	1285	6.4	-1.1	0.1
Rail	171	154	150	152	171	192	206	-1.3	1.3	1.9
Aviation	230	261	230	207	244	300	362	0.0	0.6	4.0
Inland navigation	1	1	1	4	4	4	5	3.1	14.5	1.6
By transport activity										
Passenger transport	2449	2877	2826	2642	2730	2628	2611	1.4	-0.3	-0.4
Freight transport	860	1431	1515	1316	1386	1370	1420	5.8	-0.9	0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	1.8			
Biofuels in total fuels (excl. hydrogen and electricity) (%)	0.0	0.1	4.1	4.7	8.8	8.6	8.7			
ENERGY EFFICIENCY										
Primary energy consumption	23711	25442	23837	21219	21961	21665	17321	0.1	-0.8	-2.3
Final Energy Demand	16139	18218	16596	15895	16183	15241	11643	0.3	-0.3	-3.2
by sector										
Industry	3513	3369	2890	3081	3052	3170	2616	-1.9	0.5	-1.5
Energy intensive industries	2517	2267	1854	1941	1874	1914	1536	-3.0	0.1	-2.0
Other industrial sectors	996	1102	1036	1141	1178	1256	1079	0.4	1.3	-0.9
Residential	5603	6464	5740	5253	5249	4755	3000	0.2	-0.9	-5.4
Tertiary	3712	4072	3625	3566	3727	3284	1970	-0.2	0.3	-6.2
Transport ⁽⁵⁾	3311	4313	4341	3995	4155	4031	4058	2.7	-0.4	-0.2
by fuel										
Solids	665	690	481	501	372	392	179	-3.2	-2.5	-7.0
Oil	4218	4904	4638	4261	4173	3892	3585	1.0	-1.1	-1.5
Gas	6503	7852	6261	5868	5825	5114	3200	-0.4	-0.7	-5.8
Electricity	2531	2780	2941	2977	3118	3366	2844	1.5	0.6	-0.9
Heat (from CHP and District Heating)	1447	1308	1090	985	1007	875	602	-2.8	-0.8	-5.0
Renewable energy forms	774	683	1184	1301	1683	1584	1208	4.3	3.6	-3.3
Other	0	0	0	1	5	19	26	0.0	0.0	18.3
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	305	271	257	219	209	187	141	-1.7	-2.0	-3.9
Industry (Energy on Value added, Index 2000=100)	100	74	64	63	57	53	40	-4.4	-1.0	-3.6
Residential (Energy on Private Income, Index 2000=100)	100	90	87	77	71	57	33	-1.4	-2.0	-7.4
Tertiary (Energy on Value added, Index 2000=100)	100	90	81	75	71	56	30	-2.0	-1.3	-8.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	33	32	30	27	24	22	0.8	-1.7	-2.0
Freight transport (toe/Mtkm)	32	41	45	38	37	33	31	3.5	-2.0	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	79.8	76.9	67.7	59.4	56.8	48.0	39.7	-1.6	-1.7	-3.5
of which ETS sectors (2013 scope) GHG emissions		30.6	25.6	19.8	20.7	15.0	12.6		-2.1	-4.8
of which ESD sectors (2013 scope) GHG emissions		46.3	42.1	39.6	36.2	33.0	27.1		-1.5	-2.8
CO2 Emissions (energy related)	55.0	56.4	49.0	41.5	41.7	33.2	25.4	-1.1	-1.6	-4.8
Power generation/District heating	22.1	18.3	16.0	10.5	11.9	6.1	4.9	-3.2	-2.9	-8.6
Energy Branch	1.5	1.2	1.5	1.6	1.4	1.3	1.2	-0.3	-0.6	-1.4
Industry	6.8	6.7	5.3	5.8	5.0	4.8	3.0	-2.4	-0.5	-5.0
Residential	8.8	10.7	8.6	7.3	7.0	6.2	3.4	-0.2	-2.1	-6.9
Tertiary	6.1	6.7	5.2	5.2	5.2	4.0	2.3	-1.6	-0.1	-7.9
Transport	9.7	12.7	12.3	11.2	11.2	10.7	10.6	2.4	-1.0	-0.5
CO2 Emissions (non energy and non land use related)	4.5	4.9	3.7	4.4	4.8	5.1	5.4	-1.9	2.5	1.3
Non-CO2 GHG emissions	20.3	15.6	15.0	13.5	10.4	9.6	8.9	-3.0	-3.6	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.3	81.2	71.5	62.7	60.0	50.7	41.9	-1.6	-1.7	-3.5
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.41	0.34	0.31	0.26	0.25	0.13	0.12	-2.7	-1.9	-6.9
Final energy demand (t of CO2/toe)	1.94	2.02	1.90	1.85	1.75	1.69	1.66	-0.2	-0.8	-0.5
Industry	1.92	2.00	1.84	1.87	1.65	1.52	1.16	-0.4	-1.1	-3.5
Residential	1.57	1.66	1.50	1.39	1.33	1.31	1.14	-0.4	-1.2	-1.5
Tertiary	1.65	1.65	1.44	1.45	1.38	1.22	1.15	-1.4	-0.4	-1.8
Transport	2.92	2.94	2.83	2.81	2.69	2.66	2.61	-0.3	-0.5	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	4.8	4.5	8.6	10.0	13.0	15.2	16.5			
RES-H&C share	7.6	6.0	11.1	13.4	16.9	18.8	22.6			
RES-E share	0.6	4.4	7.1	6.7	7.8	13.4	15.6			
RES-T share (based on ILUC formula)	0.0	0.3	4.7	6.0	9.9	10.5	11.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	48	60	67	76	67	76	100	3.5	0.0	4.1
Average Price of Electricity in Final demand sectors (€13/MWh)	78	107	132	113	125	137	175	5.4	-0.5	3.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	11.2	16.1	20.3	18.0	22.3	25.5	35.6	6.1	0.9	4.8
as % of GDP	13.5	15.9	20.2	16.7	19.0	19.5	24.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Ireland: EU CO ₂ 40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	5	5	5	5	5	1.9	0.8	0.0
GDP (in 000 M€13)	130	165	165	183	208	225	245	2.4	2.3	1.6
Gross Inland Consumption (ktoe)	14425	15265	15191	14208	14542	13956	11251	0.5	-0.4	-2.5
Solids	2601	2664	1979	2028	1900	1678	970	-2.7	-0.4	-6.5
Oil	8145	8589	7818	6926	6741	6272	5490	-0.4	-1.5	-2.0
Natural gas	3436	3470	4683	4016	4092	3937	2555	3.1	-1.3	-4.6
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Renewable energy forms	235	366	671	1152	1948	2217	2360	11.1	11.2	1.9
Energy Branch Consumption	254	300	243	250	209	202	162	-0.4	-1.5	-2.5
Non-Energy Uses	675	516	341	360	405	441	448	-6.6	1.7	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	2159	1647	1843	2031	1913	2162	2313	-1.6	0.4	1.9
Solids	965	820	981	740	0	1	1	0.2	-56.6	13.5
Oil	0	0	0	44	0	0	0	0.0	0.0	13.5
Natural gas	958	461	233	231	237	236	226	-13.2	0.2	-0.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	235	366	628	1016	1675	1926	2086	10.3	10.3	2.2
Hydro	73	54	52	62	66	65	65	-3.4	2.6	-0.2
Biomass & Waste	141	216	327	420	651	807	758	8.8	7.1	1.5
Wind	21	96	242	520	900	967	1183	27.7	14.0	2.8
Solar and others	0	1	8	13	57	86	80	54.0	22.6	3.3
Geothermal	0	0	0	0	0	1	1	0.0	0.0	12.7
Net Imports (ktoe)	12370	13765	13215	12285	12738	11909	9059	0.7	-0.4	-3.4
Solids	1681	1886	945	1288	1900	1677	969	-5.6	7.2	-6.5
Oil	8203	8694	7706	6991	6848	6385	5597	-0.6	-1.2	-2.0
Crude oil and Feedstocks	3016	3166	2987	2873	2871	2618	2274	-0.1	-0.4	-2.3
Oil products	5186	5527	4718	4118	3977	3766	3323	-0.9	-1.7	-1.8
Natural gas	2478	3010	4480	3784	3855	3704	2344	6.1	-1.5	-4.9
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1
Import Dependency (%)	84.9	89.6	86.5	85.8	86.9	84.6	79.7			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	23673	25626	28425	26857	31521	32894	28395	1.8	1.0	-1.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	8587	8839	6384	6793	6337	5848	3557	-2.9	-0.1	-5.6
Oil (including refinery gas)	4638	3340	605	15	3	15	6	-18.4	-41.0	7.3
Gas (including derived gases)	9263	11574	17705	12617	13252	14132	9244	6.7	-2.9	-3.5
Biomass-waste	95	130	317	660	682	884	1063	12.8	8.0	4.5
Hydro (pumping excluded)	846	631	599	721	771	760	760	-3.4	2.6	-0.2
Wind	244	1112	2815	6049	10460	11240	13751	27.7	14.0	2.8
Solar	0	0	0	1	16	16	16	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	4452	5930	8091	9091	9548	9171	9470	6.2	1.7	-0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	355	751	1611	2724	4085	4334	5129	16.3	9.8	2.3
Hydro (pumping excluded)	236	234	237	237	258	258	258	0.0	0.8	0.0
Wind	119	517	1374	2486	3808	4057	4853	27.7	10.7	2.5
Solar	0	0	0	1	19	19	19	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	4097	5179	6480	6366	5464	4838	4341	4.7	-1.7	-2.3
of which cogeneration units	77	240	285	264	63	267	265	14.0	-14.0	15.4
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1369	1387	1213	1186	842	842	842	-1.2	-3.6	0.0
Gas fired	1872	2625	4081	3969	3624	3472	3127	8.1	-1.2	-1.5
Oil fired	842	1124	1143	1143	801	326	173	3.1	-3.5	-14.2
Biomass-waste fired	14	43	43	69	197	198	199	11.4	16.6	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	57.4	47.1	38.5	32.4	36.6	39.8	33.5			
Efficiency of gross thermal power generation (%)	40.7	43.2	46.8	47.2	47.7	47.0	46.4			
% of gross electricity from CHP	2.4	1.7	6.7	8.4	2.7	11.8	12.7			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	5.0	7.3	13.1	27.7	37.8	39.2	54.9			
Fuel Inputs to Thermal Power Generation (ktoe)	4775	4758	4600	3661	3659	3818	2570	-0.4	-2.3	-3.5
Solids	1930	1920	1358	1448	1402	1295	798	-3.5	0.3	-5.5
Oil (including refinery gas)	997	769	128	4	1	4	1	-18.5	-40.4	7.4
Gas (including derived gases)	1825	2040	3039	2066	2103	2309	1522	5.2	-3.6	-3.2
Biomass & Waste	24	30	75	143	153	211	249	12.2	7.5	5.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	3341	3204	3033	3024	3131	2892	2559	-1.0	0.3	-2.0
Refineries	3341	3203	2940	2933	2924	2666	2317	-1.3	-0.1	-2.3
Biofuels and hydrogen production	0	1	93	89	199	184	184	0.0	7.9	-0.8
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	0	0	0	2	8	41	58	0.0	2204.7	22.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Ireland: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	50	65	70	69	78	86	92	3.4	1.1	1.6
Public road transport	7	8	8	9	9	9	9	2.0	0.3	0.6
Private cars and motorcycles	35	45	48	46	52	58	62	3.3	0.8	1.7
Rail	1	2	2	2	2	2	2	2.7	1.0	1.1
Aviation ⁽³⁾	6	10	10	11	14	16	17	5.2	3.2	1.9
Inland navigation	1	1	1	1	1	1	1	0.9	1.0	1.0
Freight transport activity (Gtkm)	12	17	11	12	14	15	17	-0.9	2.4	2.3
Heavy goods and light commercial vehicles	11	17	10	11	13	15	16	-0.5	2.4	2.3
Rail	0	0	0	0	0	0	0	-15.4	1.2	1.6
Inland navigation	0	0	0	0	0	0	0	-2.5	1.4	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	4082	5078	4715	4586	4764	4621	4619	1.5	0.1	-0.3
Public road transport	96	101	110	111	111	112	112	1.4	0.2	0.1
Private cars and motorcycles	2206	2577	2807	2583	2525	2318	2186	2.4	-1.1	-1.4
Heavy goods and light commercial vehicles	1086	1482	967	1019	1135	1197	1291	-1.2	1.6	1.3
Rail	40	42	44	44	47	49	50	0.8	0.7	0.7
Aviation	629	857	767	809	923	922	956	2.0	1.9	0.3
Inland navigation	25	18	20	21	22	23	24	-2.1	1.0	0.9
By transport activity										
Passenger transport	2958	3559	3724	3544	3604	3397	3301	2.3	-0.3	-0.9
Freight transport	1124	1519	990	1042	1160	1223	1318	-1.3	1.6	1.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.2	2.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.0	2.0	4.4	4.9	5.3			
ENERGY EFFICIENCY										
Primary energy consumption	13750	14749	14850	13848	14137	13515	10803	0.8	-0.5	-2.7
Final Energy Demand	10779	12597	11957	11423	11777	11077	9120	1.0	-0.2	-2.5
by sector										
Industry	2498	2582	2146	2453	2565	2430	2004	-1.5	1.8	-2.4
Energy intensive industries	1245	1341	1023	1166	1181	1025	790	-1.9	1.4	-3.9
Other industrial sectors	1252	1241	1123	1287	1384	1406	1214	-1.1	2.1	-1.3
Residential	2513	2954	3296	2823	2855	2650	1622	2.7	-1.4	-5.5
Tertiary	1684	1979	1799	1556	1588	1371	869	0.7	-1.2	-5.8
Transport ⁽⁵⁾	4085	5082	4715	4590	4769	4626	4625	1.4	0.1	-0.3
by fuel										
Solids	671	751	604	567	498	383	172	-1.0	-1.9	-10.1
Oil	7045	8204	7270	6439	6226	5728	4947	0.3	-1.5	-2.3
Gas	1200	1364	1593	1883	1923	1567	1000	2.9	1.9	-6.3
Electricity	1745	2094	2186	2107	2289	2390	2084	2.3	0.5	-0.9
Heat (from CHP and District Heating)	0	0	0	1	14	36	50	0.0	0.0	13.5
Renewable energy forms	118	184	304	424	819	931	804	10.0	10.4	-0.2
Other	0	0	0	2	8	42	63	0.0	1734.2	23.1
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	111	93	92	78	70	62	46	-1.9	-2.7	-4.1
Industry (Energy on Value added, index 2000=100)	100	85	75	80	73	64	49	-2.8	-0.3	-3.9
Residential (Energy on Private Income, index 2000=100)	100	95	98	86	75	61	33	-0.2	-2.7	-7.8
Tertiary (Energy on Value added, index 2000=100)	100	97	82	64	57	46	27	-1.9	-3.6	-7.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	51	46	46	43	38	33	30	-1.2	-1.8	-2.5
Freight transport (toe/Mtkm)	96	88	92	89	86	80	78	-0.3	-0.7	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.8	73.1	65.0	63.1	61.7	59.4	51.0	-1.0	-0.5	-1.9
of which ETS sectors (2013 scope) GHG emissions		25.4	20.0	18.5	18.1	17.5	12.9		-1.0	-3.3
of which ESD sectors (2013 scope) GHG emissions		47.8	45.0	44.6	43.6	42.0	38.1		-0.3	-1.4
CO2 Emissions (energy related)	43.2	47.3	42.0	37.8	36.5	33.7	25.2	-0.3	-1.4	-3.6
Power generation/District heating	15.6	15.3	13.3	11.0	10.7	10.8	6.9	-1.6	-2.1	-4.4
Energy Branch	0.3	0.4	0.3	0.4	0.3	0.2	0.2	-1.3	-1.1	-1.9
Industry	5.3	5.6	3.6	3.8	3.4	2.6	1.6	-3.9	-0.5	-7.2
Residential	6.4	7.2	7.8	6.5	6.1	5.1	2.5	2.1	-2.5	-8.5
Tertiary	3.4	3.5	3.1	2.5	2.4	1.8	1.0	-0.7	-2.8	-7.8
Transport	12.3	15.3	13.9	13.6	13.8	13.2	13.0	1.3	-0.1	-0.6
CO2 Emissions (non energy and non land use related)	2.9	2.7	1.4	1.8	2.0	1.9	1.9	-7.0	3.2	-0.3
Non-CO2 GHG emissions	25.6	23.1	21.5	23.5	23.2	23.8	23.8	-1.7	0.8	0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.2	126.5	112.3	109.1	106.7	102.8	88.1	-1.0	-0.5	-1.9
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.66	0.60	0.47	0.41	0.34	0.32	0.24	-3.4	-3.2	-3.5
Final energy demand (t of CO2/toe)	2.53	2.51	2.38	2.32	2.17	2.05	1.99	-0.6	-0.9	-0.9
Industry	2.13	2.16	1.66	1.56	1.33	1.09	0.80	-2.5	-2.2	-4.9
Residential	2.53	2.44	2.37	2.30	2.12	1.92	1.54	-0.7	-1.1	-3.1
Tertiary	1.99	1.77	1.74	1.63	1.48	1.33	1.21	-1.3	-1.6	-2.0
Transport	3.00	3.01	2.96	2.96	2.89	2.85	2.81	-0.2	-0.2	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.0	2.8	5.6	8.7	15.1	18.4	24.3			
RES-H&C share	2.4	3.5	4.5	6.1	12.0	17.6	24.1			
RES-E share	4.8	7.2	14.5	26.5	39.8	41.3	57.8			
RES-T share (based on ILUC formula)	0.0	0.0	2.4	4.3	10.0	13.3	19.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	72	75	89	88	92	89	5.9	1.7	0.1
Average Price of Electricity in Final demand sectors (€13/MWh)	117	147	158	175	172	174	175	3.0	0.9	0.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.8	13.9	15.5	15.6	18.9	20.7	25.5	4.7	2.0	3.0
as % of GDP	7.5	8.4	9.4	8.5	9.1	9.2	10.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Italy: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	57	58	59	61	62	63	64	0.4	0.5	0.3
GDP (in 000 M€13)	1564	1643	1622	1565	1675	1776	1695	0.4	0.3	1.2
Gross Inland Consumption (ktoe)	174219	187471	174761	159035	161712	149662	116025	0.0	-0.8	-3.3
Solids	12550	16461	14170	16106	18621	12455	6225	1.2	2.8	-10.4
Oil	89540	83963	69558	61171	56689	50100	42449	-2.5	-2.0	-2.9
Natural gas	57945	70651	68057	56177	60347	57861	38940	1.6	-1.2	-4.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7
Renewable energy forms	10371	12170	19180	21627	23477	26482	25659	6.3	2.0	0.9
Energy Branch Consumption	7704	10052	9539	8520	8176	7203	6205	2.2	-1.5	-2.7
Non-Energy Uses	9019	8607	9560	7050	7322	7453	7342	0.6	-2.6	0.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	28400	27839	29560	30750	31725	33519	32492	0.4	0.7	0.2
Solids	3	60	64	55	0	0	0	33.7	-100.0	0.0
Oil	4915	6376	5687	5142	5666	5600	5568	1.5	0.0	-0.2
Natural gas	13627	9886	6885	6760	5822	4637	3898	-6.6	-1.7	-3.9
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	9856	11516	16924	18792	20236	23281	23026	5.6	1.8	1.3
Hydro	3800	3101	4395	4138	4087	4212	4211	1.5	-0.7	0.3
Biomass & Waste	1736	3392	6670	10105	11320	12001	10232	14.4	5.4	-1.0
Wind	48	202	785	1258	1260	1713	2426	32.1	4.8	6.8
Solar and others	12	30	298	2199	2480	4194	4968	37.4	23.6	7.2
Geothermal	4259	4791	4776	1092	1089	1161	1189	1.2	-13.7	0.9
Net Imports (ktoe)	152069	160241	149804	131764	133568	119866	87377	-0.1	-1.1	-4.2
Solids	13133	16367	14301	16050	18621	12455	6225	0.9	2.7	-10.4
Oil	87599	79154	67826	59509	54547	48093	40375	-2.5	-2.2	-3.0
Crude oil and Feedstocks	89451	94307	84882	68525	61687	54042	45778	-0.5	-3.1	-2.9
Oil products	-1852	-15153	-17056	-9016	-7140	-5949	-5403	24.9	-8.3	-2.7
Natural gas	47008	59840	61600	49416	54581	53354	35391	2.7	-1.2	-4.2
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7
Import Dependency (%)	86.5	84.5	84.3	81.1	80.8	78.1	72.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	269941	296840	298773	288962	319930	315105	261535	1.0	0.7	-2.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	26272	43606	39734	58856	67235	44688	19341	4.2	5.4	-11.7
Oil (including refinery gas)	85878	47124	21714	8781	7799	6988	3018	-12.8	-9.7	-9.1
Gas (including derived gases)	106398	156191	158215	110293	129761	116471	73481	4.0	-2.0	-5.5
Biomass-waste	1908	6153	11586	18671	21440	28372	30214	19.8	6.3	3.5
Hydro (pumping excluded)	44199	36067	51116	48113	47525	48980	48960	1.5	-0.7	0.3
Wind	563	2344	9126	14628	14646	19922	28213	32.1	4.8	6.8
Solar	17	31	1906	23409	25315	43474	52098	59.9	29.5	7.5
Geothermal and other renewables	4706	5324	5376	6210	6210	6210	6210	1.3	1.5	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	71896	82950	104920	127454	122383	124481	123685	3.9	1.6	0.1
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	16770	18701	26470	46375	47699	60785	69437	4.7	6.1	3.8
Hydro (pumping excluded)	16390	17036	17563	18512	18805	18805	18805	0.7	0.7	0.0
Wind	363	1635	5794	8958	8963	10605	13520	31.9	4.5	4.2
Solar	17	30	3113	18905	19930	31375	37111	68.3	20.4	6.4
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	55126	64249	78450	81079	74684	63696	54249	3.6	-0.5	-3.1
of which cogeneration units	6476	5888	7351	17213	18261	17270	11973	1.3	9.5	-4.1
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	9518	8279	9511	9511	8858	5103	5098	0.0	-0.7	-5.4
Gas fired	22819	36431	51677	52045	51024	46308	40709	8.5	-0.1	-2.2
Oil fired	21763	17998	14748	13928	8629	5986	2172	-3.8	-5.2	-12.9
Biomass-waste fired	436	870	1774	4810	5388	5514	5484	15.1	11.7	0.2
Hydrogen plants	0	0	12	12	12	12	12	0.0	0.0	0.0
Geothermal heat	590	671	728	773	773	773	773	2.1	0.6	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	40.8	39.1	31.3	24.8	28.6	27.9	23.5			
Efficiency of gross thermal power generation (%)	39.4	37.7	37.7	45.5	45.7	46.0	45.5			
% of gross electricity from CHP	8.3	9.0	11.5	15.3	15.1	10.8	9.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	19.0	16.8	26.5	38.4	36.0	46.6	63.4			
Fuel Inputs to Thermal Power Generation (ktoe)	49150	58911	53964	38349	43756	37921	24976	0.9	-2.1	-5.5
Solids	6045	10399	9484	12963	14712	9128	3929	4.6	4.5	-12.4
Oil (including refinery gas)	18954	12079	7365	1905	1673	1530	829	-9.0	-13.8	-6.8
Gas (including derived gases)	19668	29585	28966	18745	22100	20178	13000	3.9	-2.7	-5.2
Biomass & Waste	438	2270	3527	3795	4331	6144	6277	23.2	2.1	3.8
Geothermal heat	4046	4578	4623	941	941	941	941	1.3	-14.7	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	101609	106909	97409	78677	74316	66356	57405	-0.4	-2.7	-2.5
Refineries	95900	101959	91472	74873	68909	61349	53047	-0.5	-2.8	-2.6
Biofuels and hydrogen production	0	177	1419	1593	2218	1908	1791	0.0	4.6	-2.1
District heating	0	0	110	121	123	119	92	0.0	1.2	-2.8
Derived gases, cokeries etc.	5709	4773	4408	2090	3065	2980	2474	-2.6	-3.6	-2.1

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Italy: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	943	931	952	967	1020	1031	1070	0.1	0.7	0.5
Public road transport	93	101	102	105	107	108	109	0.9	0.5	0.2
Private cars and motorcycles	756	727	740	746	781	778	803	-0.2	0.5	0.3
Rail	55	56	54	55	63	70	77	-0.2	1.5	2.1
Aviation ⁽³⁾	34	43	51	56	64	70	75	4.3	2.2	1.7
Inland navigation	5	5	5	5	5	5	6	-0.3	0.5	1.2
Freight transport activity (Gtkm)	253	303	268	271	290	300	319	0.6	0.8	1.0
Heavy goods and light commercial vehicles	192	226	202	203	217	221	235	0.5	0.7	0.8
Rail	23	23	19	20	22	24	26	-2.0	1.7	1.6
Inland navigation	38	54	48	48	51	55	58	2.4	0.5	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	42174	44377	41220	39856	39000	35795	34275	-0.2	-0.6	-1.3
Public road transport	1061	1231	1245	1278	1308	1287	1270	1.6	0.5	-0.3
Private cars and motorcycles	27882	27505	25835	24747	23388	20317	18754	-0.8	-1.0	-2.2
Heavy goods and light commercial vehicles	7944	10062	8686	8259	8424	8095	8116	0.9	-0.3	-0.4
Rail	526	492	463	487	523	564	589	-1.3	1.2	1.2
Aviation	3491	3700	3863	4073	4292	4387	4357	1.0	1.1	0.2
Inland navigation	1269	1387	1128	1012	1065	1143	1189	-1.2	-0.6	1.1
By transport activity										
Passenger transport	33399	32865	31375	30531	29445	26487	24900	-0.6	-0.6	-1.7
Freight transport	8775	11512	9844	9324	9555	9308	9375	1.2	-0.3	-0.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	3.5	4.1	5.8	5.7	5.6			
ENERGY EFFICIENCY										
Primary energy consumption	165200	178864	165201	151985	154390	142209	108683	0.0	-0.7	-3.4
Final Energy Demand	125579	134544	124781	122385	122654	115042	88784	-0.1	-0.2	-3.2
by sector										
Industry	40502	39858	30905	27952	28825	27480	22387	-2.7	-0.7	-2.5
Energy intensive industries	25289	25477	19382	16985	17771	16979	13532	-2.6	-0.9	-2.7
Other industrial sectors	15214	14382	11523	10966	11055	10501	8856	-2.7	-0.4	-2.2
Residential	27656	31313	31959	34859	34779	32713	20156	1.5	0.8	-5.3
Tertiary	14901	18537	20182	19017	19306	18295	11222	3.1	-0.4	-5.3
Transport ⁽⁵⁾	42519	44836	41734	40557	39744	36554	35019	-0.2	-0.5	-1.3
by fuel										
Solids	3586	3980	2910	2094	2651	2252	1327	-2.1	-0.9	-6.7
Oil	57249	59005	48733	45659	41826	36032	29906	-1.6	-1.5	-3.3
Gas	38022	40609	38499	36390	37386	36855	25281	0.1	-0.3	-3.8
Electricity	23472	25871	25736	25288	26427	26426	22429	0.9	0.3	-1.6
Heat (from CHP and District Heating)	1449	3082	3332	3592	3775	3829	2527	8.7	1.3	-3.9
Renewable energy forms	1802	1997	5570	9356	10572	9532	7091	11.9	6.6	-3.9
Other	0	0	0	6	17	115	223	0.0	0.0	29.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	111	114	108	102	97	84	62	-0.3	-1.1	-4.4
Industry (Energy on Value added, index 2000=100)	100	100	83	79	78	72	57	-1.8	-0.7	-3.1
Residential (Energy on Private Income, index 2000=100)	100	109	110	123	114	100	58	0.9	0.4	-6.5
Tertiary (Energy on Value added, index 2000=100)	100	117	126	121	114	101	58	2.3	-1.0	-6.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	33	33	30	29	26	23	21	-1.0	-1.5	-2.3
Freight transport (toe/Mtkm)	35	38	37	34	33	31	29	0.6	-1.1	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	558.5	592.5	509.9	457.0	460.0	401.9	305.1	-0.9	-1.0	-4.0
of which ETS sectors (2013 scope) GHG emissions	261.5	213.8	172.1	189.4	156.2	107.9		-1.2	-5.5	
of which ESD sectors (2013 scope) GHG emissions	331.0	296.1	284.8	270.6	245.7	197.1		-0.9	-3.1	
CO ₂ Emissions (energy related)	432.5	470.4	404.2	354.7	362.6	310.8	219.3	-0.7	-1.1	-4.9
Power generation/District heating	137.1	158.5	135.9	106.9	122.9	93.7	53.5	-0.1	-1.0	-8.0
Energy Branch	15.9	18.4	16.4	14.1	12.9	11.2	9.8	0.4	-2.4	-2.7
Industry	78.0	72.5	49.5	42.3	43.0	38.3	26.9	-4.5	-1.4	-4.6
Residential	53.4	59.9	53.6	51.4	49.7	46.6	24.2	0.0	-0.7	-6.9
Tertiary	24.4	29.3	30.2	26.0	25.4	23.2	13.6	2.2	-1.7	-6.1
Transport	123.7	131.8	118.6	114.0	108.7	98.0	91.3	-0.4	-0.9	-1.7
CO ₂ Emissions (non energy and non land use related)	28.6	30.8	24.1	21.1	22.0	21.9	21.7	-1.7	-0.9	-0.1
Non-CO2 GHG emissions	97.3	91.3	81.6	81.2	75.5	69.2	64.1	-1.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	106.3	112.8	97.1	87.0	87.6	76.5	58.1	-0.9	-1.0	-4.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.47	0.45	0.38	0.31	0.32	0.25	0.17	-2.0	-1.7	-5.9
Final energy demand (t of CO ₂ /toe)	2.23	2.18	2.02	1.91	1.85	1.79	1.76	-1.0	-0.9	-0.5
Industry	1.93	1.82	1.60	1.51	1.49	1.39	1.20	-1.8	-0.7	-2.1
Residential	1.93	1.91	1.68	1.48	1.43	1.42	1.20	-1.4	-1.6	-1.7
Tertiary	1.64	1.58	1.50	1.37	1.32	1.27	1.21	-0.9	-1.3	-0.8
Transport	2.91	2.94	2.84	2.81	2.73	2.68	2.61	-0.2	-0.4	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	5.8	10.5	18.2	19.8	24.7	32.2			
RES-H&C share	2.9	4.6	10.4	20.1	22.3	27.2	38.2			
RES-E share	15.7	16.3	20.1	33.6	32.3	41.7	55.8			
RES-T share (based on ILUC formula)	0.6	1.1	5.0	7.1	10.7	13.9	20.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	66	77	90	86	90	95	98	3.2	0.0	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	140	130	153	152	153	162	171	0.9	0.0	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	134.7	151.9	164.9	170.7	190.9	204.1	268.2	2.0	1.5	3.5
as % of GDP	8.6	9.2	10.2	10.9	11.4	11.5	14.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Latvia: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	2	2	2	2	2	2	2	-1.2	-1.0	-1.4		
GDP (in 000 M€13)	13	20	19	23	27	29	31	3.6	3.5	1.7		
Gross Inland Consumption (ktoe)	3864	4592	4629	4341	4524	4540	3547	1.8	-0.2	-2.4		
Solids	132	82	109	84	73	51	27	-1.9	-3.9	-9.4		
Oil	1295	1487	1521	1464	1433	1352	1191	1.6	-0.6	-1.8		
Natural gas	1092	1358	1462	867	913	1128	530	3.0	-4.6	-5.3		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6		
Renewable energy forms	1191	1481	1463	1758	1962	1933	1631	2.1	3.0	-1.8		
Energy Branch Consumption	39	42	48	33	36	40	26	2.1	-2.9	-3.2		
Non-Energy Uses	75	97	73	105	127	138	142	-0.3	5.7	1.1		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	1411	1868	1979	2228	2489	2422	2005	3.4	2.3	-2.1		
Solids	16	3	2	1	0	0	0	-17.4	-100.0	0.0		
Oil	2	7	2	0	0	0	0	1.1	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	2.1	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	1393	1858	1975	2228	2489	2422	2005	3.6	2.3	-2.1		
Hydro	242	286	303	248	272	272	272	2.2	-1.1	0.0		
Biomass & Waste	1150	1568	1668	1972	2162	2093	1630	3.8	2.6	-2.8		
Wind	0	4	4	8	54	55	102	30.2	29.1	6.6		
Solar and others	0	0	0	0	1	2	1	0.0	0.0	1.2		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	-10.9		
Net Imports (ktoe)	2361	3097	2220	2456	2395	2487	1919	-0.6	0.8	-2.2		
Solids	61	77	112	84	73	51	27	6.3	-4.2	-9.4		
Oil	1235	1783	1671	1807	1788	1709	1538	3.1	0.7	-1.5		
Crude oil and Feedstocks	87	4	2	0	0	0	0	-31.8	-100.0	0.0		
Oil products	1148	1779	1669	1807	1788	1709	1538	3.8	0.7	-1.5		
Natural gas	1113	1434	903	867	918	1140	560	-2.1	0.2	-4.8		
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6		
Import Dependency (%)	61.0	63.9	45.5	52.4	49.0	50.7	48.9					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	4136	4906	6627	5587	6705	7983	6183	4.8	0.1	-0.8		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	78	0	2	78	110	113	66	-30.7	49.3	-5.0		
Oil (including refinery gas)	107	6	2	0	0	0	0	-32.8	-100.0	0.0		
Gas (including derived gases)	1128	1486	2988	2023	2144	3297	870	10.2	-3.3	-8.6		
Biomass-waste	0	41	66	511	662	771	896	0.0	25.9	3.1		
Hydro (pumping excluded)	2819	3326	3520	2878	3160	3160	3160	2.2	-1.1	0.0		
Wind	4	47	49	95	628	640	1190	28.5	29.1	6.6		
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	2089	2162	2546	2837	3101	3104	3347	2.0	2.0	0.8		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	1515	1562	1606	1652	1872	1873	2094	0.6	1.5	1.1		
Hydro (pumping excluded)	1513	1536	1576	1589	1589	1589	1589	0.4	0.1	0.0		
Wind	2	26	30	62	281	283	503	31.1	25.1	6.0		
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	574	600	940	1185	1229	1231	1253	5.1	2.7	0.2		
of which cogeneration units	254	586	870	1026	1029	1023	1099	13.1	1.7	0.7		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	23	2	21	21	21	21	21	-0.9	0.0	0.0		
Gas fired	522	572	893	1098	1098	1089	1089	5.5	2.1	-0.1		
Oil fired	27	15	15	15	15	15	15	-5.4	0.0	0.0		
Biomass-waste fired	2	10	10	50	95	105	127	17.8	24.9	3.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.2	23.3	27.2	20.9	23.1	27.7	20.1					
Efficiency of gross thermal power generation (%)	20.7	21.9	32.3	45.9	45.8	46.0	35.2					
% of gross electricity from CHP	31.4	30.7	45.0	38.6	34.1	44.9	20.6					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	68.3	69.6	54.9	62.4	66.4	57.3	84.9					
Fuel Inputs to Thermal Power Generation (ktoe)	545	602	815	490	548	782	448	4.1	-3.9	-2.0		
Solids	53	1	9	13	18	18	10	-15.9	6.6	-5.2		
Oil (including refinery gas)	84	19	10	0	0	0	0	-19.3	-100.0	0.0		
Gas (including derived gases)	408	562	767	360	386	572	211	6.5	-6.6	-5.9		
Biomass & Waste	0	22	29	117	144	192	227	0.0	17.4	4.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	570	479	383	344	422	390	267	-3.9	1.0	-4.5		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	3	27	37	89	71	65	0.0	12.6	-3.0		
District heating	569	476	356	307	333	317	199	-4.6	-0.7	-5.0		
Derived gases, cokeries etc.	1	0	0	0	0	2	3	-95.3	1788.1	25.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Latvia: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	15	17	18	18	20	21	22	1.5	1.0	1.1
Public road transport	2	3	2	2	2	3	3	-0.2	0.7	0.3
Private cars and motorcycles	12	12	13	13	14	14	14	0.8	0.7	0.5
Rail	1	1	1	1	1	1	1	-1.2	1.8	3.1
Aviation ⁽³⁾	0	1	2	2	2	3	4	20.4	2.2	3.6
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	15	24	21	24	26	30	33	3.1	2.2	2.4
Heavy goods and light commercial vehicles	2	4	4	4	5	5	5	5.8	2.2	1.4
Rail	13	20	17	20	21	24	27	2.6	2.2	2.6
Inland navigation	0	0	0	0	0	0	0	179.2	1.5	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	746	1064	1200	1158	1194	1154	1102	4.9	-0.1	-0.8
Public road transport	51	67	68	65	66	67	67	2.9	-0.3	0.0
Private cars and motorcycles	502	603	673	613	590	505	440	3.0	-1.3	-2.9
Heavy goods and light commercial vehicles	89	242	260	255	292	308	305	11.2	1.2	0.5
Rail	76	94	76	87	91	101	110	0.1	1.8	2.0
Aviation	27	59	118	132	148	166	172	15.9	2.3	1.5
Inland navigation	0	0	5	6	7	8	8	0.0	3.5	1.1
By transport activity										
Passenger transport	582	729	861	811	805	738	680	4.0	-0.7	-1.7
Freight transport	163	335	340	347	389	416	422	7.6	1.4	0.8
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.3	2.3	3.3	7.6	6.5	6.2			
ENERGY EFFICIENCY										
Primary energy consumption	3789	4495	4556	4237	4397	4402	3405	1.9	-0.4	-2.5
Final Energy Demand	3254	4018	4120	4104	4247	4104	3178	2.4	0.3	-2.9
by sector										
Industry	576	699	774	912	993	1025	836	3.0	2.5	-1.7
Energy intensive industries	229	282	305	277	305	303	250	2.9	0.0	-2.0
Other industrial sectors	348	417	469	635	688	722	585	3.0	3.9	-1.6
Residential	1327	1504	1389	1286	1295	1199	770	0.5	-0.7	-5.1
Tertiary	602	749	756	744	762	722	467	2.3	0.1	-4.8
Transport ⁽⁵⁾	749	1067	1201	1162	1197	1158	1104	4.8	0.0	-0.8
by fuel										
Solids	62	74	94	70	54	33	17	4.2	-5.4	-11.1
Oil	1056	1323	1446	1355	1306	1214	1049	3.2	-1.0	-2.2
Gas	329	508	498	391	437	451	318	4.2	-1.3	-3.1
Electricity	385	493	534	568	623	666	610	3.3	1.5	-0.2
Heat (from CHP and District Heating)	598	603	575	524	571	537	336	-0.4	-0.1	-5.2
Renewable energy forms	824	1018	973	1194	1256	1200	843	1.7	2.6	-3.9
Other	0	0	0	0	0	2	7	0.0	0.0	34.8
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	293	235	246	189	171	155	113	-1.8	-3.6	-4.0
Industry (Energy on Value added, index 2000=100)	100	87	102	98	93	87	68	0.2	-1.0	-3.1
Residential (Energy on Private Income, index 2000=100)	100	74	67	51	45	37	22	-4.0	-3.9	-6.7
Tertiary (Energy on Value added, index 2000=100)	100	83	82	67	59	51	30	-2.0	-3.2	-6.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	37	41	44	41	37	32	27	1.7	-1.8	-3.0
Freight transport (toe/Mtkm)	11	14	16	14	15	14	13	4.4	-0.8	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.5	11.3	12.3	10.6	10.1	10.2	8.1	1.6	-1.9	-2.2
of which ETS sectors (2013 scope) GHG emissions		3.1	3.6	2.4	2.5	3.0	1.8		-3.8	-3.3
of which ESD sectors (2013 scope) GHG emissions		8.2	8.7	8.3	7.6	7.2	6.3		-1.3	-1.9
CO ₂ Emissions (energy related)	6.8	7.7	8.3	6.5	6.4	6.5	4.5	2.0	-2.6	-3.4
Power generation/District heating	2.6	2.2	2.4	1.2	1.2	1.7	0.5	-0.9	-6.7	-7.6
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.0	1.1	1.0	0.8	0.8	0.7	0.5	0.0	-2.9	-5.2
Residential	0.3	0.4	0.6	0.4	0.4	0.4	0.2	6.5	-2.1	-6.9
Tertiary	0.7	0.8	0.8	0.7	0.7	0.6	0.4	2.1	-1.8	-6.1
Transport	2.2	3.2	3.5	3.4	3.3	3.2	3.0	4.9	-0.6	-1.1
CO ₂ Emissions (non energy and non land use related)	0.2	0.2	0.5	0.7	0.7	0.7	0.7	10.4	2.8	0.0
Non-CO2 GHG emissions	3.5	3.3	3.4	3.4	3.0	2.9	2.8	-0.1	-1.3	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	39.5	42.5	46.3	40.0	38.0	38.3	30.5	1.6	-1.9	-2.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.21	0.17	0.16	0.09	0.08	0.11	0.05	-2.2	-6.5	-4.8
Final energy demand (t of CO ₂ /toe)	1.29	1.37	1.45	1.30	1.23	1.19	1.26	1.1	-1.6	0.3
Industry	1.80	1.55	1.34	0.85	0.78	0.72	0.54	-2.9	-5.3	-3.5
Residential	0.22	0.29	0.40	0.35	0.34	0.31	0.28	6.0	-1.5	-1.9
Tertiary	1.14	1.10	1.12	0.98	0.92	0.82	0.80	-0.2	-1.9	-1.4
Transport	2.93	2.97	2.93	2.90	2.76	2.76	2.68	0.0	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	33.5	32.4	30.5	37.5	40.5	41.7	45.1			
RES-H&C share	40.1	43.0	40.9	51.2	52.0	55.0	61.8			
RES-E share	52.7	43.0	42.1	46.2	53.2	51.6	64.6			
RES-T share (based on ILUC formula)	2.1	1.5	3.5	5.2	10.2	12.1	20.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	107	86	93	77	83	90	110	-1.4	-1.1	2.8
Average Price of Electricity in Final demand sectors (€13/MWh)	57	66	107	102	113	121	132	6.5	0.6	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.0	3.4	5.1	4.4	5.1	5.9	8.3	10.0	0.1	4.8
as % of GDP	14.8	17.3	27.0	19.0	19.4	20.0	26.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Lithuania: EU/CO-40			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	4	3	3	3	3	3	2	-1.1	-1.0	-1.8
GDP (in 000 M€13)	19	27	29	35	40	42	43	4.4	3.3	0.7
Gross Inland Consumption (ktoe)	7063	8711	6787	6651	6574	6316	6061	-0.4	-0.3	-0.8
Solids	91	185	213	254	209	151	88	8.8	-0.2	-8.3
Oil	2125	2710	2502	2432	2366	2219	1913	1.6	-0.6	-2.1
Natural gas	2064	2477	2492	2122	2078	2288	1294	1.9	-1.8	-4.6
Nuclear	2223	2713	0	0	0	0	1888	-100.0	0.0	0.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Renewable energy forms	675	881	1065	1249	1353	1266	1012	4.7	2.4	-2.9
Energy Branch Consumption	610	853	743	680	613	599	563	2.0	-1.9	-0.8
Non-Energy Uses	662	804	714	717	793	787	754	0.8	1.1	-0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3269	3900	1318	1358	1484	1390	3033	-8.7	1.2	7.4
Solids	12	20	9	19	7	8	8	-3.0	-2.1	1.1
Oil	352	267	125	77	77	73	68	-9.9	-4.7	-1.2
Natural gas	0	0	0	0	0	0	0	4.2	-100.0	0.0
Nuclear	2223	2713	0	0	0	0	1888	-100.0	0.0	0.0
Renewable energy sources	682	900	1185	1262	1400	1309	1069	5.7	1.7	-2.7
Hydro	29	39	46	38	38	38	38	4.7	-2.0	0.0
Biomass & Waste	653	858	1114	1158	1288	1086	824	5.5	1.5	-4.4
Wind	0	0	19	60	60	162	162	0.0	12.0	10.5
Solar and others	0	0	0	5	8	7	10	0.0	0.0	2.7
Geothermal	0	3	5	1	6	16	35	0.0	3.1	19.1
Net Imports (ktoe)	4247	5026	5668	5454	5254	5096	3218	2.9	-0.8	-4.8
Solids	80	174	196	235	202	143	80	9.4	0.3	-8.8
Oil	2223	2622	2607	2516	2450	2308	2002	1.6	-0.6	-2.0
Crude oil and Feedstocks	4760	9029	9339	9639	9123	8555	7866	7.0	-0.2	-1.5
Oil products	-2537	-6408	-6732	-7123	-6673	-6247	-5864	10.3	-0.1	-1.3
Natural gas	2065	2493	2485	2122	2082	2296	1307	1.9	-1.8	-4.5
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Import Dependency (%)	59.4	56.8	81.8	80.1	78.0	78.6	51.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	11121	14415	4994	5066	6056	8425	12384	-7.7	1.9	7.4
Nuclear energy	8419	10337	0	0	0	0	8807	-100.0	0.0	0.0
Solids	0	0	0	0	52	46	29	0.0	0.0	-5.5
Oil (including refinery gas)	655	401	647	182	0	0	0	-0.1	-100.0	0.0
Gas (including derived gases)	1707	3217	3436	3028	4079	5355	635	7.2	1.7	-17.0
Biomass-waste	0	7	147	657	726	634	522	0.0	17.3	-3.2
Hydro (pumping excluded)	340	451	540	440	440	440	440	4.7	-2.0	0.0
Wind	0	2	224	695	695	1886	1886	0.0	12.0	10.5
Solar	0	0	0	64	64	64	64	0.0	0.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	5539	4135	2878	3443	2425	2897	3795	-6.3	-1.7	4.6
Nuclear energy	2880	1440	0	0	0	0	1117	-100.0	0.0	0.0
Renewable energy	103	118	249	614	614	1236	1236	9.2	9.4	7.2
Hydro (pumping excluded)	103	117	116	116	116	116	116	1.2	0.0	0.0
Wind	0	1	133	424	424	1047	1047	0.0	12.3	9.4
Solar	0	0	0	74	74	74	74	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2556	2577	2629	2829	1811	1660	1442	0.3	-3.7	-2.2
of which cogeneration units	650	1038	1100	1799	579	1078	280	5.4	-6.2	-7.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	3	3	0	0	6	6	6	-100.0	0.0	0.0
Gas fired	1736	1781	1822	1992	1515	1515	1344	0.5	-1.8	-1.2
Oil fired	817	793	770	770	200	48	0	-0.6	-12.6	-55.4
Biomass-waste fired	0	0	37	67	90	91	92	0.0	9.3	0.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.1	36.5	18.3	15.0	26.7	31.4	35.3			
Efficiency of gross thermal power generation (%)	22.0	25.1	28.4	36.6	47.4	46.5	23.5			
% of gross electricity from CHP	15.5	15.5	34.6	45.5	49.7	41.4	6.8			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	78.8	74.9	18.2	36.6	31.8	35.9	94.6			
Fuel Inputs to Thermal Power Generation (ktoe)	924	1240	1282	909	882	1116	433	3.3	-3.7	-6.9
Solids	0	0	0	0	12	14	10	-100.0	0.0	-1.9
Oil (including refinery gas)	200	178	100	49	0	0	0	-6.7	-100.0	0.0
Gas (including derived gases)	723	1057	1117	725	707	927	257	4.4	-4.5	-9.6
Biomass & Waste	1	5	65	135	163	175	167	59.7	9.7	0.2
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	7911	12651	9987	10232	9879	9310	10318	2.4	-0.1	0.4
Refineries	5032	9415	9446	9704	9276	8790	8109	6.5	-0.2	-1.3
Biofuels and hydrogen production	0	3	45	59	113	99	91	0.0	9.7	-2.2
District heating	656	520	496	468	489	420	229	-2.7	-0.1	-7.3
Derived gases, cokeries etc.	2223	2713	0	0	0	1	1889	0.0	0.0	152.7

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Lithuania: EU CO ₂ +40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	30	40	38	39	41	43	44	2.3	1.0	0.6
Public road transport	3	4	3	3	3	3	3	-0.2	0.6	0.2
Private cars and motorcycles	26	35	33	34	36	37	38	2.4	0.8	0.5
Rail	1	0	0	0	1	1	1	-4.8	3.4	1.7
Aviation ⁽³⁾	0	1	1	2	2	2	2	14.6	4.2	2.4
Inland navigation	0	0	0	0	0	0	0	0.4	1.4	0.8
Freight transport activity (Gtkm)	11	17	19	20	24	26	27	5.3	2.6	1.3
Heavy goods and light commercial vehicles	2	4	5	6	7	7	7	9.1	2.8	0.3
Rail	9	12	13	14	17	19	20	4.2	2.5	1.6
Inland navigation	0	0	0	0	0	0	0	0.4	1.7	0.6
Energy demand in transport (ktoe) ⁽⁴⁾	1054	1413	1521	1582	1630	1536	1427	3.7	0.7	-1.3
Public road transport	40	51	40	41	41	41	39	0.0	0.3	-0.4
Private cars and motorcycles	705	845	919	881	871	777	689	2.7	-0.5	-2.3
Heavy goods and light commercial vehicles	204	387	443	517	555	546	534	8.1	2.3	-0.4
Rail	76	79	65	67	78	81	80	-1.5	1.8	0.3
Aviation	27	46	49	69	79	84	78	6.1	5.0	-0.1
Inland navigation	3	5	6	6	7	7	7	7.2	1.3	0.5
By transport activity										
Passenger transport	777	947	1013	998	998	910	813	2.7	-0.2	-2.0
Freight transport	277	466	508	584	632	627	614	6.2	2.2	-0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.2	3.0	3.8	7.0	6.6	6.5			
ENERGY EFFICIENCY										
Primary energy consumption	6401	7907	6073	5934	5781	5529	5327	-0.5	-0.5	-0.8
Final Energy Demand	3767	4601	4763	4996	5041	4682	3505	2.4	0.6	-3.6
by sector										
Industry	780	987	898	1172	1196	1205	904	1.4	2.9	-2.8
Energy intensive industries	363	436	486	689	696	698	515	3.0	3.6	-3.0
Other industrial sectors	416	551	412	483	501	507	389	-0.1	2.0	-2.5
Residential	1368	1509	1599	1498	1432	1251	757	1.6	-1.1	-6.2
Tertiary	563	672	720	718	757	665	397	2.5	0.5	-6.2
Transport ⁽⁵⁾	1057	1433	1546	1608	1656	1561	1447	3.9	0.7	-1.3
by fuel										
Solids	82	177	208	238	180	118	58	9.8	-1.4	-10.6
Oil	1356	1616	1613	1664	1691	1558	1349	1.7	0.5	-2.2
Gas	363	519	567	649	607	594	369	4.6	0.7	-4.9
Electricity	533	686	717	832	898	908	750	3.0	2.3	-1.8
Heat (from CHP and District Heating)	827	905	922	870	914	853	500	1.1	-0.1	-5.8
Renewable energy forms	605	698	738	743	751	650	475	2.0	0.2	-4.5
Other	0	0	0	0	0	1	3	0.0	0.0	31.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	374	317	234	191	165	149	142	-4.6	-3.5	-1.4
Industry (Energy on Value added, Index 2000=100)	100	80	66	74	70	67	50	-4.1	0.5	-3.2
Residential (Energy on Private Income, Index 2000=100)	100	72	76	59	49	40	24	-2.7	-4.2	-6.9
Tertiary (Energy on Value added, Index 2000=100)	100	88	87	72	65	54	32	-1.3	-2.9	-7.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	26	23	27	25	24	21	18	0.3	-1.2	-2.6
Freight transport (toe/Mtkm)	25	27	27	29	26	24	23	0.9	-0.3	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO ₂ eq.)	19.8	24.8	23.0	21.3	19.5	19.1	15.3	1.5	-1.6	-2.4
of which ETS sectors (2013 scope) GHG emissions		11.7	9.4	7.8	7.0	7.5	5.0		-2.9	-3.4
of which ESD sectors (2013 scope) GHG emissions		8.1	13.2	13.6	13.4	12.5	11.6		-0.8	-1.9
CO ₂ Emissions (energy related)	10.3	12.4	12.3	11.4	10.7	10.5	7.1	1.8	-1.4	-4.1
Power generation/District heating	4.0	4.0	3.7	2.4	2.1	2.7	0.8	-0.8	-5.4	-9.1
Energy Branch	1.1	1.7	1.6	1.5	1.4	1.3	1.1	3.8	-1.4	-2.1
Industry	1.1	1.3	1.2	1.5	1.5	1.4	0.8	0.7	2.4	-6.1
Residential	0.5	0.6	0.8	0.8	0.6	0.4	0.2	3.7	-2.7	-9.4
Tertiary	0.5	0.6	0.6	0.6	0.6	0.4	0.2	2.2	-0.7	-9.1
Transport	3.1	4.2	4.5	4.6	4.6	4.3	3.9	3.7	0.2	-1.5
CO ₂ Emissions (non energy and non land use related)	1.5	3.1	2.8	2.3	2.4	2.4	2.3	6.0	-1.4	-0.5
Non-CO ₂ GHG emissions	8.0	9.3	7.9	7.6	6.4	6.2	6.0	0.0	-2.1	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	41.1	51.5	47.7	44.1	40.5	39.6	31.8	1.5	-1.6	-2.4
Carbon Intensity Indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.14	0.21	0.14	0.12	0.14	0.04	2.3	-5.5	-9.5
Final energy demand (t of CO ₂ /toe)	1.39	1.47	1.48	1.50	1.43	1.40	1.47	0.6	-0.3	0.3
Industry	1.38	1.35	1.29	1.31	1.22	1.19	0.86	-0.7	-0.5	-3.4
Residential	0.40	0.43	0.50	0.51	0.42	0.33	0.30	2.1	-1.6	-3.5
Tertiary	0.88	0.84	0.86	0.82	0.76	0.61	0.56	-0.3	-1.2	-3.1
Transport	2.94	2.94	2.89	2.87	2.76	2.76	2.71	-0.2	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	15.7	17.0	19.7	22.8	24.3	24.3	25.3			
RES-H&C share	26.1	30.4	33.2	36.7	38.7	35.9	42.1			
RES-E share	4.0	3.8	7.4	15.6	15.3	23.6	26.6			
RES-T share (based on ILUC formula)	0.1	0.3	3.5	4.7	10.2	10.8	12.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	75	57	174	124	106	104	114	8.7	-4.8	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	64	73	112	104	117	131	163	5.7	0.4	3.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.7	4.0	5.6	5.9	7.1	7.9	10.0	7.6	2.5	3.4
as % of GDP	14.2	14.4	19.3	16.8	17.9	18.7	23.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Luxembourg: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	0	0	1	1	1	1	1	1	1.5	2.5	2.2	
GDP (in 000 M€13)	32	38	41	45	52	60	68	2.6	2.3	2.8		
Gross Inland Consumption (ktoe)	3654	4800	4642	4616	4730	4626	4141	2.4	0.2	-1.3		
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.4		
Oil	2320	3160	2869	2908	2863	2651	2615	2.2	0.0	-0.9		
Natural gas	671	1176	1197	1031	1049	1151	691	6.0	-1.3	-4.1		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9		
Renewable energy forms	64	106	160	245	390	404	397	9.6	9.3	0.2		
Energy Branch Consumption	26	30	50	51	55	61	57	6.9	1.0	0.4		
Non-Energy Uses	55	29	33	39	42	45	46	-5.1	2.5	0.0		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	64	111	122	148	263	290	277	6.7	8.0	0.5		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	11.5	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	64	111	122	148	263	290	277	6.7	8.0	0.5		
Hydro	11	8	9	9	9	10	12	-1.4	0.2	2.6		
Biomass & Waste	51	97	105	119	185	203	164	7.5	5.9	-1.2		
Wind	2	5	5	7	42	41	47	7.4	24.4	1.2		
Solar and others	0	2	3	13	27	37	53	0.0	25.3	7.2		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	20.5		
Net Imports (ktoe)	3639	4671	4503	4468	4466	4335	3864	2.2	-0.1	-1.4		
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.4		
Oil	2368	3141	2852	2908	2863	2651	2615	1.9	0.0	-0.9		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	2368	3141	2852	2908	2863	2651	2615	1.9	0.0	-0.9		
Natural gas	671	1176	1197	1031	1049	1151	691	6.0	-1.3	-4.1		
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9		
Import Dependency (%)	99.6	97.3	97.0	96.8	94.4	93.7	93.3					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	422	3348	3230	2762	3288	4050	3035	22.6	0.2	-0.8		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	0	1	1	0	3	3	3	0.0	11.2	0.0		
Gas (including derived gases)	215	3107	2916	2304	2395	3128	1783	29.8	-1.9	-2.9		
Biomass-waste	56	76	129	158	172	209	239	8.7	2.9	3.3		
Hydro (pumping excluded)	124	94	108	110	110	114	143	-1.4	0.2	2.6		
Wind	27	52	55	78	486	476	545	7.4	24.3	1.2		
Solar	0	17	21	112	121	121	322	0.0	19.2	10.2		
Geothermal and other renewables	0	1	0	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	163	574	597	702	961	939	1199	13.8	4.9	2.2		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	47	93	107	212	456	443	719	8.6	15.6	4.7		
Hydro (pumping excluded)	33	34	34	34	34	35	44	0.3	0.0	2.6		
Wind	14	35	44	58	291	277	312	12.1	20.8	0.7		
Solar	0	24	29	120	131	131	362	0.0	16.2	10.7		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	116	481	490	490	505	496	481	15.5	0.3	-0.5		
of which cogeneration units	63	101	121	229	179	122	164	6.7	4.0	-0.9		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	103	468	469	469	469	457	442	16.4	0.0	-0.6		
Oil fired	5	5	4	1	2	2	2	-2.3	-7.8	0.0		
Biomass-waste fired	9	9	17	20	34	37	37	7.1	7.1	0.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.9	66.2	61.4	44.1	38.5	48.5	28.5					
Efficiency of gross thermal power generation (%)	24.3	47.5	47.4	50.5	50.0	48.4	48.5					
% of gross electricity from CHP	17.7	10.1	9.6	23.3	15.8	7.3	8.6					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	49.1	7.2	9.7	16.6	27.1	22.7	41.2					
Fuel Inputs to Thermal Power Generation (ktoe)	96	576	553	419	442	593	359	19.1	-2.2	-2.1		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1	0	0	0	0	0	0	-100.0	0.0	0.0		
Gas (including derived gases)	66	544	520	383	397	536	303	22.8	-2.7	-2.7		
Biomass & Waste	29	32	33	36	45	57	56	1.5	3.1	2.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	1	3	46	113	153	145	162	57.2	12.7	0.6		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	1	42	108	147	138	157	0.0	13.4	0.7		
District heating	1	2	4	5	5	5	3	23.1	2.3	-4.1		
Derived gases, cokeries etc.	0	0	0	0	0	2	2	0.0	0.0	20.2		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Luxembourg: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	7	8	9	9	10	12	13	1.6	2.0	2.2
Public road transport	1	1	1	1	1	1	1	4.2	1.7	1.2
Private cars and motorcycles	6	6	7	7	8	9	10	1.5	2.0	2.2
Rail	0	0	0	0	0	1	1	0.4	3.1	2.9
Aviation ⁽³⁾	1	1	1	1	1	1	1	-0.5	2.4	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	3	3	3	3	4	4	5	0.8	3.6	1.8
Heavy goods and light commercial vehicles	2	2	2	3	3	4	4	2.8	4.1	1.6
Rail	1	0	0	0	0	0	1	-6.5	2.0	3.2
Inland navigation	0	0	0	0	0	0	0	-0.5	0.9	1.8
Energy demand in transport (ktoe) ⁽⁴⁾	1914	2781	2604	2697	2761	2594	2685	3.1	0.6	-0.3
Public road transport	60	92	106	115	122	120	123	5.9	1.4	0.1
Private cars and motorcycles	1153	1521	1341	1311	1217	1031	1076	1.5	-1.0	-1.2
Heavy goods and light commercial vehicles	364	721	709	818	956	939	940	6.9	3.0	-0.2
Rail	12	11	13	14	16	18	20	0.8	1.9	2.3
Aviation	321	432	431	435	447	483	522	3.0	0.3	1.6
Inland navigation	4	3	4	3	3	3	3	-1.0	-1.8	1.6
By transport activity										
Passenger transport	1535	2046	1880	1863	1787	1635	1723	2.0	-0.5	-0.4
Freight transport	379	735	724	834	974	959	962	6.7	3.0	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.9	1.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.6	4.0	5.4	5.3	5.3			
ENERGY EFFICIENCY										
Primary energy consumption	3599	4771	4609	4576	4688	4581	4095	2.5	0.2	-1.3
Final Energy Demand	3505	4477	4327	4382	4471	4272	3884	2.1	0.3	-1.4
by sector										
Industry	714	754	739	585	590	559	454	0.4	-2.2	-2.6
Energy intensive industries	583	598	601	438	432	396	308	0.3	-3.2	-3.3
Other industrial sectors	130	156	139	148	158	163	147	0.6	1.3	-0.7
Residential	468	525	508	498	520	522	332	0.8	0.2	-4.4
Tertiary	409	418	477	601	600	597	412	1.5	2.3	-3.7
Transport ⁽⁵⁾	1914	2781	2604	2697	2761	2594	2685	3.1	0.6	-0.3
by fuel										
Solids	108	77	66	51	44	31	17	-4.8	-4.0	-9.4
Oil	2261	3106	2835	2869	2821	2607	2569	2.3	-0.1	-0.9
Gas	605	631	675	645	651	614	388	1.1	-0.4	-5.1
Electricity	497	529	568	557	600	659	592	1.4	0.6	-0.1
Heat (from CHP and District Heating)	13	75	74	80	75	77	51	19.2	0.2	-3.9
Renewable energy forms	22	59	108	181	278	279	250	17.2	9.9	-1.1
Other	0	0	0	0	1	5	18	0.0	0.0	39.9
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	115	126	113	103	92	78	61	-0.1	-2.1	-4.0
Industry (Energy on Value added, Index 2000=100)	100	101	133	100	92	78	58	2.9	-3.6	-4.6
Residential (Energy on Private Income, Index 2000=100)	100	103	93	90	83	73	40	-0.7	-1.2	-7.0
Tertiary (Energy on Value added, Index 2000=100)	100	85	86	98	84	72	43	-1.5	-0.1	-6.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	204	244	209	188	161	132	124	0.3	-2.5	-2.6
Freight transport (toe/Mtkm)	139	268	247	245	234	214	194	5.9	-0.5	-1.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.7	14.1	13.3	12.9	12.8	12.3	11.0	2.2	-0.4	-1.5
of which ETS sectors (2013 scope) GHG emissions	4.2	3.8	3.5	3.4	3.4	3.8	3.1		-1.0	-1.0
of which ESD sectors (2013 scope) GHG emissions	9.9	9.5	9.5	9.4	8.6	8.6	7.9		-0.2	-1.7
CO2 Emissions (energy related)	8.9	12.6	11.8	11.4	11.3	10.8	9.5	2.9	-0.4	-1.7
Power generation/District heating	0.2	1.3	1.2	0.9	0.9	1.3	0.7	22.6	-2.7	-2.7
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.2	1.1	1.0	0.8	0.8	0.6	0.4	-2.0	-2.8	-6.0
Residential	1.1	1.2	1.1	1.1	1.0	0.9	0.5	0.5	-1.1	-6.6
Tertiary	0.6	0.5	0.6	0.7	0.6	0.6	0.3	-0.6	0.6	-6.1
Transport	5.8	8.4	7.8	7.9	7.9	7.4	7.6	3.1	0.2	-0.5
CO2 Emissions (non energy and non land use related)	0.7	0.7	0.6	0.5	0.5	0.5	0.5	-2.1	-1.1	-0.6
Non-CO2 GHG emissions	1.1	0.9	1.0	1.0	1.0	1.0	1.0	-0.9	0.1	-0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	80.3	106.5	100.3	97.4	96.4	92.7	82.9	2.2	-0.4	-1.5
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.28	0.30	0.30	0.25	0.22	0.25	0.20	0.7	-2.9	-1.3
Final energy demand (t of CO2/toe)	2.49	2.52	2.43	2.40	2.31	2.24	2.27	-0.2	-0.5	-0.2
Industry	1.71	1.47	1.36	1.39	1.27	1.14	0.89	-2.3	-0.6	-3.5
Residential	2.29	2.28	2.22	2.14	1.93	1.79	1.53	-0.3	-1.4	-2.3
Tertiary	1.59	1.25	1.28	1.23	1.08	0.97	0.84	-2.1	-1.7	-2.5
Transport	3.01	3.04	2.99	2.92	2.88	2.85	2.82	-0.1	-0.4	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.8	1.4	2.9	5.0	8.2	9.0	9.8			
RES-H&C share	1.4	3.6	4.8	6.4	12.4	15.1	17.8			
RES-E share	2.1	3.2	3.8	6.1	11.7	11.0	16.4			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	7.5	10.1	10.8	11.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	87	63	78	82	93	90	102	-1.1	1.8	0.9
Average Price of Electricity in Final demand sectors (€13/MWh)	108	119	110	116	121	130	133	0.1	1.0	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.0	4.4	4.6	4.7	5.9	6.5	8.5	4.3	2.5	3.7
as % of GDP	9.5	11.5	11.2	10.4	11.4	10.9	12.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Malta: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
											Annual % Change	
Population (in million)	0	0	0	0	0	0	0	0	0.9	0.6	0.4	
GDP (in 000 M€13)	6	6	7	8	8	9	10	1.8	2.1	1.9		
Gross Inland Consumption (ktoe)	802	972	908	675	752	708	594	1.3	-1.9	-2.5		
Solids	0	0	0	0	0	0	0	0.0	0.0	-13.9		
Oil	802	972	903	579	343	322	285	1.2	-9.2	-1.8		
Natural gas	0	0	0	0	344	312	224	0.0	0.0	-4.2		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Renewable energy forms	0	1	5	21	49	58	58	0.0	25.7	1.6		
Energy Branch Consumption	10	2	10	6	5	4	3	0.5	-6.9	-5.8		
Non-Energy Uses	0	20	9	11	12	12	12	0.0	3.4	-0.2		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	0	1	4	16	38	48	52	0.0	24.3	3.3		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	0	1	4	16	38	48	52	0.0	24.3	3.3		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	0	0	1	3	1	2	3	0.0	9.5	8.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar and others	0	1	4	13	36	46	49	0.0	25.6	3.1		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	-4.1		
Net Imports (ktoe)	1458	1630	2362	2099	2103	2083	2005	4.9	-1.2	-0.5		
Solids	0	0	0	0	0	0	0	0.0	0.0	-13.9		
Oil	1458	1630	2361	2019	1720	1719	1641	4.9	-3.1	-0.5		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	1458	1630	2361	2019	1720	1719	1641	4.9	-3.1	-0.5		
Natural gas	0	0	0	0	356	337	341	0.0	0.0	-0.4		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Import Dependency (%)	100.3	100.0	99.0	99.2	98.2	97.7	97.5					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	1917	2240	2115	1402	2510	2580	2001	1.0	1.7	-2.2		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1917	2240	2113	1293	3	0	0	1.0	-48.2	-100.0		
Gas (including derived gases)	0	0	0	0	2173	2206	1591	0.0	0.0	-3.1		
Biomass-waste	0	0	0	6	8	11	18	0.0	0.0	8.3		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	0	103	326	363	392	0.0	0.0	1.9		
Geothermal and other renewables	0	0	2	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	577	577	579	541	784	942	850	0.0	3.1	0.8		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	2	60	185	211	227	0.0	57.2	2.1		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solar	0	0	2	60	185	211	227	0.0	57.2	2.1		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	577	577	577	481	599	731	623	0.0	0.4	0.4		
of which cogeneration units	0	0	0	1	1	1	1	0.0	0.0	-6.7		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	236	476	476	0.0	0.0	7.3		
Oil fired	577	577	577	479	361	253	144	0.0	-4.6	-8.8		
Biomass-waste fired	0	0	0	2	2	2	3	0.0	0.0	4.8		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	35.6	43.8	39.3	28.2	35.7	30.7	26.4					
Efficiency of gross thermal power generation (%)	35.4	29.3	31.7	45.4	54.3	60.9	61.6					
% of gross electricity from CHP	0.0	0.0	0.0	0.4	0.3	0.3	0.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	0.1	7.7	13.3	14.5	20.5					
Fuel Inputs to Thermal Power Generation (ktoe)	465	658	573	246	346	313	225	2.1	-4.9	-4.2		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	465	658	573	245	1	0	0	2.1	-50.4	-100.0		
Gas (including derived gases)	0	0	0	0	344	312	223	0.0	0.0	-4.2		
Biomass & Waste	0	0	0	1	1	1	1	0.0	0.0	0.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	0	0	1	3	7	7	5	0.0	23.3	-2.9		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	1	3	7	7	5	0.0	23.3	-2.9		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	0	0.0	0.0	23.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Malta: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5	5	5	6	7	7	8	1.2	2.3	1.2
Public road transport	0	0	1	1	1	1	1	0.8	0.5	0.3
Private cars and motorcycles	2	2	2	2	2	2	2	2.0	0.5	0.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	2	2	3	3	4	4	5	0.7	3.8	1.8
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	0	0	0	0	0	0	0	0.3	1.3	1.6
Heavy goods and light commercial vehicles	0	0	0	0	0	0	0	0.3	1.3	1.6
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	268	242	255	256	270	265	261	-0.5	0.6	-0.3
Public road transport	12	13	12	12	12	11	11	-0.3	-0.2	-0.8
Private cars and motorcycles	97	105	110	109	102	88	80	1.2	-0.7	-2.4
Heavy goods and light commercial vehicles	36	37	31	31	34	35	36	-1.5	0.7	0.7
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	122	87	102	105	122	132	134	-1.8	1.9	0.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	232	205	224	225	236	230	225	-0.4	0.6	-0.5
Freight transport	36	37	31	31	34	35	36	-1.5	0.7	0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.1	2.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.4	1.2	2.7	2.6	2.1			
ENERGY EFFICIENCY										
Primary energy consumption	802	952	899	664	740	695	572	1.2	-1.9	-2.5
Final Energy Demand	483	478	476	501	549	541	461	-0.1	1.4	-1.7
by sector										
Industry	83	74	48	51	52	55	47	-5.4	0.9	-1.1
Energy intensive industries	13	19	8	8	8	8	7	-4.8	0.0	-1.2
Other industrial sectors	70	55	40	44	44	46	40	-5.5	1.1	-1.1
Residential	76	77	80	85	101	96	68	0.5	2.4	-3.9
Tertiary	55	85	94	108	126	125	85	5.4	3.0	-3.8
Transport ⁽⁵⁾	268	242	255	256	270	265	261	-0.5	0.6	-0.3
by fuel										
Solids	0	0	0	0	0	0	0	0.0	0.0	-13.9
Oil	348	309	316	323	330	309	273	-1.0	0.4	-1.9
Gas	0	0	0	0	0	0	0	0.0	0.0	9.4
Electricity	135	168	155	166	199	206	164	1.4	2.5	-1.9
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0.0	0.0	-3.7
Renewable energy forms	0	1	5	11	20	25	23	0.0	14.2	1.3
Other	0	0	0	0	0	0	0	0.0	0.0	34.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	142	162	134	89	90	77	58	-0.6	-3.9	-4.3
Industry (Energy on Value added, index 2000=100)	100	116	74	73	68	66	52	-2.9	-0.9	-2.6
Residential (Energy on Private Income, index 2000=100)	100	93	89	91	97	82	53	-1.1	0.9	-6.0
Tertiary (Energy on Value added, index 2000=100)	100	137	123	125	131	118	73	2.1	0.7	-5.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	40	39	37	33	30	28	-1.3	-1.8	-1.7
Freight transport (toe/Mtkm)	139	135	116	113	110	106	101	-1.7	-0.6	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	2.8	3.3	3.1	2.1	2.1	1.9	1.6	1.0	-3.8	-2.9
of which ETS sectors (2013 scope) GHG emissions		2.4	2.1	1.1	1.2	1.1	0.9		-5.8	-2.4
of which ESD sectors (2013 scope) GHG emissions		1.0	1.0	1.0	0.9	0.8	0.6		-0.4	-3.6
CO2 Emissions (energy related)	2.5	3.0	2.8	1.8	1.8	1.7	1.3	0.9	-4.3	-2.8
Power generation/District heating	1.5	2.1	1.8	0.8	0.8	0.7	0.5	2.1	-7.9	-4.2
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-9.7	0.5	-13.6
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-1.2	2.4	-14.7
Tertiary	0.0	0.0	0.1	0.1	0.1	0.1	0.0	6.2	-0.8	-5.6
Transport	0.8	0.7	0.8	0.8	0.8	0.8	0.8	-0.5	0.3	-0.4
CO2 Emissions (non energy and non land use related)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-17.5	1.7
Non-CO2 GHG emissions	0.3	0.3	0.3	0.3	0.3	0.3	0.2	1.6	-0.5	-3.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	127.9	150.8	141.1	95.1	95.5	87.3	71.1	1.0	-3.8	-2.9
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.78	0.95	0.87	0.56	0.32	0.28	0.26	1.1	-9.5	-2.1
Final energy demand (t of CO2/toe)	2.17	1.94	1.99	1.93	1.80	1.72	1.78	-0.9	-1.0	-0.1
Industry	1.55	1.43	0.97	1.00	0.93	0.85	0.24	-4.6	-0.4	-12.7
Residential	1.02	0.80	0.86	0.91	0.86	0.56	0.26	-1.7	0.0	-11.2
Tertiary	0.67	0.40	0.72	0.73	0.50	0.45	0.41	0.7	-3.6	-1.9
Transport	3.00	3.00	2.99	2.96	2.92	2.91	2.91	0.0	-0.2	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in %)	0.0	0.1	1.0	6.0	11.6	14.2	17.1			
RES-H&C share	0.0	1.0	7.0	17.5	23.9	35.0	52.2			
RES-E share	0.0	0.0	0.1	4.8	12.4	13.5	18.6			
RES-T share (based on ILUC formula)	0.0	0.0	0.5	4.2	10.0	10.9	11.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	78	111	173	117	87	93	102	8.4	-6.6	1.6
Average Price of Electricity in Final demand sectors (€13/MWh)	75	84	201	177	165	160	153	10.4	-1.9	-0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	0.4	0.5	0.8	0.8	1.1	1.2	1.4	8.2	2.3	2.7
as % of GDP	6.8	8.9	12.5	11.2	12.8	13.1	13.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Netherlands: EU/CO ₂ -40				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
	Annual % Change										
Population (in million)	16	16	17	17	17	17	18	0.4	0.3	0.2	
GDP (in 000 M€13)	537	573	613	620	668	706	738	1.3	0.9	1.0	
Gross Inland Consumption (ktoe)	75572	81469	86612	83760	83726	80817	67460	1.4	-0.3	-2.1	
Solids	7852	8195	7596	9274	8128	9541	6601	-0.3	0.7	-2.1	
Oil	28245	32464	34649	34892	34353	32611	30339	2.1	-0.1	-1.2	
Natural gas	35009	35334	39309	33859	31108	29736	21317	1.2	-2.3	-3.7	
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4	
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0	
Renewable energy forms	1827	2872	3796	3906	9104	8585	8793	7.6	9.1	-0.3	
Energy Branch Consumption	5353	6336	5088	5605	5452	5040	4702	-0.5	0.7	-1.5	
Non-Energy Uses	10491	13013	17582	13895	14822	15338	15080	5.3	-1.7	0.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	57555	62220	70219	51471	52870	45244	36869	2.0	-2.8	-3.5	
Solids	7	8	6	0	0	0	0	-2.0	-100.0	0.0	
Oil	2405	2328	1985	1381	1414	955	736	-1.9	-3.3	-6.3	
Natural gas	52203	56276	63534	44126	40637	33820	25397	2.0	-4.4	-4.6	
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4	
Renewable energy sources	1926	2577	3671	5009	9864	9479	9746	6.7	10.4	-0.1	
Hydro	12	8	9	9	9	9	9	-3.0	-0.1	0.1	
Biomass & Waste	1831	2371	3282	4236	7014	6517	6661	6.0	7.9	-0.5	
Wind	71	178	343	618	2253	2253	2253	17.0	20.7	0.0	
Solar and others	11	21	29	123	547	624	691	9.8	34.1	2.4	
Geothermal	0	0	8	24	41	77	132	0.0	18.2	12.6	
Net Imports (ktoe)	33759	37076	30549	47678	46233	51640	47757	-1.0	4.2	0.3	
Solids	7998	8312	9228	9274	8128	9541	6601	1.4	-1.3	-2.1	
Oil	41425	47836	45167	48901	48037	47131	45347	0.9	0.6	-0.6	
Crude oil and Feedstocks	61018	61724	60676	53468	50698	47756	44977	-0.1	-1.8	-1.2	
Oil products	-19594	-13888	-15508	-4567	-2662	-625	369	-2.3	-16.2	0.0	
Natural gas	-17191	-20941	-24211	-10267	-9249	-3491	-2658	3.5	-9.2	-11.7	
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0	
Import Dependency (%)	38.0	37.7	30.4	48.1	46.7	53.3	56.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	89631	100219	118140	107571	124104	136509	117486	2.8	0.5	-0.5	
Nuclear energy	3926	3997	3969	3907	3907	4047	4047	0.1	-0.2	0.4	
Solids	24276	23500	22588	29437	24663	33728	22320	-0.7	0.9	-1.0	
Oil (including refinery gas)	2641	2262	1253	799	0	57	57	-7.2	-100.0	0.0	
Gas (including derived gases)	54606	61588	77566	56686	48311	55089	45912	3.6	-4.6	-0.5	
Biomass-waste	3203	6683	8606	8344	15922	12286	13848	10.4	6.3	-1.4	
Hydro (pumping excluded)	142	88	105	100	104	105	105	-3.0	-0.1	0.1	
Wind	829	2067	3993	7185	26193	26193	26193	17.0	20.7	0.0	
Solar	8	34	60	1113	5003	5003	5004	22.2	55.5	0.0	
Geothermal and other renewables	0	0	0	0	0	0	0	12.8	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	21048	21728	25072	30866	37963	35823	31247	1.8	4.2	-1.9	
Nuclear energy	485	485	485	485	485	485	485	0.0	0.0	0.0	
Renewable energy	497	1312	2362	4706	15358	15358	15358	16.9	20.6	0.0	
Hydro (pumping excluded)	37	37	37	37	37	37	37	0.0	0.0	0.0	
Wind	447	1224	2237	3431	9735	9735	9735	17.5	15.8	0.0	
Solar	13	51	88	1238	5586	5586	5586	21.1	51.4	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	20066	19931	22225	25674	22120	19980	15404	1.0	0.0	-3.6	
of which cogeneration units	7372	7162	9300	8515	2407	4196	3965	2.4	-12.6	5.1	
of which CCS units	0	0	0	0	0	250	250	0.0	0.0	0.0	
Solids fired	4394	4394	4394	6975	5388	5054	4429	0.0	2.1	-1.9	
Gas fired	14667	14529	16575	17356	14400	12591	8653	1.2	-1.4	-5.0	
Oil fired	490	218	218	204	77	77	66	-7.8	-9.9	-1.6	
Biomass-waste fired	514	790	1037	1138	2254	2257	2257	7.3	8.1	0.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	50.5	52.1	38.3	36.0	41.9	41.4				
Efficiency of gross thermal power generation (%)	41.6	41.4	44.5	45.4	43.7	43.6	44.3				
% of gross electricity from CHP	37.6	29.4	33.2	37.8	16.8	18.4	20.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	1.4	1.8				
% of carbon free (RES, nuclear) gross electricity generation	9.0	12.8	14.2	19.2	41.2	34.9	41.9				
Fuel Inputs to Thermal Power Generation (ktoe)	17516	19517	21244	18047	17483	19941	15932	1.9	-1.9	-0.9	
Solids	4998	4958	4669	6490	5045	6808	4505	-0.7	0.8	-1.1	
Oil (including refinery gas)	634	553	342	177	0	20	20	-6.0	-80.0	276.4	
Gas (including derived gases)	10671	11953	13773	9489	7992	9502	7961	2.6	-5.3	0.0	
Biomass & Waste	1213	2052	2460	1892	4446	3612	3446	7.3	6.1	-2.5	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	86454	91417	68924	63771	61753	59145	56001	-2.2	-1.1	-1.0	
Refineries	82233	86869	64188	58847	56701	54675	51916	-2.4	-1.2	-0.9	
Biofuels and hydrogen production	0	0	230	579	485	455	517	0.0	7.8	0.6	
District heating	398	436	499	366	338	313	216	2.3	-3.8	-4.4	
Derived gases, cokeries etc.	3824	4113	4007	3979	4229	3701	3353	0.5	0.5	-2.3	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Netherlands: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	184	195	183	191	200	204	211	-0.1	0.9	0.5
Public road transport	11	12	12	13	13	13	14	0.8	0.9	0.6
Private cars and motorcycles	143	152	138	141	147	146	149	-0.4	0.6	0.2
Rail	16	17	17	19	21	23	25	0.5	2.1	1.9
Aviation ⁽³⁾	13	14	15	17	18	20	22	1.1	2.5	1.7
Inland navigation	1	1	1	1	1	1	1	0.1	1.2	1.7
Freight transport activity (Gtkm)	94	100	106	111	121	126	133	1.3	1.3	0.9
Heavy goods and light commercial vehicles	48	51	54	55	61	60	62	1.2	1.3	0.2
Rail	5	6	6	6	7	8	8	2.7	1.5	1.9
Inland navigation	41	42	47	50	53	58	62	1.2	1.3	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	14297	15197	14986	14817	14217	12817	12016	0.5	-0.5	-1.7
Public road transport	212	224	260	267	271	263	257	2.1	0.4	-0.5
Private cars and motorcycles	8007	8288	8206	7708	6905	5759	5150	0.2	-1.7	-2.9
Heavy goods and light commercial vehicles	2184	2594	2715	2594	2740	2536	2514	2.2	0.1	-0.9
Rail	184	172	182	189	205	221	229	-0.1	1.2	1.1
Aviation	3382	3712	3463	3821	3843	3761	3574	0.2	1.0	-0.7
Inland navigation	328	207	159	239	253	277	292	-7.0	4.8	1.4
By transport activity										
Passenger transport	11703	12265	11985	11861	11088	9860	9062	0.2	-0.8	-2.0
Freight transport	2594	2933	3001	2957	3129	2958	2954	1.5	0.4	-0.6
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.2	2.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	4.0	3.6	4.1	4.5			
ENERGY EFFICIENCY										
Primary energy consumption	65081	68457	69030	69864	68903	65478	52379	0.6	0.0	-2.7
Final Energy Demand	50505	51654	51835	50854	50372	46268	35784	0.3	-0.3	-3.4
by sector										
Industry	14804	14814	12208	12815	13618	12854	10633	-1.9	1.1	-2.4
Energy intensive industries	10277	10532	8224	8734	9336	8828	7506	-2.2	1.3	-2.2
Other industrial sectors	4527	4281	3984	4082	4282	4026	3127	-1.3	0.7	-3.1
Residential	10299	10143	11518	10892	10504	9783	6366	1.1	-0.9	-4.9
Tertiary	11104	11499	13124	12329	12032	10813	6769	1.7	-0.9	-5.6
Transport ⁽⁵⁾	14297	15198	14985	14817	14217	12817	12016	0.5	-0.5	-1.7
by fuel										
Solids	1330	1515	1270	1402	1597	1590	1045	-0.5	2.3	-4.1
Oil	16505	17382	16113	15746	14884	12951	11311	-0.2	-0.8	-2.7
Gas	21011	20346	22378	21405	20256	17420	10814	0.6	-1.0	-6.1
Electricity	8408	8986	9189	9034	9615	9869	8353	0.9	0.5	-1.4
Heat (from CHP and District Heating)	2893	2981	2106	2038	2147	2254	1655	-3.1	0.2	-2.6
Renewable energy forms	358	444	780	1223	1846	2069	2372	8.1	9.0	2.5
Other	0	0	0	8	27	115	234	-100.0	0.0	24.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	141	142	141	135	125	115	91	0.0	-1.2	-3.1
Industry (Energy on Value added, index 2000=100)	100	96	75	75	74	66	52	-2.9	-0.1	-3.4
Residential (Energy on Private Income, index 2000=100)	100	94	106	98	87	75	46	0.6	-2.0	-6.2
Tertiary (Energy on Value added, index 2000=100)	100	96	101	94	85	72	43	0.1	-1.7	-6.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	40	37	32	27	23	-0.4	-2.4	-3.1
Freight transport (toe/Mtkm)	28	29	28	27	26	23	22	0.2	-0.9	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	222.8	221.6	216.9	209.7	194.4	187.2	149.4	-0.3	-1.1	-2.6
of which ETS sectors (2013 scope) GHG emissions		103.3	95.6	95.8	86.5	90.9	72.0		-1.0	-1.8
of which ESD sectors (2013 scope) GHG emissions		118.2	121.4	113.8	107.9	96.3	77.4		-1.2	-3.3
CO ₂ Emissions (energy related)	168.5	175.7	175.0	171.3	157.1	150.7	113.3	0.4	-1.1	-3.2
Power generation/District heating	51.9	55.5	57.7	54.3	45.0	53.3	40.4	1.1	-2.4	-1.1
Energy Branch	11.1	12.3	8.8	10.4	9.9	8.7	7.9	-2.3	1.2	-2.2
Industry	26.6	26.5	22.9	26.6	27.6	23.8	15.8	-1.5	1.9	-5.4
Residential	18.9	17.9	20.6	19.1	17.4	15.2	8.1	0.9	-1.7	-7.4
Tertiary	17.5	18.3	21.1	18.7	16.6	13.7	8.2	1.9	-2.4	-6.8
Transport	42.4	45.3	43.9	42.3	40.6	36.1	32.9	0.4	-0.8	-2.1
CO ₂ Emissions (non energy and non land use related)	7.1	8.8	8.6	8.5	8.9	9.0	8.8	2.0	0.4	-0.1
Non-CO2 GHG emissions	47.3	37.0	33.3	29.9	28.3	27.5	27.2	-3.4	-1.6	-0.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.0	98.4	96.4	93.2	86.3	83.2	66.4	-0.3	-1.1	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.40	0.38	0.37	0.38	0.28	0.31	0.28	-0.6	-2.7	-0.2
Final energy demand (t of CO ₂ /toe)	2.09	2.09	2.09	2.10	2.03	1.92	1.82	0.0	-0.3	-1.1
Industry	1.80	1.79	1.87	2.07	2.02	1.85	1.48	0.4	0.8	-3.1
Residential	1.84	1.77	1.79	1.75	1.66	1.55	1.27	-0.2	-0.8	-2.6
Tertiary	1.58	1.59	1.61	1.51	1.38	1.26	1.21	0.2	-1.6	-1.3
Transport	2.97	2.98	2.93	2.86	2.86	2.81	2.74	-0.1	-0.3	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	3.9	5.2	12.9	13.8	18.8			
RES-H&C share	1.5	2.1	2.9	2.9	7.8	9.6	15.0			
RES-E share	2.6	6.3	9.7	12.9	36.5	32.6	39.3			
RES-T share (based on ILUC formula)	0.1	0.2	3.1	9.3	10.7	13.8	19.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	65	73	81	83	88	2.7	2.1	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	118	130	129	120	133	137	146	0.9	0.3	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 ME13)	47.8	60.9	67.3	65.0	78.5	84.6	110.1	3.5	1.5	3.4
as % of GDP	8.9	10.6	11.0	10.5	11.8	12.0	14.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Poland: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	38	38	38	38	38	38	37	0.0	0.1	-0.2
GDP (in 000 M€13)	253	294	371	425	492	559	623	3.9	2.9	2.4
Gross Inland Consumption (ktoe)	88648	92226	100730	101934	106180	103203	86325	1.3	0.5	-2.0
Solids	56291	54612	54608	53011	51142	46725	35633	-0.3	-0.7	-3.5
Oil	19037	21696	25747	25895	26572	24719	22752	3.1	0.3	-1.5
Natural gas	9964	12237	12807	13159	16063	17034	14097	2.5	2.3	-1.3
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	-548	-962	-116	6	63	166	82	-14.4	0.0	2.6
Renewable energy forms	3905	4643	7684	9863	12339	14559	13761	7.0	4.9	1.1
Energy Branch Consumption	6664	6104	6095	6243	6200	5498	5018	-0.9	0.2	-2.1
Non-Energy Uses	4357	4573	4961	5545	6359	6996	7319	1.3	2.5	1.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	79590	78592	67394	70900	71140	66082	54666	-1.6	0.5	-2.6
Solids	71299	68857	55381	55586	52896	45356	33011	-2.5	-0.5	-4.6
Oil	1062	1143	1063	1539	1579	1528	1479	0.0	4.0	-0.7
Natural gas	3317	3887	3696	3947	4546	4710	6475	1.1	2.1	3.6
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3912	4705	7254	9829	12119	14489	13702	6.4	5.3	1.2
Hydro	181	189	251	206	209	223	223	3.3	-1.8	0.7
Biomass & Waste	3728	4493	6838	8749	10807	11882	10399	6.3	4.7	-0.4
Wind	0	12	143	832	984	2138	2572	80.0	21.3	10.1
Solar and others	0	0	8	22	81	199	204	0.0	25.5	9.7
Geothermal	3	11	13	21	38	46	303	16.1	11.1	22.9
Net Imports (ktoe)	8773	15932	31567	31285	35331	37440	32001	13.7	1.1	-1.0
Solids	-16353	-13039	-2814	-2575	-1754	1369	2622	-16.1	-4.6	0.0
Oil	19067	21466	25187	24607	25281	23501	21592	2.8	0.0	-1.6
Crude oil and Feedstocks	17616	17893	22965	24633	24805	22852	20914	2.7	0.8	-1.7
Oil products	1451	3573	2222	-26	476	649	678	4.4	-14.3	3.6
Natural gas	6607	8531	8874	9213	11521	12333	7646	3.0	2.6	-4.0
Electricity	-548	-962	-116	6	63	166	82	-14.4	0.0	2.6
Import Dependency (%)	9.9	17.2	31.3	30.6	33.2	36.2	36.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	143174	155359	157089	162367	181546	193251	175511	0.9	1.5	-0.3
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	135888	142161	136592	137628	146953	137392	119491	0.1	0.7	-2.0
Oil (including refinery gas)	1916	2757	2892	9	0	477	468	4.2	-100.0	0.0
Gas (including derived gases)	2961	6573	6689	2968	9241	15465	8791	8.5	3.3	-0.5
Biomass-waste	298	1532	6332	9667	11421	12395	14174	35.7	6.1	2.2
Hydro (pumping excluded)	2106	2201	2920	2397	2427	2598	2598	3.3	-1.8	0.7
Wind	5	135	1664	9669	11437	24858	29905	78.7	21.3	10.1
Solar	0	0	0	29	67	67	84	0.0	0.0	2.3
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	30310	31721	33411	38260	34266	39107	39742	1.0	0.3	1.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	821	1036	2044	6084	6756	12886	15116	9.6	12.7	8.4
Hydro (pumping excluded)	817	915	936	949	949	999	999	1.4	0.1	0.5
Wind	4	121	1108	5100	5728	11808	14018	75.5	17.9	9.4
Solar	0	0	0	35	79	79	99	0.0	0.0	2.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	29489	30685	31367	32176	27510	26220	24626	0.6	-1.3	-1.1
of which cogeneration units	9354	8313	8693	6564	6646	8001	4464	-0.7	-2.6	-3.9
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	28214	28608	29158	28543	23680	21426	19998	0.3	-2.1	-1.7
Gas fired	764	1548	1592	1659	1678	2575	2415	7.6	0.5	3.7
Oil fired	396	396	396	398	170	161	155	0.0	-8.1	-0.9
Biomass-waste fired	115	133	221	1574	1982	2058	2058	6.8	24.5	0.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.0	51.1	48.8	44.3	55.6	52.3	46.9			
Efficiency of gross thermal power generation (%)	33.1	33.9	34.2	35.2	37.6	37.4	37.5			
% of gross electricity from CHP	16.1	16.8	17.6	18.2	21.2	17.8	12.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	1.7	2.5	6.9	13.4	14.0	20.7	26.6			
Fuel Inputs to Thermal Power Generation (ktoe)	36625	38771	38341	36695	38330	38076	32811	0.5	0.0	-1.5
Solids	35247	36349	34345	33735	33999	32293	27796	-0.3	-0.1	-2.0
Oil (including refinery gas)	245	184	171	2	0	155	153	-3.5	-74.4	286.5
Gas (including derived gases)	1032	1805	2179	913	1878	2891	1815	7.8	-1.5	-0.3
Biomass & Waste	102	434	1645	2046	2453	2738	3047	32.1	4.1	2.2
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	32964	31279	38693	40301	40673	37205	32070	1.6	0.5	-2.3
Refineries	18969	18975	24192	27120	27416	25459	23469	2.5	1.3	-1.5
Biofuels and hydrogen production	0	49	887	1100	1395	1333	1263	0.0	4.6	-1.0
District heating	4179	3465	3716	3183	3579	3143	2069	-1.2	-0.4	-5.3
Derived gases, cokeries etc.	9816	8789	9899	8898	8283	7270	5269	0.1	-1.8	-4.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Poland: EU20+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	225	233	268	302	344	371	404	1.7	2.6	1.6
Public road transport	59	49	42	44	46	48	49	-3.4	1.1	0.6
Private cars and motorcycles	134	156	194	223	254	268	288	3.8	2.7	1.3
Rail	29	23	22	24	31	39	47	-2.5	3.2	4.3
Aviation ⁽³⁾	3	5	9	11	13	16	20	12.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	-0.9	2.0	2.1
Freight transport activity (Gtkm)	114	140	170	201	228	256	286	4.0	3.0	2.3
Heavy goods and light commercial vehicles	59	90	121	150	167	185	206	7.4	3.3	2.1
Rail	54	50	49	51	61	71	80	-1.0	2.3	2.7
Inland navigation	1	0	0	0	0	0	0	-16.7	2.7	3.4
Energy demand in transport (ktoe) ⁽⁴⁾	9830	12265	17459	18691	19785	18793	18598	5.9	1.3	-0.6
Public road transport	654	581	610	632	668	680	670	-0.7	0.9	0.0
Private cars and motorcycles	6314	7213	9660	10120	10619	9378	8924	4.3	1.0	-1.7
Heavy goods and light commercial vehicles	2041	3678	6307	6957	7370	7481	7580	11.9	1.6	0.3
Rail	541	469	372	366	429	479	535	-3.7	1.4	2.2
Aviation	274	319	508	613	694	770	885	6.4	3.2	2.5
Inland navigation	6	5	3	3	4	4	5	-7.4	2.3	2.5
By transport activity										
Passenger transport	7317	8170	10823	11407	12035	10894	10557	4.0	1.1	-1.3
Freight transport	2514	4095	6636	7283	7750	7898	8040	10.2	1.6	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.6	1.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	5.2	6.0	7.2	7.3	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	84291	87654	95769	96389	99820	96207	79006	1.3	0.4	-2.3
Final Energy Demand	55260	58986	67070	68144	71842	68966	55012	2.0	0.7	-2.6
by sector										
Industry	18504	16147	14193	16600	17532	18378	15779	-2.6	2.1	-1.0
Energy intensive industries	13031	10951	9372	10814	11153	11280	9484	-3.2	1.8	-1.6
Other industrial sectors	5473	5196	4821	5786	6379	7098	6295	-1.3	2.8	-0.1
Residential	17193	19454	22501	20556	21323	19551	12309	2.7	-0.5	-5.3
Tertiary	9644	10846	12664	12057	12931	11978	8096	2.8	0.2	-4.6
Transport ⁽⁵⁾	9919	12539	17712	18930	20057	19059	18828	6.0	1.3	-0.6
by fuel										
Solids	13215	12285	14494	13387	11202	9438	4929	0.9	-2.5	-7.9
Oil	15500	17844	20727	21289	21472	19322	17322	2.9	0.4	-2.1
Gas	7574	8780	9468	9673	11108	10845	8708	2.3	1.6	-2.4
Electricity	8482	9064	10238	11011	12574	13771	12475	1.9	2.1	-0.1
Heat (from CHP and District Heating)	6886	7056	6547	6063	6914	6426	4550	-0.5	0.5	-4.1
Renewable energy forms	3602	3957	5596	6721	8571	9146	6957	4.5	4.4	-2.1
Other	0	0	0	1	1	19	72	0.0	0.0	49.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	350	313	272	240	216	185	139	-2.5	-2.3	-4.3
Industry (Energy on Value added, index 2000=100)	100	64	36	36	32	29	22	-9.7	-1.2	-3.6
Residential (Energy on Private Income, index 2000=100)	100	98	93	74	66	53	30	-0.8	-3.4	-7.7
Tertiary (Energy on Value added, index 2000=100)	100	100	100	83	77	63	38	0.0	-2.6	-6.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	32	34	39	36	34	28	25	2.0	-1.5	-3.0
Freight transport (toe/Mtkm)	22	29	39	36	34	31	28	5.9	-1.4	-1.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	400.5	403.1	411.9	407.8	403.5	377.7	316.4	0.3	-0.2	-2.4
of which ETS sectors (2013 scope) GHG emissions		222.2	210.3	208.8	209.8	199.9	164.6		0.0	-2.4
of which ESD sectors (2013 scope) GHG emissions		180.9	201.6	199.0	193.7	177.9	151.9		-0.4	-2.4
CO ₂ Emissions (energy related)	303.3	307.5	320.7	311.8	310.3	286.8	227.6	0.6	-0.3	-3.1
Power generation/District heating	167.4	171.0	165.6	157.9	161.8	155.4	126.9	-0.1	-0.2	-2.4
Energy Branch	10.2	7.7	8.5	9.6	9.2	7.7	7.3	-1.8	0.8	-2.2
Industry	51.9	36.9	30.4	35.0	32.0	29.4	20.9	-5.2	0.5	-4.2
Residential	27.4	35.5	44.9	37.8	34.5	28.7	14.3	5.1	-2.6	-8.4
Tertiary	18.4	20.7	21.9	19.1	18.0	14.0	8.1	1.7	-1.9	-7.7
Transport	28.0	35.8	49.3	52.4	54.8	51.6	50.1	5.8	1.1	-0.9
CO ₂ Emissions (non energy and non land use related)	22.3	20.8	20.2	22.9	25.7	26.4	26.7	-1.0	2.4	0.4
Non-CO ₂ GHG emissions	75.0	74.7	71.0	73.2	67.5	64.6	62.1	-0.5	-0.5	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.4	84.9	86.8	85.9	85.0	79.6	66.7	0.3	-0.2	-2.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.71	0.69	0.67	0.65	0.59	0.56	0.54	-0.6	-1.1	-1.0
Final energy demand (t of CO ₂ /toe)	2.27	2.18	2.19	2.12	1.94	1.79	1.70	-0.4	-1.2	-1.3
Industry	2.81	2.28	2.14	2.11	1.83	1.60	1.33	-2.6	-1.6	-3.2
Residential	1.59	1.83	2.00	1.84	1.62	1.47	1.16	2.3	-2.1	-3.2
Tertiary	1.91	1.91	1.73	1.59	1.39	1.17	1.00	-1.0	-2.1	-3.3
Transport	2.82	2.85	2.79	2.77	2.73	2.71	2.66	-0.1	-0.2	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.5	6.9	9.2	11.8	15.0	17.8	19.8			
RES-H&C share	9.6	10.2	11.6	13.8	19.1	21.6	24.8			
RES-E share	1.6	2.7	6.6	13.4	13.9	20.5	26.5			
RES-T share (based on ILUC formula)	0.2	0.7	6.1	7.5	10.1	10.6	11.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	38	40	49	67	65	72	76	2.6	3.0	1.5
Average Price of Electricity in Final demand sectors (€13/MWh)	77	93	128	121	121	128	131	5.2	-0.6	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	34.0	46.3	66.0	71.1	93.6	108.9	151.5	6.9	3.6	4.9
as % of GDP	13.4	15.7	17.8	16.7	19.0	19.5	24.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Portugal: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	10	10	11	10	10	10	10	0.3	-0.4	-0.4
GDP (in 000 M€13)	169	176	181	174	187	204	217	0.7	0.4	1.5
Gross Inland Consumption (ktoe)	25285	27475	24205	22984	21500	20286	16011	-0.4	-1.2	-2.9
Solids	3805	3349	1658	3347	1141	10	5	-8.0	-3.7	-42.1
Oil	15475	16174	12215	10669	10363	9509	8341	-2.3	-1.6	-2.1
Natural gas	2078	3751	4489	3446	3273	3687	1493	8.0	-3.1	-7.6
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Renewable energy forms	3846	3615	5618	5328	6272	6580	5735	3.9	1.1	-0.9
Energy Branch Consumption	1028	1235	1195	1417	1215	1214	1148	1.5	0.2	-0.6
Non-Energy Uses	2393	2587	1728	1470	1485	1524	1413	-3.2	-1.5	-0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3891	3615	5800	5217	6141	6464	5599	4.1	0.6	-0.9
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0
Natural gas	45	0	0	0	0	0	0	-96.1	-100.0	0.0
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	3846	3615	5800	5217	6141	6464	5599	4.2	0.6	-0.9
Hydro	974	407	1389	821	1596	1563	1623	3.6	1.4	0.2
Biomass & Waste	2770	2967	3375	3181	3259	3210	2294	2.0	-0.4	-3.4
Wind	14	153	790	1004	1012	1133	1133	49.2	2.5	1.1
Solar and others	19	23	66	136	199	482	470	13.6	11.6	9.0
Geothermal	70	66	181	76	76	77	79	10.0	-8.3	0.4
Net Imports (ktoe)	22072	24845	18588	18330	15912	14361	10936	-1.7	-1.5	-3.7
Solids	3914	3225	1629	3347	1141	10	5	-8.4	-3.5	-42.1
Oil	16039	17140	12436	11231	10911	10035	8832	-2.5	-1.3	-2.1
Crude oil and Feedstocks	12316	13795	11875	14608	14053	13062	11845	-0.4	1.7	-1.7
Oil products	3723	3345	561	-3376	-3143	-3027	-3013	-17.2	0.0	-0.4
Natural gas	2039	3893	4505	3446	3279	3700	1526	8.2	-3.1	-7.4
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3
Import Dependency (%)	85.1	88.6	75.1	77.8	72.2	69.0	66.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	43372	46188	53688	50204	48891	50780	39811	2.2	-0.9	-2.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	14595	15226	7100	14862	4970	0	0	-7.0	-3.5	-100.0
Oil (including refinery gas)	8421	8791	3008	770	1922	1274	607	-9.8	-4.4	-10.9
Gas (including derived gases)	7231	13606	14900	9528	7633	10192	411	7.5	-6.5	-25.3
Biomass-waste	1553	1987	2942	2936	3049	3894	2677	6.6	0.4	-1.3
Hydro (pumping excluded)	11323	4731	16148	9545	18554	18170	18867	3.6	1.4	0.2
Wind	168	1773	9182	11676	11767	13169	13169	49.2	2.5	1.1
Solar	1	3	212	680	789	3872	3872	68.3	14.1	17.2
Geothermal and other renewables	80	71	196	208	208	208	208	9.4	0.6	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	10989	13461	18921	21094	21871	22553	22993	5.6	1.5	0.5
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	4619	6083	9036	12611	14827	17038	17601	6.9	5.1	1.7
Hydro (pumping excluded)	4535	5017	5106	7065	9183	9408	9971	1.2	6.0	0.8
Wind	83	1064	3796	5079	5113	5562	5562	46.6	3.0	0.8
Solar	1	2	134	467	531	2067	2067	63.2	14.8	14.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	6370	7378	9885	8484	7043	5515	5392	4.5	-3.3	-2.6
of which cogeneration units	1676	1079	1310	1491	1504	1370	1041	-2.4	1.4	-3.6
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1774	1728	1728	1728	578	0	0	-0.3	-10.4	-100.0
Gas fired	1542	2477	4799	5062	5011	4142	4066	12.0	0.4	-2.1
Oil fired	2819	2915	2990	1144	783	695	669	0.6	-12.5	-1.6
Biomass-waste fired	221	244	343	521	643	650	628	4.5	6.5	-0.2
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	14	14	25	29	29	29	29	6.0	1.5	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	43.5	37.8	31.6	26.3	25.0	25.4	19.6			
Efficiency of gross thermal power generation (%)	42.0	43.1	41.8	42.2	42.9	41.2	28.9			
% of gross electricity from CHP	10.0	11.6	11.8	17.0	22.3	12.9	9.3			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	30.3	18.5	53.4	49.9	70.3	77.4	97.4			
Fuel Inputs to Thermal Power Generation (ktoe)	6520	7914	5787	5770	3563	3248	1162	-1.2	-4.7	-10.6
Solids	3198	3319	1597	3329	1126	0	0	-6.7	-3.4	-100.0
Oil (including refinery gas)	1683	1793	574	185	454	306	143	-10.2	-2.3	-10.9
Gas (including derived gases)	1215	2309	2775	1560	1256	1840	111	8.6	-7.6	-21.5
Biomass & Waste	356	428	662	621	653	1027	832	6.4	-0.1	2.5
Geothermal heat	69	65	180	75	75	75	75	10.1	-8.4	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	13004	13953	12457	15231	14670	13640	12379	-0.4	1.6	-1.7
Refineries	12555	13953	12148	14807	14243	13243	11998	-0.3	1.6	-1.7
Biofuels and hydrogen production	0	0	309	422	423	367	343	0.0	3.2	-2.1
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	449	0	0	1	4	30	37	0.0	0.0	25.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Portugal: EU20+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	105	115	116	121	125	133	142	1.0	0.8	1.3
Public road transport	12	6	6	6	6	7	7	-6.4	0.5	1.1
Private cars and motorcycles	73	87	86	86	86	90	96	1.7	0.1	1.0
Rail	5	5	5	5	6	7	8	1.4	1.7	2.5
Aviation ⁽³⁾	16	17	18	23	26	29	31	1.6	3.3	1.9
Inland navigation	0	0	0	0	0	0	0	1.0	0.9	1.6
Freight transport activity (Gtkm)	26	32	27	28	30	32	34	0.5	0.9	1.3
Heavy goods and light commercial vehicles	20	25	20	20	21	23	24	-0.4	0.9	1.0
Rail	2	2	2	2	3	3	3	0.6	1.5	2.5
Inland navigation	4	5	5	6	6	6	7	4.6	0.6	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	6636	7188	7226	6867	6640	6187	5992	0.9	-0.8	-1.0
Public road transport	237	135	129	129	128	133	142	-5.9	0.0	1.0
Private cars and motorcycles	4590	5056	5149	4730	4386	3811	3560	1.2	-1.6	-2.1
Heavy goods and light commercial vehicles	891	1026	835	797	844	841	827	-0.6	0.1	-0.2
Rail	89	67	57	50	56	58	63	-4.3	-0.3	1.2
Aviation	784	888	1012	1124	1187	1303	1357	2.6	1.6	1.3
Inland navigation	45	18	45	37	39	41	43	0.1	-1.5	1.2
By transport activity										
Passenger transport	5689	6109	6318	6007	5729	5273	5087	1.1	-1.0	-1.2
Freight transport	947	1079	908	860	911	914	905	-0.4	0.0	-0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.0	2.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	4.3	6.2	6.5	6.5	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	22892	24889	22477	21514	20015	18763	14598	-0.2	-1.2	-3.1
Final Energy Demand	17919	19009	18022	16789	16847	15653	12726	0.1	-0.7	-2.8
by sector										
Industry	6323	5796	5453	5066	5177	5004	4023	-1.5	-0.5	-2.5
Energy intensive industries	4179	3889	3634	3613	3666	3564	2835	-1.4	0.1	-2.5
Other industrial sectors	2144	1907	1819	1452	1511	1441	1188	-1.6	-1.8	-2.4
Residential	2804	3224	2976	2632	2758	2333	1433	0.6	-0.8	-6.3
Tertiary	2157	2801	2368	2224	2272	2128	1278	0.9	-0.4	-5.6
Transport ⁽⁵⁾	6636	7188	7226	6867	6640	6187	5992	0.9	-0.8	-1.0
by fuel										
Solids	466	17	50	17	15	10	5	-20.0	-11.4	-10.7
Oil	10713	10812	9199	8142	7695	6913	6077	-1.5	-1.8	-2.3
Gas	873	1307	1564	1691	1830	1673	1225	6.0	1.6	-3.9
Electricity	3300	3983	4290	3865	4074	4309	3406	2.7	-0.5	-1.8
Heat (from CHP and District Heating)	134	328	338	325	363	297	262	9.7	0.7	-3.2
Renewable energy forms	2434	2563	2581	2748	2865	2420	1703	0.6	1.1	-5.1
Other	0	0	0	1	4	31	48	0.0	0.0	28.0
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	150	156	134	132	115	99	74	-1.1	-1.5	-4.3
Industry (Energy on Value added, Index 2000=100)	100	93	89	85	82	75	58	-1.2	-0.8	-3.4
Residential (Energy on Private Income, Index 2000=100)	100	108	94	87	85	66	38	-0.6	-0.9	-7.8
Tertiary (Energy on Value added, Index 2000=100)	100	120	94	91	86	73	41	-0.6	-0.9	-7.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	47	46	41	37	32	28	-0.3	-2.2	-2.7
Freight transport (toe/Mtkm)	36	33	33	31	30	29	27	-0.9	-0.8	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	86.9	90.7	73.4	73.2	60.6	53.9	43.9	-1.7	-1.9	-3.2
of which ETS sectors (2013 scope) GHG emissions		40.6	27.7	32.3	22.9	19.6	14.1		-1.9	-4.7
of which ESD sectors (2013 scope) GHG emissions		50.1	45.7	40.9	37.7	34.3	29.8		-1.9	-2.3
CO2 Emissions (energy related)	61.0	64.6	49.6	50.1	39.7	33.3	24.9	-2.1	-2.2	-4.6
Power generation/District heating	21.7	24.9	14.9	18.0	9.0	5.3	0.7	-3.6	-4.9	-22.3
Energy Branch	2.5	3.1	2.5	3.1	2.6	2.7	2.5	-0.2	0.6	-0.4
Industry	11.6	8.2	6.3	5.7	5.5	5.2	3.7	-5.9	-1.3	-3.8
Residential	2.0	2.3	2.6	2.0	2.0	1.2	0.5	2.5	-2.4	-13.0
Tertiary	3.4	4.4	2.4	2.0	1.7	1.5	0.8	-3.2	-3.3	-6.8
Transport	19.9	21.7	20.9	19.5	18.8	17.3	16.5	0.5	-1.1	-1.3
CO2 Emissions (non energy and non land use related)	6.6	7.0	5.4	6.1	6.1	6.2	6.2	-2.0	1.2	0.2
Non-CO2 GHG emissions	19.3	19.1	18.4	16.9	14.8	14.3	12.8	-0.4	-2.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	139.7	145.8	118.0	117.7	97.5	86.6	70.7	-1.7	-1.9	-3.2
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.48	0.50	0.25	0.32	0.16	0.09	0.02	-6.3	-4.1	-20.7
Final energy demand (t of CO2/toe)	2.05	1.92	1.78	1.73	1.66	1.61	1.70	-1.4	-0.7	0.2
Industry	1.83	1.42	1.15	1.12	1.07	1.05	0.93	-4.5	-0.8	-1.4
Residential	0.71	0.72	0.86	0.75	0.72	0.53	0.35	1.9	-1.7	-7.1
Tertiary	1.55	1.56	1.02	0.88	0.76	0.69	0.66	-4.1	-2.9	-1.3
Transport	3.00	3.01	2.89	2.84	2.83	2.80	2.76	-0.4	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	19.1	19.4	24.3	25.3	33.3	36.6	40.1			
RES-H&C share	30.4	32.1	33.9	36.8	38.4	38.8	38.9			
RES-E share	28.3	27.7	40.7	47.5	63.3	69.3	87.2			
RES-T share (based on ILUC formula)	0.4	0.4	5.7	1.3	10.9	15.0	23.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	67	76	79	98	110	113	109	1.6	3.4	-0.1
Average Price of Electricity in Final demand sectors (€13/MWh)	118	120	104	128	137	142	152	-1.3	2.8	1.0
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.8	22.3	24.4	23.5	28.6	31.8	38.2	3.8	1.6	2.9
as % of GDP	10.0	12.7	13.5	13.5	15.3	15.5	17.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Romania: EUCO+40			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	22	21	20	20	20	19	19	-1.0	-0.3	-0.4
GDP (in 000 M€13)	87	114	130	145	163	181	195	4.1	2.3	1.8
Gross Inland Consumption (ktoe)	36650	39207	35800	33091	35062	35309	26037	-0.2	-0.2	-2.2
Solids	7493	8788	7008	6207	6462	5211	2820	-0.7	-0.8	-8.0
Oil	9992	10286	9310	8775	8527	8214	7382	-0.7	-0.9	-1.4
Natural gas	13680	13923	10788	9688	10838	10193	6206	-2.3	0.0	-5.4
Nuclear	1407	1433	2998	2838	2846	5749	5624	7.9	-0.5	7.1
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1
Renewable energy forms	4137	5026	5891	6299	6967	6836	6954	3.6	1.7	0.0
Energy Branch Consumption	3675	4105	2839	2480	2448	2330	1993	-2.5	-1.5	-2.0
Non-Energy Uses	1883	2467	1473	1754	2001	2202	2338	-2.4	3.1	1.6
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	28465	28224	27824	26642	28416	30036	27682	-0.2	0.2	-0.3
Solids	5604	5795	5904	5042	5111	3954	2127	0.5	-1.4	-8.4
Oil	6355	6226	4565	3643	3646	3648	3627	-3.3	-2.2	-0.1
Natural gas	10968	9701	8619	8848	10031	10010	9542	-2.4	1.5	-0.5
Nuclear	1407	1433	2998	2838	2846	5749	5624	7.9	-0.5	7.1
Renewable energy sources	4131	5070	5739	6271	6783	6675	6762	3.3	1.7	0.0
Hydro	1271	1738	1710	1386	1438	1443	1443	3.0	-1.7	0.0
Biomass & Waste	2854	3314	3980	4135	4556	4355	3449	3.4	1.4	-2.7
Wind	0	0	26	557	560	560	1438	0.0	35.8	9.9
Solar and others	0	0	0	163	183	249	308	0.0	111.9	5.4
Geothermal	7	18	23	30	46	67	125	13.1	7.1	10.6
Net Imports (ktoe)	8009	10867	7827	6473	6677	5310	396	-0.2	-1.6	-24.6
Solids	1920	2939	1234	1165	1351	1257	693	-4.3	0.9	-6.5
Oil	3437	3988	4838	5156	4912	4602	3794	3.5	0.2	-2.5
Crude oil and Feedstocks	4801	8857	6233	5504	4992	4511	3734	2.6	-2.2	-2.9
Oil products	-1364	-4870	-1395	-348	-80	91	60	0.2	-24.8	0.0
Natural gas	2712	4190	1816	839	808	183	-3333	-3.9	-7.8	0.0
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1
Import Dependency (%)	21.8	27.7	21.9	19.5	19.0	15.0	1.4			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	51560	59413	60619	67528	71078	76466	69322	1.6	1.6	-0.2
Nuclear energy	5456	5555	11623	11890	11922	23792	23096	7.9	0.3	6.8
Solids	18926	21916	20681	21982	22416	16978	8018	0.9	0.8	-9.8
Oil (including refinery gas)	3399	1894	692	625	406	225	195	-14.7	-5.2	-7.1
Gas (including derived gases)	9001	9834	7323	8032	10386	8766	157	-2.0	3.6	-34.3
Biomass-waste	0	7	111	522	763	963	1623	0.0	21.3	7.8
Hydro (pumping excluded)	14778	20207	19883	16112	16724	16778	16779	3.0	-1.7	0.0
Wind	0	0	306	6473	6512	6512	16717	0.0	35.8	9.9
Solar	0	0	0	1891	1950	2452	2739	0.0	0.0	3.5
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	20197	19153	20120	24896	23920	22666	24573	0.0	1.7	0.3
Nuclear energy	672	672	1344	1414	1414	2828	2828	7.2	0.5	7.2
Renewable energy	6242	6289	6863	11413	11457	11707	15063	1.0	5.3	2.8
Hydro (pumping excluded)	6242	6289	6474	6645	6645	6645	6645	0.4	0.3	0.0
Wind	0	0	389	2976	2989	2989	6196	0.0	22.6	7.6
Solar	0	0	0	1792	1824	2074	2223	0.0	0.0	2.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	13283	12192	11913	12070	11049	8131	6682	-1.1	-0.7	-4.9
of which cogeneration units	3431	5246	4582	4234	4067	2133	1681	2.9	-1.2	-8.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	7602	7057	6643	6441	5626	3094	1909	-1.3	-1.6	-10.2
Gas fired	3728	3439	3488	4173	4152	4099	3888	-0.7	1.8	-0.7
Oil fired	1806	1691	1759	1360	1132	771	676	-0.3	-4.3	-5.0
Biomass-waste fired	147	5	23	96	139	167	209	-16.9	19.7	4.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.5	33.1	31.5	28.5	31.3	36.0	30.8			
Efficiency of gross thermal power generation (%)	25.3	28.0	28.6	39.2	39.0	39.5	34.2			
% of gross electricity from CHP	32.3	26.2	10.8	12.0	12.2	8.2	5.6			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	39.2	43.4	52.7	54.6	53.3	66.0	87.9			
Fuel Inputs to Thermal Power Generation (ktoe)	10788	10329	8675	6836	7488	5858	2513	-2.2	-1.5	-10.3
Solids	5462	6085	5929	5216	5337	4151	2055	0.8	-1.0	-9.1
Oil (including refinery gas)	1736	799	327	176	130	72	62	-15.4	-8.8	-7.1
Gas (including derived gases)	3579	3437	2399	1331	1854	1418	41	-3.9	-2.5	-31.7
Biomass & Waste	12	9	21	113	167	217	354	6.1	23.2	7.8
Geothermal heat	0	0	1	0	0	0	0	0.0	-100.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	16275	19666	15568	13664	13410	15689	14366	-0.4	-1.5	0.7
Refineries	11250	15219	11480	9680	9154	8649	7813	0.2	-2.2	-1.6
Biofuels and hydrogen production	0	0	115	273	558	503	473	0.0	17.1	-1.6
District heating	1738	825	749	702	681	602	387	-8.1	-1.0	-5.5
Derived gases, cokeries etc.	3287	3621	3223	3009	3017	5935	5693	-0.2	-0.7	6.6

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Romania: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	85	93	110	118	130	143	157	2.6	1.7	1.9
Public road transport	12	12	12	12	13	13	14	0.0	0.8	0.6
Private cars and motorcycles	54	63	78	85	92	101	111	3.9	1.7	1.9
Rail	18	15	13	13	15	16	17	-3.3	1.6	1.6
Aviation ⁽³⁾	2	3	7	8	10	12	15	15.1	3.4	4.7
Inland navigation	0	0	0	0	0	0	0	-2.5	2.1	2.8
Freight transport activity (Gtkm)	27	56	43	51	61	69	76	4.7	3.5	2.3
Heavy goods and light commercial vehicles	8	31	16	20	25	29	32	7.2	4.4	2.4
Rail	16	17	12	15	18	21	23	-2.7	3.9	2.5
Inland navigation	3	8	14	15	18	20	21	18.4	2.1	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	3336	4186	5073	5448	5727	5693	5690	4.3	1.2	-0.1
Public road transport	293	260	359	373	378	375	372	2.0	0.5	-0.2
Private cars and motorcycles	2082	2416	3214	3381	3372	3148	3013	4.4	0.5	-1.1
Heavy goods and light commercial vehicles	363	1182	946	1142	1356	1450	1500	10.1	3.7	1.0
Rail	357	159	222	245	274	303	321	-4.6	2.1	1.6
Aviation	128	128	272	265	299	364	428	7.8	1.0	3.6
Inland navigation	113	42	59	42	47	52	56	-6.2	-2.2	1.7
By transport activity										
Passenger transport	2648	2855	3921	4091	4132	3980	3910	4.0	0.5	-0.6
Freight transport	689	1331	1152	1356	1595	1713	1780	5.3	3.3	1.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.7	1.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.3	5.1	10.0	9.2	8.7			
ENERGY EFFICIENCY										
Primary energy consumption	34767	36740	34326	31337	33061	33107	25699	-0.1	-0.4	-2.5
Final Energy Demand	22772	24714	22591	23117	24615	24068	18772	-0.1	0.9	-2.7
by sector										
Industry	9296	10007	6876	7316	8167	8364	6735	-3.0	1.7	-1.9
Energy intensive industries	6510	7208	4759	4794	5403	5401	4198	-3.1	1.3	-2.5
Other industrial sectors	2787	2799	2117	2522	2764	2963	2537	-2.7	2.7	-0.9
Residential	8409	7990	8102	7825	8128	7522	4714	-0.4	0.0	-5.3
Tertiary	1606	2441	2489	2468	2530	2423	1568	4.5	0.2	-4.7
Transport ⁽⁵⁾	3460	4276	5124	5507	5790	5760	5755	4.0	1.2	-0.1
by fuel										
Solids	1046	1611	939	815	939	860	680	-1.1	0.0	-3.2
Oil	5526	6628	6184	6765	6592	6333	5618	1.1	0.6	-1.6
Gas	6910	7754	6189	6337	6819	6680	4179	-1.1	1.0	-4.8
Electricity	2918	3341	3553	3683	4109	4337	3973	2.0	1.5	-0.3
Heat (from CHP and District Heating)	3570	2136	1650	1493	1624	1637	1093	-7.4	-0.2	-3.9
Renewable energy forms	2802	3244	4077	4023	4531	4217	3217	3.8	1.1	-3.4
Other	0	0	0	0	1	5	12	-100.0	0.0	29.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	423	343	275	229	215	196	144	-4.2	-2.4	-4.0
Industry (Energy on Value added, index 2000=100)	100	78	44	41	40	37	27	-7.8	-1.0	-3.7
Residential (Energy on Private Income, index 2000=100)	100	59	49	43	39	33	19	-6.9	-2.1	-7.1
Tertiary (Energy on Value added, index 2000=100)	100	119	114	102	92	79	47	1.4	-2.1	-6.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	31	31	35	34	32	28	25	1.3	-1.2	-2.5
Freight transport (toe/Mtkm)	25	24	27	27	26	25	23	0.5	-0.2	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	145.9	151.3	125.5	118.7	118.7	110.1	85.5	-1.5	-0.6	-3.2
of which ETS sectors (2013 scope) GHG emissions		74.8	55.8	46.9	49.0	41.9	25.5		-1.3	-6.3
of which ESD sectors (2013 scope) GHG emissions		76.5	69.6	71.8	69.7	68.2	60.0		0.0	-1.5
CO2 Emissions (energy related)	88.8	95.8	77.4	71.5	74.0	65.8	42.9	-1.4	-0.4	-5.3
Power generation/District heating	42.0	39.0	33.6	27.2	28.8	22.2	9.4	-2.2	-1.5	-10.6
Energy Branch	6.8	7.7	5.1	4.0	3.8	3.6	3.3	-2.8	-2.9	-1.5
Industry	21.6	25.2	14.4	14.7	15.6	15.0	9.6	-4.0	0.8	-4.8
Residential	6.6	7.3	5.8	6.5	6.9	6.7	3.8	-1.2	1.7	-5.7
Tertiary	1.9	4.2	3.6	3.5	3.4	3.0	1.7	6.7	-0.4	-6.8
Transport	9.9	12.4	14.8	15.5	15.4	15.3	15.1	4.1	0.4	-0.2
CO2 Emissions (non energy and non land use related)	13.4	8.7	7.1	7.4	7.8	7.8	7.6	-6.1	0.9	-0.2
Non-CO2 GHG emissions	43.8	46.7	40.9	39.8	36.9	36.5	34.9	-0.7	-1.0	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	57.4	59.5	49.4	46.7	46.7	43.3	33.6	-1.5	-0.6	-3.2
Carbon Intensity Indicators										
Electricity and Steam production (t of CO2/MWh)	0.41	0.42	0.39	0.30	0.30	0.22	0.11	-0.6	-2.5	-9.6
Final energy demand (t of CO2/toe)	1.76	1.99	1.71	1.74	1.68	1.66	1.61	-0.3	-0.2	-0.4
Industry	2.33	2.52	2.09	2.01	1.91	1.79	1.42	-1.1	-0.9	-2.9
Residential	0.79	0.92	0.72	0.83	0.85	0.89	0.81	-0.8	1.6	-0.4
Tertiary	1.17	1.70	1.44	1.42	1.36	1.25	1.09	2.2	-0.6	-2.2
Transport	2.86	2.90	2.89	2.81	2.67	2.66	2.62	0.1	-0.8	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.9	17.6	23.3	25.1	26.1	26.4	33.9			
RES-H&C share	16.1	17.9	27.4	25.9	26.3	26.9	30.8			
RES-E share	30.2	28.8	30.4	42.3	40.4	40.5	65.1			
RES-T share (based on ILUC formula)	2.3	1.9	3.8	7.5	10.2	10.4	17.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	72	70	76	72	72	72	5.0	0.3	0.0
Average Price of Electricity in Final demand sectors (€13/MWh)	52	105	90	101	104	113	124	5.7	1.5	1.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.9	19.1	23.0	26.7	32.7	37.6	51.7	8.8	3.6	4.7
as % of GDP	11.5	16.8	17.7	18.4	20.0	20.8	26.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovakia: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	5	5	5	5	5	5	5	0.0	0.0	-0.2
GDP (in 000 M€13)	43	55	69	76	89	102	117	4.8	2.6	2.7
Gross Inland Consumption (ktoe)	18302	19029	17864	16867	18384	18575	15553	-0.2	0.3	-1.7
Solids	4278	4231	3897	3247	3156	2954	1609	-0.9	-2.1	-6.5
Oil	3415	3711	3692	3346	3438	3325	3302	0.8	-0.7	-0.4
Natural gas	5777	5884	5007	4939	5006	5076	3481	-1.4	0.0	-3.6
Nuclear	4255	4626	3819	3569	4953	5375	5712	-1.1	2.6	1.4
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Renewable energy forms	810	859	1360	1551	2034	2075	1687	5.3	4.1	-1.9
Energy Branch Consumption	623	1297	963	942	939	866	741	4.5	-0.3	-2.3
Non-Energy Uses	1365	1279	1053	1597	1738	1880	1994	-2.6	5.1	1.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	6389	6684	6345	6192	7978	8044	7696	-0.1	2.3	-0.4
Solids	1018	637	613	593	536	449	158	-4.9	-1.3	-11.5
Oil	165	383	387	297	264	0	0	8.9	-3.7	-100.0
Natural gas	133	126	88	120	107	72	72	-4.0	2.0	-3.9
Nuclear	4255	4626	3819	3569	4953	5375	5712	-1.1	2.6	1.4
Renewable energy sources	818	912	1438	1613	2119	2148	1754	5.8	4.0	-1.9
Hydro	397	399	452	407	468	431	431	1.3	0.4	-0.8
Biomass & Waste	421	505	972	1148	1572	1616	1192	8.7	4.9	-2.7
Wind	0	1	1	1	2	2	2	0.0	16.2	0.0
Solar and others	0	0	6	51	63	70	77	0.0	26.9	2.0
Geothermal	0	8	8	6	14	28	52	0.0	5.4	14.1
Net Imports (ktoe)	11997	12428	11230	10675	10406	10531	7857	-0.7	-0.8	-2.8
Solids	3432	3739	2951	2654	2620	2504	1452	-1.5	-1.2	-5.7
Oil	3090	3274	3266	3048	3174	3325	3302	0.6	-0.3	0.4
Crude oil and Feedstocks	5720	5429	5282	5716	5602	5554	5326	-0.8	0.6	-0.5
Oil products	-2630	-2155	-2015	-2667	-2428	-2228	-2024	-2.6	1.9	-1.8
Natural gas	5707	5735	5003	4819	4899	5003	3409	-1.3	-0.2	-3.6
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6
Import Dependency (%)	65.5	65.3	62.9	63.3	56.6	56.7	50.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	30798	31352	27464	27068	34306	37256	32885	-1.1	2.2	-0.4
Nuclear energy	16494	17727	14574	14662	20320	22049	24569	-1.2	3.4	1.9
Solids	5584	5535	3570	4120	4751	4121	1407	-4.4	2.9	-11.5
Oil (including refinery gas)	202	741	600	164	8	90	90	11.5	-34.7	26.7
Gas (including derived gases)	3871	2629	2716	1730	1291	3668	219	-3.5	-7.2	-16.3
Biomass-waste	32	76	726	1129	1935	1753	942	36.6	10.3	-6.9
Hydro (pumping excluded)	4615	4638	5255	4738	5442	5016	5012	1.3	0.4	-0.8
Wind	0	6	6	6	26	26	26	0.0	15.8	0.0
Solar	0	0	17	520	532	532	619	0.0	40.8	1.5
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	6919	7103	6715	7497	7698	7619	8397	-0.3	1.4	0.9
Nuclear energy	2707	2707	1845	1940	2820	2820	4020	-3.8	4.3	3.6
Renewable energy	1685	1601	1624	2220	2356	2356	2416	-0.4	3.8	0.3
Hydro (pumping excluded)	1685	1596	1600	1607	1717	1717	1717	-0.5	0.7	0.0
Wind	0	5	5	5	19	19	19	0.0	14.3	0.0
Solar	0	0	19	608	620	620	680	0.0	41.7	0.9
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2526	2795	3246	3337	2523	2444	1961	2.5	-2.5	-2.5
of which cogeneration units	618	5411	2821	1020	805	812	629	16.4	-11.8	-2.4
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	1618	1617	1313	1274	792	711	454	-2.1	-4.9	-5.4
Gas fired	821	1067	1674	1738	1324	1322	1097	7.4	-2.3	-1.9
Oil fired	81	81	81	84	84	84	84	0.0	0.4	0.0
Biomass-waste fired	7	30	177	241	323	326	326	38.2	6.2	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.2	46.9	42.6	38.8	47.9	52.8	42.6			
Efficiency of gross thermal power generation (%)	31.4	29.0	25.6	36.3	37.4	38.1	30.1			
% of gross electricity from CHP	18.4	15.3	15.9	25.6	22.2	18.2	8.0			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	68.6	71.6	74.9	77.8	82.4	78.9	94.8			
Fuel Inputs to Thermal Power Generation (ktoe)	2656	2664	2555	1692	1837	2174	760	-0.4	-3.2	-8.4
Solids	1619	1677	1205	1089	1165	1096	405	-2.9	-0.3	-10.0
Oil (including refinery gas)	31	100	293	34	3	30	30	25.4	-37.2	26.7
Gas (including derived gases)	1002	847	793	314	232	643	102	-2.3	-11.6	-7.9
Biomass & Waste	4	40	264	255	437	405	224	51.0	5.2	-6.5
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	12901	13989	12558	12416	13534	13488	12847	-0.3	0.8	-0.5
Refineries	5959	6398	6011	6450	6334	6048	5837	0.1	0.5	-0.8
Biofuels and hydrogen production	0	11	98	118	176	163	165	0.0	6.0	-0.6
District heating	674	718	497	367	377	359	196	-3.0	-2.7	-6.3
Derived gases, cokeries etc.	6268	6862	5952	5481	6648	6917	6649	-0.5	1.1	0.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovakia: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	37	39	36	38	45	50	57	-0.2	2.2	2.3
Public road transport	9	9	5	6	6	7	8	-5.5	2.0	2.0
Private cars and motorcycles	24	26	27	28	34	38	42	1.2	2.1	2.2
Rail	3	3	3	3	3	4	5	-2.1	2.9	3.3
Aviation ⁽³⁾	0	2	1	1	1	2	2	15.3	3.0	4.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	20	21	22	23	26	29	32	1.1	1.8	2.1
Heavy goods and light commercial vehicles	7	11	13	14	15	16	17	6.0	1.9	1.4
Rail	11	9	8	8	10	11	13	-3.2	1.8	3.0
Inland navigation	1	1	1	1	1	1	2	-1.5	1.1	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	1455	1794	2241	2205	2346	2241	2275	4.4	0.5	-0.3
Public road transport	193	185	132	141	154	160	170	-3.7	1.5	1.0
Private cars and motorcycles	830	992	1194	1155	1208	1102	1102	3.7	0.1	-0.9
Heavy goods and light commercial vehicles	308	527	821	814	872	849	858	10.3	0.6	-0.2
Rail	83	42	40	41	48	55	62	-7.1	1.8	2.6
Aviation	27	39	41	44	53	62	71	4.5	2.5	3.0
Inland navigation	14	7	12	10	11	12	13	-2.0	-0.4	1.4
By transport activity										
Passenger transport	1064	1223	1374	1346	1423	1333	1352	2.6	0.4	-0.5
Freight transport	390	570	867	859	924	908	923	8.3	0.6	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	1.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.6	4.4	5.5	7.7	8.0	8.1			
ENERGY EFFICIENCY										
Primary energy consumption	16937	17751	16811	15270	16645	16695	13559	-0.1	-0.1	-2.0
Final Energy Demand	10980	11561	11546	11225	11714	11337	8881	0.5	0.1	-2.7
by sector										
Industry	4532	4713	4361	4420	4603	4636	3720	-0.4	0.5	-2.1
Energy intensive industries	3678	3887	3637	3655	3769	3750	2915	-0.1	0.4	-2.5
Other industrial sectors	854	826	723	765	834	887	806	-1.7	1.4	-0.3
Residential	2586	2540	2312	2176	2212	2081	1322	-1.1	-0.4	-5.0
Tertiary	2407	1916	2240	2038	2167	1999	1246	-0.7	-0.3	-5.4
Transport ⁽⁵⁾	1455	2392	2633	2591	2731	2621	2592	6.1	0.4	-0.5
by fuel										
Solids	1747	1572	1637	1294	1251	1192	823	-0.6	-2.7	-4.1
Oil	1703	2184	2301	2230	2288	2120	2050	3.1	-0.1	-1.1
Gas	4698	4540	4119	4011	4053	3672	2448	-1.3	-0.2	-4.9
Electricity	1893	1965	2075	2219	2368	2590	2269	0.9	1.3	-0.4
Heat (from CHP and District Heating)	619	951	851	726	814	766	440	3.2	-0.5	-6.0
Renewable energy forms	320	349	562	745	939	986	834	5.8	5.3	-1.2
Other	0	0	0	0	2	11	17	0.0	0.0	27.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	424	347	259	221	206	182	133	-4.8	-2.3	-4.3
Industry (Energy on Value added, index 2000=100)	100	61	39	37	34	31	22	-8.9	-1.4	-4.4
Residential (Energy on Private Income, index 2000=100)	100	78	59	51	44	36	20	-5.1	-2.9	-7.8
Tertiary (Energy on Value added, index 2000=100)	100	72	68	54	49	39	21	-3.8	-3.2	-8.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	31	37	35	31	26	23	2.7	-1.8	-2.8
Freight transport (toe/Mtkm)	20	27	40	37	35	32	29	7.2	-1.1	-2.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	54.1	54.7	50.8	45.0	42.5	40.3	29.4	-0.6	-1.8	-3.6
of which ETS sectors (2013 scope) GHG emissions		29.2	24.7	20.4	19.2	18.7	11.2		-2.5	-5.3
of which ESD sectors (2013 scope) GHG emissions		25.5	26.1	24.6	23.4	21.6	18.3		-1.1	-2.4
CO ₂ Emissions (energy related)	38.7	41.6	38.7	33.6	32.6	30.5	19.9	0.0	-1.7	-4.8
Power generation/District heating	11.1	11.2	9.2	6.3	6.1	6.9	2.6	-1.8	-4.0	-8.3
Energy Branch	1.6	3.4	2.5	2.2	2.0	1.8	1.4	4.4	-1.9	-3.7
Industry	13.3	14.1	12.8	12.0	11.3	10.1	6.6	-0.4	-1.3	-5.2
Residential	4.1	3.6	3.4	2.8	2.7	2.4	1.3	-2.0	-2.3	-7.2
Tertiary	4.5	2.7	3.5	3.1	3.1	2.4	1.3	-2.5	-1.1	-8.5
Transport	4.1	6.6	7.3	7.1	7.3	7.0	6.8	5.9	0.1	-0.8
CO ₂ Emissions (non energy and non land use related)	6.7	3.9	3.2	3.5	3.5	3.5	3.5	-7.0	0.9	-0.1
Non-CO2 GHG emissions	8.7	9.1	8.9	7.8	6.4	6.3	6.0	0.2	-3.2	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	71.5	72.3	67.2	59.5	56.3	53.4	38.9	-0.6	-1.8	-3.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.27	0.25	0.23	0.17	0.13	0.14	0.07	-1.4	-5.4	-6.8
Final energy demand (t of CO ₂ /toe)	2.37	2.34	2.33	2.24	2.08	1.93	1.80	-0.2	-1.1	-1.5
Industry	2.94	2.99	2.94	2.72	2.45	2.18	1.77	0.0	-1.8	-3.2
Residential	1.60	1.40	1.47	1.30	1.22	1.14	0.97	-0.9	-1.8	-2.3
Tertiary	1.85	1.43	1.55	1.54	1.44	1.20	1.03	-1.8	-0.7	-3.3
Transport	2.82	2.77	2.77	2.74	2.69	2.65	2.62	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.3	5.8	9.0	11.7	14.4	15.1	16.1			
RES-H&C share	1.2	4.9	7.8	10.3	12.9	15.3	17.5			
RES-E share	11.9	13.5	17.8	21.7	24.9	21.3	22.0			
RES-T share (based on ILUC formula)	1.7	1.5	5.3	6.6	10.1	10.8	12.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	62	60	70	80	80	72	89	1.2	1.3	1.1
Average Price of Electricity in Final demand sectors (€13/MWh)	94	102	143	128	130	134	153	4.3	-1.0	1.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	7.1	8.5	11.5	11.2	13.8	15.8	21.7	4.9	1.9	4.6
as % of GDP	16.4	15.6	16.6	14.7	15.5	15.5	18.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovenia: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	2	2	2	2	2	2	2	0.3	0.2	0.0
GDP (in 000 M€13)	28	34	37	38	41	45	48	2.7	1.0	1.6
Gross Inland Consumption (ktoe)	6451	7325	7226	6777	7016	6814	5847	1.1	-0.3	-2.1
Solids	1305	1539	1451	1268	1358	1295	849	1.1	-0.7	-4.6
Oil	2419	2580	2579	2360	2275	2001	1689	0.6	-1.2	-2.9
Natural gas	826	929	863	681	699	734	505	0.4	-2.1	-3.2
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Renewable energy forms	788	787	1054	1182	1393	1403	1318	3.0	2.8	-0.6
Energy Branch Consumption	107	100	112	99	106	96	82	0.5	-0.6	-2.5
Non-Energy Uses	238	310	209	114	120	126	126	-1.3	-5.4	0.5
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3085	3492	3687	3441	3762	3748	3333	1.8	0.2	-1.2
Solids	1062	1184	1196	1023	1127	1039	713	1.2	-0.6	-4.5
Oil	1	0	0	0	0	0	0	-95.0	-100.0	0.0
Natural gas	6	3	6	3	4	11	15	0.0	-3.8	13.7
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Renewable energy sources	788	787	1025	1094	1258	1269	1175	2.7	2.1	-0.7
Hydro	330	298	388	380	391	407	408	1.6	0.1	0.4
Biomass & Waste	458	489	601	632	722	666	514	2.7	1.9	-3.3
Wind	0	0	0	0	24	24	42	0.0	0.0	5.6
Solar and others	0	0	9	36	54	120	179	0.0	19.2	12.6
Geothermal	0	0	27	45	66	52	32	0.0	9.5	-7.1
Net Imports (ktoe)	3415	3855	3581	3356	3275	3087	2335	0.5	-0.9	-3.3
Solids	244	323	279	245	231	256	135	1.4	-1.9	-5.2
Oil	2466	2634	2596	2380	2296	2021	1709	0.5	-1.2	-2.9
Crude oil and Feedstocks	152	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	2314	2634	2596	2380	2296	2021	1709	1.2	-1.2	-2.9
Natural gas	820	925	857	678	695	723	491	0.4	-2.1	-3.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Import Dependency (%)	52.9	52.5	49.4	49.4	46.5	45.2	41.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _d)	13624	15117	16248	15128	16553	17478	16646	1.8	0.2	0.1
Nuclear energy	4761	5884	5657	5421	5628	5801	5801	1.7	-0.1	0.3
Solids	4611	5271	5288	4858	5206	4806	3111	1.4	-0.2	-5.0
Oil (including refinery gas)	55	42	8	0	0	0	0	-17.5	-100.0	0.0
Gas (including derived gases)	293	339	548	14	202	409	58	6.5	-9.5	-11.7
Biomass-waste	70	120	222	111	300	360	556	12.2	3.0	6.4
Hydro (pumping excluded)	3834	3461	4512	4424	4542	4735	4747	1.6	0.1	0.4
Wind	0	0	0	5	284	284	489	0.0	0.0	5.6
Solar	0	0	13	295	391	1085	1884	0.0	40.8	17.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _d)	2955	3111	3186	3490	3885	4328	4930	0.8	2.0	2.4
Nuclear energy	700	700	700	700	700	700	700	0.0	0.0	0.0
Renewable energy	843	979	1086	1385	1773	2422	3300	2.6	5.0	6.4
Hydro (pumping excluded)	843	979	1074	1119	1220	1220	1220	2.5	1.3	0.0
Wind	0	0	0	4	200	200	337	0.0	0.0	5.3
Solar	0	0	12	262	352	1001	1743	0.0	40.2	17.3
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1412	1432	1400	1405	1413	1206	930	-0.1	0.1	-4.1
of which cogeneration units	648	336	333	228	213	238	173	-6.4	-4.4	-2.0
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	923	923	792	792	792	678	632	-1.5	0.0	-2.2
Gas fired	278	284	372	470	467	387	164	3.0	2.3	-10.0
Oil fired	176	190	185	92	29	16	16	0.5	-16.9	-5.7
Biomass-waste fired	35	35	51	51	124	124	118	3.9	9.3	-0.5
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.4	51.9	54.5	46.4	45.7	43.9	37.0			
Efficiency of gross thermal power generation (%)	33.2	32.9	33.4	34.4	34.7	33.3	32.7			
% of gross electricity from CHP	6.4	7.3	6.9	8.9	8.4	5.7	3.7			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	63.6	62.6	64.0	67.8	67.3	70.2	81.0			
Fuel Inputs to Thermal Power Generation (ktoe)	1302	1508	1562	1247	1416	1441	979	1.8	-1.0	-3.6
Solids	1215	1412	1381	1217	1306	1254	828	1.3	-0.6	-4.5
Oil (including refinery gas)	13	9	3	0	0	0	0	-13.3	-100.0	0.0
Gas (including derived gases)	59	58	113	3	36	89	19	6.7	-10.8	-6.0
Biomass & Waste	15	30	65	27	73	98	131	15.5	1.2	6.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1479	1607	1562	1481	1580	1621	1604	0.6	0.1	0.1
Refineries	171	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	46	98	145	137	143	0.0	12.3	-0.1
District heating	80	89	57	61	62	53	29	-3.2	0.8	-7.4
Derived gases, cokeries etc.	1228	1518	1459	1322	1373	1431	1432	1.7	-0.6	0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Slovenia: EUO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	25	27	30	31	34	35	36	2.0	1.0	0.8
Public road transport	4	3	3	3	3	3	3	-1.0	0.2	0.3
Private cars and motorcycles	20	23	26	27	29	30	31	2.4	1.0	0.7
Rail	1	1	1	1	1	2	2	1.4	4.1	3.9
Aviation ⁽³⁾	0	0	0	0	0	1	1	2.0	3.3	3.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	6	11	11	12	15	18	20	5.6	3.3	2.7
Heavy goods and light commercial vehicles	4	8	8	8	10	11	12	7.9	3.1	1.9
Rail	3	3	3	4	5	6	7	1.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	1249	1492	1806	1838	1906	1797	1706	3.8	0.5	-1.1
Public road transport	78	71	92	94	96	94	91	1.8	0.3	-0.5
Private cars and motorcycles	1025	1047	1304	1319	1299	1151	1038	2.4	0.0	-2.2
Heavy goods and light commercial vehicles	98	323	355	370	444	476	493	13.8	2.2	1.1
Rail	24	28	26	27	33	38	43	1.0	2.2	2.8
Aviation	25	23	28	28	34	38	41	1.3	2.1	1.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	1132	1146	1430	1447	1436	1291	1179	2.4	0.0	-2.0
Freight transport	117	346	376	391	469	506	527	12.4	2.2	1.2
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.6	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.5	5.4	7.7	7.9	8.6			
ENERGY EFFICIENCY										
Primary energy consumption	6214	7016	7017	6662	6896	6688	5521	1.2	-0.2	-2.2
Final Energy Demand	4457	4897	4927	4954	5047	4767	3880	1.0	0.2	-2.6
by sector										
Industry	1424	1644	1273	1332	1414	1441	1193	-1.1	1.1	-1.7
Energy intensive industries	836	1028	788	890	944	949	766	-0.6	1.8	-2.1
Other industrial sectors	588	616	485	442	470	492	426	-1.9	-0.3	-1.0
Residential	1077	1140	1191	1145	1098	974	629	1.0	-0.8	-5.4
Tertiary	697	620	657	638	628	553	352	-0.6	-0.4	-5.6
Transport ⁽⁵⁾	1259	1493	1806	1839	1907	1798	1707	3.7	0.5	-1.1
by fuel										
Solids	90	80	47	51	52	41	20	-6.3	1.0	-8.9
Oil	2264	2409	2447	2239	2153	1877	1565	0.8	-1.3	-3.1
Gas	569	665	620	635	641	613	470	0.9	0.3	-3.1
Electricity	905	1096	1029	1098	1166	1290	1148	1.3	1.3	-0.2
Heat (from CHP and District Heating)	195	196	192	197	205	196	126	-0.2	0.7	-4.7
Renewable energy forms	435	452	592	735	830	746	544	3.1	3.4	-4.1
Other	0	0	0	0	0	2	7	0.0	0.0	35.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	227	215	195	181	172	152	118	-1.5	-1.3	-3.7
Industry (Energy on Value added, index 2000=100)	100	93	70	74	72	66	51	-3.6	0.3	-3.4
Residential (Energy on Private Income, index 2000=100)	100	93	85	87	77	61	36	-1.6	-1.1	-7.2
Tertiary (Energy on Value added, index 2000=100)	100	74	70	66	59	47	28	-3.5	-1.6	-7.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	42	46	46	42	36	31	0.3	-1.0	-2.8
Freight transport (toe/Mtkm)	18	32	34	33	31	29	26	6.4	-1.0	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.0	20.2	19.2	17.5	17.4	16.3	12.8	0.1	-1.0	-3.0
of which ETS sectors (2013 scope) GHG emissions		8.9	8.2	7.2	7.6	7.4	5.0		-0.7	-4.1
of which ESD sectors (2013 scope) GHG emissions		11.3	11.0	10.2	9.8	8.9	7.8		-1.1	-2.3
CO ₂ Emissions (energy related)	14.1	15.5	15.3	13.8	13.9	12.9	9.5	0.9	-0.9	-3.7
Power generation/District heating	5.5	6.3	6.2	5.3	5.7	5.5	3.5	1.3	-0.9	-4.6
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.9	-4.8	13.7
Industry	2.4	2.3	1.7	1.7	1.7	1.5	1.0	-3.0	-0.5	-5.0
Residential	1.3	1.5	1.2	0.9	0.8	0.6	0.3	-1.0	-4.0	-9.4
Tertiary	1.2	1.0	0.9	0.7	0.6	0.4	0.2	-3.0	-4.1	-9.3
Transport	3.7	4.4	5.3	5.2	5.3	4.9	4.5	3.8	0.0	-1.6
CO ₂ Emissions (non energy and non land use related)	1.0	1.2	0.8	0.7	0.7	0.8	0.8	-1.7	-1.1	0.5
Non-CO2 GHG emissions	3.9	3.5	3.0	3.0	2.7	2.6	2.5	-2.6	-1.0	-1.0
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.0	108.4	103.1	93.8	93.6	87.4	68.7	0.1	-1.0	-3.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.34	0.35	0.33	0.30	0.29	0.28	0.19	-0.3	-1.1	-4.1
Final energy demand (t of CO ₂ /toe)	1.91	1.88	1.85	1.72	1.64	1.54	1.54	-0.4	-1.2	-0.7
Industry	1.66	1.41	1.37	1.29	1.17	1.03	0.83	-1.9	-1.6	-3.4
Residential	1.24	1.28	1.01	0.79	0.73	0.61	0.48	-2.0	-3.2	-4.2
Tertiary	1.68	1.63	1.32	1.03	0.90	0.73	0.60	-2.4	-3.7	-3.9
Transport	2.90	2.97	2.93	2.85	2.76	2.70	2.62	0.1	-0.6	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.6	15.9	19.1	21.9	25.2	26.7	30.3			
RES-H&C share	18.9	19.0	25.5	29.8	34.5	35.7	37.2			
RES-E share	30.9	28.7	32.2	33.0	35.5	38.4	51.4			
RES-T share (based on ILUC formula)	1.0	0.8	3.2	6.1	10.1	12.6	19.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	49	47	45	67	67	55	59	-0.7	4.0	-1.4
Average Price of Electricity in Final demand sectors (€13/MWh)	109	86	111	106	104	108	110	0.2	-0.6	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.8	4.7	6.1	6.4	7.5	8.1	9.7	5.0	2.1	2.6
as % of GDP	13.3	13.8	16.5	17.1	18.4	18.1	20.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Spain: EU CO ₂ 40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	40	43	46	46	46	45	44	1.5	-0.2	-0.3
GDP (in 000 M€13)	893	1048	1093	1094	1207	1327	1447	2.0	1.0	1.8
Gross Inland Consumption (ktoe)	123642	144223	129868	124583	125554	114852	93161	0.5	-0.3	-2.9
Solids	20938	20566	7906	15768	16135	10413	3016	-9.3	7.4	-15.4
Oil	63967	70457	60436	53990	50073	45679	41034	-0.6	-1.9	-2.0
Natural gas	15305	29886	31162	25155	25421	22151	11520	7.4	-2.0	-7.6
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Renewable energy forms	7005	8587	15090	15611	19373	21890	23052	8.0	2.5	1.8
Energy Branch Consumption	6259	6666	7878	7994	7451	6544	5854	2.3	-0.6	-2.4
Non-Energy Uses	9407	8362	7046	5744	6094	6362	6350	-2.8	-1.4	0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	31478	30047	34166	33100	36782	37386	37815	0.8	0.7	0.3
Solids	7966	6265	3296	2973	2960	1081	262	-8.4	-1.1	-21.5
Oil	228	167	124	377	365	344	358	-5.9	11.4	-0.2
Natural gas	234	185	78	42	47	54	56	-10.4	-4.9	1.7
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0
Renewable energy sources	7005	8587	14677	15536	19237	21734	22966	7.7	2.7	1.8
Hydro	2430	1582	3638	2853	2861	2877	2882	4.1	-2.4	0.1
Biomass & Waste	4131	5113	6183	6934	9588	8889	7699	4.1	4.5	-2.2
Wind	406	1821	3807	4443	4844	4954	6430	25.1	2.4	2.9
Solar and others	33	65	1035	1288	1920	4962	5915	41.3	6.4	11.9
Geothermal	5	7	16	18	24	53	40	11.5	4.3	5.1
Net Imports (ktoe)	99342	123832	106084	100729	98121	86798	64774	0.7	-0.8	-4.1
Solids	12840	14418	6726	12795	13174	9332	2753	-6.3	7.0	-14.5
Oil	70653	79281	68704	62860	58976	54486	49613	-0.3	-1.5	-1.7
Crude oil and Feedstocks	59023	60650	56496	66666	63021	58477	53779	-0.4	1.1	-1.6
Oil products	11631	18630	12208	-3806	-4046	-3991	-4166	0.5	0.0	0.3
Natural gas	15467	30248	30950	25113	25456	22278	11955	7.2	-1.9	-7.3
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4
Import Dependency (%)	76.6	81.4	76.8	75.3	72.7	69.9	63.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	220921	289445	298320	275293	286309	290367	250208	3.0	-0.4	-1.3
Nuclear energy	62206	57539	61990	58066	58066	57757	57521	0.0	-0.7	-0.1
Solids	79094	84047	25493	57621	59438	34962	7869	-10.7	8.8	-18.3
Oil (including refinery gas)	22578	24420	16562	4988	566	1699	1596	-3.1	-28.7	10.9
Gas (including derived gases)	21942	80725	95840	53218	56409	46771	2869	15.9	-5.2	-25.8
Biomass-waste	2100	3104	4674	4514	5972	7438	9262	8.3	2.5	4.5
Hydro (pumping excluded)	28256	18393	42304	33175	33273	33448	33515	4.1	-2.4	0.1
Wind	4727	21176	44271	51665	56322	57605	74764	25.1	2.4	2.9
Solar	17	41	6423	12046	16264	50687	62811	80.6	9.7	14.5
Geothermal and other renewables	1	0	763	0	0	0	0	105.9	-96.6	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	52405	73568	99270	104515	104702	118475	123722	6.6	0.5	1.7
Nuclear energy	7869	7869	7845	7399	7399	7399	7399	0.0	-0.6	0.0
Renewable energy	17760	25774	41432	46783	51182	68683	79509	8.8	2.1	4.5
Hydro (pumping excluded)	15542	15796	16086	16632	16795	16795	16795	0.3	0.4	0.0
Wind	2206	9918	20693	23025	24977	25362	30746	25.1	1.9	2.1
Solar	12	60	4653	7126	9410	26525	31968	81.5	7.3	13.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	26776	39924	49994	50333	46121	42393	36814	6.4	-0.8	-2.2
of which cogeneration units	4570	6597	3382	6617	3237	3820	2861	-3.0	-0.4	-1.2
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	11556	11359	10389	10316	9333	7378	3967	-1.1	-1.1	-8.2
Gas fired	4713	17647	29569	31333	30272	29750	28055	20.2	0.2	-0.8
Oil fired	10028	10043	8964	7496	4752	3422	2950	-1.1	-6.1	-4.7
Biomass-waste fired	478	876	1072	1188	1765	1844	1842	8.4	5.1	0.4
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.9	43.1	33.1	28.9	30.0	27.2	22.7			
Efficiency of gross thermal power generation (%)	40.8	46.7	48.9	42.5	42.5	42.2	35.6			
% of gross electricity from CHP	9.2	4.0	7.4	9.8	5.2	5.0	5.9			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	44.0	34.6	53.8	57.9	59.3	71.3	95.1			
Fuel Inputs to Thermal Power Generation (ktoe)	26472	35403	25226	24328	24755	18521	5213	-0.5	-0.2	-14.4
Solids	18245	17623	5561	13703	14045	8335	1812	-11.2	9.7	-18.5
Oil (including refinery gas)	4455	5249	3391	948	133	402	378	-2.7	-27.7	11.0
Gas (including derived gases)	3075	11140	14839	8684	9277	7975	875	17.0	-4.6	-21.0
Biomass & Waste	697	1391	1435	994	1300	1809	2148	7.5	-1.0	5.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	79871	79435	78129	80766	79101	74859	70315	-0.2	0.1	-1.2
Refineries	60685	61323	58480	63161	60998	57044	52868	-0.4	0.4	-1.4
Biofuels and hydrogen production	70	256	1412	1419	2061	1840	1891	35.0	3.9	-0.9
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0
Derived gases, cokeries etc.	19115	17857	18237	16187	16042	15975	15555	-0.5	-1.3	-0.3

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Spain: EUCO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	476	535	542	561	609	655	710	1.3	1.2	1.5
Public road transport	50	53	51	52	53	54	55	0.1	0.4	0.4
Private cars and motorcycles	310	346	352	354	372	390	420	1.3	0.5	1.2
Rail	25	28	29	29	37	44	52	1.2	2.5	3.5
Aviation ⁽³⁾	89	106	109	124	146	164	181	2.1	3.0	2.2
Inland navigation	2	2	2	2	2	2	2	0.8	1.4	1.5
Freight transport activity (Gtkm)	180	265	227	228	247	261	278	2.3	0.9	1.2
Heavy goods and light commercial vehicles	138	217	190	191	206	215	229	3.2	0.8	1.1
Rail	12	12	9	10	12	13	15	-2.3	2.3	2.5
Inland navigation	31	36	28	28	30	32	34	-1.1	0.7	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	33084	39797	37180	35033	34486	32451	31853	1.2	-0.7	-0.8
Public road transport	1354	1408	1319	1329	1324	1298	1266	-0.3	0.0	-0.5
Private cars and motorcycles	18655	20608	19876	18098	16537	14189	13408	0.6	-1.8	-2.1
Heavy goods and light commercial vehicles	6486	9874	8641	8122	8353	8098	8256	2.9	-0.3	-0.1
Rail	708	1029	899	772	874	979	1051	2.4	-0.3	1.9
Aviation	4486	5323	5389	6005	6639	7068	7009	1.9	2.1	0.5
Inland navigation	1395	1555	1057	707	757	820	864	-2.7	-3.3	1.3
By transport activity										
Passenger transport	25151	27727	26960	25730	24857	22965	22133	0.7	-0.8	-1.2
Freight transport	7933	12069	10220	9303	9629	9486	9721	2.6	-0.6	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	1.6	3.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	3.8	4.1	6.1	6.0	6.3			
ENERGY EFFICIENCY										
Primary energy consumption	114235	135861	122822	118838	119460	108490	86811	0.7	-0.3	-3.1
Final Energy Demand	79885	97754	89072	85314	86408	80109	67079	1.1	-0.3	-2.5
by sector										
Industry	25368	30967	21435	21275	22323	21649	18234	-1.7	0.4	-2.0
Energy intensive industries	17349	20338	13379	13268	14036	13370	11125	-2.6	0.5	-2.3
Other industrial sectors	8020	10628	8056	8007	8287	8279	7108	0.0	0.3	-1.5
Residential	12000	15132	16920	15550	15497	13567	9135	3.5	-0.9	-5.1
Tertiary	9287	11712	13526	13441	14086	12425	7839	3.8	0.4	-5.7
Transport ⁽⁵⁾	33230	39944	37192	35048	34502	32468	31871	1.1	-0.7	-0.8
by fuel										
Solids	1775	1712	1261	1123	1313	1318	573	-3.4	0.4	-8.0
Oil	46297	53449	46775	43129	40270	35856	31520	0.1	-1.5	-2.4
Gas	12141	17978	14645	14743	14328	12562	9235	1.9	-0.2	-4.3
Electricity	16205	20827	21049	20057	21439	22195	19129	2.7	0.2	-1.1
Heat (from CHP and District Heating)	0	0	0	8	118	299	376	0.0	0.0	12.3
Renewable energy forms	3469	3788	5343	6252	8930	7780	6046	4.4	5.3	-3.8
Other	0	0	0	3	10	100	200	0.0	1431.2	34.5
Energy intensity indicators										
Gross Int. Cons./GDP (toe/ME13)	139	138	119	114	104	87	64	-1.5	-1.3	-4.7
Industry (Energy on Value added, index 2000=100)	100	114	87	87	84	75	59	-1.4	-0.4	-3.5
Residential (Energy on Private Income, index 2000=100)	100	106	115	103	93	74	46	1.4	-2.1	-6.9
Tertiary (Energy on Value added, index 2000=100)	100	108	110	107	101	81	47	1.0	-0.8	-7.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	46	42	38	34	29	25	-1.1	-2.2	-2.8
Freight transport (toe/Mtkm)	44	46	45	41	39	36	35	0.3	-1.5	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	398.8	447.7	364.3	356.5	343.4	295.4	222.4	-0.9	-0.6	-4.3
of which ETS sectors (2013 scope) GHG emissions		216.2	146.4	157.9	159.2	130.8	79.1		0.8	-6.8
of which ESD sectors (2013 scope) GHG emissions		231.5	218.0	198.6	184.2	164.6	143.3		-1.7	-2.5
CO ₂ Emissions (energy related)	291.6	347.3	272.6	271.0	260.5	215.4	145.5	-0.7	-0.5	-5.7
Power generation/District heating	98.8	117.7	70.3	81.2	81.4	56.0	12.5	-3.4	1.5	-17.1
Energy Branch	13.4	13.5	16.2	16.1	14.3	12.5	11.3	1.9	-1.2	-2.4
Industry	50.4	59.2	42.3	39.8	39.6	36.0	25.3	-1.7	-0.7	-4.4
Residential	17.1	20.9	20.5	16.5	13.6	9.9	3.4	1.9	-4.0	-12.9
Tertiary	13.2	16.5	15.0	15.5	13.9	10.3	5.9	1.3	-0.8	-8.3
Transport	98.7	119.5	108.3	101.9	97.7	90.6	87.1	0.9	-1.0	-1.1
CO ₂ Emissions (non energy and non land use related)	26.2	29.5	21.8	17.7	19.0	19.5	19.8	-1.8	-1.4	0.4
Non-CO2 GHG emissions	81.1	71.0	69.9	67.7	64.0	60.5	57.1	-1.5	-0.9	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	134.6	151.1	123.0	120.3	115.9	99.7	75.1	-0.9	-0.6	-4.3
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.45	0.41	0.24	0.29	0.28	0.19	0.05	-6.2	1.8	-16.1
Final energy demand (t of CO ₂ /toe)	2.25	2.21	2.09	2.04	1.91	1.83	1.81	-0.7	-0.9	-0.5
Industry	1.99	1.91	1.97	1.87	1.77	1.66	1.39	-0.1	-1.1	-2.4
Residential	1.42	1.38	1.21	1.06	0.88	0.73	0.37	-1.6	-3.2	-8.2
Tertiary	1.43	1.41	1.11	1.15	0.99	0.83	0.75	-2.5	-1.2	-2.7
Transport	2.97	2.99	2.91	2.91	2.83	2.79	2.73	-0.2	-0.3	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	8.1	8.4	13.8	15.4	21.0	25.7	32.9			
RES-H&C share	11.0	9.4	12.6	16.1	22.5	23.6	26.9			
RES-E share	16.6	19.1	29.8	36.9	38.4	50.2	71.2			
RES-T share (based on ILUC formula)	0.6	1.3	5.1	0.8	10.1	14.4	23.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€/13/MWh)	58	62	75	90	95	89	80	2.5	2.4	-1.7
Average Price of Electricity in Final demand sectors (€/13/MWh)	105	101	149	173	169	163	167	3.5	1.3	-0.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	74.3	101.3	120.1	122.7	145.2	154.4	184.7	4.9	1.9	2.4
as % of GDP	8.3	9.7	11.0	11.2	12.0	11.6	12.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Sweden: EU/CO+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	9	9	9	10	10	11	11	0.5	0.9	0.8
GDP (in 000 M€13)	296	337	366	404	448	497	552	2.2	2.1	2.1
Gross Inland Consumption (ktoe)	48898	50993	50783	47002	45945	44822	36128	0.4	-1.0	-1.8
Solids	2452	2629	2492	2263	1999	1924	1165	0.2	-2.2	-5.3
Oil	15377	14136	14199	11663	10826	9520	8227	-0.8	-2.7	-2.7
Natural gas	816	886	1484	679	3074	2800	889	6.2	7.6	-11.7
Nuclear	14785	18670	14917	14362	12192	12192	11834	0.1	-2.0	-0.3
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Renewable energy forms	15066	15308	17512	19146	19610	20100	17941	1.5	1.1	-0.9
Energy Branch Consumption	1141	1326	1469	1414	1364	1333	1294	2.6	-0.7	-0.5
Non-Energy Uses	3143	2460	2113	2183	2281	2398	2288	-3.9	0.8	0.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	30052	34233	32685	33372	31504	31931	29299	0.8	-0.4	-0.7
Solids	162	211	238	210	93	94	0	4.0	-8.9	-100.0
Oil	0	0	0	0	0	0	0	7.8	-100.0	0.0
Natural gas	40	44	18	0	0	0	0	-7.6	-100.0	0.0
Nuclear	14785	18670	14917	14362	12192	12192	11834	0.1	-2.0	-0.3
Renewable energy sources	15066	15308	17512	18801	19219	19645	17465	1.5	0.9	-1.0
Hydro	6757	6260	5709	6203	6158	6083	6079	-1.7	0.8	-0.1
Biomass & Waste	8264	8961	11490	11434	11781	11240	9048	3.4	0.2	-2.6
Wind	39	81	301	1147	1249	2266	2266	22.6	15.3	6.1
Solar and others	5	6	11	17	31	54	65	7.4	11.0	7.7
Geothermal	0	0	0	0	0	2	7	0.0	0.0	35.8
Net Imports (ktoe)	20436	19460	19294	15820	16758	15320	11379	-0.6	-1.4	-3.8
Solids	2409	2556	2548	2054	1905	1830	1165	0.6	-2.9	-4.8
Oil	16849	16698	15102	13853	13096	11842	10397	-1.1	-1.4	-2.3
Crude oil and Feedstocks	21606	19369	19139	15905	15006	13703	12431	-1.2	-2.4	-1.9
Oil products	-4757	-2671	-4038	-2052	-1910	-1861	-2033	-1.6	-7.2	0.6
Natural gas	776	843	1466	679	3122	2907	1268	6.6	7.9	-8.6
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9
Import Dependency (%)	40.7	36.8	36.6	32.2	34.7	32.4	28.0			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	145231	158365	148460	160491	172909	179382	164377	0.2	1.5	-0.5
Nuclear energy	57316	72377	57828	57851	49379	49379	48067	0.1	-1.6	-0.3
Solids	1706	1169	1770	1540	1118	786	112	0.4	-4.5	-20.6
Oil (including refinery gas)	1533	1379	1774	249	400	206	0	1.5	-13.8	-100.0
Gas (including derived gases)	1292	1342	3782	471	15505	13166	692	11.3	15.2	-26.7
Biomass-waste	4342	8357	13397	14846	20304	18691	18400	11.9	4.2	-1.0
Hydro (pumping excluded)	78584	72803	66398	72128	71601	70735	70687	-1.7	0.8	-0.1
Wind	457	936	3502	13335	14526	26343	26343	22.6	15.3	6.1
Solar	1	2	8	69	75	75	75	21.5	24.9	0.0
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	34594	33587	36947	39676	37500	41406	41398	0.7	0.1	1.0
Nuclear energy	10122	9532	9532	9532	6949	6949	6949	-0.6	-3.1	0.0
Renewable energy	16718	16799	18654	22501	23533	27352	27352	1.1	2.4	1.5
Hydro (pumping excluded)	16506	16302	16624	16395	16938	16938	16938	0.1	0.2	0.0
Wind	209	493	2019	6025	6507	10327	10327	25.5	12.4	4.7
Solar	3	4	11	81	88	88	88	13.9	23.1	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	7754	7256	8761	7643	7018	7104	7096	1.2	-2.2	0.1
of which cogeneration units	4940	3488	5100	4504	6291	5977	3578	0.3	2.1	-5.5
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	337	348	356	356	136	136	128	0.5	-9.2	-0.6
Gas fired	547	469	1168	1168	3218	3278	3278	7.9	10.7	0.2
Oil fired	4472	3974	3963	2958	882	882	882	-1.2	-13.9	0.0
Biomass-waste fired	2398	2465	3274	3161	2782	2807	2807	3.2	-1.6	0.1
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	52.5	44.9	45.1	51.3	48.3	44.2			
Efficiency of gross thermal power generation (%)	21.3	23.0	27.3	25.6	41.0	39.0	34.8			
% of gross electricity from CHP	5.9	6.7	12.5	10.7	21.3	16.3	7.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	96.9	97.5	95.1	98.6	90.2	92.1	99.5			
Fuel Inputs to Thermal Power Generation (ktoe)	3582	4575	6518	5747	7837	7250	4744	6.2	1.9	-4.9
Solids	462	508	597	566	275	286	28	2.6	-7.5	-20.5
Oil (including refinery gas)	530	317	431	70	115	66	0	-2.0	-12.4	-100.0
Gas (including derived gases)	508	591	998	225	2495	2168	212	7.0	9.6	-21.8
Biomass & Waste	2084	3158	4491	4886	4953	4730	4504	8.0	1.0	-0.9
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	40980	42243	39786	34628	31732	30557	28330	-0.3	-2.2	-1.1
Refineries	22901	20082	21039	16927	16154	15086	13865	-0.8	-2.6	-1.5
Biofuels and hydrogen production	0	134	376	733	817	851	1064	0.0	8.1	2.7
District heating	1564	1525	1735	1424	1382	1181	519	1.0	-2.3	-9.3
Derived gases, cokeries etc.	16516	20501	16636	15543	13380	13440	12882	0.1	-2.2	-0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Sweden: EU20+40		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	142	148	151	160	167	174	185	0.7	1.0	1.1
Public road transport	9	9	9	9	9	10	11	-1.0	0.9	1.2
Private cars and motorcycles	102	108	109	114	116	119	124	0.7	0.7	0.7
Rail	10	11	13	15	16	18	20	2.8	2.1	2.0
Aviation ⁽³⁾	14	13	15	17	18	20	23	0.3	2.3	2.4
Inland navigation	6	6	6	5	6	7	7	-0.3	0.2	1.5
Freight transport activity (Gtkm)	70	78	81	81	90	97	104	1.5	1.1	1.5
Heavy goods and light commercial vehicles	43	47	45	46	49	51	53	0.4	1.1	0.7
Rail	19	22	23	24	28	31	35	1.9	1.6	2.3
Inland navigation	7	9	13	11	13	15	16	5.6	0.4	2.2
Energy demand in transport (ktoe) ⁽⁴⁾	8192	8609	8620	8260	7893	7078	6668	0.5	-0.9	-1.7
Public road transport	189	179	184	187	193	203	211	-0.3	0.5	0.9
Private cars and motorcycles	4879	5236	5250	4890	4394	3568	3133	0.7	-1.8	-3.3
Heavy goods and light commercial vehicles	1740	1959	1951	1921	1939	1833	1814	1.2	-0.1	-0.7
Rail	299	246	208	232	264	288	311	-3.6	2.4	1.6
Aviation	928	846	840	945	1004	1078	1083	-1.0	1.8	0.8
Inland navigation	156	142	188	85	98	107	116	1.8	-6.3	1.7
<i>By transport activity</i>										
Passenger transport	6165	6361	6387	6089	5668	4933	4514	0.4	-1.2	-2.3
Freight transport	2027	2248	2234	2171	2225	2145	2153	1.0	0.0	-0.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.7	2.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	1.6	4.7	9.2	10.7	12.4	15.3			
ENERGY EFFICIENCY										
Primary energy consumption	45755	48533	48670	44819	43664	42424	35840	0.6	-1.1	-2.0
Final Energy Demand	33561	33492	34077	31885	31957	30505	24319	0.2	-0.6	-2.7
<i>by sector</i>										
Industry	12854	12464	12205	11531	12107	12173	10047	-0.5	-0.1	-1.8
Energy intensive industries	9198	9252	9141	8370	8749	8636	6931	-0.1	-0.4	-2.3
Other industrial sectors	3656	3212	3064	3161	3358	3537	3116	-1.8	0.9	-0.7
Residential	7300	7305	7557	7197	7046	6517	4419	0.3	-0.7	-4.6
Tertiary	5214	5114	5720	4897	4911	4737	3186	0.9	-1.5	-4.2
Transport ⁽⁵⁾	8192	8609	8595	8260	7893	7078	6668	0.5	-0.8	-1.7
<i>by fuel</i>										
Solids	1114	1346	1202	1122	1136	992	579	0.8	-0.6	-6.5
Oil	11861	11256	10038	8856	7975	6635	5537	-1.7	-2.3	-3.6
Gas	673	765	728	677	802	898	949	0.8	1.0	1.7
Electricity	11068	11238	11283	11102	11597	12155	10665	0.2	0.3	-0.8
Heat (from CHP and District Heating)	3550	4174	5141	4420	4483	3890	1885	3.8	-1.4	-8.3
Renewable energy forms	5294	4714	5685	5705	5961	5920	4599	0.7	0.5	-2.6
Other	0	0	0	3	3	16	104	0.0	0.0	41.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	165	151	139	116	103	90	69	-1.7	-3.0	-3.9
Industry (Energy on Value added, index 2000=100)	100	76	70	62	59	55	41	-3.5	-1.7	-3.5
Residential (Energy on Private Income, index 2000=100)	100	90	84	71	62	51	31	-1.7	-3.0	-6.8
Tertiary (Energy on Value added, index 2000=100)	100	89	91	70	63	54	33	-0.9	-3.6	-6.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	41	41	39	35	31	26	22	-0.5	-2.2	-3.4
Freight transport (toe/Mtkm)	29	29	28	27	25	22	21	-0.5	-1.2	-1.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.6	69.0	65.1	55.7	56.8	50.8	38.7	-0.9	-1.4	-3.8
of which ETS sectors (2013 scope) GHG emissions		25.9	25.6	19.9	23.8	22.3	13.9		-0.7	-5.2
of which ESD sectors (2013 scope) GHG emissions		43.0	39.5	35.8	33.0	28.6	24.7		-1.8	-2.8
CO₂ Emissions (energy related)	52.2	52.1	49.0	40.6	42.3	37.0	25.3	-0.6	-1.5	-5.0
Power generation/District heating	7.7	7.7	9.1	4.4	8.8	8.2	2.1	1.7	-0.3	-13.3
Energy Branch	2.0	1.9	2.0	2.2	1.8	1.8	1.7	0.4	-1.0	-0.7
Industry	11.9	13.3	10.5	10.0	9.5	8.1	5.3	-1.2	-1.0	-5.7
Residential	3.0	1.5	0.4	0.2	0.1	0.1	0.1	-17.9	-6.6	-12.9
Tertiary	4.5	3.2	2.9	1.7	1.4	0.8	0.4	-4.2	-6.8	-11.1
Transport	23.2	24.6	24.1	22.0	20.5	17.9	15.7	0.4	-1.6	-2.7
CO₂ Emissions (non energy and non land use related)	3.2	3.2	3.7	3.4	3.5	3.4	3.3	1.5	-0.7	-0.5
Non-CO₂ GHG emissions	16.2	13.6	12.3	11.7	11.1	10.5	10.1	-2.7	-1.1	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	97.8	94.2	89.0	76.1	77.6	69.5	52.8	-0.9	-1.4	-3.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.04	0.04	0.04	0.02	0.04	0.04	0.01	0.6	-1.1	-11.6
Final energy demand (t of CO ₂ /toe)	1.27	1.27	1.11	1.06	0.99	0.88	0.88	-1.3	-1.2	-1.1
Industry	0.93	1.07	0.86	0.87	0.79	0.67	0.53	-0.7	-0.9	-3.9
Residential	0.41	0.20	0.05	0.03	0.03	0.02	0.01	-18.2	-6.0	-8.7
Tertiary	0.86	0.62	0.51	0.35	0.29	0.17	0.14	-5.1	-5.4	-7.2
Transport	2.83	2.86	2.80	2.66	2.60	2.53	2.35	-0.1	-0.7	-1.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	38.6	40.3	46.8	56.8	56.7	60.5	64.5			
RES-H&C share	48.7	52.4	60.9	72.7	68.9	72.0	74.7			
RES-E share	51.7	51.6	56.6	67.3	69.2	72.1	80.7			
RES-T share (based on ILUC formula)	4.8	5.7	8.9	18.7	22.3	27.1	42.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	57	51	57	63	61	55	56	-0.1	0.8	-0.9
Average Price of Electricity in Final demand sectors (€13/MWh)	83	107	144	142	140	140	142	5.7	-0.3	0.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	31.7	39.3	46.2	43.5	49.2	52.6	66.2	3.9	0.6	3.0
as % of GDP	10.7	11.6	12.6	10.8	11.0	10.6	12.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								United Kingdom: EUCO+40				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	59	60	63	65	67	69	71	0.6	0.7	0.5		
GDP (in 000 M€13)	1538	1780	1810	1976	2120	2247	2423	1.6	1.6	1.3		
Gross Inland Consumption (ktoe)	230560	233992	212234	199641	189305	173679	144154	-0.8	-1.1	-2.7		
Solids	36516	37737	30761	30896	19262	8464	4207	-1.7	-4.6	-14.1		
Oil	81031	84449	72986	71030	65429	58236	51164	-1.0	-1.1	-2.4		
Natural gas	87399	85473	85050	67578	62106	60206	31076	-0.3	-3.1	-6.7		
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5		
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7		
Renewable energy forms	2453	4564	7179	12764	25792	31746	32914	11.3	13.6	2.5		
Energy Branch Consumption	14909	16092	13761	10879	9914	8692	7504	-0.8	-3.2	-2.7		
Non-Energy Uses	11330	11213	7524	8461	8861	8961	8773	-4.0	1.6	-0.1		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	268546	204420	147634	115064	109916	98787	94097	-5.8	-2.9	-1.5		
Solids	18658	11899	10751	6067	5387	3205	1734	-5.4	-6.7	-10.7		
Oil	127939	87930	63788	48199	40949	32787	26033	-6.7	-4.3	-4.4		
Natural gas	97554	79397	51468	34247	26718	22599	15098	-6.2	-6.3	-5.5		
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5		
Renewable energy sources	2453	4141	5598	10759	21488	26336	27458	8.6	14.4	2.5		
Hydro	437	423	307	477	452	456	456	-3.5	4.0	0.1		
Biomass & Waste	1922	3437	4314	6434	11801	15444	16488	8.4	10.6	3.4		
Wind	81	250	875	2969	7891	8822	9129	26.8	24.6	1.5		
Solar and others	11	30	101	878	1341	1603	1370	24.5	29.5	0.2		
Geothermal	1	1	1	1	3	11	14	0.0	13.4	17.4		
Net Imports (ktoe)	-39220	31596	61239	87711	82592	78054	53212	0.0	3.0	-4.3		
Solids	14454	27222	16045	24829	13875	5260	2473	1.0	-1.4	-15.8		
Oil	-45582	-2738	11181	25966	27648	28534	28089	0.0	9.5	0.2		
Crude oil and Feedstocks	-39093	4558	13213	20985	23501	25443	26098	0.0	5.9	1.1		
Oil products	-6489	-7296	-2032	4981	4147	3091	1991	-11.0	0.0	-7.1		
Natural gas	-9311	5973	32205	33331	35424	37683	16176	0.0	1.0	-7.5		
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7		
Import Dependency (%)	-16.9	13.4	28.5	43.3	42.9	44.1	36.1					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	374375	395425	378558	357131	375317	385749	351520	0.1	-0.1	-0.7		
Nuclear energy	85063	81618	62140	64689	62974	59946	107051	-3.1	0.1	5.4		
Solids	119950	134637	107694	96299	53779	12645	3676	-1.1	-6.7	-23.5		
Oil (including refinery gas)	8446	5339	4804	4252	2327	2416	2389	-5.5	-7.0	0.3		
Gas (including derived gases)	150427	154339	176759	117631	99019	125262	46435	1.6	-5.6	-7.3		
Biomass-waste	4455	11658	13373	26283	51006	68361	71266	11.6	14.3	3.4		
Hydro (pumping excluded)	5086	4922	3568	5550	5256	5300	5306	-3.5	3.9	0.1		
Wind	947	2904	10180	34520	91759	102583	106153	26.8	24.6	1.5		
Solar	1	8	41	7899	8985	8985	8985	42.7	71.6	0.0		
Geothermal and other renewables	0	0	-1	8	212	252	258	15.7	0.0	2.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	78130	82074	88395	92944	118874	112318	110321	1.2	3.0	-0.7		
Nuclear energy	12086	11376	10027	9374	8884	7811	13107	-1.9	-1.2	4.0		
Renewable energy	1900	3077	7128	25020	45180	48696	49814	14.1	20.3	1.0		
Hydro (pumping excluded)	1485	1501	1637	1693	1734	1734	1734	1.0	0.6	0.0		
Wind	412	1565	5396	13603	32301	35799	36915	29.3	19.6	1.3		
Solar	2	11	94	9721	11043	11043	11043	47.0	61.1	0.0		
Other renewables (tidal etc.)	1	0	1	4	102	119	122	0.0	58.7	1.9		
Thermal power	64144	67621	71240	58550	64811	55811	47400	1.1	-0.9	-3.1		
of which cogeneration units	5794	5440	6102	5052	5342	4834	9071	0.5	-1.3	5.4		
of which CCS units	0	0	0	0	833	833	833	0.0	0.0	0.0		
Solids fired	27533	26230	25549	18735	11149	2323	501	-0.7	-8.0	-26.7		
Gas fired	24512	29106	33292	33953	35273	35106	28609	3.1	0.6	-2.1		
Oil fired	9696	9323	9064	2227	1149	1138	1094	-0.7	-18.7	-0.5		
Biomass-waste fired	2403	2961	3335	3634	17238	17244	17196	3.3	17.9	0.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	52.3	52.5	46.8	41.7	34.5	37.7	34.9					
Efficiency of gross thermal power generation (%)	41.1	42.1	43.6	41.3	42.8	46.1	42.2					
% of gross electricity from CHP	6.1	6.8	6.2	5.4	4.7	3.8	3.7					
% of electricity from CCS	0.0	0.0	0.0	0.0	1.4	1.5	1.8					
% of carbon free (RES, nuclear) gross electricity generation	25.5	25.6	23.6	38.9	58.7	63.6	85.1					
Fuel Inputs to Thermal Power Generation (ktoe)	59321	62482	59738	50947	41457	38906	25217	0.1	-3.6	-4.8		
Solids	28425	29812	23816	23961	13402	3117	779	-1.8	-5.6	-24.8		
Oil (including refinery gas)	1453	1060	789	920	520	541	535	-5.9	-4.1	0.3		
Gas (including derived gases)	28139	28415	31452	20339	16583	20438	8138	1.1	-6.2	-6.9		
Biomass & Waste	1305	3194	3681	5727	10952	14811	15766	10.9	11.5	3.7		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	118459	115207	97492	88112	83201	76367	79603	-1.9	-1.6	-0.4		
Refineries	88821	88399	75162	65526	61104	55327	49676	-1.7	-2.0	-2.0		
Biofuels and hydrogen production	0	80	1130	1361	2136	1891	1869	0.0	6.6	-1.3		
District heating	15	14	13	13	11	15	6	-0.9	-2.2	-5.0		
Derived gases, cokeries etc.	29623	26714	21187	21212	19951	19134	28051	-3.3	-0.6	3.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							United Kingdom: EUCO+40			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	822	872	849	878	935	958	1012	0.3	1.0	0.8
Public road transport	49	44	46	46	47	48	49	-0.5	0.2	0.4
Private cars and motorcycles	644	673	649	659	702	711	748	0.1	0.8	0.6
Rail	47	53	66	76	80	87	93	3.5	2.0	1.6
Aviation ⁽³⁾	77	97	83	90	100	106	116	0.7	1.8	1.5
Inland navigation	6	6	5	5	6	6	7	-0.3	0.8	1.2
Freight transport activity (Gtkm)	237	248	216	242	253	260	273	-0.9	1.6	0.8
Heavy goods and light commercial vehicles	183	183	164	187	195	198	207	-1.1	1.8	0.6
Rail	18	21	19	22	23	25	26	0.3	2.1	1.4
Inland navigation	36	43	33	34	35	37	39	-0.9	0.5	1.1
Energy demand in transport (ktoe) ⁽⁴⁾	52386	55501	51470	52014	49630	45033	42580	-0.2	-0.4	-1.5
Public road transport	559	499	515	511	504	495	477	-0.8	-0.2	-0.6
Private cars and motorcycles	29150	30049	29058	27657	25102	21164	19462	0.0	-1.5	-2.5
Heavy goods and light commercial vehicles	9809	9612	8396	9457	9043	8649	8358	-1.5	0.7	-0.8
Rail	821	988	966	1108	1155	1223	1274	1.6	1.8	1.0
Aviation	11115	13069	11650	12400	12912	12539	12010	0.5	1.0	-0.7
Inland navigation	933	1282	884	881	913	962	999	-0.5	0.3	0.9
By transport activity										
Passenger transport	41504	44033	41640	40984	38960	34654	32421	0.0	-0.7	-1.8
Freight transport	10882	11467	9830	11030	10670	10379	10159	-1.0	0.8	-0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	2.2	4.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	2.2	2.7	4.5	5.7	6.1			
ENERGY EFFICIENCY										
Primary energy consumption	219230	222779	204710	191181	180444	164718	135381	-0.7	-1.3	-2.8
Final Energy Demand	153236	152728	142723	138484	135400	125029	97735	-0.7	-0.5	-3.2
by sector										
Industry	36930	33388	26923	25432	25535	23638	19020	-3.1	-0.5	-2.9
Energy intensive industries	19392	16472	12350	11464	11274	9815	7293	-4.4	-0.9	-4.3
Other industrial sectors	17537	16916	14573	13968	14261	13823	11728	-1.8	-0.2	-1.9
Residential	43034	44151	44715	40936	39845	37459	24101	0.4	-1.1	-4.9
Tertiary	20377	19686	19633	20101	20389	18900	12034	-0.4	0.4	-5.1
Transport ⁽⁵⁾	52895	55503	51452	52014	49630	45033	42580	-0.3	-0.4	-1.5
by fuel										
Solids	5954	4530	4133	4583	3838	3149	1562	-3.6	-0.7	-8.6
Oil	63674	65851	59524	58175	53035	46194	39712	-0.7	-1.1	-2.9
Gas	52180	50380	47246	43853	42376	37494	21539	-1.0	-1.1	-6.5
Electricity	28360	29998	28286	27707	29114	29873	26927	0.0	0.3	-0.8
Heat (from CHP and District Heating)	2439	1268	1266	1255	1340	1436	1089	-6.3	0.6	-2.1
Renewable energy forms	630	702	2268	2885	5599	6212	5987	13.7	9.5	0.7
Other	0	0	0	26	97	671	919	-100.0	0.0	25.2
Energy intensity indicators										
Gross Int. Cons./GDP (toe/€M13)	150	131	117	101	89	77	59	-2.4	-2.7	-4.0
Industry (Energy on Value added, index 2000=100)	100	93	79	71	68	61	47	-2.3	-1.5	-3.7
Residential (Energy on Private Income, index 2000=100)	100	87	87	75	68	60	36	-1.4	-2.4	-6.3
Tertiary (Energy on Value added, index 2000=100)	100	81	77	71	67	58	34	-2.6	-1.4	-6.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	38	36	35	33	29	25	22	-0.8	-1.9	-2.9
Freight transport (toe/Mtkm)	46	46	46	46	42	40	37	-0.1	-0.8	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	720.6	727.6	636.4	585.9	495.1	417.9	300.6	-1.2	-2.5	-4.9
of which ETS sectors (2013 scope) GHG emissions		314.0	273.9	245.0	183.9	143.8	91.1		-3.9	-6.8
of which ESD sectors (2013 scope) GHG emissions		413.6	362.5	340.9	311.2	274.2	209.5		-1.5	-3.9
CO ₂ Emissions (energy related)	568.2	573.4	518.3	477.6	395.3	325.4	218.2	-0.9	-2.7	-5.8
Power generation/District heating	194.2	199.6	178.4	155.5	97.4	65.3	26.7	-0.8	-5.9	-12.2
Energy Branch	31.3	35.2	29.4	20.9	18.9	16.2	13.2	-0.6	-4.3	-3.5
Industry	77.4	67.5	52.1	49.5	46.0	38.7	19.9	-3.9	-1.2	-8.0
Residential	82.6	80.4	83.1	74.7	68.7	61.8	32.6	0.1	-1.9	-7.2
Tertiary	27.0	25.3	24.8	25.3	22.6	18.0	10.1	-0.9	-0.9	-7.7
Transport	155.6	165.4	150.6	151.7	141.7	125.4	115.7	-0.3	-0.6	-2.0
CO ₂ Emissions (non energy and non land use related)	20.8	21.0	15.6	17.7	19.0	18.3	16.8	-2.8	2.0	-1.2
Non-CO ₂ GHG emissions	131.6	133.2	102.5	90.5	80.9	74.3	65.6	-2.5	-2.3	-2.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	88.0	88.8	77.7	71.5	60.5	51.0	36.7	-1.2	-2.5	-4.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.49	0.45	0.42	0.25	0.16	0.07	-0.6	-5.9	-11.6
Final energy demand (t of CO ₂ /toe)	2.24	2.22	2.18	2.18	2.06	1.95	1.82	-0.3	-0.5	-1.2
Industry	2.10	2.02	1.93	1.95	1.80	1.64	1.05	-0.8	-0.7	-5.3
Residential	1.92	1.82	1.86	1.82	1.72	1.65	1.35	-0.3	-0.7	-2.4
Tertiary	1.32	1.29	1.26	1.26	1.11	0.95	0.84	-0.5	-1.3	-2.7
Transport	2.94	2.98	2.93	2.92	2.86	2.78	2.72	-0.1	-0.2	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.9	1.4	3.3	6.9	14.5	18.3	24.2			
RES-H&C share	0.8	0.8	1.8	3.4	7.0	8.7	14.5			
RES-E share	2.6	4.1	7.4	19.3	39.8	46.1	52.4			
RES-T share (based on ILUC formula)	0.1	0.2	3.0	6.0	11.4	19.8	27.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	49	59	95	112	112	116	3.4	6.7	0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	124	91	129	166	166	175	182	0.3	2.6	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	159.7	179.7	203.0	231.9	253.5	328.1	1.5	2.6	3.5
as % of GDP	10.1	9.0	9.9	10.3	10.9	11.3	13.5			

Source: PRIMES

- (1) For years 2000 to 2010, total gross electricity by source as reported in this table and total gross electricity generation reported as part of the energy balances, slightly differ because of differences in the respective statistical sources
- (2) Electricity generated over maximum potential generation based on net power capacity
- (3) Excluding international extra-EU aviation.
- (4) Excluding pipeline transport and other non-specified transport.
- (5) Including pipeline transport and other non-specified transport.
- (6) Calculated by taking into account domestic, international intra-EU flights, and extra-EU flights for aviation.
- (7) Including the part of electricity and heat generated from renewables
- (8) Excluding payments for auctioned emission allowances and disutilities (if applicable)

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are mainly based on EUROSTAT and on the publications "EU Energy in Figures" of the Directorate General for Energy and "EU Transport in Figures" of the Directorate General for Mobility and Transport. Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight or passenger transport, which are measured in tonnes of oil equivalent per million tonne-km and in tonnes of oil equivalent per million passenger-km, respectively.

For modelling purposes, some assumptions had to be made for calculating air and maritime transport performance and allocating it by MS. The transport volumes (number of passengers and tonnes) and distance matrices have been used for this purpose. By assumption, 50% of the calculated transport performance is allocated to the origin country and 50% to the destination country. The same "50%-50%" principle allocation applies to the EFTA countries and the candidate countries. For the international extra-EU activity, where the corresponding partner is outside EU-28 and is not an EFTA or candidate country, 100% of transport performance is allocated to the declaring EU MS country. These assumptions are used only for modelling purposes and shall be considered as model estimates and not as official data.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Units

toe: tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ (Gigajoule)
ktoe: 1000 toe
MW: Megawatt or 10^6 watt
MWh: megawatt-hour or 10^6 watt-hours
GWh: gigawatt-hour or 10^9 watt-hours
t: metric tonnes, or 1000 kilogrammes
Mt: Million metric tonnes
km: kilometre
pkm: passenger-kilometre (one passenger transported a distance of one kilometre)
tkm: tonne-kilometre (one tonne transported a distance of one kilometre)
Gpkm: Giga passenger-kilometre, or 10^9 passenger-kilometre
Gtkm: Giga tonne-kilometre, or 10^9 tonne-kilometre

Appendix I.f: EUCO3030 sensitivity - Summary energy balances, emissions and indicators

SUMMARY ENERGY BALANCE AND INDICATORS (A)								EU28: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	484	492	500	505	510	513	516	0.3	0.2	0.1
GDP (in 000 ME13)	11231	12351	12895	13427	14550	15585	16682	1.4	1.2	1.4
Gross Inland Consumption (ktoe)	1726888	1824722	1760315	1666600	1641588	1559467	1423229	0.2	-0.7	-1.4
Solids	321292	318127	282994	277891	252134	215635	151542	-1.3	-1.1	-5.0
Oil	660025	677021	612954	579805	545081	505700	460077	-0.7	-1.2	-1.7
Natural gas	396144	445263	447394	387731	385548	368192	295689	1.2	-1.5	-2.6
Nuclear	243841	257516	236562	213043	188974	174739	174410	-0.3	-2.2	-0.8
Electricity	2030	1412	712	1761	1246	523	43	-9.9	5.8	0.0
Renewable energy forms	103557	125383	179699	206369	268603	294679	341554	5.7	4.1	2.4
Energy Branch Consumption	86261	91922	86455	81623	75824	69095	63140	0.0	-1.3	-1.8
Non-Energy Uses	113106	116080	110230	106709	112514	116557	117073	-0.3	0.2	0.4
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	944996	903986	835772	758583	758674	727192	712804	-1.2	-1.0	-0.6
Solids	214596	196030	164837	148196	135592	119821	85693	-2.6	-1.9	-4.5
Oil	173901	135553	100408	78529	69707	57630	47433	-5.3	-3.6	-3.8
Natural gas	209436	190771	159948	118438	106359	91899	75417	-2.7	-4.0	-3.4
Nuclear	243841	257516	236562	213043	188974	174739	174410	-0.3	-2.2	-0.8
Renewable energy sources	103222	124116	174017	200378	258041	283104	329851	5.4	4.0	2.5
Hydro	30703	26859	32312	31166	32356	32381	32884	0.5	0.0	0.2
Biomass & Waste	65583	85060	119573	132613	164920	170429	184646	6.2	3.3	1.1
Wind	1913	6058	12836	23588	39813	48315	69759	21.0	12.0	5.8
Solar and others	436	827	3775	11001	17738	28208	36025	24.1	16.7	7.3
Geothermal	4587	5312	5521	2009	3214	3771	6537	1.9	-5.3	7.4
Net imports (ktoe)	826349	979676	955004	962880	939115	889987	770354	1.5	-0.2	-2.0
Solids	98320	125363	111814	129695	116542	95814	65848	1.3	0.4	-5.5
Oil	532226	597491	558847	556140	530826	503792	467349	0.5	-0.5	-1.3
Crude oil and Feedstocks	514686	578712	537586	515210	492862	468242	438197	0.4	-0.9	-1.2
Oil products	17540	18779	21261	40930	37963	35550	29152	1.9	6.0	-2.6
Natural gas	193432	254054	278015	269292	279939	278283	225496	3.7	0.1	-2.1
Electricity	2030	1412	712	1761	1246	523	43	-9.9	5.8	0.0
Import Dependency (%)	46.7	52.3	52.8	55.9	55.3	55.0	51.9			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3005548	3289991	3332773	3251300	3373990	3444306	3364853	1.0	0.1	0.0
Nuclear energy	944993	997699	916610	867402	772986	717746	723649	-0.3	-1.7	-0.7
Solids	933855	965565	830393	846882	772849	652941	438603	-1.2	-0.7	-5.5
Oil (including refinery gas)	181296	142772	86899	34612	21899	19702	10441	-7.1	-12.9	-7.1
Gas (including derived gases)	514267	705961	798645	566035	589284	585343	358020	4.5	-3.0	-4.9
Biomass-waste	46401	87831	145814	188810	214611	266614	308466	12.1	3.9	3.7
Hydro (pumping excluded)	357072	312372	375785	362397	376237	376521	382372	0.5	0.0	0.2
Wind	22254	70455	149278	274278	462942	561808	811151	21.0	12.0	5.8
Solar	117	1458	22502	103798	154722	254715	322418	69.1	21.3	7.6
Geothermal and other renewables	5293	5878	6847	7086	8461	8916	9732	2.6	2.1	1.4
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	683507	739589	858628	965588	1031387	1072037	1178330	2.3	1.9	1.3
Nuclear energy	139595	136829	132606	120798	114204	105051	109905	-0.5	-1.5	-0.4
Renewable energy	128990	162194	238638	366738	475366	571574	711924	6.3	7.1	4.1
Hydro (pumping excluded)	115841	119177	122922	127470	131613	132242	133896	0.6	0.7	0.2
Wind	12730	40485	85701	141580	207269	238190	324368	21.0	9.2	4.6
Solar	178	2292	29774	97443	135999	200453	252624	66.9	16.4	6.4
Other renewables (tidal etc.)	241	240	241	244	486	690	1036	0.0	7.3	7.9
Thermal power	414922	440565	487384	478053	441817	395412	356501	1.6	-1.0	-2.1
of which cogeneration units	92439	107819	107430	112105	85430	90229	71238	1.5	-2.3	-1.8
of which CCS units	0	0	0	0	833	1083	1483	0.0	0.0	5.9
Solids fired	194525	185353	180110	176559	146211	117698	99370	-0.8	-2.1	-3.8
Gas fired	123821	163333	215485	219628	211330	203151	181461	5.7	-0.2	-1.5
Oil fired	83315	74582	69295	53085	31444	20710	15306	-1.8	-7.6	-6.9
Biomass-waste fired	12657	16610	21719	27908	51789	52810	59321	5.5	9.1	1.4
Hydrogen plants	0	0	13	13	13	13	13	0.0	0.3	0.0
Geothermal heat	604	687	762	860	1030	1030	1030	2.4	3.1	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.5	48.1	42.1	36.5	35.6	35.2	31.5			
Efficiency of gross thermal power generation (%)	37.2	38.1	38.6	40.2	40.5	40.5	38.7			
% of gross electricity from CHP	11.3	12.5	12.6	12.2	10.4	10.2	8.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.2	0.2	0.4			
% of carbon free (RES, nuclear) gross electricity generation	45.8	44.9	48.5	55.5	59.0	63.5	76.0			
Fuel Inputs to Thermal Power Generation (ktoe)	388346	430899	416477	351894	340737	325281	249264	0.7	-2.0	-3.1
Solids	223608	229335	197694	200223	178340	149730	98835	-1.2	-1.0	-5.7
Oil (including refinery gas)	40868	32485	20566	7340	5031	4844	2817	-6.6	-13.1	-5.6
Gas (including derived gases)	105105	137667	151968	100069	99825	101227	62570	3.8	-4.1	-4.6
Biomass & Waste	14651	26766	41420	43077	55609	67549	83111	11.0	3.0	4.1
Geothermal heat	4114	4645	4828	1184	1932	1932	1932	1.6	-8.8	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1067893	1101207	997991	908897	859379	805600	760106	-0.7	-1.5	-1.2
Refineries	735106	756042	667606	609584	582752	548993	509190	-1.0	-1.4	-1.3
Biofuels and hydrogen production	709	3279	13086	16149	20765	19474	20426	33.8	4.7	-0.2
District heating	15899	17445	19101	16261	16211	14834	14348	1.9	-1.6	-1.2
Derived gases, cokeries etc.	316179	324441	298197	266904	239650	222298	216142	-0.6	-2.2	-1.0

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								EU28: EUOQ3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5964	6295	6449	6735	7157	7491	7863	0.8	1.0	0.9
Public road transport	549	541	528	546	569	585	599	-0.4	0.8	0.5
Private cars and motorcycles	4466	4721	4843	5001	5254	5418	5624	0.8	0.8	0.7
Rail	450	464	499	540	599	669	734	1.0	1.8	2.1
Aviation ⁽³⁾	458	528	539	608	692	773	858	1.7	2.5	2.2
Inland navigation	42	42	40	40	43	46	48	-0.3	0.6	1.1
Freight transport activity (Gtkm)	2295	2612	2556	2704	2981	3216	3457	1.1	1.5	1.5
Heavy goods and light commercial vehicles	1589	1853	1809	1915	2109	2258	2414	1.3	1.5	1.4
Rail	405	416	394	428	482	538	595	-0.3	2.0	2.1
Inland navigation	300	343	354	361	390	419	448	1.7	1.0	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	341525	364526	359402	358062	350304	332765	321619	0.5	-0.3	-0.9
Public road transport	8775	8725	8834	9040	9257	9251	9133	0.1	0.5	-0.1
Private cars and motorcycles	206270	212102	211618	204765	189781	169045	157399	0.3	-1.1	-1.9
Heavy goods and light commercial vehicles	67279	79273	76918	78507	81587	82259	82938	1.3	0.6	0.2
Rail	8168	7668	7129	7395	7897	8457	8890	-1.4	1.0	1.2
Aviation	44876	49959	49230	53303	56437	58109	57348	0.9	1.4	0.2
Inland navigation	6156	6798	5673	5051	5346	5643	5912	-0.8	-0.6	1.0
<i>By transport activity</i>										
Passenger transport	266294	275041	273897	271237	259782	240967	228589	0.3	-0.5	-1.3
Freight transport	75231	89484	85505	86825	90522	91798	93031	1.3	0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.9	3.7	4.6	6.1	6.5	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	1613782	1708642	1650085	1559890	1529074	1442910	1306157	0.2	-0.8	-1.6
Final Energy Demand	1129427	1186370	1155879	1133457	1134858	1075745	986214	0.2	-0.2	-1.4
<i>by sector</i>										
Industry	330627	327576	283437	284538	294533	283823	265526	-1.5	0.4	-1.0
Energy intensive industries	215899	215115	182721	182407	188508	179296	163400	-1.7	0.3	-1.4
Other industrial sectors	114728	112461	100716	102132	106026	104527	102126	-1.3	0.5	-0.4
Residential	288564	307594	313829	299747	299089	281571	244683	0.8	-0.5	-2.0
Tertiary	166677	183368	196770	188333	188042	174674	151562	1.7	-0.5	-2.1
Transport ⁽⁵⁾	343558	367831	361842	360838	353194	335677	324443	0.5	-0.2	-0.8
<i>by fuel</i>										
Solids	61977	53988	50512	47694	45556	40605	29707	-2.0	-1.0	-4.2
Oil	487065	502509	455207	437598	404662	365764	325504	-0.7	-1.2	-2.2
Gas	267588	281191	273366	265878	264003	246931	216580	0.2	-0.3	-2.0
Electricity	217644	239548	244471	241010	251715	258112	253009	1.2	0.3	0.1
Heat (from CHP and District Heating)	48044	52425	52875	49062	50686	49775	46328	1.4	-0.4	-0.9
Renewable energy forms	49109	56708	79448	92104	117862	112923	112238	4.9	4.0	-0.5
Other	0	0	0	111	375	1636	2848	0.0	0.0	22.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	154	148	137	124	113	100	85	-1.2	-1.9	-2.8
Industry (Energy on Value added, index 2000=100)	100	93	80	77	75	68	61	-2.2	-0.6	-2.1
Residential (Energy on Private Income, index 2000=100)	100	97	94	87	79	69	56	-0.6	-1.7	-3.5
Tertiary (Energy on Value added, index 2000=100)	100	99	100	91	83	72	58	0.0	-1.8	-3.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	39	37	36	33	30	26	23	-0.8	-1.8	-2.4
Freight transport (toe/Mtkm)	33	34	33	32	30	29	27	0.2	-1.0	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	5326.4	5349.2	4875.0	4583.4	4277.4	3903.6	3271.8	-0.9	-1.3	-2.6
of which ETS sectors (2013 scope) GHG emissions	2501.2	2175.1	2016.7	1890.1	1708.3	1298.6		-1.4	-3.7	
of which ESD sectors (2013 scope) GHG emissions	2847.9	2699.9	2566.6	2387.3	2195.3	1973.2		-1.2	-1.9	
CO₂ Emissions (energy related)	3992.2	4127.1	3782.3	3524.1	3283.3	2953.4	2372.6	-0.5	-1.4	-3.2
Power generation/District heating	1406.3	1486.8	1344.0	1177.9	1068.7	946.6	620.3	-0.5	-2.3	-5.3
Energy Branch	167.3	170.7	155.2	148.8	132.4	117.6	107.0	-0.7	-1.6	-2.1
Industry	691.0	634.1	511.8	505.4	493.5	432.2	342.8	-3.0	-0.4	-3.6
Residential	468.0	484.2	466.9	422.7	385.1	350.8	287.3	0.0	-1.9	-2.9
Tertiary	257.9	271.6	267.9	245.8	221.8	183.9	144.1	0.4	-1.9	-4.2
Transport	1001.7	1079.8	1036.6	1023.4	981.8	922.3	871.1	0.3	-0.5	-1.2
CO₂ Emissions (non energy and non land use related)	277.3	282.4	237.3	238.8	248.0	243.3	235.7	-1.5	0.4	-0.5
Non-CO₂ GHG emissions	1057.0	939.6	855.4	820.5	746.1	706.9	663.6	-2.1	-1.4	-1.2
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	92.5	92.9	84.7	79.6	74.3	67.8	56.8	-0.9	-1.3	-2.6
Carbon intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.39	0.37	0.33	0.30	0.26	0.23	0.16	-1.6	-2.3	-5.1
Final energy demand (t of CO ₂ /toe)	2.14	2.08	1.98	1.94	1.83	1.76	1.67	-0.8	-0.7	-0.9
Industry	2.09	1.94	1.81	1.78	1.68	1.52	1.29	-1.5	-0.7	-2.6
Residential	1.62	1.57	1.49	1.41	1.29	1.25	1.17	-0.9	-1.4	-0.9
Tertiary	1.55	1.48	1.36	1.31	1.18	1.05	0.95	-1.3	-1.4	-2.1
Transport	2.92	2.94	2.86	2.84	2.78	2.75	2.68	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.5	8.7	12.4	16.1	21.1	24.1	30.2			
RES-H&C share	9.0	10.3	14.0	17.4	22.4	24.3	29.9			
RES-E share	13.3	14.8	19.7	28.2	35.5	42.1	54.2			
RES-T share (based on ILUC formula)	0.9	1.7	5.2	6.9	11.2	14.4	20.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	57	65	85	94	92	92	2.1	3.7	-0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	0	117	136	144	153	159	165	0.0	1.2	0.8
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1055.8	1282.5	1467.9	1505.9	1794.4	1926.0	2114.7	3.4	2.0	1.7
as % of GDP	9.4	10.4	11.4	11.2	12.3	12.4	12.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Austria: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	8	8	8	9	9	9	9	0.4	0.5	0.5		
GDP (in 000 M€13)	257	279	298	316	345	373	400	1.5	1.5	1.5		
Gross Inland Consumption (ktoe)	28996	34373	34604	32932	33434	32154	29786	1.8	-0.3	-1.1		
Solids	3597	4000	3365	3333	3405	2918	1942	-0.7	0.1	-5.5		
Oil	12173	14448	12833	12275	11719	10839	9819	0.5	-0.9	-1.8		
Natural gas	6519	8159	8215	6454	7664	7212	4852	2.3	-0.7	-4.5		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6		
Renewable energy forms	6825	7537	9991	9809	10207	10851	12869	3.9	0.2	2.3		
Energy Branch Consumption	1306	1666	1504	1593	1500	1368	1238	1.4	0.0	-1.9		
Non-Energy Uses	1718	1717	1850	2037	2202	2332	2364	0.7	1.8	0.7		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	9776	10012	12114	11276	11473	11328	12756	2.2	-0.5	1.1		
Solids	293	0	0	0	0	0	0	-51.8	-100.0	0.0		
Oil	1092	1003	1036	813	673	343	111	-0.5	-4.2	-16.5		
Natural gas	1533	1404	1486	1270	1141	668	435	-0.3	-2.6	-9.2		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	6859	7605	9592	9194	9659	10318	12210	3.4	0.1	2.4		
Hydro	3597	3154	3299	3526	3698	3812	3857	-0.9	1.1	0.4		
Biomass & Waste	3169	4214	5914	5018	5157	5083	5999	6.4	-1.4	1.5		
Wind	6	114	178	340	382	557	1191	40.8	8.0	12.0		
Solar and others	63	93	168	260	359	781	1033	10.3	7.9	11.2		
Geothermal	25	30	35	49	64	85	129	3.4	6.3	7.4		
Net Imports (ktoe)	18970	24517	21577	21656	21961	20826	17030	1.3	0.2	-2.5		
Solids	3019	3971	3358	3333	3405	2918	1942	1.1	0.1	-5.5		
Oil	10850	13204	11510	11462	11045	10496	9708	0.6	-0.4	-1.3		
Crude oil and Feedstocks	7791	8100	7011	8001	7806	7635	7263	-1.1	1.1	-0.7		
Oil products	3059	5104	4499	3461	3239	2861	2445	3.9	-3.2	-2.8		
Natural gas	5253	7153	6115	5184	6523	6544	4417	1.5	0.6	-3.8		
Electricity	-118	229	200	1061	439	334	304	0.0	8.2	-3.6		
Import Dependency (%)	65.4	71.3	62.4	65.8	65.7	64.8	57.2					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	59874	64066	67933	59609	71877	75914	75559	1.3	0.6	0.5		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	5727	7165	4918	4194	4929	3027	93	-1.5	0.0	-32.7		
Oil (including refinery gas)	1702	1641	1273	208	215	71	67	-2.9	-16.3	-11.1		
Gas (including derived gases)	8864	14347	16137	6774	14547	12194	2421	6.2	-1.0	-16.4		
Biomass-waste	1675	2882	5088	2592	3561	4345	6398	11.8	-3.5	6.0		
Hydro (pumping excluded)	41836	36677	38363	41001	42995	44322	44852	-0.9	1.1	0.4		
Wind	67	1331	2064	3958	4443	6472	13844	40.9	8.0	12.0		
Solar	3	21	88	871	1174	5472	7873	38.2	29.5	21.0		
Geothermal and other renewables	0	2	2	11	11	11	11	0.0	21.5	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	17911	19092	21503	22989	23327	27558	32687	1.8	0.8	3.4		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	11668	12440	13841	16437	17371	22080	27093	1.7	2.3	4.5		
Hydro (pumping excluded)	11613	11632	12706	13149	13699	13702	13829	0.9	0.8	0.1		
Wind	50	778	981	2412	2583	3491	6195	34.7	10.2	9.1		
Solar	5	30	154	876	1090	4887	7070	40.9	21.6	20.6		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	6243	6652	7662	6552	5955	5478	5594	2.1	-2.5	-0.6		
of which cogeneration units	2632	3253	3157	3006	3052	2919	2131	1.8	-0.3	-3.5		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	1887	1660	1359	873	802	777	777	-3.2	-5.1	-0.3		
Gas fired	2816	3389	4512	4074	3558	3374	3077	4.8	-2.3	-1.4		
Oil fired	1260	1145	1139	971	815	483	423	-1.0	-3.3	-6.4		
Biomass-waste fired	280	456	650	633	778	842	1316	8.8	1.8	5.4		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	2	1	2	2	2	2	0.0	7.2	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	36.8	36.7	35.1	28.4	33.8	30.4	25.7					
Efficiency of gross thermal power generation (%)	39.9	41.3	41.3	39.7	43.9	39.4	28.4					
% of gross electricity from CHP	10.4	15.4	15.4	17.7	22.8	17.4	8.9					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	72.8	63.9	67.1	81.3	72.6	79.9	96.6					
Fuel Inputs to Thermal Power Generation (ktoe)	3877	5421	5713	2988	4557	4285	2718	4.0	-2.2	-5.0		
Solids	1216	1507	1019	908	1069	672	28	-1.8	0.5	-30.5		
Oil (including refinery gas)	278	262	176	60	69	23	22	-4.5	-8.9	-10.8		
Gas (including derived gases)	1961	2836	2868	1406	2577	2417	712	3.9	-1.1	-12.1		
Biomass & Waste	421	814	1649	604	832	1163	1946	14.6	-6.6	8.9		
Geothermal heat	0	2	1	10	10	10	10	0.0	23.4	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	11349	11946	11472	12554	11799	11028	10102	0.1	0.3	-1.5		
Refineries	8865	9275	8040	9141	8769	8227	7578	-1.0	0.9	-1.4		
Biofuels and hydrogen production	16	50	495	571	443	419	454	41.2	-1.1	0.3		
District heating	558	613	869	678	635	592	489	4.5	-3.1	-2.6		
Derived gases, cokeries etc.	1910	2009	2068	2164	1953	1790	1580	0.8	-0.6	-2.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Austria: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	96	101	107	112	119	126	132	1.1	1.1	1.0
Public road transport	9	9	10	10	10	11	11	0.4	0.7	0.6
Private cars and motorcycles	68	72	75	78	80	84	87	1.0	0.7	0.7
Rail	12	13	15	16	18	20	22	1.9	2.2	1.7
Aviation ⁽³⁾	6	7	8	9	10	11	12	2.0	2.6	2.2
Inland navigation	0	0	0	0	0	0	0	-0.6	0.6	1.2
Freight transport activity (Gtkm)	50	54	61	65	70	75	80	2.0	1.3	1.3
Heavy goods and light commercial vehicles	31	33	39	43	46	48	51	2.3	1.6	1.1
Rail	17	19	20	20	22	24	26	1.8	0.9	1.7
Inland navigation	2	2	2	2	3	3	3	-0.3	0.9	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	6787	8815	8507	8480	8017	7510	7236	2.3	-0.6	-1.0
Public road transport	92	97	101	103	106	107	106	0.9	0.5	0.0
Private cars and motorcycles	4520	5616	5043	4708	4260	3782	3481	1.1	-1.7	-2.0
Heavy goods and light commercial vehicles	1290	2135	2387	2622	2589	2520	2507	6.3	0.8	-0.3
Rail	267	242	247	249	264	274	278	-0.8	0.7	0.5
Aviation	591	679	707	776	773	801	836	1.8	0.9	0.8
Inland navigation	28	45	22	23	24	26	27	-2.1	0.8	1.1
<i>By transport activity</i>										
Passenger transport	5260	6438	5894	5634	5192	4745	4481	1.1	-1.3	-1.5
Freight transport	1527	2377	2613	2846	2825	2764	2755	5.5	0.8	-0.2
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	6.0	6.9	5.8	6.1	6.8			
ENERGY EFFICIENCY										
Primary energy consumption	27277	32657	32754	30896	31232	29822	27422	1.8	-0.5	-1.3
Final Energy Demand	23692	28185	28423	28425	28029	26803	25116	1.8	-0.1	-1.1
<i>by sector</i>										
Industry	7283	8825	9195	9724	9947	9649	9427	2.4	0.8	-0.5
Energy intensive industries	5321	6148	6212	6588	6655	6361	6139	1.6	0.7	-0.8
Other industrial sectors	1962	2676	2983	3136	3292	3288	3288	4.3	1.0	0.0
Residential	6332	6828	6797	6669	6518	6196	5374	0.7	-0.4	-1.9
Tertiary	3070	3449	3686	3285	3263	3165	2821	1.8	-1.2	-1.4
Transport ⁽⁵⁾	7007	9082	8744	8746	8301	7792	7494	2.2	-0.5	-1.0
<i>by fuel</i>										
Solids	1403	1466	1169	1135	1188	1226	960	-1.8	0.2	-2.1
Oil	9818	12084	10539	9934	9319	8420	7466	0.7	-1.2	-2.2
Gas	4464	5125	5259	5142	5133	4747	4149	1.7	-0.2	-2.1
Electricity	4432	5013	5358	5436	5793	6004	6074	1.9	0.8	0.5
Heat (from CHP and District Heating)	1020	1353	1832	2008	1901	1947	1757	6.0	0.4	-0.8
Renewable energy forms	2555	3145	4266	4769	4689	4436	4669	5.3	0.9	0.0
Other	0	0	0	2	5	22	41	0.0	0.0	22.8
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	113	123	116	104	97	86	74	0.3	-1.8	-2.6
Industry (Energy on Value added, index 2000=100)	100	111	108	109	104	95	88	0.8	-0.4	-1.7
Residential (Energy on Private Income, index 2000=100)	100	100	93	85	77	67	54	-0.7	-1.9	-3.4
Tertiary (Energy on Value added, index 2000=100)	100	103	101	85	77	68	56	0.1	-2.7	-3.0
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	54	47	43	37	31	28	0.1	-2.6	-2.7
Freight transport (toe/Mtkm)	30	44	43	44	40	37	35	3.4	-0.5	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	86.1	96.8	89.0	82.8	82.2	74.6	60.5	0.3	-0.8	-3.0
of which ETS sectors (2013 scope) GHG emissions	38.3	35.2	32.8	34.4	30.5	21.3		-0.3	-4.7	
of which ESD sectors (2013 scope) GHG emissions	58.4	53.7	50.0	47.8	44.2	39.2		-1.2	-2.0	
CO₂ Emissions (energy related)	65.6	78.6	71.5	65.7	65.8	58.9	45.9	0.9	-0.8	-3.5
Power generation/District heating	12.5	17.0	15.1	11.2	14.0	12.1	5.2	1.9	-0.7	-9.4
Energy Branch	3.3	3.7	3.8	4.1	3.6	3.2	2.9	1.3	-0.3	-2.1
Industry	16.8	18.5	17.6	17.7	17.2	15.4	12.4	0.5	-0.2	-3.3
Residential	8.9	8.6	7.7	6.8	6.4	5.5	4.4	-1.5	-1.9	-3.7
Tertiary	3.9	4.4	3.2	2.0	1.8	1.6	1.1	-1.8	-5.8	-4.5
Transport	20.2	26.5	24.1	23.9	22.8	21.1	19.9	1.8	-0.6	-1.4
CO₂ Emissions (non energy and non land use related)	4.6	5.0	5.4	5.3	5.3	5.2	5.2	1.6	-0.3	-0.2
Non-CO₂ GHG emissions	15.8	13.2	12.1	11.7	11.1	10.5	9.5	-2.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	108.2	121.6	111.8	104.0	103.3	93.8	76.1	0.3	-0.8	-3.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.21	0.17	0.13	0.15	0.12	0.05	-0.3	-1.2	-9.5
Final energy demand (t of CO ₂ /toe)	2.10	2.06	1.85	1.77	1.72	1.63	1.50	-1.3	-0.7	-1.3
Industry	2.31	2.10	1.92	1.82	1.73	1.59	1.31	-1.9	-1.0	-2.7
Residential	1.41	1.26	1.13	1.02	0.98	0.89	0.81	-2.2	-1.4	-1.8
Tertiary	1.26	1.27	0.88	0.60	0.54	0.49	0.40	-3.6	-4.7	-3.1
Transport	2.88	2.91	2.76	2.73	2.74	2.71	2.65	-0.4	0.0	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	24.6	23.6	30.5	34.5	35.2	37.7	47.5			
RES-H&C share	20.4	22.0	29.7	37.0	36.4	35.4	46.0			
RES-E share	66.9	62.4	65.7	68.0	68.5	76.9	93.5			
RES-T share (based on ILUC formula)	6.8	4.8	10.9	11.4	12.5	16.1	24.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	68	68	69	58	65	71	75	0.0	-0.5	1.4
Average Price of Electricity in Final demand sectors (€13/MWh)	130	115	143	131	140	150	153	0.9	-0.2	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	21.8	28.6	32.9	32.2	38.6	42.5	46.8	4.2	1.6	2.0
as % of GDP	8.5	10.2	11.0	10.2	11.2	11.4	11.7			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Belgium: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	11	11	12	12	13	0.8	0.9	0.9	
GDP (in 000 M€13)	324	350	372	385	414	443	479	1.4	1.1	1.5	
Gross Inland Consumption (ktoe)	59302	59008	61346	54681	54719	49979	45994	0.3	-1.1	-1.7	
Solids	7922	5081	3673	3205	2007	2012	1697	-7.4	-5.9	-1.7	
Oil	24136	24721	24699	23472	21986	20957	19407	0.2	-1.2	-1.2	
Natural gas	13369	14728	16999	14941	14145	16865	14972	2.4	-1.8	0.6	
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0	
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5	
Renewable energy forms	1081	1658	3560	4242	6208	6735	7463	12.7	5.7	1.9	
Energy Branch Consumption	2366	2403	2246	2406	2216	2118	2043	-0.5	-0.1	-0.8	
Non-Energy Uses	6739	7516	8541	8464	8523	8620	8538	2.4	0.0	0.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	13607	13718	15356	10620	14087	7263	6803	1.2	-0.9	-7.0	
Solids	206	57	0	0	0	0	0	-97.1	-100.0	0.0	
Oil	0	6	-7	-14	-14	-14	-13	1692.2	7.2	-0.4	
Natural gas	2	0	0	0	0	0	0	0.0	-100.0	0.0	
Nuclear	12422	12277	12367	6909	8632	1241	0	0.0	-3.5	-100.0	
Renewable energy sources	977	1377	2996	3725	5469	6036	6816	11.9	6.2	2.2	
Hydro	40	25	27	31	32	45	49	-3.8	1.7	4.5	
Biomass & Waste	931	1327	2793	2944	3958	3930	3992	11.6	3.5	0.1	
Wind	1	20	111	431	1032	1468	1882	54.9	25.0	6.2	
Solar and others	1	3	60	313	441	582	867	50.7	22.0	7.0	
Geothermal	3	3	4	6	7	12	26	3.0	5.7	13.5	
Net Imports (ktoe)	50502	53396	53753	52611	49710	52139	48981	0.6	-0.8	-0.1	
Solids	7220	5150	3591	3205	2007	2012	1697	-6.7	-5.7	-1.7	
Oil	29527	32605	32752	32035	31032	29938	28006	1.0	-0.5	-1.0	
Crude oil and Feedstocks	34177	32251	31004	27409	27190	26837	25995	-1.0	-1.3	-0.4	
Oil products	-4650	354	1749	4626	3842	3101	2011	0.0	8.2	-6.3	
Natural gas	13278	14817	16791	14941	14192	17321	16176	2.4	-1.7	1.3	
Electricity	372	542	47	1913	1741	2170	2455	-18.6	43.4	3.5	
Import Dependency (%)	78.1	80.1	78.0	83.2	77.9	87.8	87.8				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	82773	85709	93764	69728	73970	70232	68770	1.3	-2.3	-0.7	
Nuclear energy	48157	47595	47944	28180	35207	5071	0	0.0	-3.0	-100.0	
Solids	12916	8199	4190	2975	195	288	32	-10.6	-26.4	-16.6	
Oil (including refinery gas)	797	1740	406	96	674	696	151	-6.5	5.2	-13.9	
Gas (including derived gases)	19091	25143	33178	23812	18278	37110	32996	5.7	-5.8	6.1	
Biomass-waste	1336	2516	5882	5914	3237	4143	5065	16.0	-5.8	4.6	
Hydro (pumping excluded)	460	288	312	365	368	522	571	-3.8	1.7	4.5	
Wind	16	227	1292	5009	11998	17065	21883	55.1	25.0	6.2	
Solar	0	1	560	3376	4013	5336	8073	0.0	21.8	7.2	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	14674	14867	17071	18515	20996	22439	26259	1.5	2.1	2.3	
Nuclear energy	5921	5921	5921	3907	5055	3041	0	0.0	-1.6	-100.0	
Renewable energy	117	274	1934	5560	8494	11355	15723	32.4	15.9	6.4	
Hydro (pumping excluded)	103	105	118	119	119	163	177	1.4	0.1	4.1	
Wind	14	167	912	2229	4558	6136	7956	51.8	17.5	5.7	
Solar	0	2	904	3212	3818	5056	7589	0.0	15.5	7.1	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	8636	8672	9216	9048	7447	8043	10536	0.7	-2.1	3.5	
of which cogeneration units	1112	1893	2575	1552	655	1490	1263	8.8	-12.8	6.8	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	2290	1450	1184	825	43	43	16	-6.4	-28.2	-9.7	
Gas fired	4392	5201	6468	6799	6270	6978	9436	3.9	-0.3	4.2	
Oil fired	1581	1494	836	646	266	246	215	-6.2	-10.8	-2.1	
Biomass-waste fired	373	527	727	777	868	776	869	6.9	1.8	0.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	61.5	63.0	60.3	41.2	38.8	34.9	29.4				
Efficiency of gross thermal power generation (%)	41.4	42.1	44.8	44.7	44.3	47.2	50.4				
% of gross electricity from CHP	6.5	8.5	16.0	17.4	8.0	16.6	17.3				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	60.4	59.1	59.7	61.4	74.1	45.8	51.8				
Fuel Inputs to Thermal Power Generation (ktoe)	7090	7677	8386	6315	4341	7689	6522	1.7	-6.4	4.2	
Solids	2629	1833	936	761	47	66	6	-9.8	-25.8	-18.0	
Oil (including refinery gas)	180	411	57	29	223	230	50	-10.8	14.6	-13.9	
Gas (including derived gases)	3790	4612	5671	4111	2950	6081	4930	4.1	-6.3	5.3	
Biomass & Waste	492	821	1722	1414	1120	1312	1535	13.4	-4.2	3.2	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	54711	52964	50595	41255	42565	34977	32703	-0.8	-1.7	-2.6	
Refineries	38602	37483	35454	31882	31693	31387	30504	-0.8	-1.1	-0.4	
Biofuels and hydrogen production	0	0	352	341	870	790	769	0.0	9.5	-1.2	
District heating	45	29	6	15	19	17	21	-18.1	11.8	1.4	
Derived gases, cokeries etc.	16064	15452	14782	9016	9984	2783	1408	-0.8	-3.8	-17.7	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Belgium: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	137	145	154	158	169	176	185	1.2	1.0	0.9
Public road transport	13	18	17	18	18	18	18	1.8	2.7	0.2
Private cars and motorcycles	107	109	115	117	126	129	135	0.8	0.9	0.6
Rail	9	10	12	12	13	15	16	3.1	1.2	2.3
Aviation ⁽³⁾	8	8	9	10	12	13	15	0.9	2.5	2.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.4	1.4
Freight transport activity (Gtkm)	70	65	63	66	76	84	92	-1.1	1.8	2.0
Heavy goods and light commercial vehicles	55	48	46	47	54	60	64	-1.7	1.5	1.8
Rail	8	8	7	8	9	11	13	-0.3	2.1	3.4
Inland navigation	8	9	9	12	13	14	15	2.2	2.9	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	9747	9972	10593	10179	9998	9774	9720	0.8	-0.6	-0.3
Public road transport	158	204	292	290	287	281	271	6.4	-0.2	-0.6
Private cars and motorcycles	4815	4463	5177	4757	4252	3778	3593	0.7	-1.9	-1.7
Heavy goods and light commercial vehicles	2857	3618	3413	3397	3632	3744	3831	1.8	0.6	0.5
Rail	184	186	177	181	210	237	262	-0.4	1.7	2.2
Aviation	1530	1281	1382	1389	1443	1545	1555	-1.0	0.4	0.8
Inland navigation	204	219	152	164	176	189	208	-2.9	1.5	1.7
By transport activity										
Passenger transport	6608	6016	6932	6518	6070	5703	5525	0.5	-1.3	-0.9
Freight transport	3139	3956	3661	3660	3928	4072	4195	1.6	0.7	0.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.9	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	3.4	3.4	9.1	9.3	9.3			
ENERGY EFFICIENCY										
Primary energy consumption	52563	51491	52805	46217	46195	41358	37456			
Final Energy Demand	37766	36705	37534	36239	36435	34915	32772	0.0	-1.3	-2.1
by sector								-0.1	-0.3	-1.1
Industry	14218	11775	11688	11055	11232	10687	10229	-1.9	-0.4	-0.9
Energy intensive industries	10700	9088	8641	8013	8029	7674	7278	-2.1	-0.7	-1.0
Other industrial sectors	3518	2686	3047	3042	3204	3013	2951	-1.4	0.5	-0.8
Residential	8974	9299	9266	9230	9329	9071	7797	0.3	0.1	-1.8
Tertiary	4827	5658	5982	5722	5825	5330	4976	2.2	-0.3	-1.6
Transport ⁽⁵⁾	9747	9973	10598	10232	10049	9828	9769	0.8	-0.5	-0.3
by fuel										
Solids	3403	2019	1621	1505	1358	1262	1034	-7.2	-1.8	-2.7
Oil	16661	16586	15314	14610	13000	11935	10775	-0.8	-1.6	-1.9
Gas	10010	10009	11147	10465	10564	10194	9364	1.1	-0.5	-1.2
Electricity	6667	6896	7163	7033	7245	7420	7585	0.7	0.1	0.5
Heat (from CHP and District Heating)	492	428	640	567	607	668	719	2.7	-0.5	1.7
Renewable energy forms	533	767	1650	2058	3638	3343	3165	12.0	8.2	-1.4
Other	0	0	0	3	23	94	131	0.0	0.0	19.1
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	183	168	165	142	132	113	96	-1.0	-2.2	-3.1
Industry (Energy on Value added, index 2000=100)	100	82	88	81	77	69	62	-1.3	-1.3	-2.1
Residential (Energy on Private Income, index 2000=100)	100	98	90	84	78	70	55	-1.1	-1.4	-3.4
Tertiary (Energy on Value added, index 2000=100)	100	107	105	97	91	78	67	0.5	-1.4	-3.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	43	38	39	35	30	27	24	-1.1	-2.5	-2.1
Freight transport (toe/Mtkm)	45	61	58	55	52	48	45	2.6	-1.1	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	154.0	148.3	136.1	127.3	112.0	113.7	101.4	-1.2	-1.9	-1.0
of which ETS sectors (2013 scope) GHG emissions		70.1	58.6	52.1	42.8	49.3	43.1		-3.1	0.1
of which ESD sectors (2013 scope) GHG emissions		78.3	77.6	75.2	69.2	64.4	58.3		-1.1	-1.7
CO2 Emissions (energy related)	122.7	114.2	106.4	97.8	84.6	88.3	78.0	-1.4	-2.3	-0.8
Power generation/District heating	25.1	24.0	20.4	15.8	9.0	18.1	14.6	-2.0	-7.9	4.9
Energy Branch	4.9	4.4	3.9	4.6	4.0	3.8	3.7	-2.3	0.4	-0.9
Industry	34.5	24.8	22.1	19.7	18.4	16.0	13.9	-4.4	-1.8	-2.7
Residential	20.3	20.5	18.9	18.4	16.8	16.1	13.1	-0.7	-1.1	-2.5
Tertiary	8.7	10.6	10.2	9.5	9.0	7.8	6.7	1.6	-1.3	-2.9
Transport	29.2	29.9	30.9	29.7	27.4	26.5	25.9	0.6	-1.2	-0.6
CO2 Emissions (non energy and non land use related)	8.1	13.3	9.5	10.2	9.9	9.1	8.3	1.6	0.4	-1.8
Non-CO2 GHG emissions	23.2	20.9	20.2	19.3	17.5	16.2	15.2	-1.3	-1.4	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.5	98.7	90.6	84.7	74.6	75.7	67.5	-1.2	-1.9	-1.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.28	0.26	0.20	0.20	0.11	0.23	0.18	-3.5	-5.8	5.4
Final energy demand (t of CO2/toe)	2.45	2.34	2.19	2.14	1.96	1.90	1.82	-1.1	-1.1	-0.8
Industry	2.43	2.11	1.89	1.79	1.63	1.50	1.36	-2.5	-1.4	-1.8
Residential	2.26	2.21	2.04	2.00	1.81	1.78	1.68	-1.0	-1.2	-0.7
Tertiary	1.80	1.87	1.71	1.66	1.55	1.46	1.35	-0.5	-1.0	-1.3
Transport	2.99	3.00	2.91	2.91	2.72	2.70	2.65	-0.3	-0.7	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	5.6	8.6	14.0	15.8	18.5			
RES-H&C share	1.9	3.4	6.1	8.5	13.9	13.8	14.7			
RES-E share	1.1	2.4	7.1	15.2	20.0	27.5	35.8			
RES-T share (based on ILUC formula)	0.0	0.1	4.1	4.6	10.1	12.9	17.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	49	59	86	105	116	112	3.2	6.0	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	128	116	139	141	146	157	163	0.9	0.5	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	32.9	35.9	48.6	47.3	58.9	64.3	72.2	4.0	1.9	2.1
as % of GDP	10.2	10.3	13.1	12.3	14.2	14.5	15.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Bulgaria: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	8	8	7	7	7	7	6	-1.0	-0.7	-0.7	
GDP (in 000 M€13)	25	33	38	40	45	50	53	4.1	1.8	1.7	
Gross Inland Consumption (ktoe)	18523	19754	17770	16469	16338	15375	14070	-0.4	-0.8	-1.5	
Solids	6433	6895	6887	5983	5643	4506	2732	0.7	-2.0	-7.0	
Oil	4068	4725	3888	3732	3543	3447	3229	-0.5	-0.9	-0.9	
Natural gas	2931	2804	2300	2118	2120	1853	1467	-2.4	-0.8	-3.6	
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0	
Electricity	-397	-652	-726	-1011	-914	-916	-852	6.2	2.3	-0.7	
Renewable energy forms	788	1156	1465	1870	2169	2709	3718	6.4	4.0	5.5	
Energy Branch Consumption	905	911	1032	907	859	758	639	1.3	-1.8	-2.9	
Non-Energy Uses	980	851	422	427	498	571	605	-8.1	1.7	2.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	9867	10629	10531	9856	10684	10262	10101	0.7	0.1	-0.6	
Solids	4295	4178	4942	4055	4625	3653	2456	1.4	-0.7	-6.1	
Oil	68	58	61	17	20	25	29	-1.2	-10.7	3.9	
Natural gas	12	384	59	125	128	129	136	17.0	8.0	0.6	
Nuclear	4699	4826	3956	3776	3776	3776	3776	-1.7	-0.5	0.0	
Renewable energy sources	792	1182	1512	1883	2135	2678	3705	6.7	3.5	5.7	
Hydro	230	373	435	349	372	364	363	6.6	-1.5	-0.3	
Biomass & Waste	562	776	975	1283	1485	1519	1981	5.7	4.3	2.9	
Wind	0	0	59	98	102	374	728	0.0	5.7	21.8	
Solar and others	0	0	12	118	140	389	535	0.0	28.4	14.4	
Geothermal	0	33	33	34	36	31	98	0.0	0.9	10.6	
Net Imports (ktoe)	8544	9276	7075	6717	5801	5275	4142	-1.9	-2.0	-3.3	
Solids	2258	2553	1700	1928	1018	852	275	-2.8	-5.0	-12.3	
Oil	3944	4943	4025	3820	3669	3580	3361	0.2	-0.9	-0.9	
Crude oil and Feedstocks	5228	6145	5916	6308	5991	5717	5370	1.2	0.1	-1.1	
Oil products	-1284	-1202	-1891	-2489	-2322	-2136	-2009	3.9	2.1	-1.4	
Natural gas	2742	2458	2131	1993	1993	1726	1343	-2.5	-0.7	-3.9	
Electricity	-397	-652	-726	-1011	-914	-916	-852	6.2	2.3	-0.7	
Import Dependency (%)	46.0	46.7	39.6	40.5	35.2	34.0	29.1				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	40646	43972	46017	48845	48692	48054	45333	1.2	0.6	-0.7	
Nuclear energy	18178	18653	15249	15662	15326	15326	15326	-1.7	0.1	0.0	
Solids	16941	18458	22606	23315	22600	17872	10370	2.9	0.0	-7.5	
Oil (including refinery gas)	661	606	393	442	70	0	0	-5.1	-15.8	-100.0	
Gas (including derived gases)	2178	1896	1967	3035	3865	2335	1324	-1.0	7.0	-10.2	
Biomass-waste	15	17	49	54	164	389	1385	12.6	12.8	23.8	
Hydro (pumping excluded)	2673	4337	5057	4063	4331	4235	4218	6.6	-1.5	-0.3	
Wind	0	5	681	1144	1183	4343	8466	0.0	5.7	21.8	
Solar	0	0	15	1129	1152	3553	4244	0.0	54.2	13.9	
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	10471	10635	9943	11968	11801	13437	15202	-0.5	1.7	2.6	
Nuclear energy	3610	2765	1920	1920	1920	1920	1920	-6.1	0.0	0.0	
Renewable energy	1016	1992	2697	4081	4110	7053	8873	10.3	4.3	8.0	
Hydro (pumping excluded)	1016	1984	2184	2338	2338	2338	2338	8.0	0.7	0.0	
Wind	0	8	488	691	703	1971	3263	0.0	3.7	16.6	
Solar	0	0	25	1052	1069	2744	3273	0.0	45.6	11.8	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	5845	5878	5326	5967	5771	4464	4408	-0.9	0.8	-2.7	
of which cogeneration units	1129	1191	1017	1814	1695	1716	1067	-1.0	5.2	-4.5	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	5100	5100	4703	5313	4809	3491	3381	-0.8	0.2	-3.5	
Gas fired	689	737	607	626	909	877	790	-1.3	4.1	-1.4	
Oil fired	57	42	13	13	2	2	2	-13.6	-18.4	0.0	
Biomass-waste fired	0	0	3	15	51	94	235	0.0	32.3	16.5	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	39.9	42.8	47.7	42.3	43.3	38.1	32.3				
Efficiency of gross thermal power generation (%)	28.4	27.0	28.5	36.8	39.0	38.3	36.6				
% of gross electricity from CHP	7.8	6.1	8.0	12.0	12.6	9.3	7.8				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	51.3	52.3	45.7	45.1	45.5	57.9	74.2				
Fuel Inputs to Thermal Power Generation (ktoe)	5986	6689	7553	6282	5883	4622	3077	2.4	-2.5	-6.3	
Solids	4928	5817	6610	5466	5203	4172	2470	3.0	-2.4	-7.2	
Oil (including refinery gas)	171	174	219	110	17	0	0	2.5	-22.6	-100.0	
Gas (including derived gases)	884	697	720	692	625	359	202	-2.0	-1.4	-10.7	
Biomass & Waste	3	2	4	15	38	91	405	1.4	25.9	26.6	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	12213	13505	11285	10638	10378	10093	9796	-0.8	-0.8	-0.6	
Refineries	5310	6421	6041	6617	6291	6016	5651	1.3	0.4	-1.1	
Biofuels and hydrogen production	0	0	13	106	188	181	189	0.0	30.2	0.0	
District heating	324	368	304	96	98	105	168	-0.6	-10.7	5.5	
Derived gases, cokeries etc.	6579	6717	4927	3819	3801	3791	3788	-2.9	-2.6	0.0	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Bulgaria: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	48	56	65	72	76	80	84	3.2	1.4	1.1
Public road transport	15	14	11	11	11	11	12	-3.1	0.6	0.4
Private cars and motorcycles	28	36	48	53	54	57	58	5.7	1.3	0.7
Rail	4	3	3	3	4	4	4	-2.5	1.7	1.9
Aviation ⁽³⁾	2	4	4	5	6	8	10	8.8	4.9	4.5
Inland navigation	0	0	0	0	0	0	0	-1.8	0.9	1.3
Freight transport activity (Gtkm)	11	16	18	20	22	25	26	5.7	2.0	1.7
Heavy goods and light commercial vehicles	5	11	9	10	11	12	13	7.0	2.0	1.2
Rail	6	5	3	3	4	4	5	-5.7	1.9	2.4
Inland navigation	0	1	6	6	7	8	9	34.4	2.0	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	1841	2682	2719	2837	2879	2836	2807	4.0	0.6	-0.3
Public road transport	399	362	262	263	270	267	263	-4.1	0.3	-0.3
Private cars and motorcycles	956	1389	1581	1628	1559	1433	1364	5.2	-0.1	-1.3
Heavy goods and light commercial vehicles	305	652	590	646	699	718	707	6.8	1.7	0.1
Rail	78	69	52	44	49	53	56	-4.0	-0.6	1.3
Aviation	101	201	182	207	244	301	349	6.1	3.0	3.7
Inland navigation	3	10	53	49	58	65	68	34.5	0.9	1.7
<i>By transport activity</i>										
Passenger transport	1473	1965	2034	2106	2082	2012	1988	3.3	0.2	-0.5
Freight transport	369	718	685	731	796	824	820	6.4	1.5	0.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	3.8	6.6	6.5	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	17543	18903	17348	16042	15841	14805	13465	-0.1	-0.9	-1.6
Final Energy Demand	9106	10184	8843	9205	9464	9303	8843	-0.3	0.7	-0.7
<i>by sector</i>										
Industry	3967	4037	2561	2709	2776	2799	2705	-4.3	0.8	-0.3
Energy intensive industries	3124	3161	1789	1929	1920	1893	1815	-5.4	0.7	-0.6
Other industrial sectors	843	876	772	780	856	906	891	-0.9	1.0	0.4
Residential	2155	2117	2246	2307	2374	2307	2102	0.4	0.6	-1.2
Tertiary	972	1128	1174	1179	1268	1204	1088	1.9	0.8	-1.5
Transport ⁽⁵⁾	2013	2903	2862	3011	3046	2993	2948	3.6	0.6	-0.3
<i>by fuel</i>										
Solids	879	979	414	487	416	312	247	-7.3	0.0	-5.1
Oil	3026	3712	3125	3134	3046	2958	2754	0.3	-0.3	-1.0
Gas	1681	1565	1058	1052	1078	1035	835	-4.5	0.2	-2.5
Electricity	2085	2211	2331	2382	2505	2540	2476	1.1	0.7	-0.1
Heat (from CHP and District Heating)	880	939	960	841	864	900	813	0.9	-1.0	-0.6
Renewable energy forms	555	778	956	1309	1556	1555	1713	5.6	5.0	1.0
Other	0	0	0	0	0	2	6	0.0	0.0	32.4
Energy intensity indicators										
Gross Int. Cons./GDP (toe/M€13)	733	599	472	415	362	308	263	-4.3	-2.6	-3.1
Industry (Energy on Value added, index 2000=100)	100	68	37	39	35	32	29	-9.4	-0.6	-2.0
Residential (Energy on Private Income, index 2000=100)	100	72	67	67	58	51	43	-3.9	-1.4	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	91	81	76	71	61	51	-2.1	-1.3	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	34	30	28	26	24	22	0.0	-1.3	-1.7
Freight transport (toe/Mtkm)	35	44	37	37	36	34	31	0.7	-0.5	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	64.4	67.0	61.2	55.6	51.0	44.8	35.6	-0.5	-1.8	-3.5
of which ETS sectors (2013 scope) GHG emissions	39.4	35.6	30.0	28.3	23.1	15.1		-2.3	-6.1	
of which ESD sectors (2013 scope) GHG emissions	27.6	25.6	25.6	22.7	21.7	20.5		-1.2	-1.0	
CO₂ Emissions (energy related)	44.3	49.1	45.9	40.1	38.0	32.2	23.0	0.4	-1.9	-4.9
Power generation/District heating	24.6	27.9	31.2	25.1	23.7	18.7	11.0	2.4	-2.7	-7.4
Energy Branch	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.8	-1.8	-1.5
Industry	10.6	9.8	3.7	4.0	3.9	3.6	2.6	-10.0	0.6	-3.9
Residential	1.4	1.2	1.0	1.0	0.7	0.5	0.4	-3.1	-4.0	-5.4
Tertiary	1.2	1.1	0.8	0.7	0.7	0.6	0.4	-4.0	-1.5	-5.0
Transport	5.7	8.3	8.3	8.4	8.3	8.2	8.0	3.7	0.1	-0.4
CO₂ Emissions (non energy and non land use related)	3.5	4.0	3.0	3.0	3.1	3.2	3.2	-1.5	0.4	0.5
Non-CO₂ GHG emissions	16.7	14.0	12.3	12.5	9.8	9.4	9.3	-3.0	-2.2	-0.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	58.5	60.9	55.6	50.5	46.3	40.7	32.3	-0.5	-1.8	-3.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.46	0.49	0.51	0.41	0.39	0.31	0.20	1.2	-2.8	-6.6
Final energy demand (t of CO ₂ /toe)	2.07	2.01	1.55	1.53	1.44	1.38	1.29	-2.8	-0.8	-1.1
Industry	2.67	2.43	1.44	1.47	1.41	1.28	0.97	-6.0	-0.2	-3.7
Residential	0.63	0.58	0.44	0.41	0.28	0.21	0.18	-3.5	-4.5	-4.3
Tertiary	1.24	0.97	0.69	0.61	0.54	0.48	0.38	-5.8	-2.3	-3.6
Transport	2.85	2.88	2.88	2.80	2.73	2.73	2.70	0.1	-0.5	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.6	9.1	14.1	18.7	21.1	26.5	36.5			
RES-H&C share	10.5	14.1	25.2	30.8	33.9	35.5	47.0			
RES-E share	4.0	8.5	12.3	17.4	18.1	33.8	52.2			
RES-T share (based on ILUC formula)	0.3	0.4	1.1	5.4	9.9	10.7	14.0			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	53	55	58	68	69	75	82	0.8	1.8	1.8
Average Price of Electricity in Final demand sectors (€13/MWh)	44	56	75	89	106	128	138	5.4	3.5	2.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	5.2	7.4	9.5	10.5	12.9	14.5	17.1	6.2	3.0	2.9
as % of GDP	20.7	22.3	25.3	26.5	28.5	29.1	32.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Croatia: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	4	4	4	4	4	4	4	-0.4	-0.3	-0.3
GDP (in 000 M€13)	36	45	46	45	49	52	55	2.4	0.5	1.3
Gross Inland Consumption (ktoe)	7793	8888	8561	8018	8229	7773	7083	0.9	-0.4	-1.5
Solids	431	683	683	751	694	307	174	4.7	0.2	-12.9
Oil	3929	4490	3699	3414	3230	3056	2790	-0.6	-1.3	-1.5
Natural gas	2210	2370	2632	2144	2473	2475	1612	1.8	-0.6	-4.2
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Renewable energy forms	880	906	1138	1195	1417	1585	2097	2.6	2.2	4.0
Energy Branch Consumption	821	825	745	726	707	599	580	-1.0	-0.5	-2.0
Non-Energy Uses	656	675	596	514	529	536	535	-0.9	-1.2	0.1
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	3580	3799	4222	3368	3650	3561	3880	1.7	-1.4	0.6
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0
Oil	1345	1029	767	466	461	436	390	-5.5	-5.0	-1.7
Natural gas	1355	1865	2215	1431	1537	1316	1083	5.0	-3.6	-3.4
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	880	906	1240	1471	1652	1809	2407	3.5	2.9	3.8
Hydro	505	545	716	533	544	549	560	3.6	-2.7	0.3
Biomass & Waste	375	360	500	859	1021	988	1296	2.9	7.4	2.4
Wind	0	1	12	56	56	73	198	0.0	16.6	13.5
Solar and others	0	0	5	16	23	192	336	0.0	16.0	30.8
Geothermal	0	0	7	7	8	8	16	0.0	1.3	7.4
Net Imports (ktoe)	4134	5208	4461	4657	4587	4219	3210	0.8	0.3	-3.5
Solids	478	624	699	751	694	307	174	3.9	-0.1	-12.9
Oil	2406	3583	2980	2955	2776	2627	2406	2.2	-0.7	-1.4
Crude oil and Feedstocks	3952	4334	3647	2979	2838	2746	2589	-0.8	-2.5	-0.9
Oil products	-1546	-751	-667	-24	-62	-119	-183	-8.1	-21.2	11.4
Natural gas	905	562	476	713	937	1160	529	-6.2	7.0	-5.6
Electricity	344	440	410	514	414	350	410	1.8	0.1	-0.1
Import Dependency (%)	52.9	58.4	52.1	58.0	55.7	54.2	45.3			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	10684	12354	13999	11996	14103	14665	13300	2.7	0.1	-0.6
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	1551	2328	2385	2671	2689	915	345	4.4	1.2	-18.6
Oil (including refinery gas)	1687	1855	560	77	25	278	209	-10.4	-26.7	23.7
Gas (including derived gases)	1571	1814	2553	2232	4063	4126	335	5.0	4.8	-22.1
Biomass-waste	1	14	33	98	285	312	720	41.9	24.1	9.7
Hydro (pumping excluded)	5874	6333	8329	6200	6324	6387	6516	3.6	-2.7	0.3
Wind	0	10	139	650	650	843	2306	0.0	16.7	13.5
Solar	0	0	0	68	68	1803	2868	0.0	0.0	45.4
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	3786	3945	4216	4884	4894	6002	7519	1.1	1.5	4.4
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2079	2066	2220	2668	2668	3966	5526	0.7	1.9	7.6
Hydro (pumping excluded)	2079	2060	2141	2190	2190	2190	2226	0.3	0.2	0.2
Wind	0	6	79	423	423	510	1299	0.0	18.3	11.9
Solar	0	0	0	55	55	1266	2001	0.0	0.0	43.2
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1707	1879	1996	2216	2226	2036	1993	1.6	1.1	-1.1
of which cogeneration units	558	515	486	298	596	926	781	-1.4	2.1	2.7
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	311	311	311	311	656	656	656	0.0	7.7	0.0
Gas fired	781	919	1031	1706	1396	1196	1091	2.8	3.1	-2.4
Oil fired	615	646	649	185	150	157	112	0.5	-13.6	-2.9
Biomass-waste fired	0	3	5	13	24	26	134	0.0	17.3	18.8
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	31.0	34.4	36.6	27.3	32.0	27.4	20.0			
Efficiency of gross thermal power generation (%)	33.1	34.9	37.5	44.0	47.5	45.2	28.8			
% of gross electricity from CHP	16.8	0.0	14.3	15.5	19.0	17.5	10.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	55.0	51.5	60.7	58.5	52.0	63.7	93.3			
Fuel Inputs to Thermal Power Generation (ktoe)	1249	1479	1269	993	1278	1072	480	0.2	0.1	-9.3
Solids	357	537	532	612	567	205	112	4.1	0.6	-15.0
Oil (including refinery gas)	395	447	120	14	8	78	63	-11.3	-23.4	22.5
Gas (including derived gases)	497	490	611	350	648	729	82	2.1	0.6	-18.7
Biomass & Waste	0	4	7	17	55	61	223	36.6	23.2	15.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	5394	5327	4409	3555	3568	3435	3215	-2.0	-2.1	-1.0
Refineries	5299	5210	4304	3414	3268	3152	2954	-2.1	-2.7	-1.0
Biofuels and hydrogen production	0	0	3	70	223	202	186	0.0	56.1	-1.8
District heating	83	104	97	70	74	72	62	1.6	-2.7	-1.6
Derived gases, cokeries etc.	12	13	4	1	2	10	12	-10.0	-5.6	17.6

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Croatia: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
											Annual % Change
TRANSPORT											
Passenger transport activity (Gpkm)	27	31	34	36	39	41	43	2.5	1.4	1.0	
Public road transport	3	3	3	3	4	4	4	-0.3	1.0	0.6	
Private cars and motorcycles	21	25	27	28	30	31	33	2.4	1.2	0.9	
Rail	2	2	2	2	3	3	3	2.7	1.3	0.8	
Aviation ⁽³⁾	1	1	2	3	3	3	4	12.0	3.7	2.6	
Inland navigation	0	0	0	0	0	0	0	212.2	1.1	1.7	
Freight transport activity (Gtkm)	4	12	12	12	14	15	16	10.2	1.5	1.6	
Heavy goods and light commercial vehicles	3	9	8	8	10	10	11	12.1	1.5	1.7	
Rail	2	3	3	3	3	3	3	3.9	1.4	1.3	
Inland navigation	0	0	1	1	1	1	1	30.9	1.4	1.0	
Energy demand in transport (ktoe) ⁽⁴⁾	1544	1921	2068	2074	2133	2059	2017	3.0	0.3	-0.6	
Public road transport	41	39	61	63	66	66	65	3.9	0.8	-0.1	
Private cars and motorcycles	1192	1192	1332	1324	1319	1222	1161	1.1	-0.1	-1.3	
Heavy goods and light commercial vehicles	161	508	479	465	510	520	529	11.5	0.6	0.4	
Rail	46	52	50	48	52	53	54	0.8	0.5	0.5	
Aviation	76	98	108	134	144	154	161	3.6	2.9	1.1	
Inland navigation	29	33	38	39	43	45	47	2.8	1.3	0.8	
By transport activity											
Passenger transport	1329	1340	1514	1535	1542	1455	1401	1.3	0.2	-1.0	
Freight transport	215	581	554	540	591	604	616	9.9	0.7	0.4	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	1.8				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.1	3.5	10.7	10.5	10.1				
ENERGY EFFICIENCY											
Primary energy consumption	7138	8213	7965	7504	7700	7238	6548				
Final Energy Demand	5371	6343	6347	6190	6299	6059	5665	1.1	-0.3	-1.6	
by sector								1.7	-0.1	-1.1	
Industry	1378	1563	1366	1394	1388	1306	1237	-0.1	0.2	-1.1	
Energy intensive industries	847	907	752	745	734	674	619	-1.2	-0.2	-1.7	
Other industrial sectors	531	656	614	649	654	633	619	1.5	0.6	-0.5	
Residential	1666	1922	1893	1784	1778	1723	1530	1.3	-0.6	-1.5	
Tertiary	781	935	1018	934	996	967	877	2.7	-0.2	-1.3	
Transport ⁽⁵⁾	1547	1923	2070	2078	2137	2063	2020	3.0	0.3	-0.6	
by fuel											
Solids	74	146	150	139	127	102	62	7.3	-1.6	-6.9	
Oil	2683	3108	2902	2755	2564	2378	2137	0.8	-1.2	-1.8	
Gas	1009	1236	1288	1170	1227	1203	1059	2.5	-0.5	-1.5	
Electricity	1018	1240	1364	1317	1392	1398	1361	3.0	0.2	-0.2	
Heat (from CHP and District Heating)	213	258	246	226	239	249	232	1.4	-0.3	-0.3	
Renewable energy forms	375	356	397	582	747	720	801	0.6	6.5	0.7	
Other	0	0	0	1	2	10	13	0.0	0.0	18.2	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	214	196	184	179	168	150	128	-1.5	-0.9	-2.7	
Industry (Energy on Value added, index 2000=100)	100	97	88	93	86	78	71	-1.3	-0.2	-2.0	
Residential (Energy on Private Income, index 2000=100)	100	91	88	84	76	69	57	-1.2	-1.5	-2.8	
Tertiary (Energy on Value added, index 2000=100)	100	97	99	95	91	83	70	-0.1	-0.8	-2.6	
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	41	43	41	38	34	31	-1.2	-1.3	-2.0	
Freight transport (toe/Mtkm)	48	49	47	45	43	41	38	-0.2	-0.8	-1.2	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	26.3	30.7	28.5	25.4	25.0	22.5	18.8	0.8	-1.3	-2.8	
of which ETS sectors (2013 scope) GHG emissions	12.7	10.8	9.7	9.7	10.0	8.3	5.8	-0.8	-5.4		
of which ESD sectors (2013 scope) GHG emissions	17.9	17.7	15.7	15.7	14.9	14.1	13.0	-1.7	-1.4		
CO ₂ Emissions (energy related)	17.0	20.2	18.6	17.0	17.0	14.8	11.5	0.9	-0.9	-3.9	
Power generation/District heating	4.1	5.1	4.3	3.5	4.0	2.9	0.9	0.3	-0.5	-14.2	
Energy Branch	2.0	2.0	1.8	1.7	1.7	1.4	1.4	-1.0	-0.5	-2.2	
Industry	2.9	3.5	2.8	2.9	2.7	2.3	1.7	-0.2	-0.5	-4.5	
Residential	1.9	2.4	2.1	1.7	1.7	1.6	1.3	1.0	-2.1	-2.8	
Tertiary	1.5	1.5	1.4	1.2	1.2	1.1	1.0	-0.6	-1.6	-2.1	
Transport	4.5	5.7	6.2	6.0	5.7	5.4	5.3	3.1	-0.8	-0.7	
CO ₂ Emissions (non energy and non land use related)	2.6	3.1	2.5	2.4	2.6	2.5	2.3	-0.3	0.1	-1.0	
Non-CO ₂ GHG emissions	6.7	7.4	7.4	5.9	5.4	5.2	5.0	0.9	-3.1	-0.8	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	74.2	86.5	80.4	71.5	70.4	63.3	53.0	0.8	-1.3	-2.8	
Carbon Intensity indicators											
Electricity and Steam production (t of CO ₂ /MWh)	0.30	0.32	0.25	0.23	0.23	0.16	0.05	-2.1	-0.6	-13.9	
Final energy demand (t of CO ₂ /toe)	2.01	2.06	1.97	1.90	1.79	1.73	1.63	-0.2	-1.0	-0.9	
Industry	2.09	2.23	2.08	2.08	1.94	1.78	1.37	-0.1	-0.7	-3.4	
Residential	1.15	1.24	1.12	0.95	0.96	0.94	0.84	-0.3	-1.5	-1.3	
Tertiary	1.89	1.57	1.37	1.26	1.19	1.15	1.09	-3.2	-1.4	-0.8	
Transport	2.94	2.97	2.97	2.88	2.65	2.64	2.62	0.1	-1.1	-0.1	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	14.8	12.8	14.3	18.5	21.2	25.0	34.6				
RES-H&C share	13.0	10.9	13.1	18.0	18.8	20.7	32.1				
RES-E share	36.2	32.8	34.2	39.1	38.8	50.0	69.0				
RES-T share (based on ILUC formula)	1.2	0.9	1.1	5.1	10.0	12.5	17.7				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	83	75	67	59	67	79	87	-2.1	0.1	2.6	
Average Price of Electricity in Final demand sectors (€13/MWh)	96	84	109	110	122	131	137	1.3	1.1	1.1	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	4.4	5.9	7.6	7.5	9.0	10.3	11.6	5.5	1.7	2.6	
as % of GDP	12.2	12.9	16.4	16.8	18.5	19.8	21.0				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Cyprus: EUC03030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	1	1	1	1	1	1	1	1.7	0.9	0.3	
GDP (in 000 M€13)	14	16	19	16	19	21	22	2.8	0.2	1.9	
Gross Inland Consumption (ktoe)	2412	2539	2740	2157	2149	2004	1897	1.3	-2.4	-1.2	
Solids	33	36	17	0	0	0	0	-6.5	-53.4	-12.3	
Oil	2334	2446	2611	1995	1345	1208	1124	1.1	-6.4	-1.8	
Natural gas	0	0	0	0	558	517	464	0.0	0.0	-1.8	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy forms	46	57	112	162	245	279	308	9.4	8.1	2.3	
Energy Branch Consumption	54	22	19	17	15	8	7	-9.7	-2.4	-7.6	
Non-Energy Uses	86	73	85	38	42	44	44	-0.1	-7.0	0.6	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	44	51	89	137	195	2042	2870	7.2	8.2	30.8	
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Natural gas	0	0	0	0	0	1810	2609	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	44	51	89	137	195	231	260	7.2	8.2	2.9	
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biomass & Waste	9	10	24	28	37	46	54	10.5	4.3	3.9	
Wind	0	0	3	21	36	36	46	0.0	29.7	2.5	
Solar and others	36	41	61	86	118	144	154	5.6	6.8	2.7	
Geothermal	0	0	1	2	4	5	6	0.0	18.6	3.3	
Net imports (ktoe)	2565	2843	2945	2243	2197	228	-688	1.4	-2.9	0.0	
Solids	33	43	11	0	0	0	0	-10.4	-51.4	-12.3	
Oil	2531	2794	2910	2218	1586	1468	1384	1.4	-5.9	-1.4	
Crude oil and Feedstocks	1160	0	0	0	0	0	0	-100.0	0.0	0.0	
Oil products	1371	2794	2910	2218	1586	1468	1384	7.8	-5.9	-1.4	
Natural gas	0	0	0	0	561	-1288	-2121	0.0	0.0	0.0	
Electricity	0	0	0	0	0	0	0	0.0	0.0	0.0	
Import Dependency (%)	98.6	100.7	100.8	94.3	91.8	10.0	-31.6				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	3370	4376	5322	4573	4932	5171	4936	4.7	-0.8	0.0	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	3370	4376	5249	4086	434	22	22	4.5	-22.1	-25.7	
Gas (including derived gases)	0	0	0	0	3441	3718	3248	0.0	0.0	-0.6	
Biomass-waste	0	0	35	45	59	109	95	0.0	5.4	4.9	
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wind	0	0	31	248	422	422	540	0.0	29.8	2.5	
Solar	0	0	6	195	576	899	1030	0.0	58.4	6.0	
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	983	1119	1498	1755	1980	2169	2283	4.3	2.8	1.4	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	0	0	89	292	554	715	828	0.0	20.1	4.1	
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wind	0	0	82	158	216	216	268	0.0	10.2	2.2	
Solar	0	0	7	135	338	499	560	0.0	47.4	5.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	983	1119	1409	1462	1426	1455	1455	3.7	0.1	0.2	
of which cogeneration units	0	5	22	2	2	1	1	0.0	-21.7	-8.6	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0	
Gas fired	0	0	0	0	34	514	514	0.0	0.0	31.3	
Oil fired	983	1119	1406	1452	1382	930	930	3.6	-0.2	-3.9	
Biomass-waste fired	0	0	3	10	10	10	11	0.0	12.7	0.2	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	37.2	42.1	38.9	28.5	27.4	26.7	24.3				
Efficiency of gross thermal power generation (%)	32.9	34.9	38.4	48.0	51.9	61.8	60.0				
% of gross electricity from CHP	0.0	0.3	1.0	1.7	1.6	1.0	1.0				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	1.4	10.6	21.4	27.7	33.7				
Fuel Inputs to Thermal Power Generation (ktoe)	881	1077	1182	741	652	536	483	3.0	-5.8	-3.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	881	1077	1178	731	81	0	0	2.9	-23.4	-100.0	
Gas (including derived gases)	0	0	0	0	558	516	462	0.0	0.0	-1.9	
Biomass & Waste	0	0	4	10	13	20	21	0.0	12.6	4.7	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1178	0	15	17	41	37	33	-35.4	10.5	-2.0	
Refineries	1178	0	0	0	0	0	0	-100.0	0.0	0.0	
Biofuels and hydrogen production	0	0	15	17	41	36	33	0.0	10.5	-2.2	
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0	
Derived gases, cokeries etc.	0	0	0	0	0	0	1	0.0	0.0	16.4	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Cyprus: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
TRANSPORT										
Passenger transport activity (Gpkm)	12	14	15	15	18	20	22	1.9	2.3	1.9
Public road transport	1	1	1	1	1	1	1	1.4	0.8	0.2
Private cars and motorcycles	4	5	6	6	7	7	7	4.0	0.9	0.7
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	7	8	7	8	10	12	14	0.5	3.6	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	1	1	1	1	1	1	1	-1.6	0.7	1.3
Heavy goods and light commercial vehicles	1	1	1	1	1	1	1	-1.6	0.7	1.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	860	982	1050	916	962	945	934	2.0	-0.9	-0.3
Public road transport	32	35	37	37	38	37	35	1.5	0.3	-0.6
Private cars and motorcycles	373	444	577	490	483	428	383	4.5	-1.8	-2.3
Heavy goods and light commercial vehicles	173	197	152	125	126	126	127	-1.3	-1.8	0.1
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	282	306	284	263	316	354	389	0.1	1.1	2.1
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	687	785	898	791	836	819	807	2.7	-0.7	-0.4
Freight transport	173	197	152	125	126	126	127	-1.3	-1.8	0.1
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.5	1.4			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.4	1.8	4.2	3.9	3.4			
ENERGY EFFICIENCY										
Primary energy consumption	2326	2466	2655	2118	2107	1960	1853	1.3	-2.3	-1.3
Final Energy Demand	1650	1834	1926	1700	1761	1729	1634	1.6	-0.9	-0.7
by sector										
Industry	445	320	235	202	204	199	189	-6.2	-1.4	-0.8
Energy intensive industries	240	221	171	141	145	146	146	-3.3	-1.7	0.1
Other industrial sectors	205	98	63	61	59	53	42	-11.1	-0.7	-3.3
Residential	211	322	333	323	315	298	259	4.7	-0.5	-1.9
Tertiary	134	209	309	259	279	287	252	8.7	-1.0	-1.0
Transport ⁽⁵⁾	860	983	1050	916	962	945	934	2.0	-0.9	-0.3
by fuel										
Solids	32	36	17	0	0	0	0	-6.4	-53.4	-12.3
Oil	1317	1403	1384	1226	1222	1164	1080	0.5	-1.2	-1.2
Gas	0	0	0	0	0	1	2	0.0	0.0	18.3
Electricity	258	341	420	360	390	417	397	5.0	-0.7	0.2
Heat (from CHP and District Heating)	0	0	0	1	1	1	1	0.0	25.5	-2.3
Renewable energy forms	42	54	105	114	146	145	152	9.6	3.4	0.4
Other	0	0	0	0	0	1	2	-100.0	0.0	26.6
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	175	157	151	131	115	97	85	-1.5	-2.6	-3.0
Industry (Energy on Value added, index 2000=100)	100	70	56	57	53	48	42	-5.6	-0.7	-2.2
Residential (Energy on Private Income, index 2000=100)	100	129	114	116	102	88	72	1.3	-1.1	-3.5
Tertiary (Energy on Value added, index 2000=100)	100	133	166	151	142	132	106	5.2	-1.5	-2.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	50	51	53	44	38	33	30	0.5	-3.2	-2.4
Freight transport (toe/Mtkm)	129	135	133	109	104	97	92	0.3	-2.5	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	11.3	10.4	10.3	8.2	7.3	6.8	6.6	-0.9	-3.4	-1.0
of which ETS sectors (2013 scope) GHG emissions		6.0	5.7	4.1	3.5	3.2	3.2		-4.9	-0.8
of which ESD sectors (2013 scope) GHG emissions		4.4	4.5	4.2	3.8	3.6	3.3		-1.8	-1.3
CO2 Emissions (energy related)	7.2	8.0	8.1	6.1	5.3	4.8	4.4	1.2	-4.1	-1.9
Power generation/District heating	2.8	3.5	3.8	2.4	1.6	1.2	1.1	2.9	-8.4	-3.7
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.0
Industry	1.4	1.0	0.6	0.6	0.5	0.5	0.4	-7.6	-1.6	-3.4
Residential	0.2	0.5	0.4	0.3	0.3	0.2	0.1	4.7	-2.4	-6.4
Tertiary	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.0	-1.9	-4.2
Transport	2.6	3.0	3.1	2.7	2.8	2.7	2.7	1.8	-1.2	-0.3
CO2 Emissions (non energy and non land use related)	0.9	0.9	0.6	0.5	0.6	0.6	0.7	-3.5	-0.5	1.4
Non-CO2 GHG emissions	3.2	1.5	1.6	1.6	1.4	1.4	1.5	-6.9	-1.5	0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	179.4	166.0	163.7	131.1	115.6	108.8	104.3	-0.9	-3.4	-1.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.85	0.80	0.71	0.52	0.32	0.23	0.22	-1.7	-7.7	-3.7
Final energy demand (t of CO2/toe)	2.57	2.45	2.24	2.22	2.14	2.07	2.04	-1.3	-0.5	-0.5
Industry	3.16	3.11	2.70	2.73	2.64	2.48	2.03	-1.6	-0.2	-2.6
Residential	1.11	1.44	1.11	1.04	0.91	0.77	0.58	0.0	-1.9	-4.5
Tertiary	0.00	0.43	0.69	0.73	0.63	0.53	0.46	0.0	-0.9	-3.2
Transport	3.02	3.00	2.95	2.94	2.86	2.87	2.87	-0.2	-0.3	0.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.9	3.1	5.9	9.1	14.9	17.6	20.9			
RES-H&C share	7.9	10.0	18.2	21.8	24.3	27.2	33.8			
RES-E share	0.0	0.0	1.4	10.6	21.4	27.7	33.7			
RES-T share (based on ILUC formula)	0.0	0.0	2.0	1.3	10.3	11.0	12.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	114	115	154	84	112	109	115	3.1	-3.1	0.2
Average Price of Electricity in Final demand sectors (€13/MWh)	132	146	181	204	198	183	190	3.2	0.9	-0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.1	1.9	2.5	2.4	3.0	3.3	3.6	8.1	2.0	1.8
as % of GDP	8.3	12.0	13.7	14.8	16.3	16.0	16.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Czech Republic: EUC03030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	10	11	11	11	11	0.2	0.2	0.1	
GDP (in 000 ME13)	112	137	157	165	181	197	216	3.4	1.4	1.8	
Gross Inland Consumption (ktoe)	41097	45124	44681	41122	40988	40594	38990	0.8	-0.9	-0.5	
Solids	21643	20248	18364	15061	14936	14358	12686	-1.6	-2.0	-1.6	
Oil	7881	9899	9306	8965	8810	8513	8337	1.7	-0.5	-0.6	
Natural gas	7500	7703	8070	7797	7178	7014	5506	0.7	-1.2	-2.6	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Renewable energy forms	1429	1955	2980	3521	3856	4524	6360	7.6	2.6	5.1	
Energy Branch Consumption	1768	1796	2068	1808	1763	1728	1648	1.6	-1.6	-0.7	
Non-Energy Uses	2093	2948	2783	2447	2583	2691	2747	2.9	-0.7	0.6	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30536	32861	31570	27296	27866	28666	28419	0.3	-1.2	0.2	
Solids	25049	23570	20730	16524	16880	17002	14959	-1.9	-2.0	-1.2	
Oil	386	591	290	223	222	210	189	-2.8	-2.7	-1.6	
Natural gas	169	154	202	191	181	171	159	1.8	-1.1	-1.3	
Nuclear	3506	6405	7248	6798	6798	6798	6798	7.5	-0.6	0.0	
Renewable energy sources	1426	2142	3101	3560	3785	4485	6314	8.1	2.0	5.2	
Hydro	151	205	240	208	218	211	240	4.7	-0.9	0.9	
Biomass & Waste	1275	1933	2770	3106	3234	3735	5117	8.1	1.6	4.7	
Wind	0	2	29	44	65	213	534	76.2	8.5	23.4	
Solar and others	0	3	62	202	266	324	367	0.0	15.7	3.3	
Geothermal	0	0	0	0	2	3	56	0.0	0.0	39.9	
Net Imports (ktoe)	9414	12641	11447	13826	13122	11927	10571	2.0	1.4	-2.1	
Solids	-4721	-3270	-2968	-1463	-1944	-2643	-2273	-4.5	-4.1	1.6	
Oil	7512	9649	8974	8742	8588	8303	8147	1.8	-0.4	-0.5	
Crude oil and Feedstocks	5596	7730	7837	6115	6049	5907	5836	3.4	-2.6	-0.4	
Oil products	1916	1919	1137	2627	2539	2396	2311	-5.1	8.4	-0.9	
Natural gas	7482	7535	6846	7606	6998	6843	5348	-0.9	0.2	-2.7	
Electricity	-861	-1086	-1285	-1020	-591	-614	-697	4.1	-7.5	1.7	
Import Dependency (%)	22.9	28.0	25.6	33.6	32.0	29.4	27.1				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	72911	81931	85319	82069	80201	82816	83691	1.6	-0.6	0.4	
Nuclear energy	13590	24728	27998	27596	27596	27596	27594	7.5	-0.1	0.0	
Solids	52752	49522	47113	41095	42428	40096	35625	-1.1	-1.0	-1.7	
Oil (including refinery gas)	372	326	159	231	0	0	0	-8.1	-100.0	0.0	
Gas (including derived gases)	3907	4215	4121	5855	3561	4901	2943	0.5	-1.5	-1.9	
Biomass-waste	531	739	2188	2213	1099	2835	6011	15.2	-6.7	18.5	
Hydro (pumping excluded)	1758	2380	2789	2421	2541	2449	2790	4.7	-0.9	0.9	
Wind	1	21	335	508	759	2472	6209	78.9	8.5	23.4	
Solar	0	0	615	2149	2214	2466	2518	0.0	13.7	1.3	
Geothermal and other renewables	0	0	1	0	2	2	2	0.0	9.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	13990	16314	17995	18816	18573	19566	21122	2.5	0.3	1.3	
Nuclear energy	1958	4006	4006	4006	4006	4006	4006	7.4	0.0	0.0	
Renewable energy	953	1043	2989	3628	3816	4666	6425	12.1	2.5	5.3	
Hydro (pumping excluded)	952	1020	1049	1080	1080	1085	1158	1.0	0.3	0.7	
Wind	1	22	213	282	408	1018	2651	70.9	6.7	20.6	
Solar	0	1	1727	2266	2328	2563	2617	0.0	3.0	1.2	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	11079	11265	11000	11182	10751	10894	10691	-0.1	-0.2	-0.1	
of which cogeneration units	3733	5199	4792	3842	3973	3127	2377	2.5	-1.9	-5.0	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9823	9935	9571	9656	9487	9414	8797	-0.3	-0.1	-0.8	
Gas fired	1097	1110	1176	1220	935	1150	765	0.7	-2.3	-2.0	
Oil fired	140	140	117	134	72	64	64	-1.8	-4.7	-1.2	
Biomass-waste fired	19	80	136	171	258	266	1065	21.7	6.6	15.3	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	55.0	52.9	50.0	46.3	45.8	45.0	42.3				
Efficiency of gross thermal power generation (%)	31.4	30.0	30.3	31.9	32.8	32.0	30.8				
% of gross electricity from CHP	17.9	16.8	14.2	17.4	19.4	15.2	12.3				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	21.8	34.0	39.8	42.5	42.7	45.7	53.9				
Fuel Inputs to Thermal Power Generation (ktoe)	15744	15702	15219	13299	12351	12845	12431	-0.3	-2.1	0.1	
Solids	13945	14025	13445	10677	11105	10877	9641	-0.4	-1.9	-1.4	
Oil (including refinery gas)	311	161	78	59	0	0	0	-12.9	-100.0	0.0	
Gas (including derived gases)	1236	1292	1134	1938	959	1197	825	-0.9	-1.7	-1.5	
Biomass & Waste	253	224	562	626	284	769	1963	8.3	-6.6	21.3	
Geothermal heat	0	0	0	0	2	2	2	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	15035	19758	20049	17183	17042	16802	16467	2.9	-1.6	-0.3	
Refineries	6151	8144	8337	6497	6445	6301	6211	3.1	-2.5	-0.4	
Biofuels and hydrogen production	62	3	231	285	594	530	527	14.1	9.9	-1.2	
District heating	975	916	787	650	692	690	606	-2.1	-1.3	-1.3	
Derived gases, cokeries etc.	7846	10696	10693	9751	9311	9281	9122	3.1	-1.4	-0.2	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Czech Republic: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT							Annual % Change			
Passenger transport activity (Gpkm)	103	112	108	113	124	135	146	0.5	1.4	1.6
Public road transport	16	16	17	17	19	20	21	0.5	0.9	1.3
Private cars and motorcycles	67	72	67	68	75	81	86	0.0	1.1	1.4
Rail	15	15	16	18	20	22	24	0.1	2.6	1.9
Aviation ⁽³⁾	5	10	9	9	11	12	14	5.6	2.3	2.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	46	49	48	50	55	59	64	0.3	1.4	1.6
Heavy goods and light commercial vehicles	29	34	34	35	38	41	43	1.7	1.1	1.4
Rail	17	15	14	15	17	19	20	-2.4	2.1	1.9
Inland navigation	0	0	0	0	0	0	0	-7.0	1.1	2.1
Energy demand in transport (ktoe) ⁽⁴⁾	4252	5983	6121	6178	6304	6042	5983	3.7	0.3	-0.5
Public road transport	233	296	379	385	401	408	414	5.0	0.6	0.3
Private cars and motorcycles	2563	3389	3394	3319	3295	2989	2842	2.8	-0.3	-1.5
Heavy goods and light commercial vehicles	1038	1753	1810	1914	1996	1987	2015	5.7	1.0	0.1
Rail	216	197	193	211	235	248	264	-1.1	2.0	1.2
Aviation	197	343	341	345	373	406	443	5.6	0.9	1.7
Inland navigation	5	5	4	4	4	4	5	-2.2	-0.7	1.9
<i>By transport activity</i>										
Passenger transport	3107	4132	4229	4175	4214	3957	3864	3.1	0.0	-0.9
Freight transport	1145	1850	1892	2003	2090	2085	2119	5.1	1.0	0.1
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	1.5	0.0	3.8	4.7	9.7	9.2	9.3			
ENERGY EFFICIENCY										
Primary energy consumption	39004	42175	41899	38675	38405	37903	36242	0.7	-0.9	-0.6
Final Energy Demand	24798	26026	24853	24635	25283	24479	22893	0.0	0.2	-1.0
<i>by sector</i>										
Industry	10129	9681	7933	7883	8105	7934	7661	-2.4	0.2	-0.6
Energy intensive industries	6420	6748	5015	5079	5066	4927	4571	-2.4	0.1	-1.0
Other industrial sectors	3709	2934	2919	2804	3039	3008	3090	-2.4	0.4	0.2
Residential	6150	6345	6665	6340	6582	6413	5602	0.8	-0.1	-1.6
Tertiary	4151	3904	3979	4098	4140	3930	3483	-0.4	0.4	-1.7
Transport ⁽⁵⁾	4368	6095	6276	6315	6457	6202	6147	3.7	0.3	-0.5
<i>by fuel</i>										
Solids	5134	3769	2424	2616	2238	1904	1520	-7.2	-0.8	-3.8
Oil	5322	6817	6541	6366	6151	5760	5490	2.1	-0.6	-1.1
Gas	6491	6741	6662	6128	6320	5989	5196	0.3	-0.5	-1.9
Electricity	4246	4754	4919	5012	5278	5488	5520	1.5	0.7	0.4
Heat (from CHP and District Heating)	2624	2478	2249	2102	2277	2356	2095	-1.5	0.1	-0.8
Renewable energy forms	981	1467	2058	2411	3017	2967	3042	7.7	3.9	0.1
Other	0	0	0	1	2	15	31	-100.0	0.0	30.7
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	366	329	285	250	227	206	181	-2.5	-2.3	-2.2
Industry (Energy on Value added, index 2000=100)	100	69	44	43	40	37	32	-7.8	-0.9	-2.2
Residential (Energy on Private Income, index 2000=100)	100	87	80	75	70	61	48	-2.2	-1.4	-3.7
Tertiary (Energy on Value added, index 2000=100)	100	82	76	73	67	58	47	-2.7	-1.3	-3.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	35	36	34	31	27	24	2.2	-1.5	-2.5
Freight transport (toe/Mtkm)	25	38	40	40	38	35	33	4.8	-0.4	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	153.1	150.6	140.8	128.6	121.6	117.1	104.2	-0.8	-1.5	-1.5
of which ETS sectors (2013 scope) GHG emissions	87.1	79.4	68.7	65.9	65.0	65.0	57.0		-1.9	-1.4
of which ESD sectors (2013 scope) GHG emissions	63.6	61.4	59.9	55.8	52.1	47.2			-1.0	-1.6
CO₂ Emissions (energy related)	125.7	124.3	114.6	102.9	99.2	95.5	84.2	-0.9	-1.4	-1.6
Power generation/District heating	66.8	66.2	63.2	52.9	51.8	51.4	44.8	-0.6	-2.0	-1.4
Energy Branch	2.6	2.2	3.1	2.7	2.6	2.5	2.4	1.6	-1.8	-0.8
Industry	28.3	24.7	17.5	17.0	15.7	14.5	12.2	-4.7	-1.1	-2.5
Residential	8.8	8.4	8.3	7.8	7.5	6.9	6.0	-0.6	-0.9	-2.3
Tertiary	6.8	4.9	4.9	4.8	4.7	3.8	3.0	-3.3	-0.4	-4.2
Transport	12.4	17.8	17.6	17.6	17.0	16.3	15.9	3.6	-0.4	-0.6
CO₂ Emissions (non energy and non land use related)	5.6	5.3	4.8	5.2	5.3	5.1	5.1	-1.7	1.1	-0.4
Non-CO₂ GHG emissions	21.7	21.1	21.5	20.5	17.1	16.4	14.9	-0.1	-2.3	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	77.5	76.3	71.3	65.1	61.6	59.3	52.8	-0.8	-1.5	-1.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.60	0.55	0.52	0.46	0.45	0.44	0.39	-1.4	-1.4	-1.4
Final energy demand (t of CO ₂ /toe)	2.27	2.15	1.94	1.92	1.78	1.70	1.62	-1.6	-0.9	-0.9
Industry	2.79	2.55	2.21	2.16	1.94	1.83	1.59	-2.3	-1.3	-2.0
Residential	1.43	1.33	1.24	1.24	1.14	1.07	1.06	-1.4	-0.8	-0.7
Tertiary	1.63	1.26	1.22	1.18	1.13	0.97	0.87	-2.9	-0.8	-2.6
Transport	2.85	2.92	2.81	2.79	2.63	2.63	2.59	-0.1	-0.7	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	6.1	9.5	11.9	13.6	15.7	23.0			
RES-H&C share	5.9	9.1	12.6	15.5	17.3	19.4	29.2			
RES-E share	3.4	3.8	7.5	10.3	9.0	13.5	23.2			
RES-T share (based on ILUC formula)	1.8	0.3	4.4	5.5	10.2	10.7	12.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	60	83	83	89	86	2.0	3.3	0.4
Average Price of Electricity in Final demand sectors (€13/MWh)	66	83	142	128	132	134	139	7.9	-0.7	0.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	14.7	20.3	28.4	27.5	32.1	35.2	39.7	6.8	1.2	2.2
as % of GDP	13.1	14.8	18.1	16.7	17.7	17.9	18.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Denmark: EUC03030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	5	5	6	6	6	6	6	0.4	0.4	0.5
GDP (in 000 M€13)	233	248	247	256	289	321	350	0.6	1.6	1.9
Gross Inland Consumption (ktoe)	19733	19553	20040	16820	16818	15819	15157	0.2	-1.7	-1.0
Solids	3985	3713	3809	1860	1678	866	287	-0.5	-7.9	-16.2
Oil	9101	8063	7568	6738	6247	5743	5168	-1.3	-1.9	-1.9
Natural gas	4465	4413	4435	3680	2643	2455	1987	-0.1	-5.0	-2.8
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Renewable energy forms	2124	3246	4326	3795	5635	6050	7350	7.4	2.7	2.7
Energy Branch Consumption	1121	1205	1132	911	890	739	615	0.1	-2.4	-3.6
Non-Energy Uses	301	289	263	283	313	339	346	-1.3	1.8	1.0
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	27958	30781	22915	15259	15896	13585	12192	-2.0	-3.6	-2.6
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil	18465	18464	12040	8158	7711	6408	4417	-4.2	-4.4	-5.4
Natural gas	7428	9397	7356	4188	3858	2455	1774	-0.1	-6.2	-7.5
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy sources	2065	2920	3520	2913	4327	4721	6001	5.5	2.1	3.3
Hydro	3	2	2	2	2	2	2	-3.6	0.2	0.0
Biomass & Waste	1688	2335	2825	1819	2823	2980	3254	5.3	0.0	1.4
Wind	365	569	672	1007	1318	1495	1988	6.3	7.0	4.2
Solar and others	8	10	16	80	100	127	198	7.2	19.9	7.1
Geothermal	1	4	5	6	85	117	560	13.8	32.6	20.7
Net Imports (ktoe)	-7370	-10130	-3257	2304	1724	3085	3870	-7.8	0.0	8.4
Solids	3783	3505	2642	1860	1678	866	287	-3.5	-4.4	-16.2
Oil	-8386	-9068	-3586	-676	-670	167	1572	-8.1	-15.4	0.0
Crude oil and Feedstocks	-8783	-10933	-5033	-669	-740	68	1529	-5.4	-17.4	0.0
Oil products	397	1865	1447	-7	70	99	43	13.8	-26.1	-4.8
Natural gas	-2882	-5010	-3022	-508	-1208	17	297	0.5	-8.8	0.0
Electricity	57	118	-98	747	615	706	366	0.0	0.0	-5.1
Import Dependency (%)	-35.1	-49.9	-15.7	13.1	9.8	18.5	24.1			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	36053	36246	38862	26963	30693	30668	35346	0.8	-2.3	1.4
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids	16673	15463	17006	6498	5408	2590	825	0.2	-10.8	-17.1
Oil (including refinery gas)	4439	1375	774	214	7	58	62	-16.0	-37.5	24.3
Gas (including derived gases)	8774	8780	7906	4589	708	1353	1022	-1.0	-21.4	3.7
Biomass-waste	1895	3989	5340	3164	8455	8491	9530	10.9	4.7	1.2
Hydro (pumping excluded)	30	23	21	21	21	21	21	-3.5	0.2	0.0
Wind	4241	6614	7809	11709	15325	17387	23118	6.3	7.0	4.2
Solar	1	2	6	768	768	768	768	17.5	63.0	0.0
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	11787	13021	13419	15207	13634	13242	13619	1.3	0.2	0.0
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0
Renewable energy	2401	3141	3818	5910	6456	6682	8214	4.7	5.4	2.4
Hydro (pumping excluded)	10	11	9	9	9	9	9	-1.0	0.0	0.0
Wind	2390	3127	3802	5064	5609	5835	7368	4.8	4.0	2.8
Solar	1	3	7	837	838	838	838	21.5	61.4	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	9386	9880	9601	9297	7179	6561	5405	0.2	-2.9	-2.8
of which cogeneration units	5578	5685	5806	7114	6188	5411	4215	0.4	0.6	-3.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	5214	5061	4466	4225	2366	2090	1472	-1.5	-6.2	-4.6
Gas fired	1862	2278	2274	2274	1135	1135	846	2.0	-6.7	-2.9
Oil fired	860	860	1017	1017	492	223	218	1.7	-7.0	-7.8
Biomass-waste fired	1449	1681	1844	1781	3186	3113	2870	2.4	5.6	-1.0
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	33.4	30.2	31.4	19.6	24.7	25.6	28.8			
Efficiency of gross thermal power generation (%)	34.9	35.7	35.3	32.4	33.4	32.8	32.9			
% of gross electricity from CHP	52.6	52.1	49.2	53.6	46.9	39.4	31.2			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	17.1	29.3	33.9	58.1	80.1	87.0	94.6			
Fuel Inputs to Thermal Power Generation (ktoe)	7834	7127	7624	3838	3759	3275	2990	-0.3	-6.8	-2.3
Solids	3669	3444	3770	1696	1529	771	207	0.3	-8.6	-18.1
Oil (including refinery gas)	1354	346	221	65	2	17	18	-16.6	-39.0	27.8
Gas (including derived gases)	2112	1996	1812	1197	203	353	260	-1.5	-19.7	2.5
Biomass & Waste	699	1341	1821	880	2026	2133	2505	10.0	1.1	2.1
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	9001	8288	8139	8416	8106	7519	7252	-1.0	0.0	-1.1
Refineries	8435	7700	7175	7493	6971	6473	5939	-1.6	-0.3	-1.6
Biofuels and hydrogen production	0	0	27	277	433	364	339	0.0	32.1	-2.4
District heating	549	575	923	644	691	642	923	5.3	-2.9	2.9
Derived gases, cokeries etc.	17	13	13	3	10	39	51	-2.9	-2.2	17.2

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Denmark: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
TRANSPORT											
Passenger transport activity (Gpkm)	75	76	78	83	90	94	99	0.4	1.3	1.0	
Public road transport	7	7	7	7	8	8	8	-0.7	0.9	0.6	
Private cars and motorcycles	51	51	52	54	58	59	61	0.1	1.1	0.6	
Rail	6	6	7	7	8	9	10	1.8	1.7	2.3	
Aviation ⁽³⁾	8	9	10	12	13	14	17	2.7	2.5	2.2	
Inland navigation	3	3	3	3	3	4	4	-0.7	1.1	1.1	
Freight transport activity (Gtkm)	21	22	23	25	29	31	33	0.6	2.3	1.3	
Heavy goods and light commercial vehicles	18	18	18	20	23	25	26	0.2	2.5	1.3	
Rail	2	2	2	2	3	3	3	1.0	1.6	1.9	
Inland navigation	2	2	2	2	3	3	3	3.6	1.0	1.1	
Energy demand in transport (ktoe) ⁽⁴⁾	4816	5324	5180	5009	4961	4700	4560	0.7	-0.4	-0.8	
Public road transport	203	202	199	204	213	214	212	-0.2	0.7	0.0	
Private cars and motorcycles	2627	2866	2828	2599	2396	2089	1950	0.7	-1.6	-2.0	
Heavy goods and light commercial vehicles	864	1003	1011	971	1059	1070	1058	1.6	0.5	0.0	
Rail	103	107	113	118	125	132	137	0.9	1.0	0.9	
Aviation	856	955	874	960	997	1014	1017	0.2	1.3	0.2	
Inland navigation	163	192	156	158	171	180	186	-0.4	0.9	0.8	
By transport activity											
Passenger transport	3874	4197	4049	3915	3771	3493	3362	0.4	-0.7	-1.1	
Freight transport	942	1128	1132	1094	1190	1207	1198	1.9	0.5	0.1	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.1				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.5	5.6	9.0	8.7	8.7				
ENERGY EFFICIENCY											
Primary energy consumption	19432	19264	19777	16536	16505	15481	14812	0.2	-1.8	-1.1	
Final Energy Demand	14717	15497	15606	14800	14753	14126	13210	0.6	-0.6	-1.1	
by sector											
Industry	2934	2864	2417	2568	2704	2631	2517	-1.9	1.1	-0.7	
Energy intensive industries	1156	1107	849	908	934	855	779	-3.0	1.0	-1.8	
Other industrial sectors	1778	1757	1569	1659	1771	1776	1738	-1.2	1.2	-0.2	
Residential	4162	4453	4916	4345	4188	4012	3596	1.7	-1.6	-1.5	
Tertiary	2805	2856	3094	2879	2900	2783	2537	1.0	-0.6	-1.3	
Transport ⁽⁵⁾	4816	5324	5179	5009	4961	4700	4560	0.7	-0.4	-0.8	
by fuel											
Solids	290	253	166	163	150	95	80	-5.4	-1.0	-6.1	
Oil	7058	7293	6759	6083	5655	5138	4585	-0.4	-1.8	-2.1	
Gas	1667	1708	1771	1744	1825	1683	1459	0.6	0.3	-2.2	
Electricity	2791	2877	2783	2733	2836	2922	3037	0.0	0.2	0.7	
Heat (from CHP and District Heating)	2255	2424	2840	2556	2495	2384	2098	2.3	-1.3	-1.7	
Renewable energy forms	656	943	1287	1519	1783	1864	1896	7.0	3.3	0.6	
Other	0	0	0	3	10	40	56	-100.0	0.0	18.3	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	85	79	81	66	58	49	43	-0.4	-3.3	-2.9	
Industry (Energy on Value added, index 2000=100)	100	101	91	94	90	80	71	-0.9	-0.1	-2.4	
Residential (Energy on Private Income, index 2000=100)	100	96	102	84	71	61	50	0.2	-3.5	-3.5	
Tertiary (Energy on Value added, index 2000=100)	100	96	101	91	80	69	57	0.1	-2.3	-3.3	
Passenger transport (toe/Mpkm) ⁽⁶⁾	44	46	43	39	34	30	27	-0.4	-2.2	-2.4	
Freight transport (toe/Mtkm)	44	51	50	44	42	39	37	1.3	-1.7	-1.2	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	71.7	66.3	63.9	50.5	45.7	39.9	34.1	-1.1	-3.3	-2.9	
of which ETS sectors (2013 scope) GHG emissions	29.3	27.9	18.0	14.6	11.1	7.7			-6.3	-6.2	
of which ESD sectors (2013 scope) GHG emissions	37.0	36.0	32.5	31.1	28.8	26.4			-1.5	-1.6	
CO ₂ Emissions (energy related)	53.3	50.0	48.8	35.8	31.1	25.7	20.4	-0.9	-4.4	-4.1	
Power generation/District heating	24.5	20.3	21.2	10.6	7.1	4.2	1.5	-1.4	-10.4	-14.3	
Energy Branch	2.2	2.3	2.1	1.9	1.7	1.4	1.1	-0.5	-2.1	-4.3	
Industry	5.4	5.1	3.9	4.1	4.1	3.5	2.5	-3.2	0.4	-4.7	
Residential	3.9	3.6	3.2	2.6	2.2	2.0	1.5	-2.0	-3.7	-3.6	
Tertiary	3.0	2.7	2.9	2.5	2.4	1.9	1.5	-0.3	-1.8	-4.9	
Transport	14.3	15.9	15.5	14.2	13.5	12.8	12.3	0.8	-1.3	-1.0	
CO ₂ Emissions (non energy and non land use related)	2.6	2.3	1.4	1.4	1.5	1.4	1.4	-6.1	1.0	-1.1	
Non-CO ₂ GHG emissions	15.8	14.0	13.7	13.3	13.1	12.7	12.3	-1.4	-0.4	-0.6	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.2	91.8	88.4	69.8	63.3	55.2	47.2	-1.1	-3.3	-2.9	
Carbon Intensity indicators											
Electricity and Steam production (t of CO ₂ /MWh)	0.36	0.28	0.26	0.17	0.11	0.07	0.02	-3.0	-8.3	-14.0	
Final energy demand (t of CO ₂ /toe)	1.81	1.76	1.63	1.58	1.51	1.42	1.35	-1.0	-0.8	-1.1	
Industry	1.85	1.79	1.63	1.58	1.52	1.31	1.01	-1.3	-0.7	-4.0	
Residential	0.95	0.80	0.66	0.59	0.53	0.50	0.43	-3.6	-2.1	-2.2	
Tertiary	1.05	0.95	0.93	0.88	0.83	0.67	0.57	-1.2	-1.2	-3.6	
Transport	2.97	2.99	2.99	2.83	2.72	2.72	2.69	0.0	-0.9	-0.1	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	10.5	15.6	22.0	23.9	33.9	39.5	48.8				
RES-H&C share	15.3	22.2	30.8	28.3	36.9	45.1	56.7				
RES-E share	15.0	25.0	33.1	41.9	62.7	66.7	82.7				
RES-T share (based on ILUC formula)	0.3	0.5	1.3	8.0	13.1	16.0	24.0				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	75	87	89	108	108	112	100	1.8	1.9	-0.7	
Average Price of Electricity in Final demand sectors (€13/MWh)	169	178	195	186	207	212	214	1.4	0.6	0.4	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	18.3	21.9	23.2	20.9	25.6	28.2	31.3	2.4	1.0	2.0	
as % of GDP	7.9	8.8	9.4	8.2	8.8	8.8	8.9				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Estonia: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	1	1	1	1	1	1	1	-0.5	-0.4	-0.6		
GDP (in 000 ME13)	11	15	15	18	20	22	24	3.6	3.0	1.6		
Gross Inland Consumption (ktoe)	4979	5622	6155	6344	6428	6263	6003	2.1	0.4	-2.5		
Solids	2968	3190	3917	3589	3673	3593	2082	2.8	-0.6	-5.5		
Oil	916	1182	1109	1065	975	891	822	1.9	-1.3	-1.7		
Natural gas	662	800	563	796	855	811	455	-1.6	4.3	-6.1		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0		
Renewable energy forms	513	589	847	995	1039	1066	1573	5.1	2.1	4.2		
Energy Branch Consumption	163	193	199	190	186	178	112	2.0	-0.7	-4.9		
Non-Energy Uses	180	229	90	280	295	305	309	-6.7	12.6	0.4		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	3435	4250	5467	5368	5401	5306	4271	4.8	-0.1	-2.3		
Solids	2669	3176	3943	3594	3675	3603	2087	4.0	-0.7	-5.5		
Oil	249	375	532	681	649	588	524	7.9	2.0	-2.1		
Natural gas	5	7	5	0	0	0	0	-1.7	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	512	692	988	1093	1077	1116	1660	6.8	0.9	4.4		
Hydro	0	2	2	3	3	3	3	19.1	2.1	0.0		
Biomass & Waste	512	686	962	1040	1015	1049	1367	6.5	0.5	3.0		
Wind	0	5	24	49	57	61	283	0.0	9.2	17.3		
Solar and others	0	0	0	0	2	3	7	0.0	0.0	15.3		
Geothermal	0	0	0	0	0	0	1	0.0	0.0	18.8		
Net Imports (ktoe)	1628	1489	862	1219	1262	1191	968	-6.2	3.9	-2.6		
Solids	270	23	-22	-5	-2	-10	-5	0.0	-22.6	10.3		
Oil	786	917	760	625	555	525	502	-0.3	-3.1	-1.0		
Crude oil and Feedstocks	-125	-225	-394	-560	-524	-466	-408	12.2	2.9	-2.5		
Oil products	911	1142	1153	1185	1079	991	910	2.4	-0.7	-1.7		
Natural gas	657	792	558	796	861	824	488	-1.6	4.4	-5.5		
Electricity	-80	-138	-280	-100	-114	-98	70	13.4	-8.6	0.0		
Import Dependency (%)	32.0	25.9	13.5	18.5	18.9	18.3	18.5					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	8513	10205	12964	10765	11316	11330	8708	4.3	-1.4	-2.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	7682	9302	11167	8608	9082	9059	3714	3.8	-2.0	-8.6		
Oil (including refinery gas)	56	32	41	0	0	0	0	-3.1	-100.0	0.0		
Gas (including derived gases)	757	760	712	689	659	634	529	-0.6	-0.8	-2.2		
Biomass-waste	13	35	740	859	873	893	1138	49.8	1.7	2.7		
Hydro (pumping excluded)	5	22	27	33	33	33	33	18.4	2.0	0.0		
Wind	0	54	277	575	668	710	3293	0.0	9.2	17.3		
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	2912	2684	2827	2689	2276	2289	3341	-0.3	-2.1	3.9		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	2	36	114	312	343	364	1350	49.8	11.6	14.7		
Hydro (pumping excluded)	2	5	6	8	8	8	8	11.6	2.9	0.0		
Wind	0	31	108	303	334	355	1341	0.0	12.0	14.9		
Solar	0	0	0	1	1	1	1	0.0	0.0	0.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	2910	2648	2713	2377	1933	1925	1991	-0.7	-3.3	0.3		
of which cogeneration units	452	1604	447	438	266	253	194	-0.1	-5.1	-3.1		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	2684	2411	2430	1871	1413	1413	1413	-1.0	-5.3	0.0		
Gas fired	218	224	224	362	371	364	390	0.3	5.2	0.5		
Oil fired	8	8	8	0	0	0	0	0.0	-100.0	0.0		
Biomass-waste fired	0	5	51	144	148	148	187	0.0	11.2	2.4		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	29.8	38.8	47.4	40.9	51.2	51.1	27.9					
Efficiency of gross thermal power generation (%)	30.0	33.5	34.9	34.3	34.3	33.8	32.3					
% of gross electricity from CHP	11.0	10.2	10.3	12.7	11.1	9.3	9.8					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.2	1.1	8.1	13.6	13.9	14.4	51.3					
Fuel Inputs to Thermal Power Generation (ktoe)	2442	2600	3115	2543	2662	2691	1435	2.5	-1.6	-6.0		
Solids	2199	2353	2715	2171	2288	2309	916	2.1	-1.7	-8.7		
Oil (including refinery gas)	16	10	12	0	0	0	0	-3.0	-100.0	0.0		
Gas (including derived gases)	226	227	209	168	166	168	143	-0.8	-2.3	-1.5		
Biomass & Waste	2	10	179	205	208	214	376	55.3	1.5	6.1		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	926	1271	1523	1753	1789	1670	1469	5.1	1.6	-2.0		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	0	10	65	54	49	0.0	0.0	-2.8		
District heating	454	489	446	418	434	418	326	-0.2	-0.3	-2.8		
Derived gases, cokeries etc.	473	782	1077	1325	1290	1198	1094	8.6	1.8	-1.6		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Estonia: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	10	14	14	15	16	16	17	2.8	1.6	0.8
Public road transport	3	3	2	2	2	2	3	-2.4	1.5	0.6
Private cars and motorcycles	7	10	10	11	12	12	12	4.3	1.4	0.5
Rail	0	0	0	0	0	1	1	-1.3	3.0	2.6
Aviation ⁽³⁾	0	1	1	1	1	1	1	12.3	4.1	3.6
Inland navigation	0	0	0	0	0	0	0	-0.3	1.3	1.2
Freight transport activity (Gtkm)	10	13	9	10	11	12	14	-1.1	2.2	2.1
Heavy goods and light commercial vehicles	2	3	2	3	3	3	3	1.9	3.1	1.3
Rail	8	11	7	7	8	9	10	-2.0	1.9	2.4
Inland navigation	0	0	0	0	0	0	0	-6.9	1.0	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	580	766	781	811	794	732	699	3.0	0.2	-1.3
Public road transport	62	62	67	74	76	76	74	0.7	1.3	-0.2
Private cars and motorcycles	349	475	499	524	483	408	362	3.6	-0.3	-2.9
Heavy goods and light commercial vehicles	95	135	116	132	139	142	145	2.0	1.9	0.4
Rail	46	44	54	33	39	41	45	1.7	-3.2	1.5
Aviation	21	42	38	42	50	58	66	6.4	2.8	2.7
Inland navigation	7	8	8	6	7	7	7	1.2	-1.7	0.9
<i>By transport activity</i>										
Passenger transport	441	589	614	647	618	551	511	3.4	0.1	-1.9
Freight transport	138	178	167	164	176	181	188	1.9	0.5	0.6
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.9	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.0	1.3	8.2	7.8	7.6			
ENERGY EFFICIENCY										
Primary energy consumption	4799	5394	6065	6064	6133	5958	4694	2.4	0.1	-2.6
Final Energy Demand	2434	2877	2907	3036	3091	3002	2765	1.8	0.6	-1.1
<i>by sector</i>										
Industry	571	718	575	713	745	742	697	0.1	2.6	-0.7
Energy intensive industries	245	273	231	294	305	303	287	-0.6	2.8	-0.6
Other industrial sectors	327	446	343	419	440	440	410	0.5	2.5	-0.7
Residential	929	890	1028	963	989	980	881	1.0	-0.4	-1.1
Tertiary	348	495	520	544	557	542	481	4.1	0.7	-1.4
Transport ⁽⁵⁾	586	774	785	816	800	738	705	3.0	0.2	-1.2
<i>by fuel</i>										
Solids	118	118	83	64	56	46	33	-3.4	-3.8	-5.1
Oil	772	982	941	966	860	763	690	2.0	-0.9	-2.2
Gas	177	263	207	286	328	327	213	1.6	4.7	-4.2
Electricity	431	519	594	614	653	679	672	3.3	1.0	0.3
Heat (from CHP and District Heating)	511	547	531	484	512	504	455	0.4	-0.4	-1.2
Renewable energy forms	425	447	550	622	680	681	694	2.6	2.1	0.2
Other	0	0	0	0	0	3	7	-100.0	0.0	40.2
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	465	372	405	346	314	282	208	-1.4	-2.5	-4.0
Industry (Energy on Value added, index 2000=100)	100	84	67	69	66	61	54	-4.0	-0.2	-1.9
Residential (Energy on Private Income, index 2000=100)	100	63	74	58	52	47	38	-2.9	-3.4	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	104	108	93	85	75	61	0.8	-2.4	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	44	41	37	32	28	0.3	-1.7	-2.8
Freight transport (toe/Mtkm)	14	13	19	17	16	15	14	3.1	-1.6	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	17.0	18.2	18.8	16.5	16.7	16.3	9.1	1.0	-1.2	-5.8
of which ETS sectors (2013 scope) GHG emissions		13.0	13.8	11.3	11.9	11.9	5.3		-1.4	-7.8
of which ESD sectors (2013 scope) GHG emissions		5.1	5.0	5.1	4.7	4.4	3.8		-0.6	-2.0
CO₂ Emissions (energy related)	14.0	15.5	16.4	14.1	14.4	14.1	7.2	1.6	-1.3	-6.7
Power generation/District heating	10.7	11.3	12.7	10.1	10.6	10.7	4.3	1.7	-1.7	-8.6
Energy Branch	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.5	3.0	-3.8
Industry	0.9	1.0	0.8	0.8	0.7	0.7	0.4	-1.8	-0.1	-6.6
Residential	0.3	0.2	0.2	0.2	0.2	0.2	0.2	-4.2	0.5	-2.7
Tertiary	0.3	0.5	0.4	0.5	0.5	0.4	0.3	2.1	1.9	-3.9
Transport	1.7	2.3	2.3	2.4	2.2	2.0	1.9	3.1	-0.6	-1.5
CO₂ Emissions (non energy and non land use related)	0.7	0.7	0.4	0.5	0.5	0.4	0.4	-6.0	3.0	-1.5
Non-CO₂ GHG emissions	2.3	1.9	2.0	1.9	1.8	1.8	1.6	-1.4	-1.0	-1.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	42.2	45.2	46.7	41.0	41.5	40.5	22.8	1.0	-1.2	-5.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.67	0.64	0.63	0.59	0.59	0.60	0.30	-0.6	-0.6	-6.6
Final energy demand (t of CO ₂ /toe)	1.33	1.42	1.27	1.28	1.17	1.09	0.99	-0.5	-0.8	-1.6
Industry	1.58	1.43	1.31	1.07	1.01	0.94	0.54	-1.8	-2.6	-6.0
Residential	0.32	0.26	0.19	0.20	0.20	0.18	0.17	-5.2	0.9	-1.6
Tertiary	0.91	1.05	0.75	0.92	0.84	0.70	0.66	-2.0	1.2	-2.5
Transport	2.96	2.98	2.99	2.96	2.75	2.74	2.69	0.1	-0.8	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	17.9	17.4	24.6	24.2	25.9	26.8	46.2			
RES-H&C share	31.8	32.2	43.2	39.9	38.8	40.4	62.7			
RES-E share	0.2	1.1	10.4	14.4	14.9	15.2	46.2			
RES-T share (based on ILUC formula)	0.0	0.0	0.2	0.2	10.0	10.4	16.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	43	47	65	66	73	99	1.0	3.5	4.2
Average Price of Electricity in Final demand sectors (€13/MWh)	59	63	80	109	124	137	157	3.2	4.5	2.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	1.3	2.0	2.9	3.7	4.4	4.8	5.5	8.6	4.1	2.3
as % of GDP	12.0	13.5	19.3	20.0	21.4	21.6	22.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Finland: EUC03030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	5	5	5	5	6	6	6	0.3	0.5	0.5	
GDP (in 000 ME13)	157	179	187	188	199	210	226	1.7	0.6	1.3	
Gross Inland Consumption (ktoe)	32531	34529	37124	33972	35234	34820	31396	1.3	-0.5	-1.1	
Solids	5131	4936	6874	4106	4615	4200	2681	3.0	-3.9	-5.3	
Oil	9342	10335	10121	9288	8367	7417	6113	0.8	-1.9	-3.1	
Natural gas	3422	3598	3838	2821	2678	2673	2098	1.2	-3.5	-2.4	
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7	
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8	
Renewable energy forms	7816	8195	9508	10767	10552	12314	13775	2.0	1.0	2.7	
Energy Branch Consumption	1168	1209	1529	1577	1541	1352	1294	2.7	0.1	-1.7	
Non-Energy Uses	1040	1155	1229	1157	1191	1240	1243	1.7	-0.3	0.4	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	14892	16669	17662	18108	20959	22838	22366	1.7	1.7	0.7	
Solids	1088	2136	1803	1007	1111	1271	1154	5.2	-4.7	0.4	
Oil	189	257	389	433	393	353	305	7.5	0.1	-2.5	
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0	
Nuclear	5799	6003	5881	5763	8733	8733	6664	0.1	4.0	-2.7	
Renewable energy sources	7816	8273	9589	10905	10722	12480	14244	2.1	1.1	2.9	
Hydro	1261	1185	1111	1350	1215	1273	1315	-1.3	0.9	0.8	
Biomass & Waste	6549	7072	8451	9354	9030	10260	11745	2.6	0.7	2.7	
Wind	7	15	25	198	464	923	968	14.2	33.8	7.6	
Solar and others	1	1	1	2	13	23	41	10.0	26.4	11.7	
Geothermal	0	0	0	0	0	1	176	0.0	0.0	100.4	
Net Imports (ktoe)	18337	18979	17869	16077	14481	12180	9225	-0.3	-2.1	-4.4	
Solids	3537	3341	3977	3099	3504	2929	1527	1.2	-1.3	-8.0	
Oil	10357	10655	9232	9068	8176	7255	5984	-1.1	-1.2	-3.1	
Crude oil and Feedstocks	11964	10713	11206	13148	11842	10668	9297	-0.7	0.6	-2.4	
Oil products	-1607	-58	-1974	-4080	-3666	-3413	-3313	2.1	6.4	-1.0	
Natural gas	3422	3598	3838	2821	2681	2681	2118	1.2	-3.5	-2.3	
Electricity	1022	1463	903	1226	289	-518	65	-1.2	-10.8	-13.8	
Import Dependency (%)	55.2	54.2	47.9	47.0	40.9	34.8	29.2				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	69934	70538	80591	71479	84090	98241	91064	1.4	0.4	0.8	
Nuclear energy	22479	23271	22800	23137	36999	37079	28850	0.1	5.0	-2.5	
Solids	12452	10998	20826	8559	11120	11950	8399	5.3	-6.1	-2.8	
Oil (including refinery gas)	587	500	484	635	38	261	20	-1.9	-22.4	-6.2	
Gas (including derived gases)	10816	11921	11847	7771	6538	8083	6133	0.9	-5.8	-0.6	
Biomass-waste	8860	9891	11413	13361	9874	15333	21101	2.6	-1.4	7.9	
Hydro (pumping excluded)	14660	13784	12922	15701	14123	14797	15287	-1.3	0.9	0.8	
Wind	78	170	294	2307	5392	10732	11260	14.2	33.8	7.6	
Solar	1	2	5	7	6	6	14	14.9	2.0	9.7	
Geothermal and other renewables	1	1	0	0	0	0	0	-8.4	-96.5	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	16012	16586	16691	18173	19612	20486	19745	0.4	1.6	0.1	
Nuclear energy	2726	2726	2726	2726	4378	4378	3398	0.0	4.8	-2.5	
Renewable energy	2923	3121	3359	4289	5628	7438	7749	1.4	5.3	3.2	
Hydro (pumping excluded)	2882	3035	3155	3276	3276	3383	3499	0.9	0.4	0.7	
Wind	38	82	197	1001	2343	4046	4231	17.9	28.1	6.1	
Solar	3	4	7	12	9	9	19	8.8	2.5	7.8	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	10363	10739	10605	11158	9607	8671	8598	0.2	-1.0	-1.1	
of which cogeneration units	8280	5832	6168	6361	5446	5366	3488	-2.9	-1.2	-4.4	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	4676	4633	4532	4340	3303	2308	1763	-0.3	-3.1	-6.1	
Gas fired	2570	2481	2703	2698	2825	2873	2656	0.5	0.4	-0.6	
Oil fired	1519	1505	1194	1532	643	628	607	-2.4	-6.0	-0.6	
Biomass-waste fired	1597	2120	2176	2589	2836	2863	3571	3.1	2.7	2.3	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	47.9	46.7	52.8	43.2	47.0	52.6	50.4				
Efficiency of gross thermal power generation (%)	39.3	36.8	36.6	34.5	34.5	34.4	34.6	34.9			
% of gross electricity from CHP	36.4	38.9	36.2	33.7	26.9	27.4	20.1				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	65.9	66.8	58.9	76.3	79.0	79.3	84.0				
Fuel Inputs to Thermal Power Generation (ktoe)	7166	7782	10460	7561	6884	8847	8798	3.9	-4.1	2.5	
Solids	3181	2998	5098	2421	2885	2902	1880	4.8	-5.5	-4.2	
Oil (including refinery gas)	122	98	99	168	12	65	6	-2.1	-18.8	-6.8	
Gas (including derived gases)	2119	2385	2516	1493	1283	1432	1032	1.7	-6.5	-2.2	
Biomass & Waste	1744	2302	2747	3480	2704	4448	5880	4.6	-0.2	8.1	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	21306	21544	23155	24530	26262	24180	19947	0.8	1.3	-2.7	
Refineries	13059	12876	14265	15688	14225	12780	11036	0.9	0.0	-2.5	
Biofuels and hydrogen production	0	0	140	334	373	339	341	0.0	10.3	-0.9	
District heating	1059	1265	1600	1434	1502	1246	1115	4.2	-0.6	-2.9	
Derived gases, cokeries etc.	7188	7403	7149	7074	10162	9815	7456	-0.1	3.6	-3.0	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Finland: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	80	87	91	94	97	100	104	1.2	0.7	0.7
Public road transport	8	8	8	8	8	8	8	-0.2	0.3	0.3
Private cars and motorcycles	57	63	66	68	69	70	71	1.5	0.4	0.4
Rail	4	4	4	5	5	6	6	1.4	1.5	1.5
Aviation ⁽³⁾	8	9	9	10	12	13	14	1.2	3.0	2.2
Inland navigation	4	4	4	4	4	4	4	-0.6	0.6	0.6
Freight transport activity (Gtkm)	42	42	42	43	46	49	53	-0.2	1.0	1.4
Heavy goods and light commercial vehicles	29	30	27	28	30	31	33	-0.5	0.8	1.2
Rail	10	10	10	10	11	12	13	-0.4	1.4	1.8
Inland navigation	3	3	5	5	5	5	6	3.0	0.8	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	4338	4624	4827	4896	4735	4449	4221	1.1	-0.2	-1.1
Public road transport	120	116	121	121	121	119	116	0.1	0.0	-0.4
Private cars and motorcycles	2334	2542	2693	2631	2399	2102	1903	1.4	-1.1	-2.3
Heavy goods and light commercial vehicles	1158	1186	1129	1145	1163	1144	1151	-0.3	0.3	-0.1
Rail	90	92	90	94	101	106	110	0.0	1.2	0.9
Aviation	469	526	619	746	785	807	762	2.8	2.4	-0.3
Inland navigation	167	163	175	159	166	172	178	0.5	-0.6	0.7
<i>By transport activity</i>										
Passenger transport	3086	3310	3549	3604	3416	3142	2898	1.4	-0.4	-1.6
Freight transport	1251	1314	1278	1292	1319	1307	1323	0.2	0.3	0.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	1.1	2.5			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.9	7.0	8.2	8.3	8.9			
ENERGY EFFICIENCY										
Primary energy consumption	31491	33375	35896	32814	34043	33579	30153	1.3	-0.5	-1.2
Final Energy Demand	24510	25239	26243	24732	24691	23035	20589	0.7	-0.6	-1.8
<i>by sector</i>										
Industry	12313	11922	11428	10647	10738	9881	8580	-0.7	-0.6	-2.2
Energy intensive industries	10172	9616	9017	8347	8405	7504	6310	-1.2	-0.7	-2.8
Other industrial sectors	2141	2306	2412	2299	2333	2377	2270	1.2	-0.3	-0.3
Residential	4544	5053	5804	5338	5406	5005	4419	2.5	-0.7	-2.0
Tertiary	3296	3616	4169	3837	3797	3687	3356	2.4	-0.9	-1.2
Transport ⁽⁵⁾	4356	4648	4842	4910	4749	4462	4234	1.1	-0.2	-1.1
<i>by fuel</i>										
Solids	1109	873	843	702	698	666	377	-2.7	-1.9	-6.0
Oil	7850	8102	7619	7073	6493	5504	4350	-0.3	-1.6	-3.9
Gas	1209	1082	1012	981	985	1053	1032	-1.8	-0.3	0.5
Electricity	6507	6942	7178	6788	6894	7252	7212	1.0	-0.4	0.5
Heat (from CHP and District Heating)	3334	3972	4656	4143	4252	3790	3100	3.4	-0.9	-3.1
Renewable energy forms	4501	4268	4935	5042	5362	4747	4484	0.9	0.8	-1.8
Other	0	0	0	3	7	23	33	0.0	1586.2	17.3
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	207	193	199	181	177	166	139	-0.4	-1.2	-2.4
Industry (Energy on Value added, index 2000=100)	100	81	79	75	73	65	53	-2.3	-0.8	-3.2
Residential (Energy on Private Income, index 2000=100)	100	94	98	86	82	72	59	-0.2	-1.8	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	100	110	100	92	84	71	0.9	-1.7	-2.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	36	36	34	32	29	26	23	-0.6	-1.5	-2.5
Freight transport (toe/Mtkm)	30	31	31	30	29	27	25	0.4	-0.6	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	73.1	71.5	78.2	61.1	58.8	53.2	41.4	0.7	-2.8	-3.4
of which ETS sectors (2013 scope) GHG emissions	37.2	43.9	30.8	31.6	29.1	20.4			-3.2	-4.3
of which ESD sectors (2013 scope) GHG emissions	34.3	34.3	30.3	27.2	24.1	21.1			-2.3	-2.5
CO₂ Emissions (energy related)	58.1	57.7	65.3	48.5	47.6	42.4	31.0	1.2	-3.1	-4.2
Power generation/District heating	22.5	23.0	32.3	17.5	18.7	17.8	11.5	3.7	-5.3	-4.8
Energy Branch	2.5	2.5	2.8	3.1	2.8	2.1	1.9	1.2	0.0	-3.5
Industry	14.2	12.7	11.0	10.1	9.5	8.0	5.0	-2.5	-1.4	-6.2
Residential	2.4	2.3	1.8	1.4	1.3	1.0	0.5	-2.6	-3.5	-9.0
Tertiary	3.6	3.5	3.4	2.8	2.4	1.4	0.9	-0.6	-3.6	-9.2
Transport	12.9	13.8	14.0	13.6	13.0	12.1	11.2	0.8	-0.8	-1.4
CO₂ Emissions (non energy and non land use related)	1.5	1.6	2.2	2.3	2.2	2.0	2.0	3.8	0.3	-0.9
Non-CO₂ GHG emissions	13.6	12.2	10.8	10.3	9.0	8.6	8.4	-2.3	-1.8	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	101.1	98.9	108.1	84.4	81.3	73.5	57.3	0.7	-2.8	-3.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.20	0.19	0.23	0.14	0.14	0.12	0.09	1.4	-5.2	-4.3
Final energy demand (t of CO ₂ /toe)	1.35	1.28	1.15	1.13	1.06	0.97	0.86	-1.6	-0.8	-2.1
Industry	1.15	1.06	0.96	0.95	0.89	0.81	0.58	-1.8	-0.8	-4.1
Residential	0.52	0.45	0.32	0.26	0.24	0.20	0.11	-5.0	-2.8	-7.2
Tertiary	1.09	0.97	0.81	0.74	0.62	0.38	0.27	-2.9	-2.7	-8.0
Transport	2.97	2.97	2.89	2.77	2.73	2.70	2.65	-0.3	-0.6	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	28.7	28.8	32.5	41.1	42.1	46.8	54.5			
RES-H&C share	38.2	39.1	44.4	55.2	57.9	61.9	74.5			
RES-E share	27.3	26.9	27.7	36.2	33.2	43.9	51.5			
RES-T share (based on ILUC formula)	0.8	0.9	4.3	16.3	18.9	22.4	27.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	52	55	59	95	92	88	95	1.4	4.5	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	68	80	98	122	132	139	144	3.7	3.0	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.9	20.3	25.8	27.4	32.7	35.2	38.6	4.4	2.4	1.7
as % of GDP	10.7	11.3	13.8	14.6	16.4	16.7	17.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)											France: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change		
Population (in million)	57	60	61	63	64	66	67	0.7	0.5	0.4			
GDP (in 000 M€13)	1812	1962	2024	2091	2266	2417	2594	1.1	1.1	1.4			
Gross Inland Consumption (ktoe)	257565	276646	267546	258764	248911	234441	212294	0.4	-0.7	-1.6			
Solids	15048	14303	12076	8763	8469	5836	4924	-2.2	-3.5	-5.3			
Oil	88937	93185	82668	79806	75195	69861	64051	-0.7	-0.9	-1.6			
Natural gas	35766	41025	42540	38807	35958	32187	26891	1.7	-1.7	-2.9			
Nuclear	107093	116474	110539	109294	97019	94378	85231	0.3	-1.3	-1.3			
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3			
Renewable energy forms	16695	16847	22365	24473	37965	37866	36742	3.0	5.4	-0.3			
Energy Branch Consumption	10822	9989	9635	8309	7411	6641	5924	-1.2	-2.6	-2.2			
Non-Energy Uses	16851	16704	14290	14232	14666	14892	14848	-1.6	0.3	0.1			
SECURITY OF SUPPLY													
Production (incl.recovery of products) (ktoe)	129790	136271	135095	135170	136034	133062	122680	0.4	0.1	-1.0			
Solids	2483	383	162	143	0	0	0	-23.9	-100.0	0.0			
Oil	2023	1604	1542	1217	1122	957	902	-2.7	-3.1	-2.2			
Natural gas	1505	909	646	304	294	283	271	-8.1	-7.6	-0.8			
Nuclear	107093	116474	110539	109294	97019	94378	85231	0.3	-1.3	-1.3			
Renewable energy sources	16688	16902	22206	24212	37598	37444	36276	2.9	5.4	-0.4			
Hydro	5771	4442	5364	5476	5753	5515	5565	-0.7	0.7	-0.3			
Biomass & Waste	10763	12159	15690	15780	23697	21407	17354	3.8	4.2	-3.1			
Wind	7	83	855	1850	4741	5620	7844	62.6	18.7	5.2			
Solar and others	21	26	118	870	3082	4518	5056	18.7	38.6	5.1			
Geothermal	126	192	180	236	325	385	457	3.6	6.1	3.5			
Net Imports (ktoe)	134082	144103	132149	123217	115629	104244	92581	-0.1	-1.3	-2.2			
Solids	13005	13511	12192	8620	8469	5836	4924	-0.6	-3.6	-5.3			
Oil	91265	95114	82886	81211	76770	71643	65778	-1.0	-0.8	-1.5			
Crude oil and Feedstocks	85329	85302	65254	46552	45749	43971	41695	-2.6	-3.5	-0.9			
Oil products	5936	9813	17632	34659	31021	27672	24082	11.5	5.8	-2.5			
Natural gas	35779	40720	39553	38504	35719	32030	26959	1.0	-1.0	-2.8			
Electricity	-5974	-5187	-2641	-5379	-5695	-5687	-5544	-7.8	8.0	-0.3			
Import Dependency (%)	51.5	51.6	49.0	47.7	45.9	43.9	43.0						
ELECTRICITY													
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	535965	571353	563931	584201	597277	595665	575391	0.5	0.6	-0.4			
Nuclear energy	415162	451529	428521	444338	396167	385196	346058	0.3	-0.8	-1.3			
Solids	27004	27515	23359	8820	9109	414	0	-1.4	-9.0	-100.0			
Oil (including refinery gas)	7165	7925	5565	516	0	337	319	-2.5	-100.0	0.0			
Gas (including derived gases)	15365	26254	26385	25753	23473	14939	5346	5.6	-1.2	-13.8			
Biomass-waste	3559	5016	6675	10512	14131	19575	17925	6.5	7.8	2.4			
Hydro (pumping excluded)	67121	51658	62388	63670	66898	64123	64710	-0.7	0.7	-0.3			
Wind	77	964	9942	21517	55129	65350	91209	62.6	18.7	5.2			
Solar	5	10	620	8601	31589	44533	47817	63.1	48.2	4.2			
Geothermal and other renewables	507	482	476	474	782	1198	2008	-0.6	5.1	9.9			
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0			
Net Generation Capacity (MW _e)	114543	114015	123033	127555	148953	154927	164443	0.7	1.9	1.0			
Nuclear energy	64293	64053	63679	63247	61327	59493	59493	-0.1	-0.4	-0.3			
Renewable energy	23570	24601	32099	40333	66684	77564	87974	3.1	7.6	2.8			
Hydro (pumping excluded)	23266	23571	23779	23635	23635	23635	23762	0.2	-0.1	0.1			
Wind	57	777	7050	10358	22130	25130	33206	61.9	12.1	4.1			
Solar	7	13	1030	6100	20535	28228	30093	64.7	34.9	3.9			
Other renewables (tidal etc.)	240	240	240	240	384	571	914	0.0	4.8	9.1			
Thermal power	26680	25361	27256	23974	20942	17870	16976	0.2	-2.6	-2.1			
of which cogeneration units	7013	5779	4606	10611	5918	4272	3272	-4.1	2.5	-5.8			
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0			
Solids fired	10552	8637	7229	5385	3856	3834	3780	-3.7	-6.1	-0.2			
Gas fired	4116	6055	9334	9646	9181	8963	8261	8.5	-0.2	-1.1			
Oil fired	11328	9794	9643	7693	5008	1849	1700	-1.6	-6.3	-10.2			
Biomass-waste fired	684	876	1049	1249	2894	3221	3233	4.4	10.7	1.1			
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0			
Geothermal heat	0	0	0	2	3	3	3	0.0	0.0	0.0			
Avg. Load factor of net power capacity ⁽²⁾ (%)	51.0	54.6	50.0	50.2	44.1	42.4	38.7						
Efficiency of gross thermal power generation (%)	34.9	33.3	30.0	39.7	38.7	35.3	31.9						
% of gross electricity from CHP	3.0	2.4	2.8	2.4	1.9	1.7	1.6						
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
% of carbon free (RES, nuclear) gross electricity generation	90.8	89.2	90.2	94.0	94.5	97.4	99.0						
Fuel Inputs to Thermal Power Generation (ktoe)	13278	17328	17887	9873	10381	8594	6374	3.0	-5.3	-4.8			
Solids	6559	6402	4717	2258	2323	94	0	-3.2	-6.8	-100.0			
Oil (including refinery gas)	1242	2160	1639	135	0	111	106	2.8	-79.3	266.7			
Gas (including derived gases)	4002	6298	8178	4941	3915	2990	1421	7.4	-7.1	-9.6			
Biomass & Waste	1476	2469	3352	2529	4127	5382	4832	8.5	2.1	1.6			
Geothermal heat	0	0	0	10	15	15	15	0.0	0.0	0.0			
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0			
Fuel Input to other conversion processes	205144	211862	191250	166425	153060	148613	136889	-0.7	-2.2	-1.1			
Refineries	90823	88392	73306	49009	48036	46118	43733	-2.1	-4.1	-0.9			
Biofuels and hydrogen production	325	651	2397	2746	3118	2941	3066	22.1	2.7	-0.2			
District heating	312	448	608	546	574	581	477	6.9	-0.6	-1.8			
Derived gases, cokeries etc.	113684	122371	114938	114124	101332	98973	89612	0.1	-1.3	-1.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								France: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	950	998	1033	1091	1169	1210	1264	0.8	1.2	0.8
Public road transport	42	42	50	55	60	63	65	1.7	1.9	0.8
Private cars and motorcycles	754	801	811	850	901	916	942	0.7	1.1	0.4
Rail	81	90	101	107	119	131	144	2.1	1.7	1.9
Aviation ⁽³⁾	69	62	68	76	86	97	110	-0.1	2.3	2.5
Inland navigation	3	3	3	3	3	4	4	-0.8	0.7	1.3
Freight transport activity (Gtkm)	412	409	392	413	470	519	575	-0.5	1.8	2.0
Heavy goods and light commercial vehicles	311	319	296	310	356	391	433	-0.5	1.9	2.0
Rail	58	41	30	37	42	50	59	-6.3	3.5	3.4
Inland navigation	43	49	66	66	71	77	83	4.4	0.8	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	50360	50194	49347	50154	49937	47528	45969	-0.2	0.1	-0.8
Public road transport	536	519	595	654	705	718	718	1.0	1.7	0.2
Private cars and motorcycles	31157	31368	31602	31615	29848	26461	24314	0.1	-0.6	-2.0
Heavy goods and light commercial vehicles	10961	10554	9424	9543	10233	10574	11029	-1.5	0.8	0.8
Rail	1134	980	932	1017	1082	1156	1223	-1.9	1.5	1.2
Aviation	6088	6291	6294	6827	7535	8046	8076	0.3	1.8	0.7
Inland navigation	483	481	500	499	535	573	609	0.4	0.7	1.3
<i>By transport activity</i>										
Passenger transport	38753	38887	39197	39839	38861	36026	33927	0.1	-0.1	-1.3
Freight transport	11607	11307	10150	10316	11076	11502	12042	-1.3	0.9	0.8
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.4	3.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.7	1.3	4.9	5.6	6.5	6.7	7.2			
ENERGY EFFICIENCY										
Primary energy consumption	240713	259943	253256	241532	234245	219548	197446	0.5	-0.8	-1.7
Final Energy Demand	154639	160337	155397	155251	156418	145018	130606	0.0	0.1	-1.8
<i>by sector</i>										
Industry	36670	34356	28478	30330	31198	29861	28273	-2.5	0.9	-1.0
Energy intensive industries	20906	20576	16506	17590	17970	16890	15721	-2.3	0.9	-1.3
Other industrial sectors	15764	13780	11972	12740	13227	12972	12551	-2.7	1.0	-0.5
Residential	42153	45931	45463	44159	45108	40098	32883	0.8	-0.1	-3.1
Tertiary	25209	29569	31792	30270	29811	27138	23060	2.3	-0.6	-2.5
Transport ⁽⁵⁾	50607	50482	49664	50492	50302	47920	46390	-0.2	0.1	-0.8
<i>by fuel</i>										
Solids	5775	5218	4547	4076	4129	3550	2769	-2.4	-1.0	-3.9
Oil	72503	71421	64647	63583	58925	53626	48101	-1.1	-0.9	-2.0
Gas	30907	33744	32430	32675	30977	28614	25123	0.5	-0.5	-2.1
Electricity	33096	36352	38185	37788	38972	39112	37971	1.4	0.2	-0.3
Heat (from CHP and District Heating)	3236	4163	3525	3658	3385	3246	2819	0.9	-0.4	-1.8
Renewable energy forms	9123	9439	12064	13458	19984	16704	13508	2.8	5.2	-3.8
Other	0	0	0	12	46	168	315	0.0	0.0	21.2
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	142	141	132	122	110	97	82	-0.7	-1.8	-2.9
Industry (Energy on Value added, index 2000=100)	100	89	78	80	77	70	63	-2.5	-0.1	-2.0
Residential (Energy on Private Income, index 2000=100)	100	98	91	86	80	67	51	-0.9	-1.3	-4.5
Tertiary (Energy on Value added, index 2000=100)	100	108	110	101	91	78	61	1.0	-1.8	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	34	33	32	30	27	24	21	-0.7	-1.6	-2.5
Freight transport (toe/Mtkm)	28	28	26	25	24	22	21	-0.9	-0.9	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	585.3	552.1	512.0	482.2	444.0	401.3	361.3	-1.3	-1.4	-2.0
of which ETS sectors (2013 scope) GHG emissions	173.2	147.3	131.7	125.0	109.5	97.6		-1.6	-2.4	
of which ESD sectors (2013 scope) GHG emissions	378.8	364.7	350.4	319.0	291.8	263.7		-1.3	-1.9	
CO₂ Emissions (energy related)	388.3	394.4	360.0	332.5	307.2	271.4	237.9	-0.8	-1.6	-2.5
Power generation/District heating	46.7	53.6	48.1	26.7	22.3	12.8	8.7	0.3	-7.4	-9.0
Energy Branch	19.9	16.3	15.0	13.7	11.5	10.2	9.4	-2.7	-2.6	-2.0
Industry	74.6	67.0	54.1	59.8	57.3	50.4	43.5	-3.2	0.6	-2.7
Residential	59.3	64.8	57.2	51.5	43.6	38.7	30.1	-0.4	-2.7	-3.6
Tertiary	39.8	44.4	44.7	38.9	33.3	28.7	23.1	1.1	-2.9	-3.6
Transport	148.0	148.1	140.9	141.9	139.2	130.6	123.0	-0.5	-0.1	-1.2
CO₂ Emissions (non energy and non land use related)	28.9	28.5	25.7	25.6	26.6	24.8	22.4	-1.2	0.4	-1.7
Non-CO₂ GHG emissions	168.1	129.2	126.3	124.1	110.1	105.1	101.0	-2.8	-1.4	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	104.5	98.6	91.4	86.1	79.3	71.7	64.5	-1.3	-1.4	-2.0
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.08	0.09	0.08	0.04	0.03	0.02	0.01	-0.3	-7.9	-8.6
Final energy demand (t of CO ₂ /toe)	2.08	2.02	1.91	1.88	1.75	1.71	1.68	-0.8	-0.9	-0.4
Industry	2.03	1.95	1.90	1.97	1.84	1.69	1.54	-0.7	-0.3	-1.8
Residential	1.41	1.41	1.26	1.17	0.97	0.97	0.92	-1.1	-2.6	-0.5
Tertiary	1.58	1.50	1.41	1.29	1.12	1.06	1.00	-1.2	-2.3	-1.1
Transport	2.92	2.93	2.84	2.81	2.77	2.73	2.65	-0.3	-0.2	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	9.5	9.5	12.5	15.5	23.6	25.3	27.3			
RES-H&C share	12.4	12.3	15.8	19.4	30.0	30.3	30.0			
RES-E share	14.7	13.7	14.9	19.8	31.5	36.6	43.6			
RES-T share (based on ILUC formula)	1.4	2.0	6.3	7.7	10.2	12.9	19.1			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	61	58	57	90	93	82	76	-0.7	5.1	-2.1
Average Price of Electricity in Final demand sectors (€13/MWh)	108	100	109	123	145	147	159	0.0	2.9	0.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	176.3	196.0	216.7	273.9	281.7	297.1	2.4	3.4	0.8
as % of GDP	8.5	9.0	9.7	10.4	12.1	11.7	11.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Germany: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	82	83	82	81	81	80	80	0.0	-0.1	-0.1	
GDP (in 000 M€13)	2370	2442	2608	2790	2973	3126	3251	1.0	1.3	0.9	
Gross Inland Consumption (ktoe)	342337	341916	332974	322609	308870	289697	254919	-0.3	-0.7	-1.9	
Solids	84802	81952	78824	78036	77905	75708	54712	-0.7	-0.1	-3.5	
Oil	130980	121460	111798	111688	102703	92941	82650	-1.6	-0.8	-2.1	
Natural gas	71878	77782	75905	74011	68485	66923	58384	0.5	-1.0	-1.6	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Electricity	263	-393	-1286	-4145	558	1385	1321	0.0	0.0	9.0	
Renewable energy forms	10665	19054	31477	39195	50747	52740	57851	11.4	4.9	1.3	
Energy Branch Consumption	14566	14384	13378	13631	12248	11531	10086	-0.8	-0.9	-1.9	
Non-Energy Uses	25064	24662	22582	24685	25861	26629	26415	-1.0	1.4	0.2	
SECURITY OF SUPPLY											
Production (incl. recovery of products) (ktoe)	135549	137356	129648	120921	110005	99901	88548	-0.4	-1.6	-2.1	
Solids	60629	56484	45906	42340	37288	36199	22583	-2.7	-2.1	-4.9	
Oil	4680	5782	4754	4964	3809	2919	2233	0.2	-2.2	-5.2	
Natural gas	15825	14334	11113	10749	9888	8240	6125	-3.5	-1.2	-4.7	
Nuclear	43751	42061	36257	23825	8474	0	0	-1.9	-13.5	-100.0	
Renewable energy sources	10665	18695	31618	39044	50546	52544	57608	11.5	4.8	1.3	
Hydro	1869	1689	1802	1925	1936	2024	2116	-0.4	0.7	0.9	
Biomass & Waste	7876	14249	24988	27662	32667	32286	31128	12.2	2.7	-0.5	
Wind	804	2341	3250	5689	9411	10063	14109	15.0	11.2	4.1	
Solar and others	116	371	1493	3575	5506	7095	8749	29.1	13.9	4.7	
Geothermal	0	46	86	192	1026	1075	1506	0.0	28.1	3.9	
Net Imports (ktoe)	204709	208118	201696	204465	201862	192868	169566	-0.1	0.0	-1.7	
Solids	21663	25972	31644	35695	40616	39509	32130	3.9	2.5	-2.3	
Oil	125918	120239	109834	109501	101831	92961	83657	-1.4	-0.8	-2.0	
Crude oil and Feedstocks	101441	111039	91612	87783	82379	76047	69507	-1.0	-1.1	-1.7	
Oil products	24477	9200	18222	21718	19452	16915	13858	-2.9	0.7	-3.3	
Natural gas	56865	61940	61645	63262	58656	58816	52507	0.8	-0.5	-1.1	
Electricity	263	-393	-1286	-4145	558	1385	1321	0.0	0.0	9.0	
Import Dependency (%)	59.4	60.4	60.1	62.8	64.7	65.9	65.7				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	572313	615800	626583	645694	598225	617708	582058	0.9	-0.5	-0.3	
Nuclear energy	169606	163055	140556	96916	34469	0	0	-1.9	-13.1	-100.0	
Solids	296687	288142	262896	272885	273972	273517	190527	-1.2	0.4	-3.6	
Oil (including refinery gas)	4785	11997	8741	1079	941	2145	1451	6.2	-20.0	4.4	
Gas (including derived gases)	59970	83608	100912	92758	72109	92581	75864	5.3	-3.3	0.5	
Biomass-waste	10121	20849	42975	58775	35366	45718	45244	15.6	-1.9	2.5	
Hydro (pumping excluded)	21732	19638	20953	22381	22506	23540	24609	-0.4	0.7	0.9	
Wind	9352	27229	37793	66153	109427	117015	164056	15.0	11.2	4.1	
Solar	60	1283	11727	34612	48465	62223	79337	69.3	15.2	5.1	
Geothermal and other renewables	0	-1	30	137	969	969	969	0.0	41.4	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	114373	123973	154603	189032	207113	205259	228169	3.1	3.0	1.0	
Nuclear energy	21644	20656	20660	12188	6907	0	0	-0.5	-10.4	-100.0	
Renewable energy	11040	25641	50141	90293	120216	132008	167087	16.3	9.1	3.3	
Hydro (pumping excluded)	4831	5210	5407	5590	5592	5802	6013	1.1	0.3	0.7	
Wind	6095	18375	27180	44946	61821	60536	79571	16.1	8.6	2.6	
Solar	114	2056	17554	39757	52803	65670	81503	65.5	11.6	4.4	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	81689	77676	83806	86551	79990	73250	61082	0.3	-0.5	-2.7	
of which cogeneration units	14369	20840	24554	17060	6200	9990	9475	5.5	-12.9	4.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	50924	48087	47789	52819	49170	44020	36715	-0.6	0.3	-2.9	
Gas fired	21336	21671	26890	25178	21891	20393	15749	2.3	-2.0	-3.2	
Oil fired	8066	5686	5688	5028	1674	1457	1247	-3.4	-11.5	-2.9	
Biomass-waste fired	1363	2232	3432	3501	7084	7209	7200	9.7	7.5	0.2	
Hydrogen plants	0	0	0	1	1	1	1	0.0	0.0	0.0	
Geothermal heat	0	0	8	24	170	170	170	0.0	35.8	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	53.3	53.0	43.5	36.8	31.2	32.6	27.9				
Efficiency of gross thermal power generation (%)	37.8	38.6	39.4	40.5	37.6	38.9	39.0				
% of gross electricity from CHP	10.6	12.6	13.2	12.8	6.2	9.6	9.4				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	36.8	37.7	40.5	43.2	42.0	40.4	54.0				
Fuel Inputs to Thermal Power Generation (ktoe)	84562	90075	90587	90286	87575	91704	69197	0.7	-0.3	-2.3	
Solids	67101	65740	59687	61356	60916	60155	40713	-1.2	0.2	-3.9	
Oil (including refinery gas)	1411	1427	855	236	311	690	474	-4.9	-9.6	4.3	
Gas (including derived gases)	12891	17808	19955	16546	12453	16242	13490	4.5	-4.6	0.8	
Biomass & Waste	3158	5100	10066	12030	13061	13783	13687	12.3	2.6	0.5	
Geothermal heat	0	0	24	118	834	834	834	0.0	42.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	180304	187908	163048	142875	120386	103065	95357	-1.0	-3.0	-2.3	
Refineries	119420	125092	103238	98875	92821	85715	78265	-1.4	-1.1	-1.7	
Biofuels and hydrogen production	237	1859	2884	3011	2834	2654	2974	28.4	-0.2	0.5	
District heating	1198	3942	4754	4043	3515	3023	2842	14.8	-3.0	-2.1	
Derived gases, cokeries etc.	59450	57015	52171	36947	21218	11674	11275	-1.3	-8.6	-6.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Germany: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	1066	1099	1130	1187	1208	1238	1267	0.6	0.7	0.5
Public road transport	69	67	62	63	67	67	68	-1.1	0.8	0.2
Private cars and motorcycles	850	876	905	942	949	959	973	0.6	0.5	0.2
Rail	90	92	100	111	115	129	138	1.1	1.4	1.8
Aviation ⁽³⁾	55	62	61	69	75	81	86	1.1	2.0	1.4
Inland navigation	2	2	2	2	2	3	3	-0.8	1.0	1.5
Freight transport activity (Gtkm)	493	545	592	619	682	720	762	1.9	1.4	1.1
Heavy goods and light commercial vehicles	342	385	422	439	486	511	539	2.1	1.4	1.0
Rail	83	95	107	116	126	135	144	2.6	1.6	1.4
Inland navigation	68	65	63	65	70	74	79	-0.7	1.1	1.2
Energy demand in transport (ktoe) ⁽⁴⁾	65101	59797	58145	59791	56095	51725	48703	-1.1	-0.4	-1.4
Public road transport	1047	897	803	815	836	821	798	-2.6	0.4	-0.5
Private cars and motorcycles	42176	37675	35607	35814	31214	26949	24432	-1.7	-1.3	-2.4
Heavy goods and light commercial vehicles	12303	11057	11325	11780	12340	12100	12107	-0.8	0.9	-0.2
Rail	1947	1580	1414	1496	1454	1520	1525	-3.2	0.3	0.5
Aviation	7345	8265	8719	9601	9944	10011	9502	1.7	1.3	-0.5
Inland navigation	283	323	278	285	307	324	338	-0.2	1.0	1.0
<i>By transport activity</i>										
Passenger transport	51841	47805	45951	47113	42807	38634	35572	-1.2	-0.7	-1.8
Freight transport	13261	11992	12194	12678	13288	13091	13131	-0.8	0.9	-0.1
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.4	3.1			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.4	3.2	5.1	5.2	5.3	6.0	6.7			
ENERGY EFFICIENCY										
Primary energy consumption	317273	317254	310393	297924	283009	263068	228504	-0.2	-0.9	-2.1
Final Energy Demand	219989	218456	219721	217308	213319	198563	179286	0.0	-0.3	-1.7
<i>by sector</i>										
Industry	57570	59093	60563	62096	65071	62759	58413	0.5	0.7	-1.1
Energy intensive industries	39345	40705	42170	43510	45846	44083	40131	0.7	0.8	-1.3
Other industrial sectors	18225	18389	18393	18586	19225	18676	18282	0.1	0.4	-0.5
Residential	63072	63498	62442	58726	57393	52684	45714	-0.1	-0.8	-2.2
Tertiary	34239	35302	38222	36396	34480	31131	26220	1.1	-1.0	-2.7
Transport ⁽⁵⁾	65109	60563	58494	60090	56375	51990	48940	-1.1	-0.4	-1.4
<i>by fuel</i>										
Solids	10958	8238	9379	9284	9909	9570	8003	-1.5	0.6	-2.1
Oil	99738	90309	83168	82419	73182	63001	53752	-1.8	-1.3	-3.0
Gas	56064	55136	56501	56368	55497	49904	45118	0.1	-0.2	-2.0
Electricity	41570	44907	45781	44880	45873	48249	45778	1.0	0.0	0.0
Heat (from CHP and District Heating)	6831	10751	11268	9856	9768	9600	9251	5.1	-1.4	-0.5
Renewable energy forms	4828	9116	13625	14468	18996	17805	16675	10.9	3.4	-1.3
Other	0	0	0	32	94	434	708	0.0	0.0	22.4
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	144	140	128	116	104	93	78	-1.2	-2.0	-2.8
Industry (Energy on Value added, index 2000=100)	100	96	93	90	90	83	75	-0.7	-0.3	-1.7
Residential (Energy on Private Income, index 2000=100)	100	99	94	83	76	65	54	-0.6	-2.2	-3.4
Tertiary (Energy on Value added, index 2000=100)	100	98	98	87	77	66	53	-0.2	-2.4	-3.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	37	33	32	28	24	21	-2.2	-1.7	-2.7
Freight transport (toe/Mtkm)	27	22	21	20	19	18	17	-2.6	-0.6	-1.2
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	1076.8	1015.8	957.1	943.5	892.2	836.6	687.0	-1.2	-0.7	-2.6
of which ETS sectors (2013 scope) GHG emissions	543.7	505.7	510.9	510.9	495.8	485.2	377.1		-0.2	-2.7
of which ESD sectors (2013 scope) GHG emissions	472.1	451.3	432.6	396.4	351.3	309.9			-1.3	-2.4
CO₂ Emissions (energy related)	852.1	825.2	787.8	777.7	733.3	685.5	547.5	-0.8	-0.7	-2.9
Power generation/District heating	330.6	344.9	324.5	317.5	303.6	308.9	219.0	-0.2	-0.7	-3.2
Energy Branch	28.1	26.2	23.5	25.9	22.0	19.7	17.8	-1.8	-0.6	-2.1
Industry	130.2	115.3	115.3	112.7	114.8	100.7	86.6	-1.2	0.0	-2.8
Residential	119.4	110.8	104.3	98.0	87.9	76.3	65.6	-1.3	-1.7	-2.9
Tertiary	58.5	55.9	56.3	55.4	47.9	37.6	28.4	-0.4	-1.6	-5.1
Transport	185.3	172.2	163.8	168.2	157.0	142.3	130.0	-1.2	-0.4	-1.9
CO₂ Emissions (non energy and non land use related)	63.7	61.6	55.6	56.8	58.4	57.1	53.8	-1.4	0.5	-0.8
Non-CO₂ GHG emissions	161.0	128.9	113.7	109.1	100.4	94.0	85.7	-3.4	-1.2	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	85.5	80.6	76.0	74.9	70.8	66.4	54.5	-1.2	-0.7	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.50	0.46	0.42	0.41	0.42	0.42	0.31	-1.7	-0.1	-2.9
Final energy demand (t of CO ₂ /toe)	2.24	2.08	2.00	2.00	1.91	1.80	1.73	-1.1	-0.5	-1.0
Industry	2.26	1.95	1.90	1.81	1.76	1.60	1.48	-1.7	-0.8	-1.7
Residential	1.89	1.74	1.67	1.67	1.53	1.45	1.44	-1.2	-0.9	-0.6
Tertiary	1.71	1.58	1.47	1.52	1.39	1.21	1.08	-1.5	-0.6	-2.4
Transport	2.85	2.84	2.80	2.80	2.79	2.74	2.66	-0.2	-0.1	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.6	6.7	10.5	13.5	18.6	21.1	26.0			
RES-H&C share	4.2	6.7	9.6	10.6	17.6	19.3	21.2			
RES-E share	6.1	10.5	18.1	29.5	34.9	38.4	51.8			
RES-T share (based on ILUC formula)	0.8	4.2	6.9	8.8	10.4	15.4	23.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	51	62	86	106	103	104	3.7	5.6	-0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	132	171	164	160	169	176	181	2.2	0.3	0.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	225.6	285.4	302.7	290.0	344.0	362.1	394.1	3.0	1.3	1.4
as % of GDP	9.5	11.7	11.6	10.4	11.6	11.6	12.1			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Greece: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	11	11	11	11	11	10	10	0.3	-0.5	-0.6		
GDP (in 000 ME13)	190	231	232	200	207	213	225	2.0	-1.1	0.8		
Gross Inland Consumption (ktoe)	28292	31410	28725	26055	25191	22092	18106	0.2	-1.3	-3.2		
Solids	9038	8944	7863	6765	5644	3694	1767	-1.4	-3.3	-11.0		
Oil	16085	18119	14974	12997	12143	10606	8865	-0.7	-2.1	-3.1		
Natural gas	1705	2354	3235	2979	3779	3371	1596	6.6	1.6	-8.3		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5		
Renewable energy forms	1466	1668	2163	2714	3225	4175	5695	4.0	4.1	5.9		
Energy Branch Consumption	1634	1820	1839	1906	1779	1569	1429	1.2	-0.3	-2.2		
Non-Energy Uses	719	761	1108	824	847	842	835	4.4	-2.7	-0.1		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	10012	10326	9461	9027	8359	7448	7136	-0.6	-1.2	-1.6		
Solids	8222	8538	7315	6430	5346	3468	1644	-1.2	-3.1	-11.1		
Oil	282	101	132	75	73	70	68	-7.3	-5.7	-0.8		
Natural gas	42	18	8	0	0	0	0	-15.8	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	1466	1668	2006	2521	2940	3910	5424	3.2	3.9	6.3		
Hydro	318	431	641	506	508	477	480	7.3	-2.3	-0.6		
Biomass & Waste	1009	1015	919	1157	1348	1385	1557	-0.9	3.9	1.5		
Wind	39	109	233	330	448	1044	1759	19.7	6.7	14.7		
Solar and others	99	101	197	514	621	986	1607	7.1	12.2	10.0		
Geothermal	2	12	16	16	15	17	22	25.9	-0.4	3.7		
Net Imports (ktoe)	22151	23498	21712	20057	19817	17573	13932	-0.2	-0.9	-3.5		
Solids	769	364	401	335	297	227	123	-6.3	-2.9	-8.5		
Oil	19695	20476	17433	15950	15020	13392	11572	-1.2	-1.5	-2.6		
Crude oil and Feedstocks	20596	19488	20633	24349	23254	21620	19910	0.0	1.2	-1.5		
Oil products	-900	988	-3200	-8399	-8235	-8228	-8338	13.5	9.9	0.1		
Natural gas	1689	2332	3231	2979	3814	3443	1783	6.7	1.7	-7.3		
Electricity	-1	325	491	600	401	246	183	0.0	-2.0	-7.5		
Import Dependency (%)	69.5	68.6	69.1	69.0	70.3	70.2	66.1					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	53425	59427	57367	54082	58239	56102	50170	0.7	0.2	-1.5		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	34313	35543	30797	26751	23072	15394	7030	-1.1	-2.8	-11.2		
Oil (including refinery gas)	8885	9207	6089	4847	5122	2384	129	-3.7	-1.7	-30.8		
Gas (including derived gases)	5920	8171	9830	8817	13840	11441	695	5.2	3.5	-25.9		
Biomass-waste	163	222	319	195	382	670	1375	6.9	1.8	13.7		
Hydro (pumping excluded)	3693	5017	7460	5880	5901	5552	5577	7.3	-2.3	-0.6		
Wind	451	1266	2714	3834	5207	12142	20448	19.7	6.7	14.7		
Solar	0	1	158	3757	4715	8519	14917	0.0	40.4	12.2		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	11212	13208	15889	19208	19724	23769	29555	3.5	2.2	4.1		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	3298	3598	4715	8146	9363	14311	20925	3.6	7.1	8.4		
Hydro (pumping excluded)	3072	3106	3215	3389	3579	3579	3579	0.5	1.1	0.0		
Wind	226	491	1298	2152	2637	5211	7812	19.1	7.3	11.5		
Solar	0	1	202	2605	3147	5521	9534	0.0	31.6	11.7		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	7914	9610	11174	11062	10361	9458	8630	3.5	-0.8	-1.8		
of which cogeneration units	195	3051	588	284	309	311	276	11.7	-6.2	-1.1		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	4454	4754	4312	3923	3051	3120	2865	-0.3	-3.4	-0.6		
Gas fired	1157	2203	4189	5062	5306	5272	4737	13.7	2.4	-1.1		
Oil fired	2302	2625	2618	2022	1824	834	734	1.3	-3.6	-8.7		
Biomass-waste fired	1	28	55	55	180	232	294	50.5	12.6	5.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	50.3	47.7	38.3	29.6	31.5	25.7	19.0					
Efficiency of gross thermal power generation (%)	36.9	37.0	37.5	38.6	41.4	42.9	36.0					
% of gross electricity from CHP	2.1	7.8	4.3	3.0	3.4	3.0	2.4					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	8.1	10.9	18.6	25.3	27.8	47.9	84.3					
Fuel Inputs to Thermal Power Generation (ktoe)	11492	12344	10787	9041	8814	5996	2204	-0.6	-2.0	-12.9		
Solids	8170	8694	7567	6558	5451	3533	1676	-0.8	-3.2	-11.1		
Oil (including refinery gas)	1978	1992	1278	1005	1071	505	42	-4.3	-1.8	-27.6		
Gas (including derived gases)	1280	1605	1863	1435	2209	1812	155	3.8	1.7	-23.3		
Biomass & Waste	64	52	79	43	83	146	330	2.2	0.4	14.8		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	22570	21629	22585	24150	24046	22487	20835	0.0	0.6	-1.4		
Refineries	22508	21536	22462	23941	23761	22192	20512	0.0	0.6	-1.5		
Biofuels and hydrogen production	0	0	124	207	279	277	297	0.0	8.4	0.6		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	62	93	0	2	7	18	26	-95.7	1750.5	14.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Greece: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	129	153	161	164	172	176	183	2.2	0.7	0.6
Public road transport	22	22	21	21	22	23	23	-0.3	0.6	0.4
Private cars and motorcycles	67	90	105	106	108	107	108	4.7	0.2	0.1
Rail	3	3	3	3	3	4	4	-0.2	1.0	1.8
Aviation ⁽³⁾	30	31	24	26	32	35	40	-2.2	2.8	2.3
Inland navigation	7	7	7	7	7	8	8	-0.1	0.2	0.6
Freight transport activity (Gtkm)	38	34	37	37	39	41	42	-0.1	0.5	0.7
Heavy goods and light commercial vehicles	28	24	30	30	32	33	34	0.8	0.5	0.7
Rail	0	1	1	1	1	1	1	3.7	0.8	1.1
Inland navigation	9	9	6	6	7	7	7	-3.6	0.5	0.9
Energy demand in transport (ktoe) ⁽⁴⁾	7286	8174	8147	7472	7249	6838	6472	1.1	-1.2	-1.1
Public road transport	423	438	403	403	408	402	387	-0.5	0.1	-0.5
Private cars and motorcycles	3327	4435	4483	4018	3693	3240	2851	3.0	-1.9	-2.6
Heavy goods and light commercial vehicles	1668	1426	1601	1480	1486	1452	1407	-0.4	-0.7	-0.5
Rail	49	46	24	22	23	24	24	-6.8	-0.3	0.3
Aviation	1325	1181	919	936	1016	1086	1156	-3.6	1.0	1.3
Inland navigation	495	648	717	612	622	635	647	3.8	-1.4	0.4
<i>By transport activity</i>										
Passenger transport	5530	6460	6297	5784	5547	5165	4836	1.3	-1.3	-1.4
Freight transport	1756	1714	1850	1688	1701	1673	1636	0.5	-0.8	-0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.6	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	2.8	3.9	4.3	4.8			
ENERGY EFFICIENCY										
Primary energy consumption	27573	30650	27617	25230	24344	21250	17271	0.0	-1.3	-3.4
Final Energy Demand	18676	20958	19197	17486	17110	16003	14230	0.3	-1.1	-1.8
<i>by sector</i>										
Industry	4450	4161	3672	3224	3305	3196	2778	-1.9	-1.0	-1.7
Energy intensive industries	2737	2588	2427	2157	2194	2091	1736	-1.2	-1.0	-2.3
Other industrial sectors	1714	1573	1245	1067	1111	1105	1043	-3.1	-1.1	-0.6
Residential	4502	5510	4615	4351	4280	3927	3303	0.2	-0.8	-2.6
Tertiary	2426	3100	2752	2426	2284	2027	1662	1.3	-1.9	-3.0
Transport ⁽⁵⁾	7297	8188	8158	7484	7262	6852	6487	1.1	-1.2	-1.1
<i>by fuel</i>										
Solids	891	458	302	208	192	161	91	-10.3	-4.4	-7.2
Oil	12744	14413	12110	10307	9461	8581	7430	-0.5	-2.4	-2.4
Gas	257	586	982	1018	1030	1023	884	14.3	0.5	-1.5
Electricity	3710	4377	4568	4397	4595	4404	3918	2.1	0.1	-1.6
Heat (from CHP and District Heating)	28	49	46	44	50	56	59	5.2	0.8	1.6
Renewable energy forms	1046	1076	1191	1510	1775	1756	1810	1.3	4.1	0.2
Other	0	0	0	2	7	21	38	0.0	0.0	18.0
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	149	136	124	130	122	104	81	-1.8	-0.2	-4.0
Industry (Energy on Value added, index 2000=100)	100	88	101	99	97	92	77	0.1	-0.4	-2.4
Residential (Energy on Private Income, index 2000=100)	100	99	80	88	88	79	64	-2.2	1.0	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	101	86	88	79	69	53	-1.5	-0.9	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	40	40	37	33	30	27	24	-0.9	-2.1	-2.1
Freight transport (toe/Mtkm)	46	51	50	45	43	41	39	0.7	-1.4	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	133.3	139.6	121.4	105.7	96.7	79.6	59.2	-0.9	-2.3	-4.8
of which ETS sectors (2013 scope) GHG emissions	77.2	64.9	57.3	53.0	39.9	24.0	24.0		-2.0	-7.6
of which ESD sectors (2013 scope) GHG emissions	62.4	56.5	48.4	43.6	39.7	35.2	35.2		-2.6	-2.1
CO₂ Emissions (energy related)	98.4	106.4	92.1	79.6	73.0	57.2	37.6	-0.7	-2.3	-6.4
Power generation/District heating	52.1	55.6	47.9	40.9	37.2	24.4	9.3	-0.8	-2.5	-13.0
Energy Branch	3.1	3.4	3.6	3.9	3.5	3.3	3.0	1.6	-0.1	-1.8
Industry	10.4	8.9	7.2	6.2	5.9	5.2	3.6	-3.7	-1.9	-4.9
Residential	7.6	9.9	6.7	5.0	4.3	3.8	2.8	-1.3	-4.2	-4.2
Tertiary	3.4	4.3	2.8	1.8	1.2	1.0	0.7	-2.1	-8.0	-5.7
Transport	21.8	24.4	24.0	21.7	20.9	19.6	18.3	1.0	-1.4	-1.3
CO₂ Emissions (non energy and non land use related)	8.9	9.6	6.6	6.8	6.7	6.9	7.5	-2.9	0.1	1.1
Non-CO₂ GHG emissions	26.1	23.6	22.6	19.3	16.9	15.4	14.0	-1.4	-2.9	-1.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.1	129.9	113.0	98.4	90.0	74.1	55.1	-0.9	-2.3	-4.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.97	0.93	0.83	0.75	0.63	0.43	0.18	-1.6	-2.7	-11.7
Final energy demand (t of CO ₂ /toe)	2.32	2.26	2.12	1.99	1.89	1.85	1.78	-0.9	-1.1	-0.6
Industry	2.35	2.13	1.96	1.91	1.79	1.64	1.29	-1.8	-0.9	-3.2
Residential	1.69	1.79	1.45	1.16	1.01	0.96	0.86	-1.5	-3.5	-1.7
Tertiary	1.41	1.38	1.01	0.76	0.53	0.47	0.41	-3.3	-6.2	-2.7
Transport	2.99	2.98	2.94	2.90	2.87	2.86	2.82	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	7.2	7.0	9.7	14.4	18.5	25.5	38.9			
RES-H&C share	13.6	12.8	17.4	24.8	30.1	33.3	42.7			
RES-E share	7.2	8.2	12.3	22.4	25.8	45.6	82.7			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	1.4	10.2	12.3	19.4			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	60	63	72	85	97	102	100	1.9	3.0	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	74	78	108	124	137	149	161	3.8	2.4	1.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	15.2	20.2	26.7	26.6	31.4	33.1	35.4	5.8	1.6	1.2
as % of GDP	8.0	8.7	11.5	13.3	15.1	15.6	15.8			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Hungary: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	10	10	10	10	10	-0.2	-0.2	-0.1	
GDP (in 000 M€13)	83	102	101	107	117	131	145	1.9	1.5	2.2	
Gross Inland Consumption (ktoe)	25298	27611	25811	23493	24255	24584	23756	0.2	-0.6	-0.2	
Solids	3850	3031	2730	2635	2124	1435	1093	-3.4	-2.5	-6.4	
Oil	6964	7115	6699	6271	6314	6375	6292	-0.4	-0.6	0.0	
Natural gas	9657	12094	9816	7786	8578	6777	5861	0.2	-1.3	-3.7	
Nuclear	3672	3585	4078	3666	3677	6045	6107	1.1	-1.0	5.2	
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2	
Renewable energy forms	859	1251	2042	1931	2701	3126	3715	9.0	2.8	3.2	
Energy Branch Consumption	1164	1062	1095	1029	949	929	931	-0.6	-1.4	-0.2	
Non-Energy Uses	1587	2169	1974	2275	2502	2826	3079	2.2	2.4	2.1	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	11598	10372	11065	10244	9899	10954	11415	-0.5	-1.1	1.4	
Solids	2893	1748	1593	1794	1366	669	570	-5.8	-1.5	-8.4	
Oil	1699	1457	1150	795	619	277	193	-3.8	-6.0	-11.0	
Natural gas	2475	2331	2235	1857	1199	520	487	-1.0	-6.0	-8.6	
Nuclear	3672	3585	4078	3666	3677	6045	6107	1.1	-1.0	5.2	
Renewable energy sources	859	1251	2010	2132	3039	3444	4058	8.9	4.2	2.9	
Hydro	15	17	16	20	20	20	20	0.6	2.1	0.0	
Biomass & Waste	758	1145	1844	1905	2660	2609	2833	9.3	3.7	0.6	
Wind	0	1	46	50	77	183	247	0.0	5.3	12.4	
Solar and others	0	2	6	9	45	209	262	0.0	23.5	19.2	
Geothermal	86	87	99	148	237	423	694	1.4	9.1	11.4	
Net Imports (ktoe)	13956	17421	14988	13249	14356	13630	12343	0.7	-0.4	-1.5	
Solids	1087	1299	1143	841	758	766	523	0.5	-4.0	-3.6	
Oil	5291	5780	5637	5476	5695	6098	6099	0.6	0.1	0.7	
Crude oil and Feedstocks	5887	5988	5806	5273	5501	5917	5970	-0.1	-0.5	0.8	
Oil products	-596	-208	-169	203	194	181	130	-11.9	0.0	-4.0	
Natural gas	7283	9808	7726	5929	7379	6257	5373	0.6	-0.5	-3.1	
Electricity	296	535	447	1204	862	827	690	4.2	6.8	-2.2	
Import Dependency (%)	55.2	63.1	58.1	56.4	59.2	55.4	52.0				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	35191	35756	37371	27859	33192	35949	35472	0.6	-1.2	0.7	
Nuclear energy	14180	13834	15761	15087	15024	24706	24962	1.1	-0.5	5.2	
Solids	9590	7023	6234	6436	5072	2310	2008	-4.2	-2.0	-8.8	
Oil (including refinery gas)	4404	455	490	52	0	0	0	-19.7	-100.0	0.0	
Gas (including derived gases)	6719	12502	11714	3383	9571	2504	576	5.7	-2.0	-24.5	
Biomass-waste	120	1730	2449	2015	2241	2344	2878	35.2	-0.9	2.5	
Hydro (pumping excluded)	178	202	188	232	232	232	232	0.5	2.1	0.0	
Wind	0	10	534	585	890	2133	2878	0.0	5.2	12.4	
Solar	0	0	1	32	97	1656	1873	0.0	55.6	34.5	
Geothermal and other renewables	0	0	0	38	65	65	65	0.0	0.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	8589	8297	8292	7495	7095	9714	11449	-0.4	-1.5	4.9	
Nuclear energy	1920	1920	1920	1960	1960	3221	4482	0.0	0.2	8.6	
Renewable energy	48	66	348	431	640	2661	3334	21.9	6.3	18.0	
Hydro (pumping excluded)	48	49	53	57	57	57	57	1.0	0.7	0.0	
Wind	0	17	293	329	477	1040	1511	0.0	5.0	12.2	
Solar	0	0	2	45	106	1564	1766	0.0	48.7	32.5	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	6621	6311	6024	5103	4495	3832	3633	-0.9	-2.9	-2.1	
of which cogeneration units	1464	2047	1862	1144	1575	1009	527	2.4	-1.7	-10.4	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	1747	1380	1155	1137	691	425	414	-4.1	-5.0	-5.0	
Gas fired	4160	4622	4605	3496	3385	2986	2702	1.0	-3.0	-2.2	
Oil fired	602	176	91	91	11	11	5	-17.2	-19.2	-7.3	
Biomass-waste fired	112	133	173	349	356	358	461	4.4	7.5	2.6	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	30	52	52	52	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	42.9	45.7	47.7	39.3	50.4	40.0	33.6				
Efficiency of gross thermal power generation (%)	29.8	32.8	34.1	37.3	40.5	34.7	29.3				
% of gross electricity from CHP	13.5	19.1	19.6	14.4	13.8	9.5	6.4				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	41.1	44.1	50.7	64.6	55.9	86.6	92.7				
Fuel Inputs to Thermal Power Generation (ktoe)	6009	5692	5265	2752	3597	1792	1621	-1.3	-3.7	-7.7	
Solids	2755	1924	1646	1611	1288	599	511	-5.0	-2.4	-8.8	
Oil (including refinery gas)	1052	155	138	15	0	0	0	-18.4	-100.0	0.0	
Gas (including derived gases)	2140	3079	2704	657	1600	464	168	2.4	-5.1	-20.2	
Biomass & Waste	61	534	777	436	653	674	886	28.9	-1.7	3.1	
Geothermal heat	0	0	0	32	56	56	56	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	12946	13165	14441	12781	12805	15163	15104	1.1	-1.2	1.7	
Refineries	7638	8118	8427	6997	7086	7169	7097	1.0	-1.7	0.0	
Biofuels and hydrogen production	0	3	175	182	348	322	330	0.0	7.1	-0.5	
District heating	471	627	474	648	634	614	621	0.1	3.0	2.6	
Derived gases, cokeries etc.	4837	4417	5365	4954	4737	7058	6856	1.0	-1.2	3.8	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Hungary: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
							Annual % Change			
TRANSPORT										
Passenger transport activity (Gpkm)	80	84	84	86	95	103	110	0.5	1.3	1.5
Public road transport	19	18	16	17	18	18	19	-1.3	0.8	0.7
Private cars and motorcycles	47	51	54	54	60	64	68	1.4	1.1	1.1
Rail	12	12	10	11	12	14	16	-1.8	2.1	2.3
Aviation ⁽³⁾	2	4	4	4	5	6	8	5.9	3.0	5.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	27	35	34	35	38	42	46	2.3	1.1	1.9
Heavy goods and light commercial vehicles	17	24	23	23	24	26	28	2.7	0.7	1.6
Rail	9	9	9	10	11	12	14	0.0	2.1	2.6
Inland navigation	1	2	2	2	3	3	3	10.4	1.0	1.9
Energy demand in transport (ktoe) ⁽⁴⁾	3309	4308	4341	3958	4116	4104	4162	2.8	-0.5	0.1
Public road transport	339	361	335	346	353	351	346	-0.1	0.5	-0.2
Private cars and motorcycles	1805	2191	2208	2035	2070	1974	1921	2.0	-0.6	-0.7
Heavy goods and light commercial vehicles	763	1341	1418	1214	1274	1282	1321	6.4	-1.1	0.4
Rail	171	154	150	152	172	193	208	-1.3	1.3	1.9
Aviation	230	261	230	207	243	300	362	0.0	0.6	4.1
Inland navigation	1	1	1	4	4	4	5	3.1	14.6	1.6
By transport activity										
Passenger transport	2449	2877	2826	2642	2730	2696	2704	1.4	-0.3	-0.1
Freight transport	860	1431	1515	1316	1386	1408	1458	5.8	-0.9	0.5
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	4.1	4.7	8.8	8.5	8.8			
ENERGY EFFICIENCY										
Primary energy consumption	23711	25442	23837	21219	21753	21758	20680			
Final Energy Demand	16139	18218	16596	15895	16145	15568	14339	0.1	-0.9	-0.5
by sector								0.3	-0.3	-1.2
Industry	3513	3369	2890	3081	3004	3129	2943	-1.9	0.4	-0.2
Energy intensive industries	2517	2267	1854	1941	1853	1892	1683	-3.0	0.0	-1.0
Other industrial sectors	996	1102	1036	1141	1151	1237	1260	0.4	1.1	0.9
Residential	5603	6464	5740	5253	5260	4921	4386	0.2	-0.9	-1.8
Tertiary	3712	4072	3625	3566	3726	3380	2817	-0.2	0.3	-2.8
Transport ⁽⁵⁾	3311	4313	4341	3995	4155	4138	4193	2.7	-0.4	0.1
by fuel										
Solids	665	690	481	501	371	387	198	-3.2	-2.6	-6.1
Oil	4218	4904	4638	4261	4176	3998	3763	1.0	-1.0	-1.0
Gas	6503	7852	6261	5868	5790	5334	4678	-0.4	-0.8	-2.1
Electricity	2531	2780	2941	2977	3096	3254	3163	1.5	0.5	0.2
Heat (from CHP and District Heating)	1447	1308	1090	985	1007	904	887	-2.8	-0.8	-1.3
Renewable energy forms	774	683	1184	1301	1702	1675	1631	4.3	3.7	-0.4
Other	0	0	0	1	5	15	21	0.0	0.0	15.7
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	305	271	257	219	207	188	164	-1.7	-2.1	-2.3
Industry (Energy on Value added, index 2000=100)	100	74	64	63	56	53	45	-4.4	-1.2	-2.3
Residential (Energy on Private Income, index 2000=100)	100	90	87	77	71	59	48	-1.4	-2.0	-3.9
Tertiary (Energy on Value added, index 2000=100)	100	90	81	75	71	58	43	-2.0	-1.3	-4.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	30	33	32	30	27	25	23	0.8	-1.7	-1.7
Freight transport (toe/Mtkm)	32	41	45	38	37	34	32	3.5	-2.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	79.8	76.9	67.7	59.4	55.7	47.5	42.5	-1.6	-1.9	-2.7
of which ETS sectors (2013 scope) GHG emissions		30.6	25.6	19.8	19.5	13.6	11.5		-2.7	-5.2
of which ESD sectors (2013 scope) GHG emissions		46.3	42.1	39.6	36.2	33.9	31.0		-1.5	-1.5
CO2 Emissions (energy related)	55.0	56.4	49.0	41.5	40.5	32.8	28.5	-1.1	-1.9	-3.5
Power generation/District heating	22.1	18.3	16.0	10.5	10.9	5.0	3.9	-3.2	-3.8	-9.8
Energy Branch	1.5	1.2	1.5	1.6	1.4	1.3	1.2	-0.3	-0.6	-1.2
Industry	6.8	6.7	5.3	5.8	4.9	4.7	3.4	-2.4	-0.7	-3.8
Residential	8.8	10.7	8.6	7.3	7.0	6.6	5.7	-0.2	-2.1	-2.1
Tertiary	6.1	6.7	5.2	5.2	5.2	4.3	3.4	-1.6	-0.1	-4.2
Transport	9.7	12.7	12.3	11.2	11.2	11.0	11.0	2.4	-1.0	-0.2
CO2 Emissions (non energy and non land use related)	4.5	4.9	3.7	4.4	4.8	5.0	5.1	-1.9	2.5	0.8
Non-CO2 GHG emissions	20.3	15.6	15.0	13.5	10.4	9.6	8.9	-3.0	-3.6	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.3	81.2	71.5	62.7	58.8	50.1	44.9	-1.6	-1.9	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.41	0.34	0.31	0.26	0.23	0.10	0.08	-2.7	-2.7	-9.9
Final energy demand (t of CO2/toe)	1.94	2.02	1.90	1.85	1.75	1.70	1.63	-0.2	-0.8	-0.7
Industry	1.92	2.00	1.84	1.87	1.64	1.49	1.14	-0.4	-1.1	-3.6
Residential	1.57	1.66	1.50	1.39	1.33	1.33	1.29	-0.4	-1.2	-0.3
Tertiary	1.65	1.65	1.44	1.45	1.39	1.26	1.19	-1.4	-0.3	-1.5
Transport	2.92	2.94	2.83	2.81	2.69	2.67	2.62	-0.3	-0.5	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.8	4.5	8.6	10.0	13.2	15.4	18.4			
RES-H&C share	7.6	6.0	11.1	13.4	17.1	19.0	23.5			
RES-E share	0.6	4.4	7.1	6.7	7.9	13.9	18.0			
RES-T share (based on ILUC formula)	0.0	0.3	4.7	6.0	10.0	10.6	11.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	48	60	67	76	71	79	97	3.5	0.5	3.1
Average Price of Electricity in Final demand sectors (€13/MWh)	78	107	132	113	130	140	172	5.4	-0.2	2.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	11.2	16.1	20.3	18.0	22.2	25.3	29.2	6.1	0.9	2.8
as % of GDP	13.5	15.9	20.2	16.7	18.9	19.3	20.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Ireland: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	4	4	5	5	5	5	5	1.9	0.8	0.0	
GDP (in 000 M€13)	130	165	165	183	208	225	245	2.4	2.3	1.6	
Gross Inland Consumption (ktoe)	14425	15265	15191	14208	14445	14080	12605	0.5	-0.5	-1.4	
Solids	2601	2664	1979	2028	1844	1526	1106	-2.7	-0.7	-5.0	
Oil	8145	8589	7818	6926	6744	6470	6064	-0.4	-1.5	-1.1	
Natural gas	3436	3470	4683	4016	4011	3997	2353	3.1	-1.5	-5.2	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1	
Renewable energy forms	235	366	671	1152	1983	2235	3207	11.1	11.4	4.9	
Energy Branch Consumption	254	300	243	250	206	197	164	-0.4	-1.7	-2.2	
Non-Energy Uses	675	516	341	360	405	441	449	-6.6	1.7	1.0	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	2159	1647	1843	2031	1944	2167	3095	-1.6	0.5	4.8	
Solids	965	820	981	740	0	1	0	0.2	-56.5	-14.8	
Oil	0	0	0	44	0	0	0	0.0	0.0	-14.8	
Natural gas	958	461	233	231	233	232	221	-13.2	0.0	-0.5	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	235	366	628	1016	1711	1933	2874	10.3	10.5	5.3	
Hydro	73	54	52	62	66	65	70	-3.4	2.6	0.6	
Biomass & Waste	141	216	327	420	652	816	985	8.8	7.1	4.2	
Wind	21	96	242	520	935	963	1466	27.7	14.5	4.6	
Solar and others	0	1	8	13	58	88	350	54.0	22.6	19.8	
Geothermal	0	0	0	0	0	1	3	0.0	0.0	21.9	
Net Imports (ktoe)	12370	13765	13215	12285	12609	12029	9632	0.7	-0.5	-2.7	
Solids	1681	1886	945	1288	1844	1525	1106	-5.6	6.9	-5.0	
Oil	8203	8694	7706	6991	6852	6583	6171	-0.6	-1.2	-1.0	
Crude oil and Feedstocks	3016	3166	2987	2873	2873	2690	2472	-0.1	-0.4	-1.5	
Oil products	5186	5527	4718	4118	3979	3894	3699	-0.9	-1.7	-0.7	
Natural gas	2478	3010	4480	3784	3779	3767	2146	6.1	-1.7	-5.5	
Electricity	8	176	40	87	-138	-147	-124	17.0	0.0	-1.1	
Import Dependency (%)	84.9	89.6	86.5	85.8	86.6	84.7	75.7				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	23673	25626	28425	26857	31141	32102	31557	1.8	0.9	0.1	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	8587	8839	6384	6793	6070	5094	3717	-2.9	-0.5	-4.8	
Oil (including refinery gas)	4638	3340	605	15	3	15	6	-18.4	-41.0	7.3	
Gas (including derived gases)	9263	11574	17705	12617	12730	14130	5682	6.7	-3.2	-7.8	
Biomass-waste	95	130	317	660	682	886	1510	12.8	8.0	8.3	
Hydro (pumping excluded)	846	631	599	721	771	760	819	-3.4	2.6	0.6	
Solar	244	1112	2815	6049	10869	11201	17047	27.7	14.5	4.6	
Geothermal and other renewables	0	0	0	0	1	16	2777	0.0	0.0	68.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	4452	5930	8091	9091	9685	9172	13787	6.2	1.8	3.6	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	355	751	1611	2724	4222	4334	9410	16.3	10.1	8.3	
Hydro (pumping excluded)	236	234	237	237	258	258	273	0.0	0.8	0.6	
Wind	119	517	1374	2486	3945	4058	5921	27.7	11.1	4.1	
Solar	0	0	0	1	19	19	3215	0.0	0.0	67.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	4097	5179	6480	6366	5464	4838	4377	4.7	-1.7	-2.2	
of which cogeneration units	77	240	285	264	63	266	273	14.0	-14.0	15.8	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	1369	1387	1213	1186	842	842	842	-1.2	-3.6	0.0	
Gas fired	1872	2625	4081	3969	3624	3472	3136	8.1	-1.2	-1.4	
Oil fired	842	1124	1143	1143	801	326	173	3.1	-3.5	-14.2	
Biomass-waste fired	14	43	43	69	197	198	225	11.4	16.6	1.3	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	57.4	47.1	38.5	32.4	35.6	38.9	25.7				
Efficiency of gross thermal power generation (%)	40.7	43.2	46.8	47.2	47.6	47.4	43.6				
% of gross electricity from CHP	2.4	1.7	6.7	8.4	2.9	12.0	14.0				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	5.0	7.3	13.1	27.7	39.6	40.1	70.2				
Fuel Inputs to Thermal Power Generation (ktoe)	4775	4758	4600	3661	3518	3653	2151	-0.4	-2.6	-4.8	
Solids	1930	1920	1358	1448	1344	1130	833	-3.5	-0.1	-4.7	
Oil (including refinery gas)	997	769	128	4	1	4	1	-18.5	-40.4	7.4	
Gas (including derived gases)	1825	2040	3039	2066	2020	2308	960	5.2	-4.0	-7.2	
Biomass & Waste	24	30	75	143	153	211	356	12.2	7.5	8.8	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	3341	3204	3033	3024	3133	2964	2771	-1.0	0.3	-1.2	
Refineries	3341	3203	2940	2933	2926	2736	2516	-1.3	0.0	-1.5	
Biofuels and hydrogen production	0	1	93	89	199	193	206	0.0	7.9	0.3	
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0	
Derived gases, cokeries etc.	0	0	0	2	8	36	50	0.0	2204.5	20.4	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Ireland: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	50	65	70	69	78	86	92	3.4	1.1	1.7
Public road transport	7	8	8	9	9	9	9	2.0	0.3	0.6
Private cars and motorcycles	35	45	48	46	52	58	62	3.3	0.8	1.8
Rail	1	2	2	2	2	2	2	2.7	1.0	1.0
Aviation ⁽³⁾	6	10	10	11	14	16	17	5.2	3.1	1.9
Inland navigation	1	1	1	1	1	1	1	0.9	1.0	0.9
Freight transport activity (Gtkm)	12	17	11	12	14	15	17	-0.9	2.4	2.5
Heavy goods and light commercial vehicles	11	17	10	11	13	15	17	-0.5	2.4	2.5
Rail	0	0	0	0	0	0	0	-15.4	1.2	1.5
Inland navigation	0	0	0	0	0	0	0	-2.5	1.4	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	4082	5078	4715	4586	4762	4744	4809	1.5	0.1	0.1
Public road transport	96	101	110	111	111	113	113	1.4	0.1	0.2
Private cars and motorcycles	2206	2577	2807	2583	2525	2410	2322	2.4	-1.1	-0.8
Heavy goods and light commercial vehicles	1086	1482	967	1019	1135	1228	1343	-1.2	1.6	1.7
Rail	40	42	44	44	47	49	50	0.8	0.7	0.6
Aviation	629	857	767	809	921	921	956	2.0	1.8	0.4
Inland navigation	25	18	20	21	22	23	24	-2.1	1.0	0.8
<i>By transport activity</i>										
Passenger transport	2958	3559	3724	3544	3602	3489	3439	2.3	-0.3	-0.5
Freight transport	1124	1519	990	1042	1160	1255	1370	-1.3	1.6	1.7
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.2	0.8	1.8			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.0	2.0	4.4	4.9	5.3			
ENERGY EFFICIENCY										
Primary energy consumption	13750	14749	14850	13848	14040	13639	12156	0.8	-0.6	-1.4
Final Energy Demand	10779	12597	11957	11423	11760	11311	10627	1.0	-0.2	-1.0
<i>by sector</i>										
Industry	2498	2582	2146	2453	2560	2409	2246	-1.5	1.8	-1.3
Energy intensive industries	1245	1341	1023	1166	1181	1022	891	-1.9	1.4	-2.8
Other industrial sectors	1252	1241	1123	1287	1379	1387	1354	-1.1	2.1	-0.2
Residential	2513	2954	3296	2823	2857	2739	2348	2.7	-1.4	-1.9
Tertiary	1684	1979	1799	1556	1577	1414	1219	0.7	-1.3	-2.5
Transport ⁽⁵⁾	4085	5082	4715	4590	4767	4749	4814	1.4	0.1	0.1
<i>by fuel</i>										
Solids	671	751	604	567	501	396	273	-1.0	-1.9	-5.9
Oil	7045	8204	7270	6439	6229	5925	5517	0.3	-1.5	-1.2
Gas	1200	1364	1593	1883	1926	1627	1359	2.9	1.9	-3.4
Electricity	1745	2094	2186	2107	2262	2334	2338	2.3	0.3	0.3
Heat (from CHP and District Heating)	0	0	0	1	14	36	63	0.0	0.0	15.9
Renewable energy forms	118	184	304	424	820	957	1025	10.0	10.4	2.3
Other	0	0	0	2	8	36	53	0.0	1734.1	21.1
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	111	93	92	78	70	63	52	-1.9	-2.8	-2.9
Industry (Energy on Value added, index 2000=100)	100	85	75	80	73	64	55	-2.8	-0.3	-2.7
Residential (Energy on Private Income, index 2000=100)	100	95	98	86	75	63	48	-0.2	-2.7	-4.4
Tertiary (Energy on Value added, index 2000=100)	100	97	82	64	57	47	37	-1.9	-3.6	-4.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	51	46	46	43	38	34	31	-1.2	-1.8	-2.2
Freight transport (toe/Mtkm)	96	88	92	89	86	81	79	-0.3	-0.7	-0.8
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	71.8	73.1	65.0	63.1	61.3	59.5	52.6	-1.0	-0.6	-1.5
of which ETS sectors (2013 scope) GHG emissions	25.4	20.0	18.5	17.6	16.7	11.6		-1.2	-4.1	
of which ESD sectors (2013 scope) GHG emissions	47.8	45.0	44.6	43.7	42.8	41.0		-0.3	-0.6	
CO₂ Emissions (energy related)	43.2	47.3	42.0	37.8	36.1	33.9	27.1	-0.3	-1.5	-2.8
Power generation/District heating	15.6	15.3	13.3	11.0	10.3	10.1	5.7	-1.6	-2.5	-5.7
Energy Branch	0.3	0.4	0.3	0.4	0.3	0.2	0.2	-1.3	-1.1	-1.2
Industry	5.3	5.6	3.6	3.8	3.4	2.6	1.7	-3.9	-0.5	-6.4
Residential	6.4	7.2	7.8	6.5	6.1	5.4	4.2	2.1	-2.5	-3.6
Tertiary	3.4	3.5	3.1	2.5	2.4	2.0	1.6	-0.7	-2.8	-3.9
Transport	12.3	15.3	13.9	13.6	13.8	13.6	13.6	1.3	-0.1	-0.1
CO₂ Emissions (non energy and non land use related)	2.9	2.7	1.4	1.8	1.9	1.7	1.7	-7.0	3.1	-1.2
Non-CO₂ GHG emissions	25.6	23.1	21.5	23.5	23.2	23.8	23.8	-1.7	0.8	0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	124.2	126.5	112.3	109.1	106.0	102.9	91.0	-1.0	-0.6	-1.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.66	0.60	0.47	0.41	0.33	0.31	0.18	-3.4	-3.5	-6.0
Final energy demand (t of CO ₂ /toe)	2.53	2.51	2.38	2.32	2.18	2.08	1.99	-0.6	-0.9	-0.9
Industry	2.13	2.16	1.66	1.56	1.33	1.08	0.78	-2.5	-2.2	-5.2
Residential	2.53	2.44	2.37	2.30	2.13	1.96	1.79	-0.7	-1.1	-1.7
Tertiary	1.99	1.77	1.74	1.63	1.50	1.40	1.30	-1.3	-1.5	-1.4
Transport	3.00	3.01	2.96	2.96	2.89	2.87	2.83	-0.2	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	2.0	2.8	5.6	8.7	15.4	18.2	28.0			
RES-H&C share	2.4	3.5	4.5	6.1	12.0	17.3	22.9			
RES-E share	4.8	7.2	14.5	26.5	41.7	42.3	73.6			
RES-T share (based on ILUC formula)	0.0	0.0	2.4	4.3	10.0	12.3	18.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	42	72	75	89	92	97	95	5.9	2.1	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	117	147	158	175	178	182	189	3.0	1.2	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.8	13.9	15.5	15.6	18.8	20.7	22.7	4.7	1.9	1.9
as % of GDP	7.5	8.4	9.4	8.5	9.1	9.2	9.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)											Italy: EUCO3030
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change
Population (in million)	57	58	59	61	62	63	64	0.4	0.5	0.3	
GDP (in 000 M€13)	1564	1643	1622	1565	1675	1776	1885	0.4	0.3	1.2	
Gross Inland Consumption (ktoe)	174219	187471	174761	159036	161356	151416	136590	0.0	-0.8	-1.7	
Solids	12550	16461	14170	16106	18607	11540	6345	1.2	2.8	-10.2	
Oil	89540	83963	69558	61171	56721	51508	44758	-2.5	-2.0	-2.3	
Natural gas	57945	70651	68057	56177	59884	58574	48622	1.6	-1.3	-2.1	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7	
Renewable energy forms	10371	12170	19180	21628	23567	27030	34112	6.3	2.1	3.8	
Energy Branch Consumption	7704	10052	9539	8520	8168	7265	6533	2.2	-1.5	-2.2	
Non-Energy Uses	9019	8607	9560	7050	7322	7453	7364	0.6	-2.6	0.1	
SECURITY OF SUPPLY											
Production (incl. recovery of products) (ktoe)	28400	27839	29560	30751	31756	33879	40159	0.4	0.7	2.4	
Solids	3	60	64	55	0	0	0	33.7	-100.0	0.0	
Oil	4915	6376	5687	5142	5667	5615	5596	1.5	0.0	-0.1	
Natural gas	13627	9886	6885	6760	5767	4602	3953	-6.6	-1.8	-3.7	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	9856	11516	16924	18793	20322	23661	30609	5.6	1.8	4.2	
Hydro	3800	3101	4395	4138	4087	4212	4320	1.5	-0.7	0.6	
Biomass & Waste	1736	3392	6670	10105	11385	12759	16356	14.4	5.5	3.7	
Wind	48	202	785	1258	1260	1328	3244	32.1	4.8	9.9	
Solar and others	12	30	298	2199	2500	4198	5357	37.4	23.7	7.9	
Geothermal	4259	4791	4776	1092	1089	1164	1332	1.2	-13.7	2.0	
Net Imports (ktoe)	152069	160241	149804	131764	133162	121260	100275	-0.1	-1.2	-2.8	
Solids	13133	16367	14301	16050	18607	11540	6345	0.9	2.7	-10.2	
Oil	87599	79154	67826	59509	54579	49486	42657	-2.5	-2.1	-2.4	
Crude oil and Feedstocks	89451	94307	84882	68525	61712	55359	47644	-0.5	-3.1	-2.6	
Oil products	-1852	-15153	-17056	-9016	-7134	-5874	-4987	24.9	-8.3	-3.5	
Natural gas	47008	59840	61600	49416	54173	54101	45017	2.7	-1.3	-1.8	
Electricity	3813	4227	3797	3954	2578	2764	2753	0.0	-3.8	0.7	
Import Dependency (%)	86.5	84.5	84.3	81.1	80.7	78.2	71.4				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	269941	296840	298773	288970	318028	310009	292362	1.0	0.6	-0.8	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	26272	43606	39734	58856	67163	41209	20648	4.2	5.4	-11.1	
Oil (including refinery gas)	85878	47124	21714	8782	7796	6943	2562	-12.8	-9.7	-10.5	
Gas (including derived gases)	106398	156191	158215	110293	127687	116143	87156	4.0	-2.1	-3.7	
Biomass-waste	1908	6153	11586	18671	21446	31620	35757	19.8	6.4	5.2	
Hydro (pumping excluded)	44199	36067	51116	48121	47528	48979	50227	1.5	-0.7	0.6	
Wind	563	2344	9126	14628	14646	15447	37719	32.1	4.8	9.9	
Solar	17	31	1906	23409	25552	43458	52082	59.9	29.6	7.4	
Geothermal and other renewables	4706	5324	5376	6210	6210	6210	6210	1.3	1.5	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	71896	82950	104920	127454	122843	123573	130636	3.9	1.6	0.6	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	16770	18701	26470	46375	47826	59403	73739	4.7	6.1	4.4	
Hydro (pumping excluded)	16390	17036	17563	18512	18805	18805	19020	0.7	0.7	0.1	
Wind	363	1635	5794	8958	8963	9222	17607	31.9	4.5	7.0	
Solar	17	30	3113	18905	20057	31375	37111	68.3	20.5	6.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	55126	64249	78450	81079	75018	64170	56897	3.6	-0.4	-2.7	
of which cogeneration units	6476	5888	7351	17214	16822	16976	7931	1.3	8.6	-7.2	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	9518	8279	9511	9511	8858	5103	5098	0.0	-0.7	-5.4	
Gas fired	22819	36431	51677	52045	51358	46807	41314	8.5	-0.1	-2.2	
Oil fired	21763	17998	14748	13928	8629	5987	2173	-3.8	-5.2	-12.9	
Biomass-waste fired	436	870	1774	4810	5388	5488	7526	15.1	11.7	3.4	
Hydrogen plants	0	0	12	12	12	12	12	0.0	0.0	0.0	
Geothermal heat	590	671	728	773	773	773	773	2.1	0.6	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	40.8	39.1	31.3	24.8	28.4	27.6	24.9				
Efficiency of gross thermal power generation (%)	39.4	37.7	37.7	45.5	45.6	46.2	43.7				
% of gross electricity from CHP	8.3	9.0	11.5	15.3	15.4	11.3	6.7				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	19.0	16.8	26.5	38.4	36.3	47.0	62.3				
Fuel Inputs to Thermal Power Generation (ktoe)	49150	58911	53964	38349	43392	37627	30009	0.9	-2.2	-3.6	
Solids	6045	10399	9484	12963	14694	8342	4180	4.6	4.5	-11.8	
Oil (including refinery gas)	18954	12079	7365	1905	1675	1525	703	-9.0	-13.8	-8.3	
Gas (including derived gases)	19668	29585	28966	18745	21753	20294	14389	3.9	-2.8	-4.0	
Biomass & Waste	438	2270	3527	3795	4330	6526	9796	23.2	2.1	8.5	
Geothermal heat	4046	4578	4623	941	941	941	941	1.3	-14.7	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	101609	106909	97409	78677	74335	67685	59363	-0.4	-2.7	-2.2	
Refineries	95900	101959	91472	74873	68935	62738	55001	-0.5	-2.8	-2.2	
Biofuels and hydrogen production	0	177	1419	1593	2210	1996	1920	0.0	4.5	-1.4	
District heating	0	0	110	121	122	122	116	0.0	1.1	-0.6	
Derived gases, cokeries etc.	5709	4773	4408	2090	3068	2829	2326	-2.6	-3.6	-2.7	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Italy: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	943	931	952	967	1020	1053	1088	0.1	0.7	0.6
Public road transport	93	101	102	105	107	109	110	0.9	0.5	0.3
Private cars and motorcycles	756	727	740	746	781	799	821	-0.2	0.5	0.5
Rail	55	56	54	55	63	70	77	-0.2	1.5	2.0
Aviation ⁽³⁾	34	43	51	56	63	70	75	4.3	2.2	1.7
Inland navigation	5	5	5	5	5	5	6	-0.3	0.5	1.1
Freight transport activity (Gtkm)	253	303	268	271	290	306	324	0.6	0.8	1.1
Heavy goods and light commercial vehicles	192	226	202	203	217	228	240	0.5	0.7	1.0
Rail	23	23	19	20	22	24	26	-2.0	1.7	1.6
Inland navigation	38	54	48	48	51	54	58	2.4	0.5	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	42174	44377	41220	39856	38983	36973	35664	-0.2	-0.6	-0.9
Public road transport	1061	1231	1245	1278	1309	1302	1280	1.6	0.5	-0.2
Private cars and motorcycles	27882	27505	25835	24747	23387	21160	19794	-0.8	-1.0	-1.7
Heavy goods and light commercial vehicles	7944	10062	8686	8259	8425	8441	8476	0.9	-0.3	0.1
Rail	526	492	463	487	522	560	586	-1.3	1.2	1.2
Aviation	3491	3700	3863	4073	4275	4382	4350	1.0	1.0	0.2
Inland navigation	1269	1387	1128	1012	1065	1128	1178	-1.2	-0.6	1.0
<i>By transport activity</i>										
Passenger transport	33399	32865	31375	30531	29429	27335	25937	-0.6	-0.6	-1.3
Freight transport	8775	11512	9844	9324	9554	9638	9727	1.2	-0.3	0.2
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.4	1.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	3.5	4.1	5.8	5.7	5.6			
ENERGY EFFICIENCY										
Primary energy consumption	165200	178864	165201	151985	154034	143964	129226	0.0	-0.7	-1.7
Final Energy Demand	125579	134544	124781	122385	122503	116982	106598	-0.1	-0.2	-1.4
<i>by sector</i>										
Industry	40502	39858	30905	27952	28693	27057	24668	-2.7	-0.7	-1.5
Energy intensive industries	25289	25477	19382	16985	17677	16695	14856	-2.6	-0.9	-1.7
Other industrial sectors	15214	14382	11523	10966	11016	10362	9812	-2.7	-0.4	-1.2
Residential	27656	31313	31959	34859	34812	33687	29935	1.5	0.9	-1.5
Tertiary	14901	18537	20182	19017	19273	18503	15570	3.1	-0.5	-2.1
Transport ⁽⁵⁾	42519	44836	41734	40557	39726	37735	36426	-0.2	-0.5	-0.9
<i>by fuel</i>										
Solids	3586	3980	2910	2094	2654	2154	1181	-2.1	-0.9	-7.8
Oil	57249	59005	48733	45659	41854	37344	32191	-1.6	-1.5	-2.6
Gas	38022	40609	38499	36390	37277	37417	33487	0.1	-0.3	-1.1
Electricity	23472	25871	25736	25288	26278	26023	24847	0.9	0.2	-0.6
Heat (from CHP and District Heating)	1449	3082	3332	3592	3779	3849	3623	8.7	1.3	-0.4
Renewable energy forms	1802	1997	5570	9356	10643	10111	11110	11.9	6.7	0.4
Other	0	0	0	6	17	84	159	0.0	0.0	24.7
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	111	114	108	102	96	85	72	-0.3	-1.1	-2.8
Industry (Energy on Value added, index 2000=100)	100	100	83	79	77	71	62	-1.8	-0.7	-2.1
Residential (Energy on Private Income, index 2000=100)	100	109	110	123	114	103	86	0.9	0.4	-2.7
Tertiary (Energy on Value added, index 2000=100)	100	117	126	121	114	102	81	2.3	-1.0	-3.4
Passenger transport (toe/Mpkm) ⁽⁶⁾	33	33	30	29	26	23	21	-1.0	-1.5	-2.0
Freight transport (toe/Mtkm)	35	38	37	34	33	31	30	0.6	-1.1	-0.9
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	558.5	592.5	509.9	457.0	458.8	403.5	334.5	-0.9	-1.0	-3.1
of which ETS sectors (2013 scope) GHG emissions	261.5	213.8	172.1	188.4	152.3	111.4		-1.3	-5.1	
of which ESD sectors (2013 scope) GHG emissions	331.0	296.1	284.8	270.4	251.2	223.1		-0.9	-1.9	
CO₂ Emissions (energy related)	432.5	470.4	404.2	354.7	361.5	312.7	248.8	-0.7	-1.1	-3.7
Power generation/District heating	137.1	158.5	135.9	106.9	122.0	90.5	57.4	-0.1	-1.1	-7.3
Energy Branch	15.9	18.4	16.4	14.1	12.9	11.3	10.0	0.4	-2.4	-2.5
Industry	78.0	72.5	49.5	42.3	42.8	37.5	27.6	-4.5	-1.4	-4.3
Residential	53.4	59.9	53.6	51.4	49.7	48.1	39.6	0.0	-0.8	-2.3
Tertiary	24.4	29.3	30.2	26.0	25.5	23.6	18.3	2.2	-1.7	-3.2
Transport	123.7	131.8	118.6	114.0	108.7	101.8	96.0	-0.4	-0.9	-1.2
CO₂ Emissions (non energy and non land use related)	28.6	30.8	24.1	21.1	21.8	21.6	21.5	-1.7	-1.0	-0.1
Non-CO₂ GHG emissions	97.3	91.3	81.6	81.2	75.5	69.2	64.1	-1.7	-0.8	-1.6
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	106.3	112.8	97.1	87.0	87.4	76.8	63.7	-0.9	-1.0	-3.1
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.47	0.45	0.38	0.31	0.32	0.24	0.16	-2.0	-1.7	-6.5
Final energy demand (t of CO ₂ /toe)	2.23	2.18	2.02	1.91	1.85	1.80	1.70	-1.0	-0.9	-0.8
Industry	1.93	1.82	1.60	1.51	1.49	1.38	1.12	-1.8	-0.7	-2.8
Residential	1.93	1.91	1.68	1.48	1.43	1.43	1.32	-1.4	-1.6	-0.8
Tertiary	1.64	1.58	1.50	1.37	1.32	1.27	1.18	-0.9	-1.2	-1.2
Transport	2.91	2.94	2.84	2.81	2.74	2.70	2.63	-0.2	-0.4	-0.4
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	4.7	5.8	10.5	18.2	19.8	23.4	31.0			
RES-H&C share	2.9	4.6	10.4	20.1	22.3	24.8	34.3			
RES-E share	15.7	16.3	20.1	33.6	32.5	42.0	55.5			
RES-T share (based on ILUC formula)	0.6	1.1	5.0	7.1	10.6	13.1	18.3			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	66	77	90	86	93	99	102	3.2	0.4	0.8
Average Price of Electricity in Final demand sectors (€13/MWh)	140	130	153	152	157	167	175	0.9	0.3	1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	134.7	151.9	164.9	170.7	190.1	203.1	224.4	2.0	1.4	1.7
as % of GDP	8.6	9.2	10.2	10.9	11.3	11.4	11.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Latvia: EUC03030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	2	2	2	2	2	2	2	-1.2	-1.0	-1.4		
GDP (in 000 M€13)	13	20	19	23	27	29	31	3.6	3.5	1.7		
Gross Inland Consumption (ktoe)	3864	4592	4629	4341	4527	4653	4346	1.8	-0.2	-0.4		
Solids	132	82	109	84	72	49	21	-1.9	-4.1	-11.4		
Oil	1295	1487	1521	1464	1433	1391	1271	1.6	-0.6	-1.2		
Natural gas	1092	1358	1462	867	922	1125	462	3.0	-4.5	-6.7		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6		
Renewable energy forms	1191	1481	1463	1758	1956	2012	2424	2.1	3.0	2.2		
Energy Branch Consumption	39	42	48	33	36	40	32	2.1	-2.9	-1.0		
Non-Energy Uses	75	97	73	105	127	143	147	-0.3	5.7	1.5		
SECURITY OF SUPPLY												
Production (incl. recovery of products) (ktoe)	1411	1868	1979	2228	2482	2527	2987	3.4	2.3	1.9		
Solids	16	3	2	1	0	0	0	-17.4	-100.0	0.0		
Oil	2	7	2	0	0	0	0	1.1	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	2.1	-100.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	1393	1858	1975	2228	2482	2527	2987	3.6	2.3	1.9		
Hydro	242	286	303	248	272	272	272	2.2	-1.1	0.0		
Biomass & Waste	1150	1568	1668	1972	2155	2198	2570	3.8	2.6	1.8		
Wind	0	4	4	8	54	55	140	30.2	29.1	10.0		
Solar and others	0	0	0	0	1	2	4	0.0	0.0	13.6		
Geothermal	0	0	0	0	0	0	1	0.0	0.0	17.7		
Net Imports (ktoe)	2361	3097	2220	2456	2405	2494	1736	-0.6	0.8	-3.2		
Solids	61	77	112	84	72	49	21	6.3	-4.4	-11.4		
Oil	1235	1783	1671	1807	1788	1749	1618	3.1	0.7	-1.0		
Crude oil and Feedstocks	87	4	2	0	0	0	0	-31.8	-100.0	0.0		
Oil products	1148	1779	1669	1807	1788	1749	1618	3.8	0.7	-1.0		
Natural gas	1113	1434	903	867	927	1136	492	-2.1	0.3	-6.1		
Electricity	154	185	75	169	143	76	168	-6.9	6.7	1.6		
Import Dependency (%)	61.0	63.9	45.5	52.4	49.2	49.7	36.8					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	4136	4906	6627	5587	6670	8060	7057	4.8	0.1	0.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	78	0	2	78	108	102	45	-30.7	49.0	-8.5		
Oil (including refinery gas)	107	6	2	0	0	0	0	-32.8	-100.0	0.0		
Gas (including derived gases)	1128	1486	2988	2023	2111	3337	518	10.2	-3.4	-13.1		
Biomass-waste	0	41	66	511	662	819	1710	0.0	25.9	10.0		
Hydro (pumping excluded)	2819	3326	3520	2878	3160	3160	3160	2.2	-1.1	0.0		
Wind	4	47	49	95	628	640	1623	28.5	29.1	10.0		
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	2089	2162	2546	2837	3101	3112	3625	2.0	2.0	1.6		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	1515	1562	1606	1652	1872	1873	2229	0.6	1.5	1.8		
Hydro (pumping excluded)	1513	1536	1576	1589	1589	1589	1589	0.4	0.1	0.0		
Wind	2	26	30	62	281	283	638	31.1	25.1	8.5		
Solar	0	0	0	1	2	2	2	0.0	0.0	0.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	574	600	940	1185	1229	1239	1395	5.1	2.7	1.3		
of which cogeneration units	254	586	870	1026	1028	1031	1183	13.1	1.7	1.4		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	23	2	21	21	21	21	21	-0.9	0.0	0.0		
Gas fired	522	572	893	1098	1098	1091	1091	5.5	2.1	-0.1		
Oil fired	27	15	15	15	15	15	15	-5.4	0.0	0.0		
Biomass-waste fired	2	10	10	50	95	112	268	17.8	24.9	10.9		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.2	23.3	27.2	20.9	23.0	27.9	21.2					
Efficiency of gross thermal power generation (%)	20.7	21.9	32.3	45.9	45.5	45.5	33.1					
% of gross electricity from CHP	31.4	30.7	45.0	38.6	33.8	45.4	23.4					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	68.3	69.6	54.9	62.4	66.7	57.3	92.0					
Fuel Inputs to Thermal Power Generation (ktoe)	545	602	815	490	544	805	590	4.1	-4.0	0.8		
Solids	53	1	9	13	17	16	7	-15.9	6.4	-8.8		
Oil (including refinery gas)	84	19	10	0	0	0	0	-19.3	-100.0	0.0		
Gas (including derived gases)	408	562	767	360	383	582	87	6.5	-6.7	-13.8		
Biomass & Waste	0	22	29	117	144	207	496	0.0	17.4	13.2		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	570	479	383	344	425	409	369	-3.9	1.1	-1.4		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	3	27	37	89	73	68	0.0	12.6	-2.6		
District heating	569	476	356	307	336	334	297	-4.6	-0.6	-1.2		
Derived gases, cokeries etc.	1	0	0	0	0	2	4	-95.3	1788.1	29.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Latvia: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	15	17	18	18	20	21	22	1.5	1.0	1.2
Public road transport	2	3	2	2	2	3	3	-0.2	0.7	0.4
Private cars and motorcycles	12	12	13	13	14	14	15	0.8	0.7	0.7
Rail	1	1	1	1	1	1	1	-1.2	1.8	3.0
Aviation ⁽³⁾	0	1	2	2	2	3	4	20.4	2.2	3.6
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	15	24	21	24	26	30	33	3.1	2.2	2.4
Heavy goods and light commercial vehicles	2	4	4	4	5	5	6	5.8	2.2	1.6
Rail	13	20	17	20	21	24	27	2.6	2.2	2.5
Inland navigation	0	0	0	0	0	0	0	179.2	1.5	1.6
Energy demand in transport (ktoe) ⁽⁴⁾	746	1064	1200	1158	1194	1187	1144	4.9	-0.1	-0.4
Public road transport	51	67	68	65	66	67	67	2.9	-0.3	0.1
Private cars and motorcycles	502	603	673	613	590	531	472	3.0	-1.3	-2.2
Heavy goods and light commercial vehicles	89	242	260	255	292	314	314	11.2	1.2	0.8
Rail	76	94	76	87	91	101	110	0.1	1.8	1.9
Aviation	27	59	118	132	148	166	172	15.9	2.3	1.5
Inland navigation	0	0	5	6	7	8	8	0.0	3.5	1.2
<i>By transport activity</i>										
Passenger transport	582	729	861	811	805	765	713	4.0	-0.7	-1.2
Freight transport	163	335	340	347	389	422	431	7.6	1.4	1.0
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.3	2.3	3.3	7.6	6.6	6.4			
ENERGY EFFICIENCY										
Primary energy consumption	3789	4495	4556	4237	4400	4510	4198	1.9	-0.3	-0.5
Final Energy Demand	3254	4018	4120	4104	4245	4204	3911	2.4	0.3	-0.8
<i>by sector</i>										
Industry	576	699	774	912	989	1015	970	3.0	2.5	-0.2
Energy intensive industries	229	282	305	277	305	303	267	2.9	0.0	-1.3
Other industrial sectors	348	417	469	635	683	712	702	3.0	3.8	0.3
Residential	1327	1504	1389	1286	1299	1262	1135	0.5	-0.7	-1.3
Tertiary	602	749	756	744	761	737	660	2.3	0.1	-1.4
Transport ⁽⁵⁾	749	1067	1201	1162	1197	1190	1146	4.8	0.0	-0.4
<i>by fuel</i>										
Solids	62	74	94	70	54	32	15	4.2	-5.4	-12.3
Oil	1056	1323	1446	1355	1306	1248	1123	3.2	-1.0	-1.5
Gas	329	508	498	391	437	457	374	4.2	-1.3	-1.6
Electricity	385	493	534	568	620	656	669	3.3	1.5	0.8
Heat (from CHP and District Heating)	598	603	575	524	569	563	489	-0.4	-0.1	-1.5
Renewable energy forms	824	1018	973	1194	1258	1244	1235	1.7	2.6	-0.2
Other	0	0	0	0	0	3	7	0.0	0.0	35.4
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	293	235	246	189	171	159	138	-1.8	-3.6	-2.1
Industry (Energy on Value added, index 2000=100)	100	87	102	98	93	87	78	0.2	-1.0	-1.7
Residential (Energy on Private Income, index 2000=100)	100	74	67	51	45	39	33	-4.0	-3.9	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	83	82	67	59	52	43	-2.0	-3.2	-3.1
Passenger transport (toe/Mpkm) ⁽⁶⁾	37	41	44	41	37	33	28	1.7	-1.8	-2.7
Freight transport (toe/Mtkm)	11	14	16	14	15	14	13	4.4	-0.8	-1.3
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	10.5	11.3	12.3	10.6	10.1	10.2	8.1	1.6	-1.9	-2.2
of which ETS sectors (2013 scope) GHG emissions		3.1	3.6	2.4	2.5	2.9	1.4		-3.7	-5.3
of which ESD sectors (2013 scope) GHG emissions		8.2	8.7	8.3	7.6	7.3	6.7		-1.3	-1.3
CO₂ Emissions (energy related)	6.8	7.7	8.3	6.5	6.4	6.6	4.6	2.0	-2.6	-3.3
Power generation/District heating	2.6	2.2	2.4	1.2	1.2	1.6	0.2	-0.9	-6.6	-15.1
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.0	1.1	1.0	0.8	0.8	0.7	0.4	0.0	-2.9	-6.5
Residential	0.3	0.4	0.6	0.4	0.4	0.4	0.3	6.5	-2.2	-2.8
Tertiary	0.7	0.8	0.8	0.7	0.7	0.6	0.5	2.1	-1.8	-2.7
Transport	2.2	3.2	3.5	3.4	3.3	3.3	3.1	4.9	-0.6	-0.7
CO₂ Emissions (non energy and non land use related)	0.2	0.2	0.5	0.7	0.7	0.7	0.7	10.4	2.8	0.0
Non-CO₂ GHG emissions	3.5	3.3	3.4	3.4	3.0	2.9	2.8	-0.1	-1.3	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	39.5	42.5	46.3	40.0	38.1	38.6	30.6	1.6	-1.9	-2.2
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.21	0.17	0.16	0.09	0.09	0.11	0.02	-2.2	-6.4	-14.6
Final energy demand (t of CO ₂ /toe)	1.29	1.37	1.45	1.30	1.23	1.19	1.11	1.1	-1.6	-1.0
Industry	1.80	1.55	1.34	0.85	0.78	0.71	0.41	-2.9	-5.2	-6.3
Residential	0.22	0.29	0.40	0.35	0.34	0.31	0.29	6.0	-1.5	-1.5
Tertiary	1.14	1.10	1.12	0.98	0.92	0.84	0.81	-0.2	-1.9	-1.3
Transport	2.93	2.97	2.93	2.90	2.76	2.76	2.70	0.0	-0.6	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	33.5	32.4	30.5	37.5	40.3	42.3	55.2			
RES-H&C share	40.1	43.0	40.9	51.2	51.7	55.8	72.6			
RES-E share	52.7	43.0	42.1	46.2	53.4	51.7	72.5			
RES-T share (based on ILUC formula)	2.1	1.5	3.5	5.2	10.2	12.2	20.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	107	86	93	77	85	92	113	-1.4	-0.9	2.9
Average Price of Electricity in Final demand sectors (€13/MWh)	57	66	107	102	115	125	136	6.5	0.7	1.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.0	3.4	5.1	4.4	5.1	5.8	6.9	10.0	0.1	3.0
as % of GDP	14.8	17.3	27.0	19.0	19.4	19.9	21.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Lithuania: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
	Annual % Change									
Population (in million)	4	3	3	3	3	3	2	-1.1	-1.0	-1.8
GDP (in 000 M€13)	19	27	29	35	40	42	43	4.4	3.3	0.7
Gross Inland Consumption (ktoe)	7063	8711	6787	6651	6565	6420	6876	-0.4	-0.3	0.5
Solids	91	185	213	254	198	140	72	8.8	-0.8	-9.6
Oil	2125	2710	2502	2432	2367	2255	1981	1.6	-0.6	-1.8
Natural gas	2064	2477	2492	2122	2093	2241	1113	1.9	-1.7	-6.1
Nuclear	2223	2713	0	0	0	0	1894	-100.0	0.0	0.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Renewable energy forms	675	881	1065	1249	1341	1391	1933	4.7	2.3	3.7
Energy Branch Consumption	610	853	743	680	612	596	577	2.0	-1.9	-0.6
Non-Energy Uses	662	804	714	717	793	788	759	0.8	1.1	-0.4
SECURITY OF SUPPLY										
Production (incl.recovery of products) (ktoe)	3269	3900	1318	1358	1472	1512	3933	-8.7	1.1	10.3
Solids	12	20	9	19	7	8	1	-3.0	-2.1	-18.6
Oil	352	267	125	77	77	73	68	-9.9	-4.7	-1.2
Natural gas	0	0	0	0	0	0	0	4.2	-100.0	0.0
Nuclear	2223	2713	0	0	0	0	1894	-100.0	0.0	0.0
Renewable energy sources	682	900	1185	1262	1388	1432	1970	5.7	1.6	3.6
Hydro	29	39	46	38	38	38	38	4.7	-2.0	0.2
Biomass & Waste	653	858	1114	1158	1276	1186	1696	5.5	1.4	2.9
Wind	0	0	19	60	60	185	190	0.0	12.0	12.3
Solar and others	0	0	0	5	8	7	10	0.0	0.0	2.6
Geothermal	0	3	5	1	6	15	35	0.0	3.1	19.1
Net Imports (ktoe)	4247	5026	5668	5454	5258	5077	3115	2.9	-0.7	-5.1
Solids	80	174	196	235	190	132	71	9.4	-0.3	-9.4
Oil	2223	2622	2607	2516	2451	2344	2069	1.6	-0.6	-1.7
Crude oil and Feedstocks	4760	9029	9339	9399	9124	8587	7921	7.0	-0.2	-1.4
Oil products	-2537	-6408	-6732	-7123	-6672	-6243	-5852	10.3	-0.1	-1.3
Natural gas	2065	2493	2485	2122	2096	2249	1125	1.9	-1.7	-6.0
Electricity	-115	-255	515	594	567	393	-114	0.0	1.0	0.0
Import Dependency (%)	59.4	56.8	81.8	80.1	78.1	77.0	44.2			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	11121	14415	4994	5066	5986	8345	13552	-7.7	1.8	8.5
Nuclear energy	8419	10337	0	0	0	0	8838	-100.0	0.0	0.0
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0
Oil (including refinery gas)	655	401	647	182	0	0	0	-0.1	-100.0	0.0
Gas (including derived gases)	1707	3217	3436	3028	4062	4892	42	7.2	1.7	-36.7
Biomass-waste	0	7	147	657	725	793	1947	0.0	17.3	10.4
Hydro (pumping excluded)	340	451	540	440	440	447	447	4.7	-2.0	0.2
Solar	0	2	224	695	695	2148	2214	0.0	12.0	12.3
Geothermal and other renewables	0	0	0	64	64	64	64	0.0	0.0	0.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	5539	4135	2878	3443	2422	3094	4238	-6.3	-1.7	5.8
Nuclear energy	2880	1440	0	0	0	0	1117	-100.0	0.0	0.0
Renewable energy	103	118	249	614	614	1418	1445	9.2	9.4	8.9
Hydro (pumping excluded)	103	117	116	116	116	118	118	1.2	0.0	0.2
Wind	0	1	133	424	424	1226	1253	0.0	12.3	11.4
Solar	0	0	0	74	74	74	74	0.0	0.0	0.0
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	2556	2577	2629	2829	1808	1676	1676	0.3	-3.7	-0.8
of which cogeneration units	650	1038	1100	1799	576	1094	759	5.4	-6.3	2.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	3	3	0	0	0	0	0	-100.0	0.0	0.0
Gas fired	1736	1781	1822	1992	1519	1519	1348	0.5	-1.8	-1.2
Oil fired	817	793	770	770	200	48	0	-0.6	-12.6	-55.4
Biomass-waste fired	0	0	37	67	90	110	328	0.0	9.3	13.9
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	20.1	36.5	18.3	15.0	26.4	29.2	34.5			
Efficiency of gross thermal power generation (%)	22.0	25.1	28.4	36.6	47.0	45.1	27.0			
% of gross electricity from CHP	15.5	15.5	34.6	45.5	51.0	42.6	10.5			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	78.8	74.9	18.2	36.6	32.1	41.4	99.7			
Fuel Inputs to Thermal Power Generation (ktoe)	924	1240	1282	909	875	1084	634	3.3	-3.7	-3.2
Solids	0	0	0	0	0	0	0	-100.0	0.0	0.0
Oil (including refinery gas)	200	178	100	49	0	0	0	-6.7	-100.0	0.0
Gas (including derived gases)	723	1057	1117	725	713	860	9	4.4	-4.4	-35.6
Biomass & Waste	1	5	65	135	163	224	625	59.7	9.7	14.4
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	7911	12651	9987	10232	9878	9378	10517	2.4	-0.1	0.6
Refineries	5032	9415	9446	9704	9277	8809	8153	6.5	-0.2	-1.3
Biofuels and hydrogen production	0	3	45	59	113	101	101	0.0	9.7	-1.1
District heating	656	520	496	468	488	467	366	-2.7	-0.2	-2.8
Derived gases, cokeries etc.	2223	2713	0	0	0	1	1896	0.0	0.0	152.8

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Lithuania: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
							Annual % Change				
TRANSPORT											
Passenger transport activity (Gpkm)	30	40	38	39	41	43	44	2.3	1.0	0.7	
Public road transport	3	4	3	3	3	3	3	-0.2	0.6	0.2	
Private cars and motorcycles	26	35	33	34	36	37	38	2.4	0.8	0.6	
Rail	1	0	0	0	1	1	1	-4.8	3.4	1.7	
Aviation ⁽³⁾	0	1	1	2	2	2	2	14.6	4.2	2.5	
Inland navigation	0	0	0	0	0	0	0	0.4	1.4	0.8	
Freight transport activity (Gtkm)	11	17	19	20	24	26	27	5.3	2.6	1.3	
Heavy goods and light commercial vehicles	2	4	5	6	7	7	7	9.1	2.8	0.5	
Rail	9	12	13	14	17	19	20	4.2	2.5	1.6	
Inland navigation	0	0	0	0	0	0	0	0.4	1.7	0.7	
Energy demand in transport (ktoe) ⁽⁴⁾	1054	1413	1521	1582	1630	1574	1472	3.7	0.7	-1.0	
Public road transport	40	51	40	41	41	41	39	0.0	0.3	-0.4	
Private cars and motorcycles	705	845	919	881	871	802	721	2.7	-0.5	-1.9	
Heavy goods and light commercial vehicles	204	387	443	517	555	559	547	8.1	2.3	-0.1	
Rail	76	79	65	67	78	80	80	-1.5	1.8	0.3	
Aviation	27	46	49	69	79	85	78	6.1	4.9	-0.1	
Inland navigation	3	5	6	6	7	7	7	7.2	1.3	0.5	
By transport activity											
Passenger transport	777	947	1013	998	998	934	846	2.7	-0.2	-1.6	
Freight transport	277	466	508	584	632	639	626	6.2	2.2	-0.1	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.1				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.2	3.0	3.8	7.0	6.6	7.1				
ENERGY EFFICIENCY											
Primary energy consumption	6401	7907	6073	5934	5772	5631	6119	-0.5	-0.5	0.6	
Final Energy Demand	3767	4601	4763	4996	5032	4791	4235	2.4	0.6	-1.7	
by sector											
Industry	780	987	898	1172	1183	1194	1076	1.4	2.8	-0.9	
Energy intensive industries	363	436	486	689	694	696	625	3.0	3.6	-1.0	
Other industrial sectors	416	551	412	483	489	498	451	-0.1	1.7	-0.8	
Residential	1368	1509	1599	1498	1436	1320	1103	1.6	-1.1	-2.6	
Tertiary	563	672	720	718	757	678	563	2.5	0.5	-2.9	
Transport ⁽⁵⁾	1057	1433	1546	1608	1656	1599	1493	3.9	0.7	-1.0	
by fuel											
Solids	82	177	208	238	180	121	72	9.8	-1.4	-8.8	
Oil	1356	1616	1613	1664	1693	1594	1425	1.7	0.5	-1.7	
Gas	363	519	567	649	600	606	454	4.6	0.6	-2.7	
Electricity	533	686	717	832	893	885	842	3.0	2.2	-0.6	
Heat (from CHP and District Heating)	827	905	922	870	910	899	731	1.1	-0.1	-2.2	
Renewable energy forms	605	698	738	743	756	684	709	2.0	0.3	-0.6	
Other	0	0	0	0	0	1	3	0.0	0.0	30.5	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	374	317	234	191	164	151	161	-4.6	-3.5	-0.2	
Industry (Energy on Value added, index 2000=100)	100	80	66	74	69	67	60	-4.1	0.4	-1.4	
Residential (Energy on Private Income, index 2000=100)	100	72	76	59	50	43	35	-2.7	-4.2	-3.4	
Tertiary (Energy on Value added, index 2000=100)	100	88	87	72	65	55	45	-1.3	-2.9	-3.7	
Passenger transport (toe/Mpkm) ⁽⁶⁾	26	23	27	25	24	21	19	0.3	-1.2	-2.3	
Freight transport (toe/Mtkm)	25	27	27	29	26	24	23	0.9	-0.3	-1.3	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	19.8	24.8	23.0	21.3	19.5	18.9	14.8	1.5	-1.6	-2.7	
of which ETS sectors (2013 scope) GHG emissions	11.7	9.4	7.8	7.0	7.2	7.2	4.0	-2.9	-5.5		
of which ESD sectors (2013 scope) GHG emissions	13.2	13.6	13.4	12.3	12.5	11.7	10.8	-0.8	-1.4		
CO ₂ Emissions (energy related)	10.3	12.4	12.3	11.4	10.7	10.5	6.8	1.8	-1.4	-4.5	
Power generation/District heating	4.0	4.0	3.7	2.4	2.1	2.5	0.0	-0.8	-5.4	-37.0	
Energy Branch	1.1	1.7	1.6	1.5	1.4	1.3	1.1	3.8	-1.4	-2.1	
Industry	1.1	1.3	1.2	1.5	1.4	1.4	0.9	0.7	2.2	-4.6	
Residential	0.5	0.6	0.8	0.8	0.6	0.4	0.4	3.7	-2.6	-4.8	
Tertiary	0.5	0.6	0.6	0.6	0.6	0.4	0.3	2.2	-0.6	-5.9	
Transport	3.1	4.2	4.5	4.6	4.6	4.4	4.0	3.7	0.2	-1.2	
CO ₂ Emissions (non energy and non land use related)	1.5	3.1	2.8	2.3	2.4	2.3	2.1	6.0	-1.4	-1.5	
Non-CO2 GHG emissions	8.0	9.3	7.9	7.6	6.4	6.2	6.0	0.0	-2.1	-0.7	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	41.1	51.5	47.7	44.1	40.4	39.3	30.7	1.5	-1.6	-2.7	
Carbon Intensity indicators											
Electricity and Steam production (t of CO ₂ /MWh)	0.17	0.14	0.21	0.14	0.12	0.12	0.00	2.3	-5.5	-38.6	
Final energy demand (t of CO ₂ /toe)	1.39	1.47	1.48	1.50	1.43	1.40	1.33	0.6	-0.3	-0.7	
Industry	1.38	1.35	1.29	1.31	1.21	1.19	0.84	-0.7	-0.6	-3.7	
Residential	0.40	0.43	0.50	0.51	0.42	0.33	0.34	2.1	-1.6	-2.3	
Tertiary	0.88	0.84	0.86	0.82	0.77	0.64	0.56	-0.3	-1.1	-3.0	
Transport	2.94	2.94	2.89	2.87	2.76	2.76	2.71	-0.2	-0.5	-0.2	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	15.7	17.0	19.7	22.8	24.1	25.9	38.0				
RES-H&C share	26.1	30.4	33.2	36.7	38.3	37.2	59.1				
RES-E share	4.0	3.8	7.4	15.6	15.4	27.1	38.8				
RES-T share (based on ILUC formula)	0.1	0.3	3.5	4.7	10.2	11.0	14.5				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	75	57	174	124	110	110	116	8.7	-4.5	0.6	
Average Price of Electricity in Final demand sectors (€13/MWh)	64	73	112	104	120	136	166	5.7	0.6	3.4	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	2.7	4.0	5.6	5.9	7.1	7.9	8.6	7.6	2.5	1.9	
as % of GDP	14.2	14.4	19.3	16.8	17.9	18.5	20.2				

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Luxembourg: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
											Annual % Change
Population (in million)	0	0	1	1	1	1	1	1.5	2.5	2.2	
GDP (in 000 M€13)	32	38	41	45	52	60	68	2.6	2.3	2.8	
Gross Inland Consumption (ktoe)	3654	4800	4642	4616	4725	4749	4724	2.4	0.2	0.0	
Solids	108	77	66	51	44	31	15	-4.8	-4.0	-10.0	
Oil	2320	3160	2869	2908	2862	2795	2824	2.2	0.0	-0.1	
Natural gas	671	1176	1197	1031	1044	1106	978	6.0	-1.4	-0.6	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Renewable energy forms	64	106	160	245	391	429	486	9.6	9.4	2.2	
Energy Branch Consumption	26	30	50	51	55	60	70	6.9	0.9	2.4	
Non-Energy Uses	55	29	33	39	42	45	47	-5.1	2.5	1.1	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	64	111	122	148	265	307	349	6.7	8.1	2.8	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil	0	0	0	0	0	0	0	11.5	-100.0	0.0	
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	64	111	122	148	265	307	349	6.7	8.1	2.8	
Hydro	11	8	9	9	9	10	13	-1.4	0.2	3.3	
Biomass & Waste	51	97	105	119	186	205	203	7.5	5.9	0.9	
Wind	2	5	5	7	43	42	57	7.4	24.8	2.9	
Solar and others	0	2	3	13	27	50	75	0.0	25.2	11.0	
Geothermal	0	0	0	0	0	0	0	0.0	0.0	14.2	
Net Imports (ktoe)	3639	4671	4503	4468	4460	4442	4375	2.2	-0.1	-0.2	
Solids	108	77	66	51	44	31	15	-4.8	-4.0	-10.0	
Oil	2368	3141	2852	2908	2862	2795	2824	1.9	0.0	-0.1	
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil products	2368	3141	2852	2908	2862	2795	2824	1.9	0.0	-0.1	
Natural gas	671	1176	1197	1031	1044	1106	978	6.0	-1.4	-0.6	
Electricity	491	280	350	381	385	388	421	-3.3	1.0	0.9	
Import Dependency (%)	99.6	97.3	97.0	96.8	94.4	93.5	92.6				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	422	3348	3230	2762	3273	3850	4065	22.6	0.1	2.2	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	0	1	1	0	3	3	3	0.0	11.2	0.0	
Gas (including derived gases)	215	3107	2916	2304	2362	2765	2590	29.8	-2.1	0.9	
Biomass-waste	56	76	129	158	175	210	215	8.7	3.1	2.0	
Hydro (pumping excluded)	124	94	108	110	110	114	152	-1.4	0.2	3.3	
Wind	27	52	55	78	501	491	664	7.4	24.7	2.9	
Solar	0	17	21	112	121	268	441	0.0	19.2	13.8	
Geothermal and other renewables	0	1	0	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	163	574	597	702	971	1104	1409	13.8	5.0	3.8	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	47	93	107	212	467	608	924	8.6	15.9	7.1	
Hydro (pumping excluded)	33	34	34	34	34	35	47	0.3	0.0	3.3	
Wind	14	35	44	58	302	288	392	12.1	21.2	2.6	
Solar	0	24	29	120	131	285	485	0.0	16.2	14.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	116	481	490	490	504	496	485	15.5	0.3	-0.4	
of which cogeneration units	63	101	121	229	182	164	115	6.7	4.2	-4.5	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0	
Gas fired	103	468	469	469	469	457	442	16.4	0.0	-0.6	
Oil fired	5	5	4	1	2	2	2	-2.3	-7.8	0.0	
Biomass-waste fired	9	9	17	20	34	37	41	7.1	7.1	2.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.9	66.2	61.4	44.1	37.9	39.3	32.5				
Efficiency of gross thermal power generation (%)	24.3	47.5	47.4	50.5	50.0	48.7	48.4				
% of gross electricity from CHP	17.7	10.1	9.6	23.3	16.0	10.1	5.1				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	49.1	7.2	9.7	16.6	27.7	28.1	36.2				
Fuel Inputs to Thermal Power Generation (ktoe)	96	576	553	419	437	525	499	19.1	-2.3	1.3	
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0	
Oil (including refinery gas)	1	0	0	0	0	0	0	-100.0	0.0	0.0	
Gas (including derived gases)	66	544	520	383	392	468	434	22.8	-2.8	1.0	
Biomass & Waste	29	32	33	36	46	57	66	1.5	3.2	3.7	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	1	3	46	113	152	152	178	57.2	12.7	1.6	
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0	
Biofuels and hydrogen production	0	1	42	108	147	146	172	0.0	13.4	1.6	
District heating	1	2	4	5	5	5	5	23.1	2.3	-0.8	
Derived gases, cokeries etc.	0	0	0	0	0	1	2	0.0	0.0	16.6	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Luxembourg: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	7	8	9	9	10	12	13	1.6	2.0	2.2
Public road transport	1	1	1	1	1	1	1	4.2	1.7	1.3
Private cars and motorcycles	6	6	7	7	8	9	10	1.5	2.0	2.2
Rail	0	0	0	0	0	1	1	0.4	3.1	2.8
Aviation ⁽³⁾	1	1	1	1	1	1	1	-0.5	2.4	2.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	3	3	3	3	4	5	5	0.8	3.6	1.9
Heavy goods and light commercial vehicles	2	2	2	3	3	4	4	2.8	4.1	1.7
Rail	1	0	0	0	0	0	1	-6.5	2.0	3.2
Inland navigation	0	0	0	0	0	0	0	-0.5	0.9	1.7
Energy demand in transport (ktoe) ⁽⁴⁾	1914	2781	2604	2697	2759	2726	2825	3.1	0.6	0.2
Public road transport	60	92	106	115	122	123	127	5.9	1.4	0.4
Private cars and motorcycles	1153	1521	1341	1311	1216	1125	1170	1.5	-1.0	-0.4
Heavy goods and light commercial vehicles	364	721	709	818	956	975	985	6.9	3.0	0.3
Rail	12	11	13	14	16	18	20	0.8	1.9	2.2
Aviation	321	432	431	435	445	482	520	3.0	0.3	1.6
Inland navigation	4	3	4	3	3	3	3	-1.0	-1.8	1.5
<i>By transport activity</i>										
Passenger transport	1535	2046	1880	1863	1785	1732	1819	2.0	-0.5	0.2
Freight transport	379	735	724	834	974	994	1006	6.7	3.0	0.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.6	1.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.6	4.0	5.4	5.4	5.7			
ENERGY EFFICIENCY										
Primary energy consumption	3599	4771	4609	4576	4683	4704	4677	2.5	0.2	0.0
Final Energy Demand	3505	4477	4327	4382	4468	4435	4399	2.1	0.3	-0.2
<i>by sector</i>										
Industry	714	754	739	585	590	560	495	0.4	-2.2	-1.7
Energy intensive industries	583	598	601	438	432	397	332	0.3	-3.2	-2.6
Other industrial sectors	130	156	139	148	158	163	163	0.6	1.3	0.4
Residential	468	525	508	498	521	545	504	0.8	0.3	-0.3
Tertiary	409	418	477	601	599	604	575	1.5	2.3	-0.4
Transport ⁽⁵⁾	1914	2781	2604	2697	2759	2726	2825	3.1	0.6	0.2
<i>by fuel</i>										
Solids	108	77	66	51	44	31	15	-4.8	-4.0	-10.0
Oil	2261	3106	2835	2869	2820	2750	2777	2.3	-0.1	-0.2
Gas	605	631	675	645	652	638	545	1.1	-0.4	-1.8
Electricity	497	529	568	557	599	645	673	1.4	0.5	1.2
Heat (from CHP and District Heating)	13	75	74	80	75	78	70	19.2	0.2	-0.7
Renewable energy forms	22	59	108	181	277	291	306	17.2	9.9	1.0
Other	0	0	0	0	1	3	13	0.0	0.0	35.2
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	115	126	113	103	91	80	69	-0.1	-2.1	-2.7
Industry (Energy on Value added, index 2000=100)	100	101	133	100	92	78	63	2.9	-3.7	-3.7
Residential (Energy on Private Income, index 2000=100)	100	103	93	90	83	76	61	-0.7	-1.1	-3.1
Tertiary (Energy on Value added, index 2000=100)	100	85	86	98	84	73	60	-1.5	-0.1	-3.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	204	244	209	188	161	139	131	0.3	-2.5	-2.0
Freight transport (toe/Mtkm)	139	268	247	245	234	218	201	5.9	-0.5	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	10.7	14.1	13.3	12.9	12.8	12.6	12.3	2.2	-0.4	-0.4
of which ETS sectors (2013 scope) GHG emissions		4.2	3.8	3.5	3.4	3.6	3.4		-1.0	-0.1
of which ESD sectors (2013 scope) GHG emissions		9.9	9.5	9.5	9.4	9.1	8.9		-0.2	-0.5
CO₂ Emissions (energy related)	8.9	12.6	11.8	11.4	11.3	11.1	10.9	2.9	-0.4	-0.4
Power generation/District heating	0.2	1.3	1.2	0.9	0.9	1.1	1.0	22.6	-2.8	1.0
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	1.2	1.1	1.0	0.8	0.8	0.6	0.4	-2.0	-2.8	-5.1
Residential	1.1	1.2	1.1	1.1	1.0	1.0	0.9	0.5	-1.1	-0.9
Tertiary	0.6	0.5	0.6	0.7	0.6	0.6	0.5	-0.6	0.7	-2.8
Transport	5.8	8.4	7.8	7.9	7.9	7.8	8.0	3.1	0.2	0.1
CO₂ Emissions (non energy and non land use related)	0.7	0.7	0.6	0.5	0.5	0.5	0.4	-2.1	-1.1	-1.7
Non-CO₂ GHG emissions	1.1	0.9	1.0	1.0	1.0	1.0	1.0	-0.9	0.1	-0.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	80.3	106.5	100.3	97.4	96.3	95.0	92.3	2.2	-0.4	-0.4
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.28	0.30	0.30	0.25	0.22	0.23	0.21	0.7	-2.9	-0.6
Final energy demand (t of CO ₂ /toe)	2.49	2.52	2.43	2.40	2.32	2.27	2.24	-0.2	-0.5	-0.3
Industry	1.71	1.47	1.36	1.39	1.28	1.14	0.90	-2.3	-0.6	-3.4
Residential	2.29	2.28	2.22	2.14	1.93	1.86	1.82	-0.3	-1.4	-0.6
Tertiary	1.59	1.25	1.28	1.23	1.08	0.98	0.85	-2.1	-1.6	-2.4
Transport	3.01	3.04	2.99	2.92	2.88	2.86	2.83	-0.1	-0.4	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.8	1.4	2.9	5.0	8.2	9.2	10.8			
RES-H&C share	1.4	3.6	4.8	6.4	12.3	14.7	18.8			
RES-E share	2.1	3.2	3.8	6.1	12.0	13.4	17.3			
RES-T share (based on ILUC formula)	0.0	0.0	1.9	7.5	10.1	10.9	12.6			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	87	63	78	82	96	97	103	-1.1	2.1	0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	108	119	110	116	122	134	140	0.1	1.1	1.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.0	4.4	4.6	4.7	5.9	6.5	7.5	4.3	2.5	2.4
as % of GDP	9.5	11.5	11.2	10.4	11.4	10.8	10.9			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Malta: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
											Annual % Change	
Population (in million)	0	0	0	0	0	0	0	0.9	0.6	0.4		
GDP (in 000 M€13)	6	6	7	8	8	9	10	1.8	2.1	1.9		
Gross Inland Consumption (ktoe)	802	972	908	675	744	721	666	1.3	-2.0	-1.1		
Solids	0	0	0	0	0	0	0	0.0	0.0	-11.7		
Oil	802	972	903	579	342	332	309	1.2	-9.3	-1.0		
Natural gas	0	0	0	0	337	317	268	0.0	0.0	-2.3		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Renewable energy forms	0	1	5	21	49	56	74	0.0	25.7	4.2		
Energy Branch Consumption	10	2	10	6	5	4	3	0.5	-7.2	-3.8		
Non-Energy Uses	0	20	9	11	12	12	12	0.0	3.4	-0.2		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	0	1	4	16	38	45	67	0.0	24.3	5.9		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Natural gas	0	0	0	0	0	0	0	0.0	0.0	0.0		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	0	1	4	16	38	45	67	0.0	24.3	5.9		
Hydro	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biomass & Waste	0	0	1	3	1	2	5	0.0	9.5	12.8		
Wind	0	0	0	0	0	0	1	0.0	0.0	0.0		
Solar and others	0	1	4	13	36	43	61	0.0	25.6	5.3		
Geothermal	0	0	0	0	0	0	0	0.0	0.0	4.3		
Net Imports (ktoe)	1458	1630	2362	2099	2095	2099	2075	4.9	-1.2	-0.1		
Solids	0	0	0	0	0	0	0	0.0	0.0	-11.7		
Oil	1458	1630	2361	2019	1719	1730	1665	4.9	-3.1	-0.3		
Crude oil and Feedstocks	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil products	1458	1630	2361	2019	1719	1730	1665	4.9	-3.1	-0.3		
Natural gas	0	0	0	0	349	342	385	0.0	0.0	1.0		
Electricity	0	0	0	75	16	16	17	0.0	0.0	0.8		
Import Dependency (%)	100.3	100.0	99.0	99.2	98.2	97.9	96.9					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	1917	2240	2115	1402	2477	2601	2451	1.0	1.6	-0.1		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	1917	2240	2113	1293	0	0	0	1.0	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	2143	2240	1899	0.0	0.0	-1.2		
Biomass-waste	0	0	0	6	8	11	18	0.0	0.0	8.7		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	11	0.0	0.0	0.0		
Solar	0	0	0	103	326	350	523	0.0	0.0	4.8		
Geothermal and other renewables	0	0	2	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	577	577	579	541	786	933	929	0.0	3.1	1.7		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	0	0	2	60	185	200	304	0.0	57.2	5.1		
Hydro (pumping excluded)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Wind	0	0	0	0	0	0	7	0.0	0.0	0.0		
Solar	0	0	2	60	185	200	296	0.0	57.2	4.9		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	577	577	577	481	601	733	626	0.0	0.4	0.4		
of which cogeneration units	0	0	0	1	1	1	1	0.0	0.0	-5.2		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	0	0	0	0	0	0	0	0.0	0.0	0.0		
Gas fired	0	0	0	0	238	478	478	0.0	0.0	7.2		
Oil fired	577	577	577	479	361	253	144	0.0	-4.6	-8.8		
Biomass-waste fired	0	0	0	2	2	2	3	0.0	0.0	5.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	35.6	43.8	39.3	28.2	35.1	31.3	29.6					
Efficiency of gross thermal power generation (%)	35.4	29.3	31.7	45.4	54.6	60.9	61.3					
% of gross electricity from CHP	0.0	0.0	0.0	0.4	0.3	0.3	0.1					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	0.0	0.0	0.1	7.7	13.5	13.9	22.5					
Fuel Inputs to Thermal Power Generation (ktoe)	465	658	573	246	339	318	269	2.1	-5.1	-2.3		
Solids	0	0	0	0	0	0	0	0.0	0.0	0.0		
Oil (including refinery gas)	465	658	573	245	0	0	0	2.1	-100.0	0.0		
Gas (including derived gases)	0	0	0	0	337	316	268	0.0	0.0	-2.3		
Biomass & Waste	0	0	0	1	1	1	1	0.0	0.0	1.8		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	0	0	1	3	7	7	6	0.0	23.3	-1.8		
Refineries	0	0	0	0	0	0	0	0.0	0.0	0.0		
Biofuels and hydrogen production	0	0	1	3	7	7	6	0.0	23.3	-1.8		
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0		
Derived gases, cokeries etc.	0	0	0	0	0	0	0	0.0	0.0	21.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Malta: EUQ3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	5	5	5	6	7	7	8	1.2	2.2	1.2
Public road transport	0	0	1	1	1	1	1	0.8	0.5	0.4
Private cars and motorcycles	2	2	2	2	2	2	2	2.0	0.5	0.3
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation ⁽³⁾	2	2	3	3	4	4	5	0.7	3.8	1.8
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	0	0	0	0	0	0	0	0.3	1.3	1.6
Heavy goods and light commercial vehicles	0	0	0	0	0	0	0	0.3	1.3	1.6
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	268	242	255	256	270	268	264	-0.5	0.6	-0.2
Public road transport	12	13	12	12	12	11	11	-0.3	-0.2	-0.7
Private cars and motorcycles	97	105	110	109	102	90	83	1.2	-0.7	-2.1
Heavy goods and light commercial vehicles	36	37	31	31	34	35	37	-1.5	0.7	0.9
Rail	0	0	0	0	0	0	0	0.0	0.0	0.0
Aviation	122	87	102	105	122	131	134	-1.8	1.8	0.9
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
<i>By transport activity</i>										
Passenger transport	232	205	224	225	236	233	227	-0.4	0.5	-0.4
Freight transport	36	37	31	31	34	35	37	-1.5	0.7	0.9
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.8	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	0.4	1.2	2.7	2.6	2.3			
ENERGY EFFICIENCY										
Primary energy consumption	802	952	899	664	732	708	656	1.2	-2.0	-1.1
Final Energy Demand	483	478	476	501	546	551	522	-0.1	1.4	-0.5
<i>by sector</i>										
Industry	83	74	48	51	52	52	47	-5.4	0.8	-0.9
Energy intensive industries	13	19	8	8	8	8	7	-4.8	-0.1	-1.2
Other industrial sectors	70	55	40	44	44	44	40	-5.5	0.9	-0.8
Residential	76	77	80	85	101	103	96	0.5	2.4	-0.5
Tertiary	55	85	94	108	124	128	115	5.4	2.8	-0.7
Transport ⁽⁵⁾	268	242	255	256	270	268	264	-0.5	0.6	-0.2
<i>by fuel</i>										
Solids	0	0	0	0	0	0	0	0.0	0.0	-11.7
Oil	348	309	316	323	330	320	297	-1.0	0.4	-1.0
Gas	0	0	0	0	0	0	0	0.0	0.0	7.2
Electricity	135	168	155	166	196	207	197	1.4	2.4	0.1
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0.0	0.0	-0.8
Renewable energy forms	0	1	5	11	20	24	27	0.0	14.2	2.9
Other	0	0	0	0	0	0	0	0.0	0.0	32.6
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	142	162	134	89	89	78	66	-0.6	-4.0	-2.9
Industry (Energy on Value added, index 2000=100)	100	116	74	73	67	63	53	-2.9	-1.0	-2.3
Residential (Energy on Private Income, index 2000=100)	100	93	89	91	97	88	74	-1.1	0.9	-2.7
Tertiary (Energy on Value added, index 2000=100)	100	137	123	125	130	121	98	2.1	0.5	-2.8
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	40	39	37	33	30	28	-1.3	-1.8	-1.6
Freight transport (toe/Mtkm)	139	135	116	113	110	107	102	-1.7	-0.6	-0.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	2.8	3.3	3.1	2.1	2.1	2.0	1.7	1.0	-3.9	-1.8
of which ETS sectors (2013 scope) GHG emissions	2.4	2.1	1.1	1.1	1.2	1.1	1.0		-6.0	-1.2
of which ESD sectors (2013 scope) GHG emissions	1.0	1.0	1.0	0.9	0.8	0.7	0.7		-0.4	-2.6
CO₂ Emissions (energy related)	2.5	3.0	2.8	1.8	1.8	1.7	1.5	0.9	-4.4	-1.6
Power generation/District heating	1.5	2.1	1.8	0.8	0.8	0.7	0.6	2.1	-8.1	-2.3
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-9.7	0.4	-9.5
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.2	2.4	-3.8
Tertiary	0.0	0.0	0.1	0.1	0.1	0.1	0.0	6.2	-0.7	-2.6
Transport	0.8	0.7	0.8	0.8	0.8	0.8	0.8	-0.5	0.3	-0.3
CO₂ Emissions (non energy and non land use related)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-17.5	1.7
Non-CO₂ GHG emissions	0.3	0.3	0.3	0.3	0.3	0.3	0.2	1.6	-0.5	-3.3
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	127.9	150.8	141.1	95.1	94.6	89.2	78.9	1.0	-3.9	-1.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.78	0.95	0.87	0.56	0.32	0.29	0.26	1.1	-9.6	-2.2
Final energy demand (t of CO ₂ /toe)	2.17	1.94	1.99	1.93	1.80	1.74	1.71	-0.9	-1.0	-0.6
Industry	1.55	1.43	0.97	1.00	0.94	0.83	0.38	-4.6	-0.4	-8.7
Residential	1.02	0.80	0.86	0.91	0.86	0.71	0.61	-1.7	0.0	-3.3
Tertiary	0.67	0.40	0.72	0.73	0.51	0.46	0.42	0.7	-3.4	-1.9
Transport	3.00	3.00	2.99	2.96	2.92	2.92	2.90	0.0	-0.2	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.0	0.1	1.0	6.0	11.7	13.3	18.0			
RES-H&C share	0.0	1.0	7.0	17.5	23.9	30.7	38.5			
RES-E share	0.0	0.0	0.1	4.8	12.5	12.9	20.8			
RES-T share (based on ILUC formula)	0.0	0.0	0.5	4.2	10.0	10.6	11.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	78	111	173	117	90	96	99	8.4	-6.3	1.0
Average Price of Electricity in Final demand sectors (€13/MWh)	75	84	201	177	170	165	151	10.4	-1.7	-1.1
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	0.4	0.5	0.8	0.8	1.1	1.2	1.3	8.2	2.3	1.8
as % of GDP	6.8	8.9	12.5	11.2	12.7	13.0	12.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Netherlands: EUCO3030					
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change	
Population (in million)	16	16	17	17	17	17	18	0.4	0.3	0.2		
GDP (in 000 M€13)	537	573	613	620	668	706	738	1.3	0.9	1.0		
Gross Inland Consumption (ktoe)	75572	81469	86612	83760	83439	80969	74964	1.4	-0.4	-1.1		
Solids	7852	8195	7596	9274	7905	8009	6020	-0.3	0.4	-2.7		
Oil	28245	32464	34649	34892	34336	33319	31747	2.1	-0.1	-0.8		
Natural gas	35009	35334	39309	33859	30928	30317	25654	1.2	-2.4	-1.9		
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4		
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0		
Renewable energy forms	1827	2872	3796	3906	9236	8980	11133	7.6	9.3	1.9		
Energy Branch Consumption	5353	6336	5088	5607	5434	4999	4739	-0.5	0.7	-1.4		
Non-Energy Uses	10491	13013	17582	13895	14823	15341	15345	5.3	-1.7	0.3		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	57555	62220	70219	51471	52977	45740	39834	2.0	-2.8	-2.8		
Solids	7	8	6	0	0	0	0	-2.0	-100.0	0.0		
Oil	2405	2328	1985	1381	1414	956	738	-1.9	-3.3	-6.3		
Natural gas	52203	56276	63534	44126	40614	33874	25886	2.0	-4.4	-4.4		
Nuclear	1013	1031	1024	956	956	990	990	0.1	-0.7	0.4		
Renewable energy sources	1926	2577	3671	5009	9993	9920	12219	6.7	10.5	2.0		
Hydro	12	8	9	9	9	9	9	-3.0	-0.1	0.1		
Biomass & Waste	1831	2371	3282	4236	7003	6613	8045	6.0	7.9	1.4		
Wind	71	178	343	618	2394	2597	3202	17.0	21.4	3.0		
Solar and others	11	21	29	123	546	623	803	9.8	34.1	3.9		
Geothermal	0	0	8	24	41	77	161	0.0	18.2	14.8		
Net Imports (ktoe)	33759	37076	30549	47678	45840	61297	52297	-1.0	4.1	1.3		
Solids	7998	8312	9228	9274	7905	8009	6020	1.4	-1.5	-2.7		
Oil	41425	47836	45167	48901	48021	47837	46753	0.9	0.6	-0.3		
Crude oil and Feedstocks	61018	61724	60676	53468	50689	48101	45551	-0.1	-1.8	-1.1		
Oil products	-19594	-13888	-15508	-4567	-2669	-264	1202	-2.3	-16.1	0.0		
Natural gas	-17191	-20941	-24211	-10267	-9406	-2964	1190	3.5	-9.0	0.0		
Electricity	1626	1573	239	872	77	-646	-579	-17.5	-10.7	0.0		
Import Dependency (%)	38.0	37.7	30.4	48.1	46.4	52.9	56.8					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	89631	100219	118140	107595	123367	133567	129301	2.8	0.4	0.5		
Nuclear energy	3926	3997	3969	3907	3907	4047	4047	0.1	-0.2	0.4		
Solids	24276	23500	22588	29437	23818	26325	20311	-0.7	0.5	-1.6		
Oil (including refinery gas)	2641	2262	1253	799	0	57	57	-7.2	-100.0	0.0		
Gas (including derived gases)	54606	61588	77566	56710	46789	55528	45872	3.6	-4.9	-0.2		
Biomass-waste	3203	6683	8606	8343	15904	12301	16164	10.4	6.3	0.2		
Hydro (pumping excluded)	142	88	105	100	104	105	105	-3.0	-0.1	0.1		
Wind	829	2067	3993	7185	27841	30201	37236	17.0	21.4	3.0		
Solar	8	34	60	1113	5003	5003	5509	22.2	55.5	1.0		
Geothermal and other renewables	0	0	0	0	0	0	0	12.8	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	21048	21728	25072	30866	38388	37304	36490	1.8	4.4	-0.5		
Nuclear energy	485	485	485	485	485	485	485	0.0	0.0	0.0		
Renewable energy	497	1312	2362	4706	15781	16490	19176	16.9	20.9	2.0		
Hydro (pumping excluded)	37	37	37	37	37	37	37	0.0	0.0	0.0		
Wind	447	1224	2237	3431	10158	10867	12968	17.5	16.3	2.5		
Solar	13	51	88	1238	5586	5586	6170	21.1	51.4	1.0		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	20066	19931	22225	25674	22122	20329	16829	1.0	0.0	-2.7		
of which cogeneration units	7372	7162	9300	8513	2414	4752	3738	2.4	-12.6	4.5		
of which CCS units	0	0	0	0	0	250	250	0.0	0.0	0.0		
Solids fired	4394	4394	4394	6975	5388	5054	4429	0.0	2.1	-1.9		
Gas fired	14667	14529	16575	17356	14403	12941	10078	1.2	-1.4	-3.5		
Oil fired	490	218	218	204	77	77	66	-7.8	-9.9	-1.6		
Biomass-waste fired	514	790	1037	1138	2254	2257	2257	7.3	8.1	0.0		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	50.5	52.1	38.3	35.5	39.4	39.1					
Efficiency of gross thermal power generation (%)	41.6	41.4	44.5	45.4	43.6	43.8	42.9					
% of gross electricity from CHP	37.6	29.4	33.2	37.8	16.9	21.0	21.3					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	1.4	1.6					
% of carbon free (RES, nuclear) gross electricity generation	9.0	12.8	14.2	19.2	42.8	38.7	48.8					
Fuel Inputs to Thermal Power Generation (ktoe)	17516	19517	21244	18047	17045	18515	16507	1.9	-2.2	-0.3		
Solids	4998	4958	4669	6490	4858	5360	4039	-0.7	0.4	-1.8		
Oil (including refinery gas)	634	553	342	177	0	20	20	-6.0	-80.0	276.4		
Gas (including derived gases)	10671	11953	13773	9489	7742	9523	7951	2.6	-5.6	0.3		
Biomass & Waste	1213	2052	2460	1892	4446	3612	4498	7.3	6.1	0.1		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	86454	91417	68924	63771	61703	59418	56740	-2.2	-1.1	-0.8		
Refineries	82233	86869	64188	58847	56691	55011	52635	-2.4	-1.2	-0.7		
Biofuels and hydrogen production	0	0	230	579	484	474	545	0.0	7.7	1.2		
District heating	398	436	499	366	338	320	319	2.3	-3.8	-0.6		
Derived gases, cokeries etc.	3824	4113	4007	3979	4190	3613	3241	0.5	0.4	-2.5		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Netherlands: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	184	195	183	191	200	210	219	-0.1	0.9	0.9
Public road transport	11	12	12	13	13	14	14	0.8	0.9	0.6
Private cars and motorcycles	143	152	138	141	146	152	157	-0.4	0.6	0.7
Rail	16	17	17	19	21	23	24	0.5	2.1	1.6
Aviation ⁽³⁾	13	14	15	17	18	21	22	1.1	2.4	1.9
Inland navigation	1	1	1	1	1	1	1	0.1	1.1	1.3
Freight transport activity (Gtkm)	94	100	106	111	121	129	135	1.3	1.3	1.1
Heavy goods and light commercial vehicles	48	51	54	55	61	64	66	1.2	1.3	0.8
Rail	5	6	6	6	7	8	8	2.7	1.5	1.8
Inland navigation	41	42	47	50	53	57	61	1.2	1.3	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	14297	15197	14986	14817	14205	13472	12807	0.5	-0.5	-1.0
Public road transport	212	224	260	267	270	267	261	2.1	0.4	-0.4
Private cars and motorcycles	8007	8288	8206	7708	6904	6166	5702	0.2	-1.7	-1.9
Heavy goods and light commercial vehicles	2184	2594	2715	2594	2740	2740	2700	2.2	0.1	-0.1
Rail	184	172	182	189	204	216	224	-0.1	1.1	0.9
Aviation	3382	3712	3463	3821	3834	3812	3633	0.2	1.0	-0.5
Inland navigation	328	207	159	239	253	271	287	-7.0	4.8	1.3
<i>By transport activity</i>										
Passenger transport	11703	12265	11985	11861	11077	10319	9674	0.2	-0.8	-1.3
Freight transport	2594	2933	3001	2957	3128	3153	3133	1.5	0.4	0.0
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	0.9	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	1.5	4.0	3.6	4.0	4.7			
ENERGY EFFICIENCY										
Primary energy consumption	65081	68457	69030	69864	68616	65628	59619	0.6	-0.1	-1.4
Final Energy Demand	50505	51654	51835	50854	50343	47288	42871	0.3	-0.3	-1.6
<i>by sector</i>										
Industry	14804	14814	12208	12815	13595	12601	11859	-1.9	1.1	-1.4
Energy intensive industries	10277	10532	8224	8734	9314	8643	8170	-2.2	1.3	-1.3
Other industrial sectors	4527	4281	3984	4082	4281	3957	3689	-1.3	0.7	-1.5
Residential	10299	10143	11518	10892	10520	10258	8911	1.1	-0.9	-1.6
Tertiary	11104	11499	13124	12329	12022	10957	9294	1.7	-0.9	-2.5
Transport ⁽⁵⁾	14297	15198	14985	14817	14205	13472	12807	0.5	-0.5	-1.0
<i>by fuel</i>										
Solids	1330	1515	1270	1402	1577	1543	964	-0.5	2.2	-4.8
Oil	16505	17382	16113	15746	14870	13631	12385	-0.2	-0.8	-1.8
Gas	21011	20346	22378	21405	20315	17951	15136	0.6	-1.0	-2.9
Electricity	8408	8986	9189	9034	9568	9673	9384	0.9	0.4	-0.2
Heat (from CHP and District Heating)	2893	2981	2106	2038	2150	2270	2301	-3.1	0.2	0.7
Renewable energy forms	358	444	780	1223	1836	2123	2531	8.1	8.9	3.3
Other	0	0	0	8	27	95	169	-100.0	0.0	20.0
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	141	142	141	135	125	115	102	0.0	-1.2	-2.1
Industry (Energy on Value added, index 2000=100)	100	96	75	75	74	65	58	-2.9	-0.2	-2.3
Residential (Energy on Private Income, index 2000=100)	100	94	106	98	87	79	64	0.6	-1.9	-3.0
Tertiary (Energy on Value added, index 2000=100)	100	96	101	94	85	73	59	0.1	-1.7	-3.6
Passenger transport (toe/Mpkm) ⁽⁶⁾	42	41	40	37	32	27	24	-0.4	-2.4	-2.7
Freight transport (toe/Mtkm)	28	29	28	27	26	25	23	0.2	-0.9	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	222.8	221.6	216.9	209.7	192.8	184.0	160.1	-0.3	-1.2	-1.8
of which ETS sectors (2013 scope) GHG emissions	103.3	95.6	95.8	95.8	84.9	84.4	70.1		-1.2	-1.9
of which ESD sectors (2013 scope) GHG emissions	118.2	121.4	113.8	107.9	99.5	99.0	90.0		-1.2	-1.8
CO₂ Emissions (energy related)	168.5	175.7	175.0	171.3	155.6	147.6	124.1	0.4	-1.2	-2.2
Power generation/District heating	51.9	55.5	57.7	54.3	43.5	47.4	37.5	1.1	-2.8	-1.5
Energy Branch	11.1	12.3	8.8	10.4	9.9	8.7	8.0	-2.3	1.2	-2.1
Industry	26.6	26.5	22.9	26.6	27.5	22.9	18.3	-1.5	1.9	-4.0
Residential	18.9	17.9	20.6	19.1	17.5	16.5	13.4	0.9	-1.6	-2.6
Tertiary	17.5	18.3	21.1	18.7	16.6	14.1	11.3	1.9	-2.4	-3.7
Transport	42.4	45.3	43.9	42.3	40.6	38.1	35.5	0.4	-0.8	-1.3
CO₂ Emissions (non energy and non land use related)	7.1	8.8	8.6	8.5	8.8	8.9	8.8	2.0	0.3	0.0
Non-CO₂ GHG emissions	47.3	37.0	33.3	29.9	28.3	27.5	27.2	-3.4	-1.6	-0.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	99.0	98.4	96.4	93.2	85.6	81.7	71.1	-0.3	-1.2	-1.8
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.40	0.38	0.37	0.38	0.27	0.28	0.23	-0.6	-3.0	-1.9
Final energy demand (t of CO ₂ /toe)	2.09	2.09	2.09	2.10	2.03	1.94	1.83	0.0	-0.3	-1.0
Industry	1.80	1.79	1.87	2.07	2.02	1.82	1.55	0.4	0.8	-2.7
Residential	1.84	1.77	1.79	1.75	1.66	1.61	1.50	-0.2	-0.8	-1.0
Tertiary	1.58	1.59	1.61	1.51	1.38	1.28	1.22	0.2	-1.5	-1.2
Transport	2.97	2.98	2.93	2.86	2.86	2.83	2.77	-0.1	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	1.3	2.3	3.9	5.2	13.1	14.3	18.9			
RES-H&C share	1.5	2.1	2.9	2.9	7.8	9.4	12.4			
RES-E share	2.6	6.3	9.7	12.9	38.1	36.5	46.9			
RES-T share (based on ILUC formula)	0.1	0.2	3.1	9.3	10.8	13.3	18.9			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	50	58	65	73	84	90	95	2.7	2.5	1.3
Average Price of Electricity in Final demand sectors (€13/MWh)	118	130	129	120	137	145	155	0.9	0.6	1.2
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	47.8	60.9	67.3	65.0	77.8	83.6	91.5	3.5	1.5	1.6
as % of GDP	8.9	10.6	11.0	10.5	11.6	11.8	12.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)										Poland: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	38	38	38	38	38	38	37	0.0	0.1	-0.2		
GDP (in 000 ME13)	253	294	371	425	492	559	623	3.9	2.9	2.4		
Gross Inland Consumption (ktoe)	88648	92226	100730	101934	105437	104158	99217	1.3	0.5	-0.6		
Solids	56291	54612	54808	53011	50200	45897	38146	-0.3	-0.8	-2.7		
Oil	19037	21696	25747	25895	26610	25399	24017	3.1	0.3	-1.0		
Natural gas	9964	12237	12807	13159	16183	17637	17355	2.5	2.4	0.7		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Electricity	-548	-962	-116	6	63	167	81	-14.4	0.0	2.4		
Renewable energy forms	3905	4643	7684	9863	12381	15058	19617	7.0	4.9	4.7		
Energy Branch Consumption	6664	6104	6095	6243	6140	5451	5105	-0.9	0.1	-1.5		
Non-Energy Uses	4357	4573	4961	5545	6359	7000	7377	1.3	2.5	1.5		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	79590	78592	67394	70900	70286	65980	62829	-1.6	0.4	-1.1		
Solids	71299	68857	55381	55586	51961	44576	34988	-2.5	-0.6	-3.9		
Oil	1062	1143	1063	1539	1581	1535	1488	0.0	4.0	-0.6		
Natural gas	3317	3887	3696	3947	4583	4891	6845	1.1	2.2	4.1		
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy sources	3912	4705	7254	9828	12161	14979	19507	6.4	5.3	4.8		
Hydro	181	189	251	206	209	217	259	3.3	-1.8	2.2		
Biomass & Waste	3728	4493	6838	8749	10849	12481	15241	6.3	4.7	3.5		
Wind	0	12	143	832	984	2030	2802	80.0	21.3	11.0		
Solar and others	0	0	8	22	82	203	865	0.0	25.5	26.6		
Geothermal	3	11	13	21	38	48	340	16.1	11.0	24.5		
Net Imports (ktoe)	8773	15932	31567	31285	35442	38497	36730	13.7	1.2	0.4		
Solids	-16353	-13039	-2814	-2575	-1761	1321	3158	-16.1	-4.6	0.0		
Oil	19067	21466	25187	24607	25316	24175	22848	2.8	0.1	-1.0		
Crude oil and Feedstocks	17616	17893	22965	24633	24825	23370	21722	2.7	0.8	-1.3		
Oil products	1451	3573	2222	-26	491	805	1126	4.4	-14.0	8.6		
Natural gas	6607	8531	8874	9213	11603	12755	10534	3.0	2.7	-1.0		
Electricity	-548	-962	-116	6	63	167	81	-14.4	0.0	2.4		
Import Dependency (%)	9.9	17.2	31.3	30.6	33.5	36.8	36.9					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	143174	155359	157089	162367	177106	187361	193157	0.9	1.2	0.9		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids	135888	142161	136592	137628	141946	131968	118051	0.1	0.4	-1.8		
Oil (including refinery gas)	1916	2757	2892	9	0	470	470	4.2	-100.0	0.0		
Gas (including derived gases)	2961	6573	6689	2968	9780	16161	14775	8.5	3.9	4.2		
Biomass-waste	298	1532	6332	9667	11449	12567	18132	35.7	6.1	4.7		
Hydro (pumping excluded)	2106	2201	2920	2397	2427	2523	3010	3.3	-1.8	2.2		
Wind	5	135	1664	9669	11437	23605	32584	78.7	21.3	11.0		
Solar	0	0	0	29	67	67	6136	0.0	0.0	57.1		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	30310	31721	33411	38260	33666	37964	48290	1.0	0.1	3.7		
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0		
Renewable energy	821	1036	2044	6084	6756	12300	22995	9.6	12.7	13.0		
Hydro (pumping excluded)	817	915	936	949	949	981	1099	1.4	0.1	1.5		
Wind	4	121	1108	5100	5728	11240	14791	75.5	17.9	10.0		
Solar	0	0	0	35	79	79	7105	0.0	0.0	56.8		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	29489	30685	31367	32176	26910	25664	25295	0.6	-1.5	-0.6		
of which cogeneration units	9354	8313	8693	6564	6344	7878	6758	-0.7	-3.1	0.6		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	28214	28608	29158	28543	23050	20767	19339	0.3	-2.3	-1.7		
Gas fired	764	1548	1592	1659	1710	2652	2811	7.6	0.7	5.1		
Oil fired	396	396	396	398	171	162	155	0.0	-8.1	-0.9		
Biomass-waste fired	115	133	221	1574	1980	2083	2990	6.8	24.5	4.2		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.0	51.1	48.8	44.3	55.2	52.2	42.7					
Efficiency of gross thermal power generation (%)	33.1	33.9	34.2	35.2	37.4	37.1	36.5					
% of gross electricity from CHP	16.1	16.8	17.6	18.2	20.8	18.9	17.5					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	1.7	2.5	6.9	13.4	14.3	20.7	31.0					
Fuel Inputs to Thermal Power Generation (ktoe)	36625	38771	38341	36695	37525	37333	35646	0.5	-0.2	-0.5		
Solids	35247	36349	34345	33735	33104	31245	27536	-0.3	-0.4	-1.8		
Oil (including refinery gas)	245	184	171	2	0	154	154	-3.5	-74.4	286.6		
Gas (including derived gases)	1032	1805	2179	913	1961	2997	2736	7.8	-1.0	3.4		
Biomass & Waste	102	434	1645	2046	2460	2937	5220	32.1	4.1	7.8		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	32964	31279	38693	40301	40613	37744	33870	1.6	0.5	-1.8		
Refineries	18969	18975	24192	27120	27438	25987	24303	2.5	1.3	-1.2		
Biofuels and hydrogen production	0	49	887	1100	1396	1380	1357	0.0	4.6	-0.3		
District heating	4179	3465	3716	3183	3579	3269	3113	-1.2	-0.4	-1.4		
Derived gases, cokeries etc.	9816	8789	9899	8898	8201	7107	5097	0.1	-1.9	-4.6		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Poland: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	225	233	268	302	344	373	406	1.7	2.6	1.7
Public road transport	59	49	42	44	46	48	49	-3.4	1.1	0.7
Private cars and motorcycles	134	156	194	223	254	270	290	3.8	2.7	1.3
Rail	29	23	22	24	31	38	46	-2.5	3.2	4.3
Aviation ⁽³⁾	3	5	9	11	13	16	20	12.8	3.6	4.3
Inland navigation	0	0	0	0	0	0	0	-0.9	2.0	2.0
Freight transport activity (Gtkm)	114	140	170	201	228	258	287	4.0	3.0	2.4
Heavy goods and light commercial vehicles	59	90	121	150	167	188	208	7.4	3.3	2.3
Rail	54	50	49	51	61	70	79	-1.0	2.2	2.6
Inland navigation	1	0	0	0	0	0	0	-16.7	2.7	3.1
Energy demand in transport (ktoe) ⁽⁴⁾	9830	12265	17459	18691	19785	19373	19219	5.9	1.3	-0.3
Public road transport	654	581	610	632	668	681	674	-0.7	0.9	0.1
Private cars and motorcycles	6314	7213	9660	10120	10620	9780	9367	4.3	1.0	-1.2
Heavy goods and light commercial vehicles	2041	3678	6307	6957	7373	7667	7767	11.9	1.6	0.5
Rail	541	469	372	366	426	470	523	-3.7	1.4	2.1
Aviation	274	319	508	613	693	771	884	6.4	3.1	2.5
Inland navigation	6	5	3	3	4	4	4	-7.4	2.3	2.3
<i>By transport activity</i>										
Passenger transport	7317	8170	10823	11407	12035	11298	11003	4.0	1.1	-0.9
Freight transport	2514	4095	6636	7283	7750	8075	8216	10.2	1.6	0.6
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.3	0.9			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.4	5.2	6.0	7.2	7.3	7.1			
ENERGY EFFICIENCY										
Primary energy consumption	84291	87654	95769	96389	99077	97158	91840	1.3	0.3	-0.8
Final Energy Demand	55260	58986	67070	68144	71612	70426	66644	2.0	0.7	-0.7
<i>by sector</i>										
Industry	18504	16147	14193	16600	17397	18068	17473	-2.6	2.1	0.0
Energy intensive industries	13031	10951	9372	10814	11094	11127	10255	-3.2	1.7	-0.8
Other industrial sectors	5473	5196	4821	5786	6303	6940	7218	-1.3	2.7	1.4
Residential	17193	19454	22501	20556	21377	20470	18441	2.7	-0.5	-1.5
Tertiary	9644	10846	12664	12057	12781	12242	11250	2.8	0.1	-1.3
Transport ⁽⁵⁾	9919	12539	17712	18930	20058	19647	19480	6.0	1.3	-0.3
<i>by fuel</i>										
Solids	13215	12285	14494	13387	11188	9617	6861	0.9	-2.6	-4.8
Oil	15500	17844	20727	21289	21509	19985	18565	2.9	0.4	-1.5
Gas	7574	8780	9468	9673	11124	11265	10811	2.3	1.6	-0.3
Electricity	8482	9064	10238	11011	12265	13355	13817	1.9	1.8	1.2
Heat (from CHP and District Heating)	6886	7056	6547	6063	6917	6627	6677	-0.5	0.6	-0.4
Renewable energy forms	3602	3957	5596	6721	8607	9566	9862	4.5	4.4	1.4
Other	0	0	0	1	1	11	53	0.0	0.0	44.9
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	350	313	272	240	214	186	159	-2.5	-2.4	-2.9
Industry (Energy on Value added, index 2000=100)	100	64	36	36	32	29	24	-9.7	-1.3	-2.6
Residential (Energy on Private Income, index 2000=100)	100	98	93	74	66	55	44	-0.8	-3.4	-3.9
Tertiary (Energy on Value added, index 2000=100)	100	100	100	83	76	64	53	0.0	-2.7	-3.5
Passenger transport (toe/Mpkm) ⁽⁶⁾	32	34	39	36	34	29	26	2.0	-1.5	-2.6
Freight transport (toe/Mtkm)	22	29	39	36	34	31	29	5.9	-1.4	-1.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	400.5	403.1	411.9	407.8	399.6	377.5	338.0	0.3	-0.3	-1.7
of which ETS sectors (2013 scope) GHG emissions	222.2	210.3	208.8	205.9	195.4	169.0		-0.2	-2.0	
of which ESD sectors (2013 scope) GHG emissions	180.9	201.6	199.0	193.8	182.0	168.9		-0.4	-1.4	
CO₂ Emissions (energy related)	303.3	307.5	320.7	311.8	306.7	286.7	249.2	0.6	-0.4	-2.1
Power generation/District heating	167.4	171.0	165.6	157.9	158.2	151.8	131.9	-0.1	-0.5	-1.8
Energy Branch	10.2	7.7	8.5	9.7	9.1	7.8	7.4	-1.8	0.7	-2.1
Industry	51.9	36.9	30.4	34.9	31.8	28.5	20.5	-5.2	0.4	-4.3
Residential	27.4	35.5	44.9	37.8	34.7	30.6	25.5	5.1	-2.6	-3.0
Tertiary	18.4	20.7	21.9	19.1	18.1	14.7	11.7	1.7	-1.9	-4.3
Transport	28.0	35.8	49.3	52.4	54.8	53.3	52.1	5.8	1.1	-0.5
CO₂ Emissions (non energy and non land use related)	22.3	20.8	20.2	22.9	25.4	26.1	26.8	-1.0	2.3	0.5
Non-CO₂ GHG emissions	75.0	74.7	71.0	73.2	67.5	64.6	62.1	-0.5	-0.5	-0.8
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	84.4	84.9	86.8	85.9	84.2	79.5	71.2	0.3	-0.3	-1.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.71	0.69	0.67	0.65	0.59	0.55	0.47	-0.6	-1.2	-2.3
Final energy demand (t of CO ₂ /toe)	2.27	2.18	2.19	2.12	1.95	1.81	1.65	-0.4	-1.2	-1.6
Industry	2.81	2.28	2.14	2.10	1.83	1.58	1.18	-2.6	-1.6	-4.3
Residential	1.59	1.83	2.00	1.84	1.62	1.50	1.38	2.3	-2.1	-1.6
Tertiary	1.91	1.91	1.73	1.59	1.42	1.20	1.04	-1.0	-2.0	-3.1
Transport	2.82	2.85	2.79	2.77	2.73	2.71	2.68	-0.1	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	6.5	6.9	9.2	11.8	15.2	18.2	24.9			
RES-H&C share	9.6	10.2	11.6	13.8	19.2	22.5	31.2			
RES-E share	1.6	2.7	6.6	13.4	14.3	20.5	30.9			
RES-T share (based on ILUC formula)	0.2	0.7	6.1	7.5	10.1	10.7	12.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	38	40	49	67	73	82	91	2.6	4.1	2.3
Average Price of Electricity in Final demand sectors (€13/MWh)	77	93	128	121	132	142	152	5.2	0.3	1.5
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	34.0	46.3	66.0	71.1	92.9	108.4	124.7	6.9	3.5	3.0
as % of GDP	13.4	15.7	17.8	16.7	18.9	19.4	20.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Portugal: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	10	10	11	10	10	10	10	0.3	-0.4	-0.4	
GDP (in 000 ME13)	169	176	181	174	187	204	217	0.7	0.4	1.5	
Gross Inland Consumption (ktoe)	25285	27475	24205	22984	21352	20739	18672	-0.4	-1.2	-1.3	
Solids	3805	3349	1658	3347	809	9	4	-8.0	-6.9	-41.8	
Oil	15475	16174	12215	10669	10384	9923	9081	-2.3	-1.6	-1.3	
Natural gas	2078	3751	4489	3446	3420	3648	1706	8.0	-2.7	-6.7	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3	
Renewable energy forms	3846	3615	5618	5328	6289	6658	7445	3.9	1.1	1.7	
Energy Branch Consumption	1028	1235	1195	1416	1210	1228	1228	1.5	0.1	0.2	
Non-Energy Uses	2393	2587	1728	1470	1485	1525	1509	-3.2	-1.5	0.2	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	3891	3615	5800	5216	6158	6535	7298	4.1	0.6	1.7	
Solids	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Oil	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Natural gas	45	0	0	0	0	0	0	-96.1	-100.0	0.0	
Nuclear	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy sources	3846	3615	5800	5216	6158	6535	7298	4.2	0.6	1.7	
Hydro	974	407	1389	820	1596	1563	1623	3.6	1.4	0.2	
Biomass & Waste	2770	2967	3375	3181	3275	3476	3509	2.0	-0.3	0.7	
Wind	14	153	790	1004	1012	1013	1498	49.2	2.5	4.0	
Solar and others	19	23	66	136	199	406	589	13.6	11.6	11.5	
Geothermal	70	66	181	76	76	77	79	10.0	-8.3	0.4	
Net Imports (ktoe)	22072	24845	18588	16330	15748	14743	11898	-1.7	-1.6	-2.8	
Solids	3914	3225	1629	3347	809	9	4	-8.4	-6.8	-41.8	
Oil	16039	17140	12436	11231	10932	10448	9572	-2.5	-1.3	-1.3	
Crude oil and Feedstocks	12316	13795	11875	14608	14070	13382	12385	-0.4	1.7	-1.3	
Oil products	3723	3345	561	-3376	-3138	-2934	-2813	-17.2	0.0	-1.1	
Natural gas	2039	3893	4505	3446	3426	3661	1739	8.2	-2.7	-6.6	
Electricity	80	587	226	195	451	501	437	10.9	7.2	-0.3	
Import Dependency (%)	85.1	88.6	75.1	77.8	71.9	69.3	62.0				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	43372	46188	53688	50195	48526	48023	45275	2.2	-1.0	-0.7	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids	14595	15226	7100	14862	3501	0	0	-7.0	-6.8	-100.0	
Oil (including refinery gas)	8421	8791	3008	770	1967	1252	499	-9.8	-4.2	-12.8	
Gas (including derived gases)	7231	13606	14900	9528	8659	9579	551	7.5	-5.3	-24.1	
Biomass-waste	1553	1987	2942	2936	3074	4032	3500	6.6	0.4	1.3	
Hydro (pumping excluded)	11323	4731	16148	9535	18562	18174	18868	3.6	1.4	0.2	
Wind	168	1773	9182	11676	11767	11781	17424	49.2	2.5	4.0	
Solar	1	3	212	680	789	2997	4225	68.3	14.1	18.3	
Geothermal and other renewables	80	71	196	208	208	208	208	9.4	0.6	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	10989	13461	18921	21094	21849	21680	24500	5.6	1.4	1.2	
Nuclear energy	0	0	0	0	0	0	0	0.0	0.0	0.0	
Renewable energy	4619	6083	9036	12611	14827	16153	19054	6.9	5.1	2.5	
Hydro (pumping excluded)	4535	5017	5106	7065	9183	9408	9971	1.2	6.0	0.8	
Wind	83	1064	3796	5079	5113	5113	6876	46.6	3.0	3.0	
Solar	1	2	134	467	531	1631	2207	63.2	14.8	15.3	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	6370	7378	9885	8484	7022	5527	5445	4.5	-3.4	-2.5	
of which cogeneration units	1676	1079	1310	1491	1783	1394	1110	-2.4	3.1	-4.6	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	1774	1728	1728	1728	578	0	0	-0.3	-10.4	-100.0	
Gas fired	1542	2477	4799	5062	4989	4132	4056	12.0	0.4	-2.0	
Oil fired	2819	2915	2990	1144	783	695	669	0.6	-12.5	-1.6	
Biomass-waste fired	221	244	343	521	643	672	692	4.5	6.5	0.7	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	14	14	25	29	29	29	29	6.0	1.5	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	43.5	37.8	31.6	26.3	24.9	24.9	20.9				
Efficiency of gross thermal power generation (%)	42.0	43.1	41.8	42.2	43.6	40.9	28.9				
% of gross electricity from CHP	10.0	11.6	11.8	17.0	22.6	13.9	10.0				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	30.3	18.5	53.4	49.9	70.9	77.4	97.7				
Fuel Inputs to Thermal Power Generation (ktoe)	6520	7914	5787	5770	3431	3167	1417	-1.2	-5.1	-8.5	
Solids	3198	3319	1597	3329	794	0	0	-6.7	-6.8	-100.0	
Oil (including refinery gas)	1683	1793	574	185	466	296	118	-10.2	-2.1	-12.9	
Gas (including derived gases)	1215	2309	2775	1560	1432	1742	148	8.6	-6.4	-20.3	
Biomass & Waste	356	428	662	621	664	1054	1077	6.4	0.0	4.9	
Geothermal heat	69	65	180	75	75	75	75	10.1	-8.4	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	13004	13953	12457	15231	14687	13983	12972	-0.4	1.7	-1.2	
Refineries	12555	13953	12148	14807	14260	13564	12539	-0.3	1.6	-1.3	
Biofuels and hydrogen production	0	0	309	422	423	396	404	0.0	3.2	-0.4	
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0	
Derived gases, cokeries etc.	449	0	0	1	4	23	29	0.0	0.0	21.8	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Portugal: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	105	115	116	121	125	136	145	1.0	0.8	1.5
Public road transport	12	6	6	6	6	7	7	-6.4	0.5	1.1
Private cars and motorcycles	73	87	86	86	86	93	98	1.7	0.1	1.3
Rail	5	5	5	5	6	7	8	1.4	1.7	2.3
Aviation ⁽³⁾	16	17	18	23	26	29	31	1.6	3.3	2.0
Inland navigation	0	0	0	0	0	0	0	1.0	0.9	1.3
Freight transport activity (Gtkm)	26	32	27	28	30	32	34	0.5	0.9	1.4
Heavy goods and light commercial vehicles	20	25	20	20	21	23	24	-0.4	0.9	1.3
Rail	2	2	2	2	3	3	3	0.6	1.5	2.4
Inland navigation	4	5	5	6	6	6	7	4.6	0.6	1.3
Energy demand in transport (ktoe) ⁽⁴⁾	6636	7188	7226	6867	6637	6463	6302	0.9	-0.8	-0.5
Public road transport	237	135	129	129	128	133	142	-5.9	0.0	1.0
Private cars and motorcycles	4590	5056	5149	4730	4385	4040	3818	1.2	-1.6	-1.4
Heavy goods and light commercial vehicles	891	1026	835	797	844	877	872	-0.6	0.1	0.3
Rail	89	67	57	50	56	57	62	-4.3	-0.3	1.1
Aviation	784	888	1012	1124	1185	1314	1366	2.6	1.6	1.4
Inland navigation	45	18	45	37	39	41	43	0.1	-1.5	1.0
<i>By transport activity</i>										
Passenger transport	5689	6109	6318	6007	5725	5514	5353	1.1	-1.0	-0.7
Freight transport	947	1079	908	860	911	949	949	-0.4	0.0	0.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.6			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	4.3	6.2	6.5	6.5	6.9			
ENERGY EFFICIENCY										
Primary energy consumption	22892	24889	22477	21513	19867	19214	17163	-0.2	-1.2	-1.5
Final Energy Demand	17919	19009	18022	16789	16806	16158	15138	0.1	-0.7	-1.0
<i>by sector</i>										
Industry	6323	5796	5453	5066	5138	4948	4723	-1.5	-0.6	-0.8
Energy intensive industries	4179	3889	3634	3613	3665	3530	3342	-1.4	0.1	-0.9
Other industrial sectors	2144	1907	1819	1452	1474	1419	1381	-1.6	-2.1	-0.6
Residential	2804	3224	2976	2632	2764	2603	2319	0.6	-0.7	-1.7
Tertiary	2157	2801	2368	2224	2267	2143	1793	0.9	-0.4	-2.3
Transport ⁽⁵⁾	6636	7188	7226	6867	6637	6463	6302	0.9	-0.8	-0.5
<i>by fuel</i>										
Solids	466	17	50	17	15	9	4	-20.0	-11.4	-13.3
Oil	10713	10812	9199	8142	7703	7325	6737	-1.5	-1.8	-1.3
Gas	873	1307	1564	1691	1800	1729	1395	6.0	1.4	-2.5
Electricity	3300	3983	4290	3865	4051	4102	3811	2.7	-0.6	-0.6
Heat (from CHP and District Heating)	134	328	338	325	363	298	375	9.7	0.7	0.3
Renewable energy forms	2434	2563	2581	2748	2870	2672	2780	0.6	1.1	-0.3
Other	0	0	0	1	4	24	35	0.0	0.0	24.2
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	150	156	134	132	114	101	86	-1.1	-1.6	-2.8
Industry (Energy on Value added, index 2000=100)	100	93	89	85	82	74	68	-1.2	-0.8	-1.8
Residential (Energy on Private Income, index 2000=100)	100	108	94	87	86	74	61	-0.6	-0.9	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	120	94	91	86	74	58	-0.6	-0.9	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	48	47	46	41	37	32	29	-0.3	-2.2	-2.3
Freight transport (toe/Mtkm)	36	33	33	31	30	29	28	-0.9	-0.8	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	86.9	90.7	73.4	73.2	59.6	55.0	46.2	-1.7	-2.1	-2.5
of which ETS sectors (2013 scope) GHG emissions	40.6	27.7	32.3	32.3	22.0	19.3	14.0		-2.3	-4.4
of which ESD sectors (2013 scope) GHG emissions	50.1	45.7	40.9	40.9	37.7	35.6	32.2		-1.9	-1.6
CO₂ Emissions (energy related)	61.0	64.6	49.6	50.1	38.7	34.5	27.2	-2.1	-2.4	-3.5
Power generation/District heating	21.7	24.9	14.9	18.0	8.1	5.0	0.7	-3.6	-5.9	-21.4
Energy Branch	2.5	3.1	2.5	3.1	2.6	2.8	2.6	-0.2	0.6	-0.3
Industry	11.6	8.2	6.3	5.7	5.5	5.1	3.7	-5.9	-1.4	-3.8
Residential	2.0	2.3	2.6	2.0	2.0	1.8	1.6	2.5	-2.4	-2.4
Tertiary	3.4	4.4	2.4	2.0	1.7	1.5	1.2	-3.2	-3.3	-3.9
Transport	19.9	21.7	20.9	19.5	18.8	18.2	17.5	0.5	-1.1	-0.7
CO₂ Emissions (non energy and non land use related)	6.6	7.0	5.4	6.1	6.0	6.2	6.2	-2.0	1.1	0.2
Non-CO₂ GHG emissions	19.3	19.1	18.4	16.9	14.8	14.3	12.8	-0.4	-2.1	-1.4
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	139.7	145.8	118.0	117.7	95.9	88.4	74.3	-1.7	-2.1	-2.5
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.48	0.50	0.25	0.32	0.15	0.09	0.01	-6.3	-5.1	-21.0
Final energy demand (t of CO ₂ /toe)	2.05	1.92	1.78	1.73	1.66	1.65	1.58	-1.4	-0.7	-0.5
Industry	1.83	1.42	1.15	1.12	1.06	1.04	0.79	-4.5	-0.8	-3.0
Residential	0.71	0.72	0.86	0.75	0.73	0.67	0.68	1.9	-1.7	-0.7
Tertiary	1.55	1.56	1.02	0.88	0.76	0.72	0.64	-4.1	-2.9	-1.6
Transport	3.00	3.01	2.89	2.84	2.83	2.62	2.78	-0.4	-0.2	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	19.1	19.4	24.3	25.3	33.4	35.8	43.3			
RES-H&C share	30.4	32.1	33.9	36.8	38.7	39.8	45.9			
RES-E share	28.3	27.7	40.7	47.4	63.7	68.8	89.0			
RES-T share (based on ILUC formula)	0.4	0.4	5.7	1.3	10.9	13.4	20.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	67	76	79	98	113	117	105	1.6	3.7	-0.7
Average Price of Electricity in Final demand sectors (€13/MWh)	118	120	104	128	140	145	149	-1.3	3.0	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	16.8	22.3	24.4	23.5	28.5	30.9	33.9	3.8	1.6	1.7
as % of GDP	10.0	12.7	13.5	13.5	15.3	15.1	15.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							Romania: EUCO3030					
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
									Annual %	Change		
Population (in million)	22	21	20	20	20	19	19	-1.0	-0.3	-0.4		
GDP (in 000 M€13)	87	114	130	145	163	181	195	4.1	2.3	1.8		
Gross Inland Consumption (ktoe)	36650	39207	35800	33091	34987	35531	32251	-0.2	-0.2	-0.8		
Solids	7493	8788	7008	6207	6463	5014	2851	-0.7	-0.8	-7.9		
Oil	9992	10286	9310	8775	8532	8389	7885	-0.7	-0.9	-0.8		
Natural gas	13680	13923	10788	9688	10755	10210	7499	-2.3	0.0	-3.5		
Nuclear	1407	1433	2998	2838	2846	5749	5289	7.9	-0.5	6.4		
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1		
Renewable energy forms	4137	5026	5891	6299	6968	7063	9675	3.6	1.7	3.3		
Energy Branch Consumption	3675	4105	2839	2480	2444	2325	2062	-2.5	-1.5	-1.7		
Non-Energy Uses	1883	2467	1473	1754	2001	2202	2347	-2.4	3.1	1.6		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	28465	28224	27824	26642	28342	30084	30161	-0.2	0.2	0.6		
Solids	5604	5795	5904	5042	5112	3839	2057	0.5	-1.4	-8.7		
Oil	6355	6226	4565	3643	3646	3656	3651	-3.3	-2.2	0.0		
Natural gas	10968	9701	8619	8848	9954	9942	9672	-2.4	1.5	-0.3		
Nuclear	1407	1433	2998	2838	2846	5749	5289	7.9	-0.5	6.4		
Renewable energy sources	4131	5070	5739	6271	6784	6898	9491	3.3	1.7	3.4		
Hydro	1271	1738	1710	1386	1438	1443	1443	3.0	-1.7	0.0		
Biomass & Waste	2854	3314	3980	4135	4558	4575	5795	3.4	1.4	2.4		
Wind	0	0	26	557	560	560	1593	0.0	35.8	11.0		
Solar and others	0	0	0	163	183	250	455	0.0	111.9	9.6		
Geothermal	7	18	23	30	45	70	205	13.1	7.1	16.3		
Net Imports (ktoe)	8009	10867	7827	6473	6677	5484	2131	-0.2	-1.6	-10.8		
Solids	1920	2939	1234	1165	1351	1175	794	-4.3	0.9	-5.2		
Oil	3437	3988	4838	5156	4917	4768	4273	3.5	0.2	-1.4		
Crude oil and Feedstocks	4801	8857	6233	5504	4996	4622	4065	2.6	-2.2	-2.0		
Oil products	-1364	-4870	-1395	-348	-79	146	208	0.2	-25.0	0.0		
Natural gas	2712	4190	1816	839	802	268	-2171	-3.9	-7.8	0.0		
Electricity	-60	-250	-196	-716	-578	-893	-949	12.6	11.4	5.1		
Import Dependency (%)	21.8	27.7	21.9	19.5	19.1	15.4	6.6					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	51560	59413	60619	67527	70578	75058	73508	1.6	1.5	0.4		
Nuclear energy	5456	5555	11623	11890	11922	23792	21728	7.9	0.3	6.2		
Solids	18926	21916	20681	21982	22414	16312	8020	0.9	0.8	-9.8		
Oil (including refinery gas)	3399	1894	692	625	406	230	205	-14.7	-5.2	-6.6		
Gas (including derived gases)	9001	9834	7323	8032	9888	8008	440	-2.0	3.0	-26.7		
Biomass-waste	0	7	111	522	763	974	3506	0.0	21.3	16.5		
Hydro (pumping excluded)	14778	20207	19883	16112	16723	16778	16779	3.0	-1.7	0.0		
Wind	0	0	306	6473	6512	6512	18518	0.0	35.8	11.0		
Solar	0	0	0	1891	1950	2452	4311	0.0	0.0	8.3		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	20197	19153	20120	24896	23878	22628	26525	0.0	1.7	1.1		
Nuclear energy	672	672	1344	1414	1414	2828	2828	7.2	0.5	7.2		
Renewable energy	6242	6289	6863	11413	11457	11707	16693	1.0	5.3	3.8		
Hydro (pumping excluded)	6242	6289	6474	6645	6645	6645	6645	0.4	0.3	0.0		
Wind	0	0	389	2976	2989	2989	6740	0.0	22.6	8.5		
Solar	0	0	0	1792	1824	2074	3308	0.0	0.0	6.1		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	13283	12192	11913	12070	11007	8093	7004	-1.1	-0.8	-4.4		
of which cogeneration units	3431	5246	4582	4234	4098	2609	1806	2.9	-1.1	-7.9		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	7602	7057	6643	6441	5626	3094	1909	-1.3	-1.6	-10.2		
Gas fired	3728	3439	3488	4173	4110	4059	3848	-0.7	1.7	-0.7		
Oil fired	1806	1691	1759	1360	1132	771	676	-0.3	-4.3	-5.0		
Biomass-waste fired	147	5	23	96	139	169	571	-16.9	19.7	15.1		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	27.5	33.1	31.5	28.5	31.2	35.4	30.3					
Efficiency of gross thermal power generation (%)	25.3	28.0	28.6	39.2	38.9	39.1	33.0					
% of gross electricity from CHP	32.3	26.2	10.8	12.0	12.4	10.0	6.8					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	39.2	43.4	52.7	54.6	53.7	67.3	88.2					
Fuel Inputs to Thermal Power Generation (ktoe)	10788	10329	8675	6836	7396	5611	3176	-2.2	-1.6	-8.1		
Solids	5462	6085	5929	5216	5337	3980	1983	0.8	-1.0	-9.4		
Oil (including refinery gas)	1736	799	327	176	130	73	66	-15.4	-8.8	-6.6		
Gas (including derived gases)	3579	3437	2399	1331	1760	1338	104	-3.9	-3.0	-24.7		
Biomass & Waste	12	9	21	113	169	219	1023	6.1	23.3	19.7		
Geothermal heat	0	0	1	0	0	0	0	0.0	-100.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	16275	19666	15568	13664	13414	15834	14663	-0.4	-1.5	0.9		
Refineries	11250	15219	11480	9680	9160	8772	8204	0.2	-2.2	-1.1		
Biofuels and hydrogen production	0	0	115	273	558	521	507	0.0	17.1	-0.9		
District heating	1738	825	749	702	679	622	495	-8.1	-1.0	-3.1		
Derived gases, cokeries etc.	3287	3621	3223	3009	3017	5920	5457	-0.2	-0.7	6.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Romania: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	85	93	110	118	130	144	159	2.6	1.7	2.0
Public road transport	12	12	12	12	13	13	14	0.0	0.8	0.7
Private cars and motorcycles	54	63	78	85	92	102	112	3.9	1.7	2.0
Rail	18	15	13	13	15	16	17	-3.3	1.6	1.6
Aviation ⁽³⁾	2	3	7	8	10	12	15	15.1	3.4	4.7
Inland navigation	0	0	0	0	0	0	0	-2.5	2.1	2.6
Freight transport activity (Gtkm)	27	56	43	51	61	70	77	4.7	3.5	2.3
Heavy goods and light commercial vehicles	8	31	16	20	25	29	32	7.2	4.4	2.4
Rail	16	17	12	15	18	21	23	-2.7	3.9	2.6
Inland navigation	3	8	14	15	18	20	21	18.4	2.1	2.0
Energy demand in transport (ktoe) ⁽⁴⁾	3336	4186	5073	5448	5725	5854	5886	4.3	1.2	0.3
Public road transport	293	260	359	373	378	379	377	2.0	0.5	0.0
Private cars and motorcycles	2082	2416	3214	3381	3371	3277	3181	4.4	0.5	-0.6
Heavy goods and light commercial vehicles	363	1182	946	1142	1356	1481	1524	10.1	3.7	1.2
Rail	357	159	222	245	274	303	322	-4.6	2.1	1.6
Aviation	128	128	272	265	298	362	426	7.8	0.9	3.6
Inland navigation	113	42	59	42	47	52	56	-6.2	-2.2	1.8
<i>By transport activity</i>										
Passenger transport	2648	2855	3921	4091	4130	4110	4079	4.0	0.5	-0.1
Freight transport	689	1331	1152	1356	1595	1744	1807	5.3	3.3	1.3
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.3	5.1	10.0	9.2	9.0			
ENERGY EFFICIENCY										
Primary energy consumption	34767	36740	34326	31337	32986	33329	29904	-0.1	-0.4	-1.0
Final Energy Demand	22772	24714	22591	23117	24598	24474	22964	-0.1	0.9	-0.7
<i>by sector</i>										
Industry	9296	10007	6876	7316	8143	8284	7760	-3.0	1.7	-0.5
Energy intensive industries	6510	7208	4759	4794	5394	5359	4811	-3.1	1.3	-1.1
Other industrial sectors	2787	2799	2117	2522	2749	2925	2949	-2.7	2.6	0.7
Residential	8409	7990	8102	7825	8138	7787	7046	-0.4	0.0	-1.4
Tertiary	1606	2441	2489	2468	2529	2482	2205	4.5	0.2	-1.4
Transport ⁽⁵⁾	3460	4276	5124	5507	5788	5921	5953	4.0	1.2	0.3
<i>by fuel</i>										
Solids	1046	1611	939	815	940	849	687	-1.1	0.0	-3.1
Oil	5526	6628	6184	6765	6598	6521	6068	1.1	0.7	-0.8
Gas	6910	7754	6189	6337	6834	6746	5563	-1.1	1.0	-2.0
Electricity	2918	3341	3553	3683	4073	4242	4286	2.0	1.4	0.5
Heat (from CHP and District Heating)	3570	2136	1650	1493	1622	1688	1554	-7.4	-0.2	-0.4
Renewable energy forms	2802	3244	4077	4023	4530	4423	4796	3.8	1.1	0.6
Other	0	0	0	0	1	4	10	-100.0	0.0	27.2
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	423	343	275	229	215	197	165	-4.2	-2.5	-2.6
Industry (Energy on Value added, index 2000=100)	100	78	44	41	40	37	32	-7.8	-1.0	-2.3
Residential (Energy on Private Income, index 2000=100)	100	59	49	43	39	34	28	-6.9	-2.1	-3.3
Tertiary (Energy on Value added, index 2000=100)	100	119	114	102	92	81	66	1.4	-2.1	-3.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	31	31	35	34	32	28	25	1.3	-1.2	-2.1
Freight transport (toe/Mtkm)	25	24	27	27	26	25	24	0.5	-0.2	-1.1
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	145.9	151.3	125.5	118.7	118.5	109.6	90.6	-1.5	-0.6	-2.6
of which ETS sectors (2013 scope) GHG emissions	74.8	55.8	46.9	48.7	40.6	26.3		-1.3	-6.0	
of which ESD sectors (2013 scope) GHG emissions	76.5	69.6	71.8	69.7	69.0	64.3		0.0	-0.8	
CO₂ Emissions (energy related)	88.8	95.8	77.4	71.5	73.8	65.5	48.2	-1.4	-0.5	-4.2
Power generation/District heating	42.0	39.0	33.6	27.2	28.6	21.3	9.1	-2.2	-1.6	-10.8
Energy Branch	6.8	7.7	5.1	4.0	3.8	3.6	3.4	-2.8	-2.9	-1.1
Industry	21.6	25.2	14.4	14.7	15.7	14.7	11.5	-4.0	0.9	-3.0
Residential	6.6	7.3	5.8	6.5	6.9	6.8	5.9	-1.2	1.7	-1.5
Tertiary	1.9	4.2	3.6	3.5	3.5	3.3	2.6	6.7	-0.4	-3.0
Transport	9.9	12.4	14.8	15.5	15.4	15.8	15.7	4.1	0.4	0.2
CO₂ Emissions (non energy and non land use related)	13.4	8.7	7.1	7.4	7.8	7.6	7.5	-6.1	0.8	-0.4
Non-CO₂ GHG emissions	43.8	46.7	40.9	39.8	36.9	36.5	34.9	-0.7	-1.0	-0.5
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	57.4	59.5	49.4	46.7	46.6	43.1	35.7	-1.5	-0.6	-2.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.41	0.42	0.39	0.30	0.30	0.21	0.10	-0.6	-2.5	-11.0
Final energy demand (t of CO ₂ /toe)	1.76	1.99	1.71	1.74	1.68	1.66	1.55	-0.3	-0.1	-0.8
Industry	2.33	2.52	2.09	2.01	1.92	1.77	1.49	-1.1	-0.8	-2.5
Residential	0.79	0.92	0.72	0.83	0.85	0.88	0.84	-0.8	1.6	-0.1
Tertiary	1.17	1.70	1.44	1.42	1.37	1.31	1.16	2.2	-0.5	-1.7
Transport	2.86	2.90	2.89	2.81	2.67	2.67	2.64	0.1	-0.8	-0.1
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.9	17.6	23.3	25.1	26.2	26.9	38.3			
RES-H&C share	16.1	17.9	27.4	25.9	26.4	27.6	37.5			
RES-E share	30.2	28.8	30.4	42.3	40.7	41.4	69.2			
RES-T share (based on ILUC formula)	2.3	1.9	3.8	7.5	10.2	10.5	16.8			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	43	72	70	76	75	75	77	5.0	0.7	0.3
Average Price of Electricity in Final demand sectors (€13/MWh)	52	105	90	101	109	118	132	5.7	1.9	1.9
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	9.9	19.1	23.0	26.7	32.5	37.1	43.4	8.8	3.5	2.9
as % of GDP	11.5	16.8	17.7	18.4	19.9	20.5	22.2			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovakia: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30		
								Annual % Change				
Population (in million)	5	5	5	5	5	5	5	0.0	0.0	-0.2		
GDP (in 000 ME13)	43	55	69	76	89	102	117	4.8	2.6	2.7		
Gross Inland Consumption (ktoe)	18302	19029	17864	16867	18318	18516	17947	-0.2	0.3	-0.2		
Solids	4278	4231	3897	3247	3115	2787	1718	-0.9	-2.2	-5.8		
Oil	3415	3711	3692	3346	3438	3411	3419	0.8	-0.7	-0.1		
Natural gas	5777	5884	5007	4939	4980	5005	4192	-1.4	-0.1	-1.7		
Nuclear	4255	4626	3819	3569	4953	5375	6093	-1.1	2.6	2.1		
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6		
Renewable energy forms	810	859	1360	1551	2037	2167	2764	5.3	4.1	3.1		
Energy Branch Consumption	623	1297	963	942	937	851	804	4.5	-0.3	-1.5		
Non-Energy Uses	1365	1279	1053	1597	1738	1886	2026	-2.6	5.1	1.5		
SECURITY OF SUPPLY												
Production (incl.recovery of products) (ktoe)	6389	6684	6345	6192	7956	8122	9140	-0.1	2.3	1.4		
Solids	1018	637	613	593	512	431	120	-4.9	-1.8	-13.5		
Oil	165	383	387	297	264	0	0	8.9	-3.7	-100.0		
Natural gas	133	126	88	120	107	71	72	-4.0	1.9	-3.8		
Nuclear	4255	4626	3819	3569	4953	5375	6093	-1.1	2.6	2.1		
Renewable energy sources	818	912	1438	1613	2121	2244	2855	5.8	4.0	3.0		
Hydro	397	399	452	407	468	432	431	1.3	0.4	-0.8		
Biomass & Waste	421	505	972	1148	1574	1643	2214	8.7	4.9	3.5		
Wind	0	1	1	1	2	71	71	0.0	16.2	41.3		
Solar and others	0	0	6	51	63	70	84	0.0	26.8	3.0		
Geothermal	0	8	8	6	14	28	55	0.0	5.4	14.6		
Net Imports (ktoe)	11997	12428	11230	10675	10362	10394	8807	-0.7	-0.8	-1.6		
Solids	3432	3739	2951	2654	2603	2356	1598	-1.5	-1.2	-4.8		
Oil	3090	3274	3266	3048	3174	3411	3419	0.6	-0.3	0.7		
Crude oil and Feedstocks	5720	5429	5282	5716	5602	5623	5417	-0.8	0.6	-0.3		
Oil products	-2630	-2155	-2015	-2667	-2428	-2212	-1999	-2.6	1.9	-1.9		
Natural gas	5707	5735	5003	4819	4873	4934	4119	-1.3	-0.3	-1.7		
Electricity	-232	-281	90	215	-203	-230	-238	0.0	0.0	1.6		
Import Dependency (%)	65.5	65.3	62.9	63.3	56.6	56.1	49.1					
ELECTRICITY												
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	30798	31352	27464	27068	34024	36164	36086	-1.1	2.2	0.6		
Nuclear energy	16494	17727	14574	14662	20320	22049	26135	-1.2	3.4	2.5		
Solids	5584	5535	3570	4120	4615	3631	625	-4.4	2.6	-18.1		
Oil (including refinery gas)	202	741	600	164	8	91	91	11.5	-34.7	26.8		
Gas (including derived gases)	3871	2629	2716	1730	920	2201	347	-3.5	-10.3	-9.3		
Biomass-waste	32	76	726	1129	2154	1811	2424	36.6	11.5	1.2		
Hydro (pumping excluded)	4615	4638	5255	4738	5448	5021	5017	1.3	0.4	-0.8		
Wind	0	6	6	6	26	827	827	0.0	15.8	41.3		
Solar	0	0	17	520	532	532	619	0.0	40.8	1.5		
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	-100.0	0.0		
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Net Generation Capacity (MW _e)	6919	7103	6715	7497	7733	8297	9295	-0.3	1.4	1.9		
Nuclear energy	2707	2707	1845	1940	2820	2820	4020	-3.8	4.3	3.6		
Renewable energy	1685	1601	1624	2220	2357	2996	3056	-0.4	3.8	2.6		
Hydro (pumping excluded)	1685	1596	1600	1607	1719	1719	1719	-0.5	0.7	0.0		
Wind	0	5	5	5	19	657	657	0.0	14.3	42.4		
Solar	0	0	19	608	620	620	680	0.0	41.7	0.9		
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0		
Thermal power	2526	2795	3246	3337	2555	2482	2220	2.5	-2.4	-1.4		
of which cogeneration units	618	5411	2821	1020	871	908	664	16.4	-11.1	-2.7		
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0		
Solids fired	1618	1617	1313	1274	792	711	454	-2.1	-4.9	-5.4		
Gas fired	821	1067	1674	1738	1325	1327	1103	7.4	-2.3	-1.8		
Oil fired	81	81	81	84	84	84	84	0.0	0.4	0.0		
Biomass-waste fired	7	30	177	241	354	359	580	38.2	7.2	5.1		
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.2	46.9	42.6	38.8	47.3	47.1	42.2					
Efficiency of gross thermal power generation (%)	31.4	29.0	25.6	36.3	36.9	35.7	28.4					
% of gross electricity from CHP	18.4	15.3	15.9	25.6	21.9	19.6	9.5					
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
% of carbon free (RES, nuclear) gross electricity generation	68.6	71.6	74.9	77.8	83.7	83.6	97.1					
Fuel Inputs to Thermal Power Generation (ktoe)	2656	2664	2555	1692	1792	1862	1056	-0.4	-3.5	-5.2		
Solids	1619	1677	1205	1089	1132	981	154	-2.9	-0.6	-18.1		
Oil (including refinery gas)	31	100	293	34	3	30	30	25.4	-37.2	26.8		
Gas (including derived gases)	1002	847	793	314	173	410	101	-2.3	-14.1	-5.2		
Biomass & Waste	4	40	264	255	484	441	771	51.0	6.2	4.8		
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0		
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0		
Fuel Input to other conversion processes	12901	13989	12558	12416	13527	13502	13866	-0.3	0.7	0.2		
Refineries	5959	6398	6011	6450	6334	6120	5942	0.1	0.5	-0.6		
Biofuels and hydrogen production	0	11	98	118	176	170	189	0.0	6.0	0.8		
District heating	674	718	497	367	376	373	335	-3.0	-2.8	-1.1		
Derived gases, cokeries etc.	6268	6862	5952	5481	6642	6838	7400	-0.5	1.1	1.1		

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Slovakia: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT							Annual % Change			
Passenger transport activity (Gpkm)	37	39	36	38	45	51	57	-0.2	2.2	2.4
Public road transport	9	9	5	6	6	7	8	-5.5	2.0	2.2
Private cars and motorcycles	24	26	27	28	34	38	43	1.2	2.1	2.3
Rail	3	3	3	3	3	4	5	-2.1	2.9	3.2
Aviation ⁽³⁾	0	2	1	1	1	2	2	15.3	3.0	4.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	20	21	22	23	26	29	32	1.1	1.8	2.1
Heavy goods and light commercial vehicles	7	11	13	14	15	16	18	6.0	1.9	1.7
Rail	11	9	8	8	10	11	13	-3.2	1.8	2.9
Inland navigation	1	1	1	1	1	1	2	-1.5	1.1	1.5
Energy demand in transport (ktoe) ⁽⁴⁾	1455	1794	2241	2205	2346	2318	2370	4.4	0.5	0.1
Public road transport	193	185	132	141	154	165	174	-3.7	1.5	1.3
Private cars and motorcycles	830	992	1194	1155	1208	1143	1158	3.7	0.1	-0.4
Heavy goods and light commercial vehicles	308	527	821	814	872	883	892	10.3	0.6	0.2
Rail	83	42	40	41	48	54	61	-7.1	1.8	2.5
Aviation	27	39	41	44	53	62	71	4.5	2.5	3.0
Inland navigation	14	7	12	10	11	12	13	-2.0	-0.4	1.4
<i>By transport activity</i>										
Passenger transport	1064	1223	1374	1346	1423	1378	1413	2.6	0.4	-0.1
Freight transport	390	570	867	859	924	941	956	8.3	0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.5	1.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.6	4.4	5.5	7.7	7.9	8.7			
ENERGY EFFICIENCY										
Primary energy consumption	16937	17751	16811	15270	16580	16630	15921	-0.1	-0.1	-0.4
Final Energy Demand	10980	11561	11546	11225	11672	11471	10795	0.5	0.1	-0.8
<i>by sector</i>										
Industry	4532	4713	4361	4420	4567	4567	4422	-0.4	0.5	-0.3
Energy intensive industries	3678	3887	3637	3655	3737	3699	3522	-0.1	0.3	-0.6
Other industrial sectors	854	826	723	765	830	868	900	-1.7	1.4	0.8
Residential	2586	2540	2312	2176	2215	2171	1886	-1.1	-0.4	-1.6
Tertiary	2407	1916	2240	2038	2160	2036	1772	-0.7	-0.4	-2.0
Transport ⁽⁵⁾	1455	2392	2633	2591	2730	2697	2715	6.1	0.4	-0.1
<i>by fuel</i>										
Solids	1747	1572	1637	1294	1244	1179	999	-0.6	-2.7	-2.2
Oil	1703	2184	2301	2230	2287	2201	2150	3.1	-0.1	-0.6
Gas	4698	4540	4119	4011	4086	3794	3271	-1.3	-0.1	-2.2
Electricity	1893	1965	2075	2219	2346	2502	2520	0.9	1.2	0.7
Heat (from CHP and District Heating)	619	951	851	726	813	811	671	3.2	-0.5	-1.9
Renewable energy forms	320	349	562	745	894	976	1171	5.8	4.8	2.7
Other	0	0	0	0	2	8	13	0.0	0.0	23.9
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	424	347	259	221	206	182	154	-4.8	-2.3	-2.9
Industry (Energy on Value added, index 2000=100)	100	61	39	37	34	30	26	-8.9	-1.5	-2.7
Residential (Energy on Private Income, index 2000=100)	100	78	59	51	44	37	28	-5.1	-2.9	-4.5
Tertiary (Energy on Value added, index 2000=100)	100	72	68	54	49	40	30	-3.8	-3.2	-4.7
Passenger transport (toe/Mpkm) ⁽⁶⁾	29	31	37	35	31	27	24	2.7	-1.8	-2.5
Freight transport (toe/Mtkm)	20	27	40	37	35	32	30	7.2	-1.1	-1.7
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	54.1	54.7	50.8	45.0	42.3	39.5	32.3	-0.6	-1.8	-2.7
of which ETS sectors (2013 scope) GHG emissions	29.2	24.7	20.4	18.9	17.4	11.8			-2.6	-4.6
of which ESD sectors (2013 scope) GHG emissions	25.5	26.1	24.6	23.4	22.1	20.5			-1.1	-1.3
CO₂ Emissions (energy related)	38.7	41.6	38.7	33.6	32.3	29.7	22.8	0.0	-1.8	-3.4
Power generation/District heating	11.1	11.2	9.2	6.3	5.8	5.9	1.5	-1.8	-4.6	-12.4
Energy Branch	1.6	3.4	2.5	2.2	2.0	1.7	1.6	4.4	-2.0	-2.3
Industry	13.3	14.1	12.8	12.0	11.3	9.8	8.4	-0.4	-1.2	-3.0
Residential	4.1	3.6	3.4	2.8	2.7	2.5	2.1	-2.0	-2.2	-2.3
Tertiary	4.5	2.7	3.5	3.1	3.1	2.6	2.0	-2.5	-1.0	-4.5
Transport	4.1	6.6	7.3	7.1	7.3	7.2	7.1	5.9	0.1	-0.3
CO₂ Emissions (non energy and non land use related)	6.7	3.9	3.2	3.5	3.5	3.5	3.5	-7.0	0.9	0.0
Non-CO₂ GHG emissions	8.7	9.1	8.9	7.8	6.4	6.3	6.0	0.2	-3.2	-0.7
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	71.5	72.3	67.2	59.5	55.9	52.2	42.7	-0.6	-1.8	-2.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.27	0.25	0.23	0.17	0.13	0.12	0.03	-1.4	-5.9	-12.4
Final energy demand (t of CO ₂ /toe)	2.37	2.34	2.33	2.24	2.10	1.92	1.82	-0.2	-1.1	-1.4
Industry	2.94	2.99	2.94	2.72	2.48	2.14	1.90	0.0	-1.7	-2.7
Residential	1.60	1.40	1.47	1.30	1.22	1.17	1.14	-0.9	-1.8	-0.7
Tertiary	1.85	1.43	1.55	1.54	1.45	1.27	1.12	-1.8	-0.7	-2.6
Transport	2.82	2.77	2.77	2.74	2.69	2.67	2.62	-0.2	-0.3	-0.2
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	3.3	5.8	9.0	11.7	14.1	15.8	21.9			
RES-H&C share	1.2	4.9	7.8	10.3	12.2	15.4	25.7			
RES-E share	11.9	13.5	17.8	21.7	25.9	24.5	26.8			
RES-T share (based on ILUC formula)	1.7	1.5	5.3	6.6	10.1	11.0	13.7			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	62	60	70	80	82	76	92	1.2	1.6	1.1
Average Price of Electricity in Final demand sectors (€13/MWh)	94	102	143	128	133	141	157	4.3	-0.7	1.7
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	7.1	8.5	11.5	11.2	13.7	15.6	18.1	4.9	1.8	2.8
as % of GDP	16.4	15.6	16.6	14.7	15.4	15.3	15.5			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Slovenia: EUC03030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
								Annual % Change		
Population (in million)	2	2	2	2	2	2	2	0.3	0.2	0.0
GDP (in 000 M€13)	28	34	37	38	41	45	48	2.7	1.0	1.6
Gross Inland Consumption (ktoe)	6451	7325	7226	6776	7001	6773	6626	1.1	-0.3	-0.5
Solids	1305	1539	1451	1268	1353	1071	1135	1.1	-0.7	-1.7
Oil	2419	2580	2579	2360	2275	2077	1824	0.6	-1.2	-2.2
Natural gas	826	929	863	681	689	747	626	0.4	-2.2	-1.0
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Renewable energy forms	788	787	1054	1182	1395	1497	1757	3.0	2.8	2.3
Energy Branch Consumption	107	100	112	99	105	86	100	0.5	-0.6	-0.5
Non-Energy Uses	238	310	209	114	120	126	126	-1.3	-5.4	0.5
SECURITY OF SUPPLY										
Production (incl. recovery of products) (ktoe)	3085	3492	3687	3441	3763	3639	4019	1.8	0.2	0.7
Solids	1062	1184	1196	1023	1127	840	991	1.2	-0.6	-1.3
Oil	1	0	0	0	0	0	0	-95.0	-100.0	0.0
Natural gas	6	3	6	3	4	11	15	0.0	-3.9	14.0
Nuclear	1228	1518	1459	1322	1373	1429	1429	1.7	-0.6	0.4
Renewable energy sources	788	787	1025	1094	1259	1359	1584	2.7	2.1	2.3
Hydro	330	298	388	380	391	407	415	1.6	0.1	0.6
Biomass & Waste	458	489	601	632	724	745	942	2.7	1.9	2.7
Wind	0	0	0	0	24	26	26	0.0	0.0	0.6
Solar and others	0	0	9	36	54	126	134	0.0	19.2	9.4
Geothermal	0	0	27	45	66	55	67	0.0	9.4	0.2
Net Imports (ktoe)	3415	3855	3581	3356	3258	3154	2629	0.5	-0.9	-2.1
Solids	244	323	279	245	226	231	144	1.4	-2.1	-4.4
Oil	2466	2634	2596	2380	2295	2097	1844	0.5	-1.2	-2.2
Crude oil and Feedstocks	152	0	0	0	0	0	0	-100.0	0.0	0.0
Oil products	2314	2634	2596	2380	2295	2097	1844	1.2	-1.2	-2.2
Natural gas	820	925	857	678	685	737	612	0.4	-2.2	-1.1
Electricity	-114	-28	-180	-36	-83	-49	-143	4.7	-7.4	5.6
Import Dependency (%)	52.9	52.5	49.4	49.4	46.4	46.4	39.5			
ELECTRICITY										
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	13624	15117	16248	15126	16436	16774	18054	1.8	0.1	0.9
Nuclear energy	4761	5884	5657	5421	5628	5801	5801	1.7	-0.1	0.3
Solids	4611	5271	5288	4858	5182	3941	4325	1.4	-0.2	-1.8
Oil (including refinery gas)	55	42	8	0	0	0	0	-17.5	-100.0	0.0
Gas (including derived gases)	293	339	548	14	109	425	337	6.5	-14.9	11.9
Biomass-waste	70	120	222	111	300	423	1321	12.2	3.0	16.0
Hydro (pumping excluded)	3834	3461	4512	4423	4542	4735	4821	1.6	0.1	0.6
Wind	0	0	0	5	284	302	302	0.0	0.0	0.6
Solar	0	0	13	295	391	1148	1148	0.0	40.8	11.4
Geothermal and other renewables	0	0	0	0	0	0	0	0.0	0.0	-100.0
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0
Net Generation Capacity (MW _e)	2955	3111	3186	3490	3886	4399	4223	0.8	2.0	0.8
Nuclear energy	700	700	700	700	700	700	700	0.0	0.0	0.0
Renewable energy	843	979	1086	1385	1773	2492	2513	2.6	5.0	3.6
Hydro (pumping excluded)	843	979	1074	1119	1220	1220	1240	2.5	1.3	0.2
Wind	0	0	0	4	200	212	212	0.0	0.0	0.6
Solar	0	0	12	262	352	1060	1060	0.0	40.2	11.6
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0
Thermal power	1412	1432	1400	1405	1414	1206	1010	-0.1	0.1	-3.3
of which cogeneration units	648	336	333	228	213	242	197	-6.4	-4.4	-0.8
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0
Solids fired	923	923	792	792	792	678	632	-1.5	0.0	-2.2
Gas fired	278	284	372	470	469	386	162	3.0	2.3	-10.1
Oil fired	176	190	185	92	29	16	16	0.5	-16.9	-5.7
Biomass-waste fired	35	35	51	51	124	126	199	3.9	9.3	4.9
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Avg. Load factor of net power capacity ⁽²⁾ (%)	49.4	51.9	54.5	46.4	45.3	41.6	46.5			
Efficiency of gross thermal power generation (%)	33.2	32.9	33.4	34.4	34.5	33.2	33.4			
% of gross electricity from CHP	6.4	7.3	6.9	8.9	8.5	6.1	4.4			
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% of carbon free (RES, nuclear) gross electricity generation	63.6	62.6	64.0	67.8	67.8	74.0	74.2			
Fuel Inputs to Thermal Power Generation (ktoe)	1302	1508	1562	1247	1393	1241	1542	1.8	-1.1	1.0
Solids	1215	1412	1381	1217	1301	1029	1113	1.3	-0.6	-1.6
Oil (including refinery gas)	13	9	3	0	0	0	0	-13.3	-100.0	0.0
Gas (including derived gases)	59	58	113	3	19	91	73	6.7	-16.2	14.2
Biomass & Waste	15	30	65	27	73	121	357	15.5	1.2	17.2
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0
Fuel Input to other conversion processes	1479	1607	1562	1481	1580	1627	1634	0.6	0.1	0.3
Refineries	171	0	0	0	0	0	0	-100.0	0.0	0.0
Biofuels and hydrogen production	0	0	46	98	145	141	157	0.0	12.3	0.8
District heating	80	89	57	61	62	56	46	-3.2	0.8	-2.9
Derived gases, cokeries etc.	1228	1518	1459	1322	1373	1431	1431	1.7	-0.6	0.4

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							Slovenia: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT							Annual % Change			
Passenger transport activity (Gpkm)	25	27	30	31	34	35	37	2.0	1.0	0.9
Public road transport	4	3	3	3	3	3	3	-1.0	0.2	0.3
Private cars and motorcycles	20	23	26	27	29	30	31	2.4	1.0	0.8
Rail	1	1	1	1	1	1	2	1.4	4.1	3.8
Aviation ⁽³⁾	0	0	0	0	0	1	1	2.0	3.3	3.0
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Freight transport activity (Gtkm)	6	11	11	12	15	18	20	5.6	3.3	2.8
Heavy goods and light commercial vehicles	4	8	8	8	10	12	13	7.9	3.1	2.1
Rail	3	3	3	4	5	6	7	1.8	3.6	4.2
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
Energy demand in transport (ktoe) ⁽⁴⁾	1249	1492	1806	1838	1906	1850	1772	3.8	0.5	-0.7
Public road transport	78	71	92	94	96	95	92	1.8	0.3	-0.4
Private cars and motorcycles	1025	1047	1304	1319	1300	1191	1090	2.4	0.0	-1.7
Heavy goods and light commercial vehicles	98	323	355	370	444	487	507	13.8	2.3	1.3
Rail	24	28	26	27	33	38	43	1.0	2.2	2.7
Aviation	25	23	28	28	34	38	41	1.3	2.1	1.7
Inland navigation	0	0	0	0	0	0	0	0.0	0.0	0.0
By transport activity										
Passenger transport	1132	1146	1430	1447	1437	1332	1232	2.4	0.1	-1.5
Freight transport	117	346	376	391	469	517	541	12.4	2.2	1.4
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	1.1	2.3			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.0	2.5	5.4	7.7	7.8	9.1			
ENERGY EFFICIENCY										
Primary energy consumption	6214	7016	7017	6662	6881	6647	6502	1.2	-0.2	-0.6
Final Energy Demand	4457	4897	4927	4954	5046	4876	4510	1.0	0.2	-1.1
by sector										
Industry	1424	1644	1273	1332	1411	1431	1335	-1.1	1.0	-0.6
Energy intensive industries	836	1028	788	890	944	947	849	-0.6	1.8	-1.1
Other industrial sectors	588	616	485	442	467	484	486	-1.9	-0.4	0.4
Residential	1077	1140	1191	1145	1100	1030	906	1.0	-0.8	-1.9
Tertiary	697	620	657	638	628	565	496	-0.6	-0.4	-2.3
Transport ⁽⁵⁾	1259	1493	1806	1839	1907	1851	1774	3.7	0.5	-0.7
by fuel										
Solids	90	80	47	51	52	42	22	-6.3	1.1	-8.2
Oil	2264	2409	2447	2239	2155	1952	1699	0.8	-1.3	-2.3
Gas	569	665	620	635	645	624	538	0.9	0.4	-1.8
Electricity	905	1096	1029	1098	1157	1243	1247	1.3	1.2	0.8
Heat (from CHP and District Heating)	195	196	192	197	204	204	185	-0.2	0.6	-1.0
Renewable energy forms	435	452	592	735	833	808	813	3.1	3.5	-0.2
Other	0	0	0	0	0	2	5	0.0	0.0	32.4
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	227	215	195	181	171	151	138	-1.5	-1.3	-2.1
Industry (Energy on Value added, index 2000=100)	100	93	70	74	71	66	57	-3.6	0.3	-2.3
Residential (Energy on Private Income, index 2000=100)	100	93	85	87	77	65	53	-1.6	-1.1	-3.7
Tertiary (Energy on Value added, index 2000=100)	100	74	70	66	59	48	40	-3.5	-1.6	-3.9
Passenger transport (toe/Mpkm) ⁽⁶⁾	45	42	46	46	42	37	33	0.3	-1.0	-2.4
Freight transport (toe/Mtkm)	18	32	34	33	31	29	27	6.4	-1.0	-1.4
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	19.0	20.2	19.2	17.5	17.4	15.6	14.7	0.1	-1.0	-1.7
of which ETS sectors (2013 scope) GHG emissions		8.9	8.2	7.2	7.5	6.4	6.3		-0.8	-1.8
of which ESD sectors (2013 scope) GHG emissions		11.3	11.0	10.2	9.8	9.2	8.3		-1.1	-1.6
CO2 Emissions (energy related)	14.1	15.5	15.3	13.8	13.9	12.2	11.4	0.9	-1.0	-1.9
Power generation/District heating	5.5	6.3	6.2	5.3	5.6	4.6	4.9	1.3	-1.1	-1.4
Energy Branch	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.9	-4.9	14.0
Industry	2.4	2.3	1.7	1.7	1.7	1.5	1.0	-3.0	-0.5	-4.7
Residential	1.3	1.5	1.2	0.9	0.8	0.7	0.5	-1.0	-4.0	-3.7
Tertiary	1.2	1.0	0.9	0.7	0.6	0.4	0.3	-3.0	-4.1	-6.2
Transport	3.7	4.4	5.3	5.2	5.3	5.0	4.7	3.8	0.0	-1.2
CO2 Emissions (non energy and non land use related)	1.0	1.2	0.8	0.7	0.7	0.8	0.8	-1.7	-1.1	0.2
Non-CO2 GHG emissions	3.9	3.5	3.0	3.0	2.7	2.6	2.5	-2.6	-1.0	-1.0
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	102.0	108.4	103.1	93.8	93.3	83.7	78.8	0.1	-1.0	-1.7
Carbon Intensity indicators										
Electricity and Steam production (t of CO2/MWh)	0.34	0.35	0.33	0.30	0.29	0.24	0.24	-0.3	-1.2	-2.0
Final energy demand (t of CO2/toe)	1.91	1.88	1.85	1.72	1.64	1.56	1.45	-0.4	-1.2	-1.3
Industry	1.66	1.41	1.37	1.29	1.18	1.02	0.77	-1.9	-1.5	-4.2
Residential	1.24	1.28	1.01	0.79	0.73	0.65	0.61	-2.0	-3.2	-1.8
Tertiary	1.68	1.63	1.32	1.03	0.91	0.77	0.61	-2.4	-3.6	-3.9
Transport	2.90	2.97	2.93	2.85	2.76	2.72	2.63	0.1	-0.6	-0.5
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	16.6	15.9	19.1	21.9	25.2	27.9	33.4			
RES-H&C share	18.9	19.0	25.5	29.8	34.4	37.7	47.6			
RES-E share	30.9	28.7	32.2	33.0	35.8	40.9	46.5			
RES-T share (based on ILUC formula)	1.0	0.8	3.2	6.1	10.1	12.3	18.5			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	49	47	45	67	70	60	64	-0.7	4.5	-1.0
Average Price of Electricity in Final demand sectors (€13/MWh)	109	86	111	106	108	114	114	0.2	-0.3	0.6
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	3.8	4.7	6.1	6.4	7.5	8.1	8.6	5.0	2.0	1.4
as % of GDP	13.3	13.8	16.5	17.1	18.4	18.2	18.0			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)											Spain: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	Annual % Change		
Population (in million)	40	43	46	46	46	45	44	1.5	-0.2	-0.3			
GDP (in 000 M€13)	893	1048	1093	1094	1207	1327	1447	2.0	1.0	1.8			
Gross Inland Consumption (ktoe)	123642	144223	129868	124583	125125	114374	102374	0.5	-0.4	-2.0			
Solids	20938	20566	7906	15768	15757	10162	1495	-9.3	7.1	-21.0			
Oil	63967	70457	60436	53990	50053	46992	43257	-0.8	-1.9	-1.4			
Natural gas	15305	29886	31162	25155	25415	18667	14678	7.4	-2.0	-5.3			
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0			
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4			
Renewable energy forms	7005	8587	15090	15611	19348	23835	28405	8.0	2.5	3.9			
Energy Branch Consumption	6259	6666	7878	7994	7431	6466	5986	2.3	-0.6	-2.1			
Non-Energy Uses	9407	8362	7046	5744	6094	6369	6379	-2.8	-1.4	0.5			
SECURITY OF SUPPLY													
Production (incl.recovery of products) (ktoe)	31478	30047	34166	33100	36688	39295	42956	0.8	0.7	1.6			
Solids	7966	6265	3296	2973	2891	1055	130	-8.4	-1.3	-26.6			
Oil	228	167	124	377	365	345	360	-5.9	11.4	-0.1			
Natural gas	234	185	78	42	47	53	57	-10.4	-4.9	1.9			
Nuclear	16046	14842	15991	14173	14173	14173	14173	0.0	-1.2	0.0			
Renewable energy sources	7005	8587	14677	15536	19212	23669	28236	7.7	2.7	3.9			
Hydro	2430	1582	3638	2853	2861	2878	2882	4.1	-2.4	0.1			
Biomass & Waste	4131	5113	6183	6934	9587	9504	9958	4.1	4.5	0.4			
Wind	406	1821	3807	4443	4844	6125	9040	25.1	2.4	6.4			
Solar and others	33	65	1035	1288	1895	5104	6269	41.3	6.2	12.7			
Geothermal	5	7	16	18	24	58	87	11.5	4.3	13.7			
Net Imports (ktoe)	99342	123832	106084	100729	97788	84412	68846	0.7	-0.8	-3.4			
Solids	12840	14418	6726	12795	12865	9107	1365	-6.3	6.7	-20.1			
Oil	70653	79281	68704	62860	58956	55798	51835	-0.3	-1.5	-1.3			
Crude oil and Feedstocks	59023	60650	56496	66666	63006	59596	55627	-0.4	1.1	-1.2			
Oil products	11631	18630	12208	-3806	-4050	-3798	-3792	0.5	0.0	-0.7			
Natural gas	15467	30248	30950	25113	25451	18795	15112	7.2	-1.9	-5.1			
Electricity	382	-116	-717	-114	380	546	366	0.0	0.0	-0.4			
Import Dependency (%)	76.6	81.4	76.8	75.3	72.7	68.2	61.6						
ELECTRICITY													
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	220921	289445	298320	275293	284470	280624	276272	3.0	-0.5	-0.3			
Nuclear energy	62206	57539	61990	58066	58066	57757	57521	0.0	-0.7	-0.1			
Solids	79094	84047	25493	57621	57878	34089	0	-10.7	8.5	-100.0			
Oil (including refinery gas)	22578	24420	16562	4988	566	1702	1600	-3.1	-28.7	10.9			
Gas (including derived gases)	21942	80725	95840	53218	56383	22350	4440	15.9	-5.2	-22.4			
Biomass-waste	2100	3104	4674	4514	5972	7978	9899	8.3	2.5	5.2			
Hydro (pumping excluded)	28256	18393	42304	33175	33273	33461	33515	4.1	-2.4	0.1			
Wind	4727	21176	44271	51665	56322	71226	105111	25.1	2.4	6.4			
Solar	17	41	6423	12046	16011	52062	64186	80.6	9.6	14.9			
Geothermal and other renewables	1	0	763	0	0	0	0	105.9	0.0	14.9			
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0			
Net Generation Capacity (MW _e)	52405	73568	99270	104515	104566	124042	134589	6.6	0.5	2.6			
Nuclear energy	7869	7869	7845	7399	7399	7399	7399	0.0	-0.6	0.0			
Renewable energy	17760	25774	41432	46783	51047	74248	90280	8.8	2.1	5.9			
Hydro (pumping excluded)	15542	15796	16086	16632	16795	16795	16795	0.3	0.4	0.0			
Wind	2206	9918	20693	23025	24977	29981	40570	25.1	1.9	5.0			
Solar	12	60	4653	7126	9275	27472	32915	81.5	7.1	13.5			
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0			
Thermal power	26776	39924	49994	50333	46120	42395	36910	6.4	-0.8	-2.2			
of which cogeneration units	4570	6597	3382	6442	3369	4695	4182	-3.0	0.0	2.2			
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0			
Solids fired	11556	11359	10389	10316	9332	7377	3967	-1.1	-1.1	-8.2			
Gas fired	4713	17647	29569	31333	30271	29749	28078	20.2	0.2	-0.7			
Oil fired	10028	10043	8964	7496	4752	3422	2951	-1.1	-6.1	-4.7			
Biomass-waste fired	478	876	1072	1188	1765	1847	1914	8.4	5.1	0.8			
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0			
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0			
Avg. Load factor of net power capacity ⁽²⁾ (%)	45.9	43.1	33.1	28.9	29.9	25.1	23.1						
Efficiency of gross thermal power generation (%)	40.8	46.7	48.9	42.5	42.6	39.0	33.6						
% of gross electricity from CHP	9.2	4.0	7.4	9.8	5.2	5.7	5.7						
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
% of carbon free (RES, nuclear) gross electricity generation	44.0	34.6	53.8	57.9	59.6	79.3	97.8						
Fuel Inputs to Thermal Power Generation (ktoe)	26472	35403	25226	24328	24383	14593	4082	-0.5	-0.3	-16.4			
Solids	18245	17623	5561	13703	13681	8128	0	-11.2	9.4	-100.0			
Oil (including refinery gas)	4455	5249	3391	948	133	403	379	-2.7	-27.7	11.0			
Gas (including derived gases)	3075	11140	14839	8684	9269	4107	1249	17.0	-4.6	-18.2			
Biomass & Waste	697	1391	1435	994	1300	1955	2453	7.5	-1.0	6.6			
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0			
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0			
Fuel Input to other conversion processes	79871	79435	78129	80766	79042	75903	72142	-0.2	0.1	-0.9			
Refineries	60685	61323	58480	63161	60961	58108	54536	-0.4	0.4	-1.1			
Biofuels and hydrogen production	70	256	1412	1419	2062	1912	2041	35.0	3.9	-0.1			
District heating	0	0	0	0	0	0	0	0.0	0.0	0.0			
Derived gases, cokeries etc.	19115	17857	18237	16187	16019	15883	15565	-0.5	-1.3	-0.3			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Spain: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	476	535	542	561	609	661	714	1.3	1.2	1.6
Public road transport	50	53	51	52	53	55	56	0.1	0.5	0.4
Private cars and motorcycles	310	346	352	354	372	397	425	1.3	0.5	1.3
Rail	25	28	29	29	37	44	51	1.2	2.5	3.4
Aviation ⁽³⁾	89	106	109	124	145	164	180	2.1	2.9	2.2
Inland navigation	2	2	2	2	2	2	2	0.8	1.4	1.4
Freight transport activity (Gtkm)	180	265	227	228	247	264	281	2.3	0.9	1.3
Heavy goods and light commercial vehicles	138	217	190	191	206	219	232	3.2	0.8	1.2
Rail	12	12	9	10	12	13	15	-2.3	2.3	2.5
Inland navigation	31	36	28	28	30	32	34	-1.1	0.6	1.4
Energy demand in transport (ktoe) ⁽⁴⁾	33084	39797	37180	35033	34459	33256	32754	1.2	-0.8	-0.5
Public road transport	1354	1408	1319	1329	1326	1308	1280	-0.3	0.1	-0.3
Private cars and motorcycles	18655	20608	19876	18098	16536	14788	14107	0.6	-1.8	-1.6
Heavy goods and light commercial vehicles	6486	9874	8641	8122	8353	8319	8481	2.9	-0.3	0.2
Rail	708	1029	899	772	874	975	1049	2.4	-0.3	1.8
Aviation	4486	5323	5389	6005	6612	7052	6978	1.9	2.1	0.5
Inland navigation	1395	1555	1057	707	757	813	859	-2.7	-3.3	1.3
<i>By transport activity</i>										
Passenger transport	25151	27727	26960	25730	24830	23557	22812	0.7	-0.8	-0.8
Freight transport	7933	12069	10220	9303	9629	9698	9941	2.6	-0.6	0.3
Other indicators										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.1	0.7	2.0			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.2	0.6	3.8	4.1	6.1	6.0	6.4			
ENERGY EFFICIENCY										
Primary energy consumption	114235	135861	122822	118838	119032	108005	95994	0.7	-0.3	-2.1
Final Energy Demand	79885	97754	89072	85314	86250	81611	76744	1.1	-0.3	-1.2
<i>by sector</i>										
Industry	25368	30967	21435	21275	22243	21431	20634	-1.7	0.4	-0.7
Energy intensive industries	17349	20338	13379	13268	14012	13255	12492	-2.6	0.5	-1.1
Other industrial sectors	8020	10628	8056	8008	8232	8176	8142	0.0	0.2	-0.1
Residential	12000	15132	16920	15550	15515	14303	12401	3.5	-0.9	-2.2
Tertiary	9287	11712	13526	13441	14017	12604	10938	3.8	0.4	-2.4
Transport ⁽⁵⁾	33230	39944	37192	35048	34475	33273	32772	1.1	-0.8	-0.5
<i>by fuel</i>										
Solids	1775	1712	1261	1123	1312	1300	808	-3.4	0.4	-4.7
Oil	46297	53449	46775	43129	40252	37135	33725	0.1	-1.5	-1.8
Gas	12141	17978	14645	14743	14323	12984	11899	1.9	-0.2	-1.8
Electricity	16205	20827	21049	20057	21308	21517	21211	2.7	0.1	0.0
Heat (from CHP and District Heating)	0	0	0	8	117	296	560	0.0	0.0	16.9
Renewable energy forms	3469	3788	5343	6252	8926	8328	8409	4.4	5.3	-0.6
Other	0	0	0	3	10	50	132	0.0	1431.1	29.1
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	139	138	119	114	104	86	71	-1.5	-1.4	-3.7
Industry (Energy on Value added, index 2000=100)	100	114	87	87	83	74	66	-1.4	-0.5	-2.2
Residential (Energy on Private Income, index 2000=100)	100	106	115	103	94	78	62	1.4	-2.1	-4.0
Tertiary (Energy on Value added, index 2000=100)	100	108	110	107	101	82	65	1.0	-0.9	-4.3
Passenger transport (toe/Mpkm) ⁽⁶⁾	47	46	42	38	34	29	26	-1.1	-2.2	-2.6
Freight transport (toe/Mtkm)	44	46	45	41	39	37	35	0.3	-1.5	-1.0
DECARBONISATION										
TOTAL GHG emissions (Mt of CO₂ eq.)	398.8	447.7	364.3	356.5	341.6	289.2	228.9	-0.9	-0.6	-3.9
of which ETS sectors (2013 scope) GHG emissions	216.2	146.4	157.9	157.5	119.7	73.4		0.7	-7.3	
of which ESD sectors (2013 scope) GHG emissions	231.5	218.0	198.6	184.1	169.5	155.5		-1.7	-1.7	
CO₂ Emissions (energy related)	291.6	347.3	272.6	271.0	258.8	210.1	153.4	-0.7	-0.5	-5.1
Power generation/District heating	98.8	117.7	70.3	81.2	79.8	46.1	5.9	-3.4	1.3	-22.9
Energy Branch	13.4	13.5	16.2	16.1	14.3	12.5	11.6	1.9	-1.2	-2.0
Industry	50.4	59.2	42.3	39.8	39.5	35.5	29.2	-1.7	-0.7	-3.0
Residential	17.1	20.9	20.5	16.5	13.6	11.7	8.0	1.9	-4.0	-5.2
Tertiary	13.2	16.5	15.0	15.5	13.9	10.6	8.2	1.3	-0.7	-5.2
Transport	98.7	119.5	108.3	101.9	97.7	93.7	90.5	0.9	-1.0	-0.8
CO₂ Emissions (non energy and non land use related)	26.2	29.5	21.8	17.7	18.8	18.6	18.4	-1.8	-1.5	-0.2
Non-CO₂ GHG emissions	81.1	71.0	69.9	67.7	64.0	60.5	57.1	-1.5	-0.9	-1.1
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	134.6	151.1	123.0	120.3	115.3	97.6	77.2	-0.9	-0.6	-3.9
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.45	0.41	0.24	0.29	0.28	0.16	0.02	-6.2	1.7	-22.8
Final energy demand (t of CO ₂ /toe)	2.25	2.21	2.09	2.04	1.91	1.86	1.77	-0.7	-0.9	-0.8
Industry	1.99	1.91	1.97	1.87	1.78	1.66	1.42	-0.1	-1.1	-2.2
Residential	1.42	1.38	1.21	1.06	0.88	0.81	0.65	-1.6	-3.2	-3.0
Tertiary	1.43	1.41	1.11	1.15	0.99	0.84	0.75	-2.5	-1.1	-2.8
Transport	2.97	2.99	2.91	2.91	2.83	2.82	2.76	-0.2	-0.3	-0.3
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	8.1	8.4	13.8	15.4	21.0	27.4	35.0			
RES-H&C share	11.0	9.4	12.6	16.1	22.5	24.0	28.7			
RES-E share	16.6	19.1	29.8	36.9	38.5	57.4	76.3			
RES-T share (based on ILUC formula)	0.6	1.3	5.1	0.8	10.1	12.8	20.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	58	62	75	90	98	90	81	2.5	2.7	-1.9
Average Price of Electricity in Final demand sectors (€13/MWh)	105	101	149	173	173	167	165	3.5	1.5	-0.4
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	74.3	101.3	120.1	122.7	144.8	151.9	165.5	4.9	1.9	1.3
as % of GDP	8.3	9.7	11.0	11.2	12.0	11.5	11.4			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)								Sweden: EUCO3030			
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	9	9	9	10	10	11	11	0.5	0.9	0.8	
GDP (in 000 M€13)	296	337	366	404	448	497	552	2.2	2.1	2.1	
Gross Inland Consumption (ktoe)	48898	50993	50783	47002	45899	45061	43846	0.4	-1.0	-0.5	
Solids	2452	2629	2492	2263	1968	1741	1105	0.2	-2.3	-5.6	
Oil	15377	14136	14199	11663	10827	9706	8610	-0.8	-2.7	-2.3	
Natural gas	816	886	1484	679	3062	2496	981	6.2	7.5	-10.8	
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0	
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9	
Renewable energy forms	15066	15308	17512	19146	19606	20640	22889	1.5	1.1	1.6	
Energy Branch Consumption	1141	1326	1469	1414	1365	1316	1329	2.6	-0.7	-0.3	
Non-Energy Uses	3143	2460	2113	2183	2281	2398	2436	-3.9	0.8	0.7	
SECURITY OF SUPPLY											
Production (incl.recovery of products) (ktoe)	30052	34233	32685	33372	31493	32458	34548	0.8	-0.4	0.9	
Solids	162	211	238	210	86	93	0	4.0	-9.7	-100.0	
Oil	0	0	0	0	0	0	0	7.8	-100.0	0.0	
Natural gas	40	44	18	0	0	0	0	-7.6	-100.0	0.0	
Nuclear	14785	18670	14917	14362	12192	12192	12192	0.1	-2.0	0.0	
Renewable energy sources	15066	15308	17512	18801	19215	20174	22356	1.5	0.9	1.5	
Hydro	6757	6260	5709	6203	6158	6083	6079	-1.7	0.8	-0.1	
Biomass & Waste	8264	8961	11490	11434	11777	11648	12415	3.4	0.2	0.5	
Wind	39	81	301	1147	1249	2387	3348	22.6	15.3	10.4	
Solar and others	5	6	11	17	31	54	121	7.4	10.9	14.6	
Geothermal	0	0	0	0	0	2	393	0.0	0.0	103.6	
Net Imports (ktoe)	20436	19460	19294	15820	16724	15032	11850	-0.6	-1.4	-3.4	
Solids	2409	2556	2548	2054	1882	1648	1105	0.6	-3.0	-5.2	
Oil	16849	16698	15102	13853	13097	12028	10780	-1.1	-1.4	-1.9	
Crude oil and Feedstocks	21606	19369	19139	15905	15014	13862	12702	-1.2	-2.4	-1.7	
Oil products	-4757	-2671	-4038	-2052	-1917	-1834	-1922	-1.6	-7.2	0.0	
Natural gas	776	843	1466	679	3110	2604	1360	6.6	7.8	-7.9	
Electricity	402	-636	179	-1111	-1756	-1714	-1928	-7.8	0.0	0.9	
Import Dependency (%)	40.7	36.8	36.6	32.2	34.7	31.7	25.5				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	145231	158365	148460	160491	173114	178785	183880	0.2	1.5	0.6	
Nuclear energy	57316	72377	57828	57851	49379	49379	49738	0.1	-1.6	0.1	
Solids	1706	1169	1770	1540	1118	739	218	0.4	-4.5	-15.1	
Oil (including refinery gas)	1533	1379	1774	249	326	189	46	1.5	-15.6	-17.8	
Gas (including derived gases)	1292	1342	3782	471	15525	11240	2297	11.3	15.2	-17.4	
Biomass-waste	4342	8357	13397	14846	20563	18673	21891	11.9	4.4	0.6	
Hydro (pumping excluded)	78584	72803	66398	72128	71601	70735	70687	-1.7	0.8	-0.1	
Wind	457	936	3502	13335	14526	27756	38928	22.6	15.3	10.4	
Solar	1	2	8	69	75	75	75	21.5	24.9	0.0	
Geothermal and other renewables	0	0	1	0	0	0	0	0.0	-100.0	0.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	34594	33587	36947	39676	37489	41951	45563	0.7	0.1	2.0	
Nuclear energy	10122	9532	9532	9532	6949	6949	6949	-0.6	-3.1	0.0	
Renewable energy	16718	16799	18654	22501	23533	27839	31329	1.1	2.4	2.9	
Hydro (pumping excluded)	16506	16302	16624	16395	16938	16938	16938	0.1	0.2	0.0	
Wind	209	493	2019	6025	6507	10813	14303	25.5	12.4	8.2	
Solar	3	4	11	81	88	88	88	13.9	23.1	0.0	
Other renewables (tidal etc.)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Thermal power	7754	7256	8761	7643	7007	7163	7284	1.2	-2.2	0.4	
of which cogeneration units	4940	3488	5100	4504	6272	6047	2631	0.3	2.1	-8.3	
of which CCS units	0	0	0	0	0	0	0	0.0	0.0	0.0	
Solids fired	337	348	356	356	136	136	128	0.5	-9.2	-0.6	
Gas fired	547	469	1168	1168	3222	3243	3243	7.9	10.7	0.1	
Oil fired	4472	3974	3963	2958	835	835	835	-1.2	-14.4	0.0	
Biomass-waste fired	2398	2465	3274	3161	2814	2949	3078	3.2	-1.5	0.9	
Hydrogen plants	0	0	0	0	0	0	0	0.0	0.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	46.7	52.5	44.9	45.1	51.4	47.5	44.9				
Efficiency of gross thermal power generation (%)	21.3	23.0	27.3	25.6	41.0	37.4	33.2				
% of gross electricity from CHP	5.9	6.7	12.5	10.7	21.3	15.5	10.1				
% of electricity from CCS	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
% of carbon free (RES, nuclear) gross electricity generation	96.9	97.5	95.1	98.6	90.2	93.2	98.6				
Fuel Inputs to Thermal Power Generation (ktoe)	3582	4575	6518	5747	7865	7087	6328	6.2	1.9	-2.2	
Solids	462	508	597	566	266	189	50	2.6	-7.8	-15.4	
Oil (including refinery gas)	530	317	431	70	93	61	12	-2.0	-14.3	-18.6	
Gas (including derived gases)	508	591	998	225	2488	1861	423	7.0	9.6	-16.2	
Biomass & Waste	2084	3158	4491	4886	5019	4977	5843	8.0	1.1	1.5	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	40980	42243	39786	34628	31685	30731	29849	-0.3	-2.3	-0.6	
Refineries	22901	20082	21039	16927	16153	15217	14118	-0.8	-2.6	-1.3	
Biofuels and hydrogen production	0	134	376	733	816	874	1116	0.0	8.1	3.2	
District heating	1564	1525	1735	1424	1349	1250	1397	1.0	-2.5	0.3	
Derived gases, cokeries etc.	16516	20501	16636	15543	13367	13389	13219	0.1	-2.2	-0.1	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)								Sweden: EUCO3030		
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30
TRANSPORT								Annual % Change		
Passenger transport activity (Gpkm)	142	148	151	160	167	175	186	0.7	1.0	1.1
Public road transport	9	9	9	9	9	10	11	-1.0	0.9	1.2
Private cars and motorcycles	102	108	109	114	116	119	125	0.7	0.7	0.7
Rail	10	11	13	15	16	18	20	2.8	2.1	1.9
Aviation ⁽³⁾	14	13	15	17	18	20	23	0.3	2.2	2.4
Inland navigation	6	6	6	5	6	7	7	-0.3	0.2	1.4
Freight transport activity (Gtkm)	70	78	81	81	90	98	105	1.5	1.1	1.6
Heavy goods and light commercial vehicles	43	47	45	46	49	52	54	0.4	1.1	1.0
Rail	19	22	23	24	28	31	35	1.9	1.6	2.3
Inland navigation	7	9	13	11	13	15	16	5.6	0.4	2.1
Energy demand in transport (ktoe) ⁽⁴⁾	8192	8609	8620	8260	7890	7300	6941	0.5	-0.9	-1.3
Public road transport	189	179	184	187	193	204	211	-0.3	0.5	0.9
Private cars and motorcycles	4879	5236	5250	4890	4394	3727	3333	0.7	-1.8	-2.7
Heavy goods and light commercial vehicles	1740	1959	1951	1921	1939	1901	1893	1.2	-0.1	-0.2
Rail	299	246	208	232	264	286	310	-3.6	2.4	1.6
Aviation	928	846	840	945	1001	1077	1080	-1.0	1.8	0.8
Inland navigation	156	142	188	85	98	106	115	1.8	-6.3	1.6
<i>By transport activity</i>										
Passenger transport	6165	6361	6387	6089	5666	5090	4711	0.4	-1.2	-1.8
Freight transport	2027	2248	2234	2171	2225	2210	2231	1.0	0.0	0.0
<i>Other indicators</i>										
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.3	0.6	2.2			
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	1.6	4.7	9.2	10.7	12.4	15.7			
ENERGY EFFICIENCY										
Primary energy consumption	45755	48533	48670	44819	43618	42663	41412	0.6	-1.1	-0.5
Final Energy Demand	33561	33492	34077	31885	31903	30929	28918	0.2	-0.7	-1.0
<i>by sector</i>										
Industry	12854	12464	12205	11531	12055	12042	11460	-0.5	-0.1	-0.5
Energy intensive industries	9198	9252	9141	8370	8726	8571	7933	-0.1	-0.5	-0.9
Other industrial sectors	3656	3212	3064	3161	3329	3471	3527	-1.8	0.8	0.6
Residential	7300	7305	7557	7197	7049	6785	6066	0.3	-0.7	-1.5
Tertiary	5214	5114	5720	4897	4908	4802	4451	0.9	-1.5	-1.0
Transport ⁽⁵⁾	8192	8609	8595	8260	7890	7300	6941	0.5	-0.9	-1.3
<i>by fuel</i>										
Solids	1114	1346	1202	1122	1120	934	507	0.8	-0.7	-7.6
Oil	11861	11256	10038	8856	7998	6826	5762	-1.7	-2.2	-3.2
Gas	673	765	728	677	795	884	815	0.8	0.9	0.2
Electricity	11068	11238	11283	11102	11598	12111	12238	0.2	0.3	0.5
Heat (from CHP and District Heating)	3550	4174	5141	4420	4453	4125	3299	3.8	-1.4	-3.0
Renewable energy forms	5294	4714	5685	5705	5935	6036	6205	0.7	0.4	0.4
Other	0	0	0	3	3	13	92	0.0	0.0	39.5
Energy intensity indicators										
Gross Inl. Cons./GDP (toe/M€13)	165	151	139	116	102	91	80	-1.7	-3.0	-2.5
Industry (Energy on Value added, index 2000=100)	100	76	70	62	59	54	47	-3.5	-1.7	-2.2
Residential (Energy on Private Income, index 2000=100)	100	90	84	71	62	53	42	-1.7	-3.0	-3.8
Tertiary (Energy on Value added, index 2000=100)	100	89	91	70	63	55	45	-0.9	-3.7	-3.2
Passenger transport (toe/Mpkm) ⁽⁶⁾	41	41	39	35	31	26	23	-0.5	-2.2	-3.0
Freight transport (toe/Mtkm)	29	29	28	27	25	23	21	-0.5	-1.2	-1.5
DECARBONISATION										
TOTAL GHG emissions (Mt of CO2 eq.)	71.6	69.0	65.1	55.7	56.6	49.6	39.3	-0.9	-1.4	-3.6
of which ETS sectors (2013 scope) GHG emissions	25.9	25.6	19.9	23.6	20.6	13.7			-0.8	-5.3
of which ESD sectors (2013 scope) GHG emissions	43.0	39.5	35.8	33.0	29.1	25.7			-1.8	-2.5
CO₂ Emissions (energy related)	52.2	52.1	49.0	40.6	42.1	35.9	26.1	-0.6	-1.5	-4.7
Power generation/District heating	7.7	7.7	9.1	4.4	8.6	7.0	2.6	1.7	-0.5	-11.2
Energy Branch	2.0	1.9	2.0	2.2	1.8	1.8	1.7	0.4	-1.0	-0.6
Industry	11.9	13.3	10.5	10.0	9.5	7.6	4.6	-1.2	-1.0	-7.0
Residential	3.0	1.5	0.4	0.2	0.2	0.2	0.1	-17.9	-6.6	-5.7
Tertiary	4.5	3.2	2.9	1.7	1.4	0.8	0.6	-4.2	-6.8	-7.9
Transport	23.2	24.6	24.1	22.0	20.5	18.5	16.4	0.4	-1.6	-2.2
CO₂ Emissions (non energy and non land use related)	3.2	3.2	3.7	3.4	3.4	3.3	3.2	1.5	-0.8	-0.7
Non-CO₂ GHG emissions	16.2	13.6	12.3	11.7	11.1	10.5	10.1	-2.7	-1.1	-0.9
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	97.8	94.2	89.0	76.1	77.4	67.9	53.8	-0.9	-1.4	-3.6
Carbon Intensity indicators										
Electricity and Steam production (t of CO ₂ /MWh)	0.04	0.04	0.04	0.02	0.04	0.03	0.01	0.6	-1.2	-11.0
Final energy demand (t of CO ₂ /toe)	1.27	1.27	1.11	1.07	0.99	0.88	0.75	-1.3	-1.1	-2.7
Industry	0.93	1.07	0.86	0.87	0.79	0.63	0.40	-0.7	-0.9	-6.5
Residential	0.41	0.20	0.05	0.03	0.03	0.02	0.02	-18.2	-5.9	-4.3
Tertiary	0.86	0.62	0.51	0.35	0.29	0.17	0.14	-5.1	-5.4	-7.0
Transport	2.83	2.86	2.80	2.66	2.60	2.53	2.36	-0.1	-0.7	-1.0
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	38.6	40.3	46.8	56.8	56.7	61.7	70.1			
RES-H&C share	48.7	52.4	60.9	72.7	69.0	74.7	85.9			
RES-E share	51.7	51.6	56.6	67.3	69.2	73.2	80.9			
RES-T share (based on ILUC formula)	4.8	5.7	8.9	18.7	22.3	27.2	41.2			
MARKETS AND COMPETITIVENESS										
Average Cost of Gross Electricity Generation (€13/MWh)	57	51	57	63	62	56	59	-0.1	0.9	-0.5
Average Price of Electricity in Final demand sectors (€13/MWh)	83	107	144	142	141	142	145	5.7	-0.2	0.3
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	31.7	39.3	46.2	43.5	49.1	52.6	58.4	3.9	0.6	1.7
as % of GDP	10.7	11.6	12.6	10.8	11.0	10.6	10.6			

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (A)							United Kingdom: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
								Annual % Change			
Population (in million)	59	60	63	65	67	69	71	0.6	0.7	0.5	
GDP (in 000 M€13)	1538	1780	1810	1976	2120	2247	2423	1.6	1.6	1.3	
Gross Inland Consumption (ktoe)	230560	233992	212234	199641	186103	175711	163062	-0.8	-1.3	-1.3	
Solids	36516	37737	30761	30896	13007	8226	4731	-1.7	-8.2	-9.6	
Oil	81031	84449	72986	71030	65581	59879	54363	-1.0	-1.1	-1.9	
Natural gas	87399	85473	85050	67578	64711	60971	43057	-0.3	-2.7	-4.0	
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5	
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7	
Renewable energy forms	2453	4564	7179	12764	26090	31608	36117	11.3	13.8	3.3	
Energy Branch Consumption	14909	16092	13761	10879	9613	8697	7860	-0.8	-3.5	-2.0	
Non-Energy Uses	11330	11213	7524	8461	8861	8961	8839	-4.0	1.6	0.0	
SECURITY OF SUPPLY											
Production (incl. recovery of products) (ktoe)	268546	204420	147634	115064	108549	98686	97992	-5.8	-3.0	-1.0	
Solids	18658	11899	10751	6067	3605	3114	1953	-5.4	-10.4	-5.9	
Oil	127939	87930	63788	48199	40955	32876	26184	-6.7	-4.3	-4.4	
Natural gas	97554	79397	51468	34247	26824	22630	15615	-6.2	-6.3	-5.3	
Nuclear	21942	21054	16029	15793	15374	13860	23774	-3.1	-0.4	4.5	
Renewable energy sources	2453	4141	5598	10758	21790	26205	30466	8.6	14.6	3.4	
Hydro	437	423	307	477	453	457	460	-3.5	4.0	0.1	
Biomass & Waste	1922	3437	4314	6434	11789	15303	17036	8.4	10.6	3.8	
Wind	81	250	875	2969	8204	8822	11303	26.8	25.1	3.3	
Solar and others	11	30	101	878	1341	1612	1635	24.5	29.5	2.0	
Geothermal	1	1	1	1	3	11	31	0.0	13.3	27.3	
Net Imports (ktoe)	-39220	31596	61239	87711	80758	80187	68226	0.0	2.8	-1.7	
Solids	14454	27222	16045	24829	9402	5112	2777	1.0	-5.2	-11.5	
Oil	-45582	-2738	11181	25966	27794	30088	31137	0.0	9.5	1.1	
Crude oil and Feedstocks	-39093	4558	13213	20985	23617	26384	28138	0.0	6.0	1.8	
Oil products	-6489	-7296	-2032	4981	4177	3704	2999	-11.0	0.0	-3.3	
Natural gas	-9311	5973	32205	33331	37922	38418	27641	0.0	1.6	-3.1	
Electricity	1219	716	229	1580	1341	1166	1019	-15.4	19.3	-2.7	
Import Dependency (%)	-16.9	13.4	28.5	43.3	42.7	44.8	41.0				
ELECTRICITY											
Gross Electricity generation by source ⁽¹⁾ (GWh _e)	374375	395425	378558	357130	371987	380469	388478	0.1	-0.2	0.4	
Nuclear energy	85063	81618	62140	64689	62974	59946	107051	-3.1	0.1	5.4	
Solids	119950	134637	107694	96298	29358	12099	3676	-1.1	-12.2	-18.8	
Oil (including refinery gas)	8446	5339	4804	4252	3297	2497	2471	-5.5	-3.7	-2.8	
Gas (including derived gases)	150427	154339	176759	117631	115485	120426	57646	1.6	-4.2	-6.7	
Biomass-waste	4455	11658	13373	26283	51006	68361	71607	11.6	14.3	3.5	
Hydro (pumping excluded)	5086	4922	3568	5550	5273	5318	5348	-3.5	4.0	0.1	
Wind	947	2904	10180	34520	95394	102586	131436	26.8	25.1	3.3	
Solar	1	8	41	7899	8985	8985	8985	42.7	71.6	0.0	
Geothermal and other renewables	0	0	-1	8	212	252	258	15.7	0.0	2.0	
Other fuels (hydrogen, methanol)	0	0	0	0	0	0	0	0.0	0.0	0.0	
Net Generation Capacity (MW _e)	78130	82074	88395	92944	120145	111927	118839	1.2	3.1	-0.1	
Nuclear energy	12086	11376	10027	9374	8884	7811	13107	-1.9	-1.2	4.0	
Renewable energy	1900	3077	7128	25020	46309	48652	57676	14.1	20.6	2.2	
Hydro (pumping excluded)	1485	1501	1637	1693	1744	1744	1752	1.0	0.6	0.0	
Wind	412	1565	5396	13603	33421	35745	44759	29.3	20.0	3.0	
Solar	2	11	94	9721	11043	11043	11043	47.0	61.1	0.0	
Other renewables (tidal etc.)	1	0	1	4	102	119	122	0.0	58.7	1.9	
Thermal power	64144	67621	71240	58550	64952	55464	48057	1.1	-0.9	-3.0	
of which cogeneration units	5794	5440	6102	5052	5518	5384	10822	0.5	-1.0	7.0	
of which CCS units	0	0	0	0	833	833	1233	0.0	0.0	4.0	
Solids fired	27533	26230	25549	18735	11149	2323	501	-0.7	-8.0	-26.7	
Gas fired	24512	29106	33292	33953	35329	34762	29260	3.1	0.6	-1.9	
Oil fired	9696	9323	9064	2227	1235	1135	1091	-0.7	-18.1	-1.2	
Biomass-waste fired	2403	2961	3335	3634	17238	17244	17205	3.3	17.9	0.0	
Hydrogen plants	0	0	0	0	0	0	0	0.0	-100.0	0.0	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Avg. Load factor of net power capacity ⁽²⁾ (%)	52.3	52.5	46.8	41.7	34.0	37.3	35.8				
Efficiency of gross thermal power generation (%)	41.1	42.1	43.6	41.3	45.0	46.1	43.1				
% of gross electricity from CHP	6.1	6.8	6.2	5.4	4.5	4.2	4.2				
% of electricity from CCS	0.0	0.0	0.0	0.0	1.4	1.5	2.6				
% of carbon free (RES, nuclear) gross electricity generation	25.5	25.6	23.6	38.9	60.2	64.5	83.6				
Fuel Inputs to Thermal Power Generation (ktoe)	59321	62482	59738	50947	38069	37914	27027	0.1	-4.4	-3.4	
Solids	28425	29812	23816	23961	7141	2974	779	-1.8	-11.3	-19.9	
Oil (including refinery gas)	1453	1060	789	920	737	559	553	-5.9	-0.7	-2.8	
Gas (including derived gases)	28139	28415	31452	20339	19239	19570	9757	1.1	-4.8	-6.6	
Biomass & Waste	1305	3194	3681	5727	10952	14811	15938	10.9	11.5	3.8	
Geothermal heat	0	0	0	0	0	0	0	0.0	0.0	0.0	
Hydrogen - Methanol	0	0	0	0	0	0	0	0.0	0.0	0.0	
Fuel Input to other conversion processes	118459	115207	97492	88112	83351	77194	81998	-1.9	-1.6	-0.2	
Refineries	88821	88399	75162	65526	61254	56403	51765	-1.7	-2.0	-1.7	
Biofuels and hydrogen production	0	80	1130	1361	2131	1982	2081	0.0	6.6	-0.2	
District heating	15	14	13	13	11	15	9	-0.9	-2.2	-2.1	
Derived gases, cokeries etc.	29623	26714	21187	21212	19955	18794	28143	-3.3	-0.6	3.5	

Source: PRIMES

SUMMARY ENERGY BALANCE AND INDICATORS (B)							United Kingdom: EUCO3030				
	2000	2005	2010	2015	2020	2025	2030	'00-'10	'10-'20	'20-'30	
							Annual % Change				
TRANSPORT											
Passenger transport activity (Gpkm)	822	872	849	878	935	969	1017	0.3	1.0	0.8	
Public road transport	49	44	46	46	47	48	49	-0.5	0.2	0.3	
Private cars and motorcycles	644	673	649	659	702	722	754	0.1	0.8	0.7	
Rail	47	53	66	76	80	86	93	3.5	2.0	1.5	
Aviation ⁽³⁾	77	97	83	90	100	107	116	0.7	1.8	1.5	
Inland navigation	6	6	5	5	6	6	6	-0.3	0.8	1.0	
Freight transport activity (Gtkm)	237	248	216	242	252	263	275	-0.9	1.6	0.9	
Heavy goods and light commercial vehicles	183	183	164	187	194	203	211	-1.1	1.7	0.8	
Rail	18	21	19	22	23	24	26	0.3	2.1	1.3	
Inland navigation	36	43	33	34	35	37	39	-0.9	0.6	1.0	
Energy demand in transport (ktoe) ⁽⁴⁾	52386	55501	51470	52014	49572	46164	43908	-0.2	-0.4	-1.2	
Public road transport	559	499	515	511	505	495	478	-0.8	-0.2	-0.5	
Private cars and motorcycles	29150	30049	29058	27657	25099	21964	20524	0.0	-1.5	-2.0	
Heavy goods and light commercial vehicles	9809	9612	8396	9457	9021	8973	8667	-1.5	0.7	-0.4	
Rail	821	988	966	1108	1158	1212	1264	1.6	1.8	0.9	
Aviation	11115	13069	11650	12400	12874	12572	11986	0.5	1.0	-0.7	
Inland navigation	933	1282	884	881	916	949	988	-0.5	0.4	0.8	
By transport activity											
Passenger transport	41504	44033	41640	40984	38919	35481	33455	0.0	-0.7	-1.5	
Freight transport	10882	11467	9830	11030	10653	10682	10453	-1.0	0.8	-0.2	
Other indicators											
Electricity in road transport (%)	0.0	0.0	0.0	0.0	0.4	1.4	3.1				
Biofuels in total fuels (excl.hydrogen and electricity) (%)	0.0	0.1	2.2	2.7	4.5	5.3	6.0				
ENERGY EFFICIENCY											
Primary energy consumption	219230	222779	204710	191181	177242	166750	154223	-0.7	-1.4	-1.4	
Final Energy Demand	153236	152728	142713	138484	135275	127634	115388	-0.7	-0.5	-1.6	
by sector											
Industry	36930	33388	26923	25432	25502	23390	20709	-3.1	-0.5	-2.1	
Energy intensive industries	19392	16472	12350	11464	11271	9754	7832	-4.4	-0.9	-3.6	
Other industrial sectors	17537	16916	14573	13968	14231	13636	12877	-1.8	-0.2	-1.0	
Residential	43034	44151	44715	40936	39867	38872	33739	0.4	-1.1	-1.7	
Tertiary	20377	19686	19633	20101	20333	19209	17032	-0.4	0.4	-1.8	
Transport ⁽⁵⁾	52895	55503	51452	52014	49572	46164	43908	-0.3	-0.4	-1.2	
by fuel											
Solids	5954	4530	4133	4583	3842	3116	1927	-3.6	-0.7	-6.7	
Oil	63674	65851	59524	58175	53004	47780	42710	-0.7	-1.2	-2.1	
Gas	52180	50380	47246	43853	42434	39101	31822	-1.0	-1.1	-2.8	
Electricity	28360	29998	28286	27707	28976	29478	29761	0.0	0.2	0.3	
Heat (from CHP and District Heating)	2439	1268	1266	1255	1339	1425	1445	-6.3	0.6	0.8	
Renewable energy forms	630	702	2268	2885	5583	6281	7019	13.7	9.4	2.3	
Other	0	0	0	26	97	454	703	-100.0	0.0	21.9	
Energy intensity indicators											
Gross Inl. Cons./GDP (toe/M€13)	150	131	117	101	88	78	67	-2.4	-2.9	-2.6	
Industry (Energy on Value added, index 2000=100)	100	93	79	71	68	60	51	-2.3	-1.5	-2.8	
Residential (Energy on Private Income, index 2000=100)	100	87	87	75	68	63	50	-1.4	-2.4	-3.1	
Tertiary (Energy on Value added, index 2000=100)	100	81	77	71	67	59	48	-2.6	-1.5	-3.2	
Passenger transport (toe/Mpkm) ⁽⁶⁾	38	36	35	33	29	25	22	-0.8	-1.9	-2.6	
Freight transport (toe/Mtkm)	46	46	46	46	42	41	38	-0.1	-0.8	-1.1	
DECARBONISATION											
TOTAL GHG emissions (Mt of CO2 eq.)	720.6	727.6	636.4	585.9	475.7	423.2	335.9	-1.2	-2.9	-3.4	
of which ETS sectors (2013 scope) GHG emissions		314.0	273.9	244.9	164.7	140.9	92.2		-5.0	-5.6	
of which ESD sectors (2013 scope) GHG emissions		413.6	362.5	340.9	311.1	282.4	243.8		-1.5	-2.4	
CO2 Emissions (energy related)	568.2	573.4	518.3	477.6	376.2	331.0	253.5	-0.9	-3.2	-3.9	
Power generation/District heating	194.2	199.6	178.4	155.5	78.6	62.7	25.3	-0.8	-7.9	-10.7	
Energy Branch	31.3	35.2	29.4	20.9	18.4	16.2	13.8	-0.6	-4.5	-2.8	
Industry	77.4	67.5	52.1	49.5	46.1	38.3	26.3	-3.9	-1.2	-5.5	
Residential	82.6	80.4	83.1	74.7	68.8	65.3	52.9	0.1	-1.9	-2.6	
Tertiary	27.0	25.3	24.8	25.3	22.6	18.5	14.4	-0.9	-0.9	-4.4	
Transport	155.6	165.4	150.6	151.7	141.5	130.0	120.8	-0.3	-0.6	-1.6	
CO2 Emissions (non energy and non land use related)	20.8	21.0	15.6	17.7	18.7	17.9	16.8	-2.8	1.8	-1.1	
Non-CO2 GHG emissions	131.6	133.2	102.5	90.5	80.9	74.3	65.6	-2.5	-2.3	-2.1	
TOTAL GHG emissions (excl. LULUCF) Index (1990=100)	88.0	88.8	77.7	71.5	58.1	51.7	41.0	-1.2	-2.9	-3.4	
Carbon Intensity indicators											
Electricity and Steam production (t of CO2/MWh)	0.48	0.49	0.45	0.42	0.20	0.16	0.06	-0.6	-7.8	-11.1	
Final energy demand (t of CO2/toe)	2.24	2.22	2.18	2.18	2.06	1.98	1.86	-0.3	-0.5	-1.0	
Industry	2.10	2.02	1.93	1.95	1.81	1.64	1.27	-0.8	-0.7	-3.5	
Residential	1.92	1.82	1.86	1.82	1.73	1.68	1.57	-0.3	-0.7	-1.0	
Tertiary	1.32	1.29	1.26	1.26	1.11	0.96	0.85	-0.5	-1.3	-2.7	
Transport	2.94	2.98	2.93	2.92	2.86	2.82	2.75	-0.1	-0.2	-0.4	
RES in Gross Final Energy Consumption ⁽⁷⁾ (in%)	0.9	1.4	3.3	6.9	14.7	17.8	22.8				
RES-H&C share	0.8	0.8	1.8	3.4	7.0	8.4	12.0				
RES-E share	2.6	4.1	7.4	19.3	41.1	46.7	54.0				
RES-T share (based on ILUC formula)	0.1	0.2	3.0	6.0	11.4	16.9	24.1				
MARKETS AND COMPETITIVENESS											
Average Cost of Gross Electricity Generation (€13/MWh)	42	49	59	95	114	115	114	3.4	6.9	-0.1	
Average Price of Electricity in Final demand sectors (€13/MWh)	124	91	129	166	170	179	179	0.3	2.8	0.5	
Total energy-rel. and other mitigation costs ⁽⁸⁾ (in 000 M€13)	154.6	159.7	179.7	203.0	230.9	252.2	276.9	1.5	2.5	1.8	
as % of GDP	10.1	9.0	9.9	10.3	10.9	11.2	11.4				

Source: PRIMES

- (1) For years 2000 to 2010, total gross electricity by source as reported in this table and total gross electricity generation reported as part of the energy balances, slightly differ because of differences in the respective statistical sources
- (2) Electricity generated over maximum potential generation based on net power capacity
- (3) Excluding international extra-EU aviation.
- (4) Excluding pipeline transport and other non-specified transport.
- (5) Including pipeline transport and other non-specified transport.
- (6) Calculated by taking into account domestic, international intra-EU flights, and extra-EU flights for aviation.
- (7) Including the part of electricity and heat generated from renewables
- (8) Excluding payments for auctioned emission allowances (if applicable)

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are mainly based on EUROSTAT and on the publications "EU Energy in Figures" of the Directorate General for Energy and "EU Transport in Figures" of the Directorate General for Mobility and Transport. Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight or passenger transport, which are measured in tonnes of oil equivalent per million tonne-km and in tonnes of oil equivalent per million passenger-km, respectively. For modelling purposes, some assumptions had to be made for calculating air and maritime transport performance and allocating it by MS. The transport volumes (number of passengers and tonnes) and distance matrices have been used for this purpose. By assumption, 50% of the calculated transport performance is allocated to the origin country and 50% to the destination country. The same "50%-50%" principle allocation applies to the EFTA countries and the candidate countries. For the international extra-EU activity, where the corresponding partner is outside EU-28 and is not an EFTA or candidate country, 100% of transport performance is allocated to the declaring EU MS country. These assumptions are used only for modelling purposes and shall be considered as model estimates and not as official data.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Units

toe: tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ (Gigajoule)
ktoe: 1000 toe
MW: Megawatt or 10^6 watt
MWh: megawatt-hour or 10^9 watt-hours
GWh: gigawatt-hour or 10^9 watt-hours
t: metric tonnes, or 1000 kilogrammes
Mt: Million metric tonnes
km: kilometre
pkm: passenger-kilometre (one passenger transported a distance of one kilometre)
tkm: tonne-kilometre (one tonne transported a distance of one kilometre)
Gpkm: Giga passenger-kilometre, or 10^9 passenger-kilometre
Gtkm: Giga tonne-kilometre, or 10^9 tonne-kilometre

Appendix II.a: EUCO27 scenario - non-CO₂ GHG emissions

EU-28

Non-CO₂ GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		547.44	490.62	454.02	401.88	367.80	334.96
Total N ₂ O		304.12	264.06	262.73	255.54	254.27	241.25
Total F-gases		88.04	100.72	103.78	88.71	67.04	39.05
Agriculture	3A, 3B, 3C, 3D, 3F	443.28	432.58	439.69	434.01	423.75	407.33
Energy	1A, 1B	118.30	101.88	91.99	88.93	80.59	72.42
Industry	2B, 2C, 2E, 2G	68.75	27.03	19.63	12.27	12.72	13.17
Waste	5A, 5B, 5C	185.53	151.68	122.93	79.16	61.79	50.68
Wastewater	5D	39.42	37.37	37.44	37.94	38.20	31.27
Air conditioning & refrigeration	2F.1	52.84	73.61	77.67	64.86	45.65	23.61
Other sectors	2F, 2G	27.44	27.21	27.15	24.92	22.38	12.74
Calibration to UNFCCC 2005		4.04	4.04	4.04	4.04	4.04	4.04
whereof ETS sectors		54.97	19.06	12.15	4.50	4.71	4.91
whereof non-ETS sectors		884.63	836.35	808.38	741.63	684.41	610.35
Total non-CO ₂ GHGs		939.60	855.41	820.54	746.12	689.11	615.26

Austria

Non-CO₂ GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		7.57	6.42	6.00	5.63	5.42	5.07
Total N ₂ O		3.50	3.44	3.45	3.50	3.50	3.29
Total F-gases		2.08	2.22	2.29	1.97	1.56	0.82
Agriculture	3A, 3B, 3C, 3D, 3F	7.19	7.23	7.26	7.34	7.34	7.30
Energy	1A, 1B	1.64	1.79	1.62	1.54	1.42	1.34
Industry	2B, 2C, 2E, 2G	0.61	0.24	0.27	0.29	0.31	0.32
Waste	5A, 5B, 5C	2.97	1.77	1.47	1.12	1.01	0.75
Wastewater	5D	0.44	0.43	0.44	0.45	0.46	0.34
Air conditioning & refrigeration	2F.1	1.17	1.71	1.78	1.46	1.05	0.57
Other sectors	2F, 2G	0.68	0.46	0.46	0.45	0.44	0.12
Calibration to UNFCCC 2005		-1.55	-1.55	-1.55	-1.55	-1.55	-1.55
whereof ETS sectors		0.26	0.06	0.09	0.10	0.11	0.11
whereof non-ETS sectors		12.89	12.02	11.65	11.00	10.36	9.06
Total non-CO ₂ GHGs		13.15	12.08	11.74	11.10	10.47	9.17

Belgium

Non-CO₂ GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		9.81	9.23	9.15	8.36	7.92	7.12
Total N ₂ O		8.15	7.16	6.10	5.73	5.71	5.51
Total F-gases		2.89	3.85	4.03	3.43	2.59	1.51
Agriculture	3A, 3B, 3C, 3D, 3F	11.28	11.17	11.37	11.05	10.70	9.97
Energy	1A, 1B	1.17	1.35	1.35	1.48	1.44	1.47
Industry	2B, 2C, 2E, 2G	3.48	2.29	1.06	0.66	0.69	0.72
Waste	5A, 5B, 5C	2.73	2.21	2.07	1.47	1.33	1.23
Wastewater	5D	0.64	0.63	0.65	0.68	0.71	0.55
Air conditioning & refrigeration	2F.1	2.37	3.42	3.60	3.02	2.22	1.29
Other sectors	2F, 2G	0.47	0.46	0.48	0.46	0.44	0.20
Calibration to UNFCCC 2005		-1.30	-1.30	-1.30	-1.30	-1.30	-1.30
whereof ETS sectors		2.95	1.79	0.62	0.20	0.21	0.23
whereof non-ETS sectors		17.90	18.45	18.67	17.31	16.01	13.91
Total non-CO ₂ GHGs		20.85	20.24	19.29	17.52	16.22	14.14

Bulgaria

Non-CO₂ GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		9.23	8.29	8.10	5.34	4.32	4.12
Total N ₂ O		4.06	3.62	3.93	4.07	4.16	4.09
Total F-gases		0.66	0.44	0.49	0.43	0.30	0.14
Agriculture	3A, 3B, 3C, 3D, 3F	5.22	5.06	5.41	5.45	5.47	5.12
Energy	1A, 1B	1.29	1.35	1.23	1.30	1.15	0.98
Industry	2B, 2C, 2E, 2G	0.89	0.24	0.26	0.09	0.10	0.10
Waste	5A, 5B, 5C	4.23	3.69	3.59	1.04	0.23	0.65
Wastewater	5D	0.76	0.69	0.66	0.66	0.65	0.55
Air conditioning & refrigeration	2F.1	0.64	0.38	0.43	0.37	0.26	0.11
Other sectors	2F, 2G	0.13	0.16	0.16	0.15	0.13	0.07
Calibration to UNFCCC 2005		0.78	0.78	0.78	0.78	0.78	0.78
whereof ETS sectors		0.88	0.22	0.25	0.08	0.09	0.09
whereof non-ETS sectors		13.08	12.12	12.28	9.76	8.69	8.27
Total non-CO ₂ GHGs		13.95	12.35	12.52	9.84	8.78	8.36

Croatia

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		4.15	4.01	3.71	3.22	2.91	2.69
Total N ₂ O		2.42	2.37	1.75	1.76	1.76	1.66
Total F-gases		0.82	1.02	0.48	0.42	0.30	0.15
Agriculture	3A, 3B, 3C, 3D, 3F	2.96	2.63	2.68	2.72	2.74	2.64
Energy	1A, 1B	0.64	0.61	0.53	0.54	0.51	0.39
Industry	2B, 2C, 2E, 2G	0.65	0.77	0.10	0.04	0.04	0.04
Waste	5A, 5B, 5C	1.34	1.38	1.18	0.72	0.42	0.41
Wastewater	5D	0.31	0.30	0.30	0.29	0.28	0.22
Air conditioning & refrigeration	2F.1	0.79	0.99	0.45	0.39	0.28	0.13
Other sectors	2F, 2G	0.08	0.08	0.08	0.08	0.07	0.04
Calibration to UNFCCC 2005		0.62	0.62	0.62	0.62	0.62	0.62
whereof ETS sectors		0.64	0.76	0.09	0.03	0.03	0.03
whereof non-ETS sectors		6.76	6.63	5.84	5.37	4.94	4.47
Total non-CO ₂ GHGs		7.39	7.39	5.93	5.40	4.97	4.50

Cyprus

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		0.80	0.83	0.87	0.66	0.61	0.62
Total N ₂ O		0.56	0.57	0.53	0.54	0.54	0.53
Total F-gases		0.18	0.19	0.18	0.16	0.12	0.05
Agriculture	3A, 3B, 3C, 3D, 3F	0.68	0.70	0.63	0.69	0.59	0.58
Energy	1A, 1B	0.05	0.05	0.03	0.02	0.15	0.20
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.32	0.33	0.40	0.15	0.08	0.04
Wastewater	5D	0.09	0.10	0.10	0.11	0.11	0.09
Air conditioning & refrigeration	2F.1	0.16	0.17	0.17	0.15	0.11	0.05
Other sectors	2F, 2G	0.03	0.03	0.03	0.03	0.02	0.01
Calibration to UNFCCC 2005		0.21	0.21	0.21	0.21	0.21	0.21
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		1.54	1.59	1.58	1.36	1.27	1.20
Total non-CO ₂ GHGs		1.54	1.59	1.58	1.36	1.27	1.20

Czech Republic

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		12.86	12.23	10.65	8.12	7.77	6.89
Total N ₂ O		6.75	5.91	6.14	5.83	6.09	5.82
Total F-gases		1.47	3.37	3.67	3.15	2.40	1.46
Agriculture	3A, 3B, 3C, 3D, 3F	7.25	6.78	7.25	6.88	6.90	6.58
Energy	1A, 1B	6.98	6.37	5.05	5.13	5.41	5.00
Industry	2B, 2C, 2E, 2G	1.05	0.51	0.46	0.31	0.32	0.34
Waste	5A, 5B, 5C	3.87	4.04	3.58	1.16	0.76	0.53
Wastewater	5D	0.77	0.76	0.77	0.79	0.79	0.65
Air conditioning & refrigeration	2F.1	1.30	3.19	3.51	2.99	2.25	1.32
Other sectors	2F, 2G	0.23	0.23	0.21	0.20	0.19	0.10
Calibration to UNFCCC 2005		-0.36	-0.36	-0.36	-0.36	-0.36	-0.36
whereof ETS sectors		0.89	0.33	0.25	0.08	0.09	0.09
whereof non-ETS sectors		20.19	21.18	20.21	17.01	16.16	14.07
Total non-CO ₂ GHGs		21.08	21.50	20.46	17.10	16.25	14.17

Denmark

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		7.62	7.29	7.09	6.89	5.58	5.04
Total N ₂ O		5.45	5.39	5.23	5.35	5.34	5.23
Total F-gases		0.94	0.97	0.96	0.87	0.65	0.39
Agriculture	3A, 3B, 3C, 3D, 3F	10.04	10.17	10.21	10.23	9.09	8.85
Energy	1A, 1B	1.72	1.40	0.97	1.01	0.89	0.78
Industry	2B, 2C, 2E, 2G	0.03	0.02	0.02	0.02	0.02	0.02
Waste	5A, 5B, 5C	1.28	1.08	1.10	0.96	0.89	0.71
Wastewater	5D	0.28	0.28	0.28	0.29	0.30	0.22
Air conditioning & refrigeration	2F.1	0.75	0.79	0.78	0.70	0.51	0.30
Other sectors	2F, 2G	0.24	0.24	0.24	0.23	0.20	0.12
Calibration to UNFCCC 2005		-0.33	-0.33	-0.33	-0.33	-0.33	-0.33
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		14.01	13.65	13.27	13.11	11.57	10.66
Total non-CO ₂ GHGs		14.01	13.65	13.27	13.11	11.57	10.66

Estonia**Non-CO₂ GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		1.19	1.15	1.03	0.88	0.77	0.56
Total N ₂ O		0.63	0.70	0.76	0.78	0.79	0.75
Total F-gases		0.12	0.12	0.14	0.12	0.08	0.04
Agriculture	3A, 3B, 3C, 3D, 3F	1.15	1.17	1.31	1.29	1.25	1.21
Energy	1A, 1B	0.31	0.35	0.33	0.32	0.31	0.28
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.65	0.60	0.43	0.33	0.27	0.13
Wastewater	5D	0.07	0.08	0.08	0.08	0.08	0.06
Air conditioning & refrigeration	2F.1	0.07	0.11	0.12	0.11	0.07	0.04
Other sectors	2F, 2G	0.07	0.03	0.03	0.03	0.03	0.02
Calibration to UNFCCC 2005		-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		1.94	1.97	1.93	1.78	1.64	1.35
Total non-CO ₂ GHGs		1.94	1.97	1.93	1.78	1.64	1.35

Finland**Non-CO₂ GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		5.66	5.28	4.97	3.89	3.72	3.48
Total N ₂ O		5.93	4.78	4.56	4.45	4.48	4.37
Total F-gases		0.58	0.70	0.73	0.62	0.41	0.20
Agriculture	3A, 3B, 3C, 3D, 3F	6.13	5.95	5.97	5.95	5.85	5.69
Energy	1A, 1B	1.54	1.87	1.56	1.56	1.63	1.66
Industry	2B, 2C, 2E, 2G	1.59	0.17	0.17	0.09	0.09	0.10
Waste	5A, 5B, 5C	2.77	2.53	2.30	1.19	1.08	0.96
Wastewater	5D	0.74	0.70	0.69	0.70	0.70	0.63
Air conditioning & refrigeration	2F.1	0.45	0.60	0.63	0.53	0.35	0.17
Other sectors	2F, 2G	0.18	0.18	0.17	0.16	0.14	0.07
Calibration to UNFCCC 2005		-1.23	-1.23	-1.23	-1.23	-1.23	-1.23
whereof ETS sectors		1.56	0.16	0.16	0.08	0.08	0.08
whereof non-ETS sectors		10.60	10.60	10.10	8.88	8.53	7.97
Total non-CO ₂ GHGs		12.17	10.76	10.26	8.96	8.61	8.06

France**Non-CO₂ GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		64.07	63.86	60.99	50.45	49.25	46.68
Total N ₂ O		51.90	47.84	48.08	46.50	45.84	43.91
Total F-gases		13.27	14.62	15.00	13.14	9.76	6.02
Agriculture	3A, 3B, 3C, 3D, 3F	75.27	76.15	75.72	73.79	73.05	70.65
Energy	1A, 1B	5.72	5.36	4.88	5.52	4.89	4.47
Industry	2B, 2C, 2E, 2G	9.06	3.06	2.78	1.76	1.80	1.83
Waste	5A, 5B, 5C	18.30	17.92	16.30	6.41	5.84	5.46
Wastewater	5D	4.36	4.08	4.13	4.21	4.26	3.39
Air conditioning & refrigeration	2F.1	6.22	8.93	9.37	8.06	5.27	2.49
Other sectors	2F, 2G	4.79	5.30	5.37	4.82	4.21	2.78
Calibration to UNFCCC 2005		5.53	5.53	5.53	5.53	5.53	5.53
whereof ETS sectors		6.73	1.85	1.67	0.63	0.64	0.66
whereof non-ETS sectors		122.51	124.48	122.39	109.47	104.20	95.95
Total non-CO ₂ GHGs		129.24	126.33	124.07	110.09	104.84	96.61

Germany**Non-CO₂ GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		69.83	60.03	54.44	50.75	45.87	41.58
Total N ₂ O		43.16	36.54	37.17	34.90	34.04	31.60
Total F-gases		15.93	17.13	17.47	14.79	11.72	6.43
Agriculture	3A, 3B, 3C, 3D, 3F	63.40	63.00	63.31	62.41	61.17	58.90
Energy	1A, 1B	21.87	17.24	15.57	14.74	11.43	10.34
Industry	2B, 2C, 2E, 2G	10.65	3.09	3.72	1.75	1.81	1.87
Waste	5A, 5B, 5C	19.05	13.66	9.45	7.09	5.82	4.06
Wastewater	5D	4.26	4.20	4.14	4.19	4.22	3.13
Air conditioning & refrigeration	2F.1	7.75	10.48	10.85	8.48	5.72	3.03
Other sectors	2F, 2G	6.76	6.85	6.86	6.61	6.28	3.10
Calibration to UNFCCC 2005		-4.82	-4.82	-4.82	-4.82	-4.82	-4.82
whereof ETS sectors		8.40	2.22	2.94	0.99	1.04	1.09
whereof non-ETS sectors		120.52	111.48	106.14	99.46	90.59	78.52
Total non-CO ₂ GHGs		128.92	113.70	109.08	100.44	91.62	79.61

Greece

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		12.16	12.47	10.29	8.76	7.80	6.94
Total N ₂ O		5.88	5.58	4.90	4.77	4.67	4.35
Total F-gases		5.59	4.60	4.14	3.41	2.45	1.47
Agriculture	3A, 3B, 3C, 3D, 3F	8.72	9.08	8.26	8.17	8.14	7.81
Energy	1A, 1B	3.21	2.69	2.34	2.02	1.71	1.13
Industry	2B, 2C, 2E, 2G	2.28	0.55	0.28	0.18	0.17	0.17
Waste	5A, 5B, 5C	3.95	4.40	3.07	1.94	1.22	1.16
Wastewater	5D	1.86	1.69	1.59	1.60	1.58	1.45
Air conditioning & refrigeration	2F.1	3.68	4.21	3.78	3.07	2.14	1.19
Other sectors	2F, 2G	0.32	0.43	0.39	0.37	0.34	0.25
Calibration to UNFCCC 2005		-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
whereof ETS sectors		0.58	0.45	0.18	0.08	0.08	0.07
whereof non-ETS sectors		23.05	22.20	19.15	16.86	14.85	12.69
Total non-CO ₂ GHGs		23.62	22.65	19.33	16.95	14.92	12.76

Hungary

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		8.76	8.52	8.14	5.12	4.42	3.79
Total N ₂ O		5.79	5.41	4.19	4.25	4.25	3.91
Total F-gases		1.05	1.06	1.16	1.03	0.80	0.47
Agriculture	3A, 3B, 3C, 3D, 3F	7.28	6.63	7.14	6.91	6.76	6.18
Energy	1A, 1B	1.78	1.61	1.40	1.26	1.02	0.97
Industry	2B, 2C, 2E, 2G	1.99	1.74	0.21	0.12	0.13	0.15
Waste	5A, 5B, 5C	3.58	3.90	3.51	1.03	0.73	0.58
Wastewater	5D	0.73	0.63	0.61	0.60	0.60	0.46
Air conditioning & refrigeration	2F.1	0.48	0.78	0.91	0.80	0.60	0.31
Other sectors	2F, 2G	0.40	0.34	0.34	0.31	0.27	0.15
Calibration to UNFCCC 2005		-0.63	-0.63	-0.63	-0.63	-0.63	-0.63
whereof ETS sectors		1.94	1.65	0.15	0.05	0.06	0.06
whereof non-ETS sectors		13.66	13.34	13.34	10.35	9.42	8.11
Total non-CO ₂ GHGs		15.60	14.99	13.50	10.41	9.48	8.17

Ireland

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		13.98	12.75	14.24	14.00	13.89	13.63
Total N ₂ O		8.13	7.94	8.31	8.40	8.56	8.60
Total F-gases		0.97	0.84	0.93	0.82	0.61	0.36
Agriculture	3A, 3B, 3C, 3D, 3F	19.01	18.13	19.75	20.37	20.68	20.45
Energy	1A, 1B	0.57	0.50	0.50	0.39	0.39	0.40
Industry	2B, 2C, 2E, 2G	0.30	0.08	0.09	0.10	0.10	0.11
Waste	5A, 5B, 5C	1.87	1.41	1.64	0.97	0.70	0.81
Wastewater	5D	0.36	0.34	0.35	0.36	0.36	0.29
Air conditioning & refrigeration	2F.1	0.41	0.53	0.60	0.53	0.37	0.18
Other sectors	2F, 2G	0.32	0.30	0.31	0.26	0.21	0.10
Calibration to UNFCCC 2005		0.24	0.24	0.24	0.24	0.24	0.24
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		23.09	21.53	23.48	23.23	23.06	22.60
Total non-CO ₂ GHGs		23.09	21.53	23.48	23.23	23.06	22.60

Italy

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		50.34	46.43	44.22	41.43	38.19	35.79
Total N ₂ O		28.40	19.28	20.79	20.51	20.07	18.41
Total F-gases		12.54	15.88	16.17	13.56	10.38	6.68
Agriculture	3A, 3B, 3C, 3D, 3F	32.38	29.92	31.65	30.61	30.04	28.99
Energy	1A, 1B	11.37	10.32	10.39	10.56	10.01	9.56
Industry	2B, 2C, 2E, 2G	9.87	2.52	2.38	1.99	2.01	2.04
Waste	5A, 5B, 5C	20.95	18.19	15.77	13.86	11.21	9.91
Wastewater	5D	4.11	4.14	4.15	4.24	4.30	3.48
Air conditioning & refrigeration	2F.1	8.43	11.90	12.26	9.87	6.91	3.52
Other sectors	2F, 2G	2.56	2.97	2.96	2.76	2.54	1.78
Calibration to UNFCCC 2005		1.61	1.61	1.61	1.61	1.61	1.61
whereof ETS sectors		7.66	0.73	0.61	0.18	0.19	0.20
whereof non-ETS sectors		83.60	80.86	80.56	75.32	68.45	60.68
Total non-CO ₂ GHGs		91.27	81.58	81.17	75.50	68.64	60.88

Latvia**Non-CO2 GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		2.00	1.95	1.88	1.45	1.35	1.27
Total N ₂ O		1.28	1.34	1.37	1.37	1.39	1.36
Total F-gases		0.05	0.14	0.19	0.18	0.12	0.06
Agriculture	3A, 3B, 3C, 3D, 3F	2.04	2.10	2.18	2.12	2.12	2.05
Energy	1A, 1B	0.28	0.24	0.24	0.22	0.20	0.20
Industry	2B, 2C, 2E, 2G	0.00	0.01	0.01	0.01	0.01	0.01
Waste	5A, 5B, 5C	0.63	0.69	0.56	0.22	0.16	0.16
Wastewater	5D	0.26	0.20	0.21	0.22	0.21	0.19
Air conditioning & refrigeration	2F.1	0.05	0.13	0.19	0.17	0.11	0.05
Other sectors	2F, 2G	0.04	0.03	0.03	0.03	0.03	0.01
Calibration to UNFCCC 2005		0.02	0.02	0.02	0.02	0.02	0.02
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		3.33	3.42	3.44	3.00	2.87	2.70
Total non-CO ₂ GHGs		3.33	3.42	3.44	3.00	2.87	2.70

Lithuania**Non-CO2 GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		3.97	4.05	3.64	2.99	2.41	2.34
Total N ₂ O		5.15	3.56	3.55	3.10	3.13	3.10
Total F-gases		0.16	0.32	0.37	0.33	0.23	0.11
Agriculture	3A, 3B, 3C, 3D, 3F	5.44	5.45	5.50	5.38	5.24	5.21
Energy	1A, 1B	0.49	0.49	0.44	0.40	0.37	0.28
Industry	2B, 2C, 2E, 2G	2.32	0.71	0.65	0.21	0.21	0.21
Waste	5A, 5B, 5C	1.27	1.39	1.03	0.53	0.18	0.28
Wastewater	5D	0.32	0.31	0.31	0.29	0.28	0.23
Air conditioning & refrigeration	2F.1	0.15	0.30	0.34	0.30	0.21	0.09
Other sectors	2F, 2G	0.06	0.07	0.06	0.06	0.05	0.02
Calibration to UNFCCC 2005		-0.77	-0.77	-0.77	-0.77	-0.77	-0.77
whereof ETS sectors		2.32	0.70	0.64	0.21	0.21	0.20
whereof non-ETS sectors		6.96	7.24	6.92	6.20	5.56	5.36
Total non-CO ₂ GHGs		9.28	7.94	7.56	6.41	5.77	5.55

Luxembourg**Non-CO2 GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		0.58	0.59	0.58	0.58	0.58	0.55
Total N ₂ O		0.30	0.32	0.32	0.32	0.34	0.33
Total F-gases		0.05	0.06	0.09	0.09	0.06	0.02
Agriculture	3A, 3B, 3C, 3D, 3F	0.64	0.71	0.69	0.66	0.67	0.64
Energy	1A, 1B	0.16	0.13	0.15	0.17	0.18	0.18
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.06	0.05	0.04	0.04	0.04	0.04
Wastewater	5D	0.02	0.02	0.03	0.03	0.03	0.02
Air conditioning & refrigeration	2F.1	0.04	0.05	0.08	0.08	0.05	0.02
Other sectors	2F, 2G	0.02	0.02	0.02	0.02	0.02	0.01
Calibration to UNFCCC 2005		-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		0.92	0.98	0.99	0.99	0.98	0.90
Total non-CO ₂ GHGs		0.92	0.98	0.99	0.99	0.98	0.90

Malta**Non-CO2 GHG emissions EUCO27 scenario**

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		0.17	0.15	0.15	0.13	0.06	0.08
Total N ₂ O		0.06	0.05	0.05	0.05	0.05	0.04
Total F-gases		0.06	0.12	0.15	0.14	0.10	0.05
Agriculture	3A, 3B, 3C, 3D, 3F	0.12	0.10	0.10	0.10	0.08	0.08
Energy	1A, 1B	0.02	0.01	0.01	0.01	0.01	0.01
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.08	0.08	0.08	0.06	0.01	0.04
Wastewater	5D	0.02	0.02	0.03	0.03	0.02	0.02
Air conditioning & refrigeration	2F.1	0.06	0.12	0.14	0.13	0.10	0.05
Other sectors	2F, 2G	0.01	0.01	0.01	0.01	0.01	0.00
Calibration to UNFCCC 2005		-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		0.29	0.33	0.35	0.31	0.22	0.18
Total non-CO ₂ GHGs		0.29	0.33	0.35	0.31	0.22	0.18

Netherlands

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		20.48	21.05	17.30	16.96	16.88	15.17
Total N ₂ O		13.84	9.36	9.64	8.79	8.64	8.35
Total F-gases		2.70	2.89	2.93	2.57	1.93	1.30
Agriculture	3A, 3B, 3C, 3D, 3F	19.14	19.62	20.27	19.69	19.41	17.64
Energy	1A, 1B	1.84	1.76	1.62	1.71	1.62	1.62
Industry	2B, 2C, 2E, 2G	6.91	2.38	2.42	1.69	1.76	1.83
Waste	5A, 5B, 5C	6.92	6.96	2.84	2.87	2.95	3.02
Wastewater	5D	0.99	0.92	0.93	0.95	0.97	0.74
Air conditioning & refrigeration	2F.1	1.43	1.92	2.04	1.72	1.13	0.63
Other sectors	2F, 2G	0.72	0.68	0.68	0.62	0.54	0.27
Calibration to UNFCCC 2005		-0.93	-0.93	-0.93	-0.93	-0.93	-0.93
whereof ETS sectors		5.54	1.23	1.30	0.50	0.52	0.55
whereof non-ETS sectors		31.47	32.08	28.57	27.82	26.93	24.27
Total non-CO ₂ GHGs		37.02	33.31	29.86	28.31	27.45	24.82

Poland

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		46.98	43.56	43.47	38.68	35.46	34.15
Total N ₂ O		22.17	19.68	20.27	20.22	20.58	20.13
Total F-gases		5.59	7.81	9.42	8.60	6.67	3.48
Agriculture	3A, 3B, 3C, 3D, 3F	30.90	31.21	31.78	32.75	33.06	33.88
Energy	1A, 1B	17.69	14.94	14.87	14.27	12.36	11.18
Industry	2B, 2C, 2E, 2G	4.64	1.19	1.54	0.88	0.98	1.06
Waste	5A, 5B, 5C	10.31	10.11	9.70	5.12	3.75	3.05
Wastewater	5D	1.75	1.76	1.81	1.84	1.86	1.35
Air conditioning & refrigeration	2F.1	4.67	7.45	9.06	8.27	6.38	3.26
Other sectors	2F, 2G	1.29	0.88	0.88	0.85	0.80	0.46
Calibration to UNFCCC 2005		3.51	3.51	3.51	3.51	3.51	3.51
whereof ETS sectors		4.37	0.91	1.15	0.42	0.47	0.52
whereof non-ETS sectors		70.38	70.13	72.00	67.07	62.23	57.24
Total non-CO ₂ GHGs		74.74	71.04	73.15	67.49	62.70	57.76

Portugal

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		14.00	13.25	11.82	10.04	9.09	7.45
Total N ₂ O		4.21	3.79	3.71	3.58	3.60	3.41
Total F-gases		0.94	1.40	1.40	1.23	0.91	0.51
Agriculture	3A, 3B, 3C, 3D, 3F	7.56	7.24	7.54	7.67	7.17	7.01
Energy	1A, 1B	1.36	0.96	1.00	0.90	0.86	0.79
Industry	2B, 2C, 2E, 2G	0.57	0.38	0.16	0.08	0.09	0.09
Waste	5A, 5B, 5C	5.87	6.17	4.61	2.71	2.27	0.99
Wastewater	5D	3.17	2.64	2.56	2.60	2.65	2.40
Air conditioning & refrigeration	2F.1	0.84	1.29	1.30	1.13	0.81	0.41
Other sectors	2F, 2G	0.22	0.22	0.21	0.20	0.20	0.13
Calibration to UNFCCC 2005		-0.45	-0.45	-0.45	-0.45	-0.45	-0.45
whereof ETS sectors		0.54	0.33	0.11	0.04	0.04	0.04
whereof non-ETS sectors		18.60	18.11	16.82	14.81	13.56	11.32
Total non-CO ₂ GHGs		19.14	18.44	16.93	14.85	13.60	11.36

Romania

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		35.27	31.34	30.74	28.19	26.25	25.10
Total N ₂ O		10.41	8.82	8.13	7.79	7.90	7.33
Total F-gases		1.05	0.79	0.97	0.93	0.70	0.39
Agriculture	3A, 3B, 3C, 3D, 3F	20.11	17.90	18.27	16.14	16.25	14.62
Energy	1A, 1B	4.42	3.96	3.53	3.70	3.46	3.10
Industry	2B, 2C, 2E, 2G	3.09	1.93	0.56	0.29	0.31	0.32
Waste	5A, 5B, 5C	4.89	3.38	3.56	2.88	1.17	1.85
Wastewater	5D	2.49	2.34	2.32	2.34	2.34	2.07
Air conditioning & refrigeration	2F.1	0.91	0.60	0.78	0.74	0.52	0.23
Other sectors	2F, 2G	0.35	0.36	0.35	0.34	0.32	0.17
Calibration to UNFCCC 2005		10.47	10.47	10.47	10.47	10.47	10.47
whereof ETS sectors		3.08	1.87	0.49	0.22	0.24	0.25
whereof non-ETS sectors		43.65	39.07	39.35	36.69	34.61	32.58
Total non-CO ₂ GHGs		46.72	40.94	39.85	36.91	34.85	32.82

Slovakia

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		5.14	4.85	4.62	3.39	3.20	2.91
Total N ₂ O		3.70	3.54	2.64	2.52	2.50	2.38
Total F-gases		0.30	0.50	0.57	0.52	0.41	0.25
Agriculture	3A, 3B, 3C, 3D, 3F	3.00	2.62	2.60	2.49	2.43	2.36
Energy	1A, 1B	1.62	1.48	1.43	1.41	1.39	1.11
Industry	2B, 2C, 2E, 2G	1.30	1.34	0.30	0.15	0.16	0.17
Waste	5A, 5B, 5C	1.50	1.58	1.54	0.46	0.32	0.34
Wastewater	5D	0.83	0.79	0.80	0.81	0.83	0.77
Air conditioning & refrigeration	2F.1	0.21	0.40	0.48	0.44	0.32	0.16
Other sectors	2F, 2G	0.11	0.11	0.10	0.10	0.09	0.05
Calibration to UNFCCC 2005		0.57	0.57	0.57	0.57	0.57	0.57
whereof ETS sectors		1.28	1.32	0.28	0.13	0.14	0.14
whereof non-ETS sectors		7.86	7.57	7.54	6.31	5.98	5.39
Total non-CO ₂ GHGs		9.15	8.89	7.83	6.44	6.11	5.54

Slovenia

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		2.37	2.02	1.98	1.80	1.68	1.64
Total N ₂ O		0.83	0.80	0.72	0.72	0.69	0.64
Total F-gases		0.27	0.22	0.26	0.22	0.17	0.10
Agriculture	3A, 3B, 3C, 3D, 3F	1.80	1.75	1.68	1.64	1.60	1.62
Energy	1A, 1B	0.46	0.48	0.48	0.46	0.45	0.42
Industry	2B, 2C, 2E, 2G	0.16	0.03	0.04	0.04	0.04	0.04
Waste	5A, 5B, 5C	0.77	0.49	0.45	0.32	0.23	0.18
Wastewater	5D	0.34	0.25	0.25	0.26	0.26	0.23
Air conditioning & refrigeration	2F.1	0.10	0.18	0.21	0.17	0.12	0.05
Other sectors	2F, 2G	0.05	0.04	0.04	0.04	0.04	0.02
Calibration to UNFCCC 2005		-0.19	-0.19	-0.19	-0.19	-0.19	-0.19
whereof ETS sectors		0.14	0.01	0.03	0.03	0.03	0.03
whereof non-ETS sectors		3.33	3.02	2.94	2.71	2.52	2.36
Total non-CO ₂ GHGs		3.47	3.03	2.96	2.74	2.54	2.39

Spain

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		39.61	39.12	36.66	33.60	27.02	23.01
Total N ₂ O		25.03	23.56	23.91	24.68	24.59	23.18
Total F-gases		6.31	7.21	7.16	5.68	4.02	2.18
Agriculture	3A, 3B, 3C, 3D, 3F	36.66	35.30	35.79	37.79	33.27	30.71
Energy	1A, 1B	4.37	3.63	3.52	3.58	2.99	2.76
Industry	2B, 2C, 2E, 2G	2.25	1.11	0.84	0.67	0.69	0.73
Waste	5A, 5B, 5C	12.94	13.93	11.66	7.48	6.00	4.28
Wastewater	5D	3.38	3.38	3.36	3.37	3.26	2.64
Air conditioning & refrigeration	2F.1	4.17	5.28	5.46	4.36	3.12	1.47
Other sectors	2F, 2G	2.17	2.26	2.09	1.70	1.28	0.77
Calibration to UNFCCC 2005		5.01	5.01	5.01	5.01	5.01	5.01
whereof ETS sectors		1.56	0.59	0.37	0.16	0.17	0.17
whereof non-ETS sectors		69.40	69.31	67.37	63.79	55.46	48.20
Total non-CO ₂ GHGs		70.95	69.89	67.73	63.96	55.63	48.37

Sweden

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		6.58	5.43	5.07	4.76	4.55	4.21
Total N ₂ O		5.05	4.97	4.79	4.73	4.75	4.54
Total F-gases		1.95	1.95	1.88	1.57	1.16	0.87
Agriculture	3A, 3B, 3C, 3D, 3F	7.04	6.88	6.86	6.77	6.76	6.67
Energy	1A, 1B	1.82	1.91	1.81	1.82	1.81	1.79
Industry	2B, 2C, 2E, 2G	0.84	0.55	0.18	0.11	0.12	0.12
Waste	5A, 5B, 5C	2.83	1.78	1.53	1.29	1.09	0.85
Wastewater	5D	0.83	0.83	0.85	0.87	0.89	0.76
Air conditioning & refrigeration	2F.1	1.10	1.34	1.48	1.19	0.80	0.54
Other sectors	2F, 2G	0.57	0.50	0.47	0.46	0.44	0.34
Calibration to UNFCCC 2005		-1.45	-1.45	-1.45	-1.45	-1.45	-1.45
whereof ETS sectors		0.72	0.48	0.14	0.08	0.08	0.08
whereof non-ETS sectors		12.87	11.86	11.60	10.99	10.39	9.54
Total non-CO ₂ GHGs		13.59	12.35	11.74	11.06	10.47	9.62

United Kingdom

Non-CO2 GHG emissions EUCO27 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		92.26	64.48	52.22	45.81	40.85	33.07
Total N ₂ O		31.39	27.75	27.74	26.31	26.33	24.45
Total F-gases		9.52	10.30	10.56	8.75	6.41	3.50
Agriculture	3A, 3B, 3C, 3D, 3F	50.87	47.91	48.53	46.96	45.91	43.90
Energy	1A, 1B	23.94	19.03	15.14	12.88	12.55	10.02
Industry	2B, 2C, 2E, 2G	4.21	2.14	1.14	0.73	0.74	0.76
Waste	5A, 5B, 5C	49.60	27.98	19.45	15.71	12.02	8.21
Wastewater	5D	5.23	4.85	5.00	5.10	5.19	4.34
Air conditioning & refrigeration	2F.1	4.45	6.38	6.86	5.61	3.87	1.93
Other sectors	2F, 2G	4.59	3.98	4.13	3.61	3.04	1.58
Calibration to UNFCCC 2005		-9.73	-9.73	-9.73	-9.73	-9.73	-9.73
whereof ETS sectors		2.95	1.40	0.63	0.21	0.21	0.22
whereof non-ETS sectors		130.22	101.14	89.89	80.66	73.37	60.79
Total non-CO ₂ GHGs		133.16	102.54	90.52	80.87	73.58	61.01

Appendix II.b: EUCO30 scenario - non-CO₂ GHG emissions

EU-28

Non-CO₂ GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		547.44	490.62	454.02	401.88	384.86	369.06
Total N ₂ O		304.12	264.06	262.73	255.54	254.27	252.03
Total F-gases		88.04	100.72	103.78	88.71	67.79	42.49
Agriculture	3A, 3B, 3C, 3D, 3F	443.28	432.58	439.69	434.01	432.49	432.62
Energy	1A, 1B	118.30	101.88	91.99	88.93	82.70	75.84
Industry	2B, 2C, 2E, 2G	68.75	27.03	19.63	12.27	12.72	13.17
Waste	5A, 5B, 5C	185.53	151.68	122.93	79.16	67.87	55.79
Wastewater	5D	39.42	37.37	37.44	37.94	38.33	38.74
Air conditioning & refrigeration	2F.1	52.84	73.61	77.67	64.86	46.39	25.75
Other sectors	2F, 2G	27.44	27.21	27.15	24.92	22.40	17.63
Calibration to UNFCCC 2005		4.04	4.04	4.04	4.04	4.04	4.04
whereof ETS sectors		54.97	19.06	12.15	4.50	4.71	4.91
whereof non-ETS sectors		884.63	836.35	808.38	741.63	702.23	658.67
Total non-CO ₂ GHGs		939.60	855.41	820.54	746.12	706.93	663.58

Austria

Non-CO₂ GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		7.57	6.42	6.00	5.63	5.42	5.11
Total N ₂ O		3.50	3.44	3.45	3.50	3.50	3.48
Total F-gases		2.08	2.22	2.29	1.97	1.57	0.86
Agriculture	3A, 3B, 3C, 3D, 3F	7.19	7.23	7.26	7.34	7.34	7.34
Energy	1A, 1B	1.64	1.79	1.62	1.54	1.42	1.34
Industry	2B, 2C, 2E, 2G	0.61	0.24	0.27	0.29	0.31	0.32
Waste	5A, 5B, 5C	2.97	1.77	1.47	1.12	1.01	0.75
Wastewater	5D	0.44	0.43	0.44	0.45	0.46	0.47
Air conditioning & refrigeration	2F.1	1.17	1.71	1.78	1.46	1.06	0.61
Other sectors	2F, 2G	0.68	0.46	0.46	0.45	0.44	0.19
Calibration to UNFCCC 2005		-1.55	-1.55	-1.55	-1.55	-1.55	-1.55
whereof ETS sectors		0.26	0.06	0.09	0.10	0.11	0.11
whereof non-ETS sectors		12.89	12.02	11.65	11.00	10.38	9.35
Total non-CO ₂ GHGs		13.15	12.08	11.74	11.10	10.48	9.46

Belgium

Non-CO₂ GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		9.81	9.23	9.15	8.36	7.92	7.83
Total N ₂ O		8.15	7.16	6.10	5.73	5.71	5.78
Total F-gases		2.89	3.85	4.03	3.43	2.61	1.57
Agriculture	3A, 3B, 3C, 3D, 3F	11.28	11.17	11.37	11.05	10.70	10.68
Energy	1A, 1B	1.17	1.35	1.35	1.48	1.44	1.47
Industry	2B, 2C, 2E, 2G	3.48	2.29	1.06	0.66	0.69	0.72
Waste	5A, 5B, 5C	2.73	2.21	2.07	1.47	1.33	1.23
Wastewater	5D	0.64	0.63	0.65	0.68	0.71	0.73
Air conditioning & refrigeration	2F.1	2.37	3.42	3.60	3.02	2.23	1.33
Other sectors	2F, 2G	0.47	0.46	0.48	0.46	0.44	0.31
Calibration to UNFCCC 2005		-1.30	-1.30	-1.30	-1.30	-1.30	-1.30
whereof ETS sectors		2.95	1.79	0.62	0.20	0.21	0.23
whereof non-ETS sectors		17.90	18.45	18.67	17.31	16.03	14.95
Total non-CO ₂ GHGs		20.85	20.24	19.29	17.52	16.25	15.18

Bulgaria

Non-CO₂ GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		9.23	8.29	8.10	5.34	4.98	4.91
Total N ₂ O		4.06	3.62	3.93	4.07	4.16	4.23
Total F-gases		0.66	0.44	0.49	0.43	0.31	0.17
Agriculture	3A, 3B, 3C, 3D, 3F	5.22	5.06	5.41	5.45	5.49	5.53
Energy	1A, 1B	1.29	1.35	1.23	1.30	1.15	1.14
Industry	2B, 2C, 2E, 2G	0.89	0.24	0.26	0.09	0.10	0.10
Waste	5A, 5B, 5C	4.23	3.69	3.59	1.04	0.87	0.86
Wastewater	5D	0.76	0.69	0.66	0.66	0.65	0.64
Air conditioning & refrigeration	2F.1	0.64	0.38	0.43	0.37	0.26	0.13
Other sectors	2F, 2G	0.13	0.16	0.16	0.15	0.13	0.12
Calibration to UNFCCC 2005		0.78	0.78	0.78	0.78	0.78	0.78
whereof ETS sectors		0.88	0.22	0.25	0.08	0.09	0.09
whereof non-ETS sectors		13.08	12.12	12.28	9.76	9.36	9.22
Total non-CO ₂ GHGs		13.95	12.35	12.52	9.84	9.44	9.31

Croatia

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		4.15	4.01	3.71	3.22	3.09	3.08
Total N ₂ O		2.42	2.37	1.75	1.76	1.76	1.75
Total F-gases		0.82	1.02	0.48	0.42	0.31	0.17
Agriculture	3A, 3B, 3C, 3D, 3F	2.96	2.63	2.68	2.72	2.74	2.77
Energy	1A, 1B	0.64	0.61	0.53	0.54	0.51	0.47
Industry	2B, 2C, 2E, 2G	0.65	0.77	0.10	0.04	0.04	0.04
Waste	5A, 5B, 5C	1.34	1.38	1.18	0.72	0.59	0.59
Wastewater	5D	0.31	0.30	0.30	0.29	0.29	0.28
Air conditioning & refrigeration	2F.1	0.79	0.99	0.45	0.39	0.29	0.15
Other sectors	2F, 2G	0.08	0.08	0.08	0.08	0.07	0.07
Calibration to UNFCCC 2005		0.62	0.62	0.62	0.62	0.62	0.62
whereof ETS sectors		0.64	0.76	0.09	0.03	0.03	0.03
whereof non-ETS sectors		6.76	6.63	5.84	5.37	5.12	4.96
Total non-CO ₂ GHGs		7.39	7.39	5.93	5.40	5.16	5.00

Cyprus

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		0.80	0.83	0.87	0.66	0.78	0.86
Total N ₂ O		0.56	0.57	0.53	0.54	0.54	0.55
Total F-gases		0.18	0.19	0.18	0.16	0.12	0.07
Agriculture	3A, 3B, 3C, 3D, 3F	0.68	0.70	0.63	0.69	0.69	0.71
Energy	1A, 1B	0.05	0.05	0.03	0.02	0.15	0.20
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.32	0.33	0.40	0.15	0.15	0.16
Wastewater	5D	0.09	0.10	0.10	0.11	0.11	0.11
Air conditioning & refrigeration	2F.1	0.16	0.17	0.17	0.15	0.11	0.06
Other sectors	2F, 2G	0.03	0.03	0.03	0.03	0.02	0.02
Calibration to UNFCCC 2005		0.21	0.21	0.21	0.21	0.21	0.21
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		1.54	1.59	1.58	1.36	1.45	1.48
Total non-CO ₂ GHGs		1.54	1.59	1.58	1.36	1.45	1.48

Czech Republic

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		12.86	12.23	10.65	8.12	7.95	7.40
Total N ₂ O		6.75	5.91	6.14	5.83	6.09	6.05
Total F-gases		1.47	3.37	3.67	3.15	2.41	1.50
Agriculture	3A, 3B, 3C, 3D, 3F	7.25	6.78	7.25	6.88	6.93	6.87
Energy	1A, 1B	6.98	6.37	5.05	5.13	5.41	5.09
Industry	2B, 2C, 2E, 2G	1.05	0.51	0.46	0.31	0.32	0.34
Waste	5A, 5B, 5C	3.87	4.04	3.58	1.16	0.90	0.65
Wastewater	5D	0.77	0.76	0.77	0.79	0.80	0.82
Air conditioning & refrigeration	2F.1	1.30	3.19	3.51	2.99	2.26	1.35
Other sectors	2F, 2G	0.23	0.23	0.21	0.20	0.19	0.18
Calibration to UNFCCC 2005		-0.36	-0.36	-0.36	-0.36	-0.36	-0.36
whereof ETS sectors		0.89	0.33	0.25	0.08	0.09	0.09
whereof non-ETS sectors		20.19	21.18	20.21	17.01	16.36	14.85
Total non-CO ₂ GHGs		21.08	21.50	20.46	17.10	16.45	14.94

Denmark

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		7.62	7.29	7.09	6.89	6.76	6.55
Total N ₂ O		5.45	5.39	5.23	5.35	5.34	5.35
Total F-gases		0.94	0.97	0.96	0.87	0.65	0.40
Agriculture	3A, 3B, 3C, 3D, 3F	10.04	10.17	10.21	10.23	10.26	10.36
Energy	1A, 1B	1.72	1.40	0.97	1.01	0.89	0.78
Industry	2B, 2C, 2E, 2G	0.03	0.02	0.02	0.02	0.02	0.02
Waste	5A, 5B, 5C	1.28	1.08	1.10	0.96	0.89	0.71
Wastewater	5D	0.28	0.28	0.28	0.29	0.30	0.31
Air conditioning & refrigeration	2F.1	0.75	0.79	0.78	0.70	0.51	0.31
Other sectors	2F, 2G	0.24	0.24	0.24	0.23	0.20	0.16
Calibration to UNFCCC 2005		-0.33	-0.33	-0.33	-0.33	-0.33	-0.33
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		14.01	13.65	13.27	13.11	12.75	12.31
Total non-CO ₂ GHGs		14.01	13.65	13.27	13.11	12.75	12.31

Estonia

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		1.19	1.15	1.03	0.88	0.88	0.75
Total N ₂ O		0.63	0.70	0.76	0.78	0.79	0.77
Total F-gases		0.12	0.12	0.14	0.12	0.08	0.05
Agriculture	3A, 3B, 3C, 3D, 3F	1.15	1.17	1.31	1.29	1.26	1.30
Energy	1A, 1B	0.31	0.35	0.33	0.32	0.31	0.28
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.65	0.60	0.43	0.33	0.37	0.22
Wastewater	5D	0.07	0.08	0.08	0.08	0.08	0.08
Air conditioning & refrigeration	2F.1	0.07	0.11	0.12	0.11	0.07	0.04
Other sectors	2F, 2G	0.07	0.03	0.03	0.03	0.03	0.03
Calibration to UNFCCC 2005		-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		1.94	1.97	1.93	1.78	1.75	1.56
Total non-CO ₂ GHGs		1.94	1.97	1.93	1.78	1.75	1.56

Finland

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		5.66	5.28	4.97	3.89	3.74	3.65
Total N ₂ O		5.93	4.78	4.56	4.45	4.48	4.50
Total F-gases		0.58	0.70	0.73	0.62	0.42	0.23
Agriculture	3A, 3B, 3C, 3D, 3F	6.13	5.95	5.97	5.95	5.85	5.84
Energy	1A, 1B	1.54	1.87	1.56	1.56	1.63	1.66
Industry	2B, 2C, 2E, 2G	1.59	0.17	0.17	0.09	0.09	0.10
Waste	5A, 5B, 5C	2.77	2.53	2.30	1.19	1.10	0.98
Wastewater	5D	0.74	0.70	0.69	0.70	0.70	0.71
Air conditioning & refrigeration	2F.1	0.45	0.60	0.63	0.53	0.35	0.18
Other sectors	2F, 2G	0.18	0.18	0.17	0.16	0.14	0.13
Calibration to UNFCCC 2005		-1.23	-1.23	-1.23	-1.23	-1.23	-1.23
whereof ETS sectors		1.56	0.16	0.16	0.08	0.08	0.08
whereof non-ETS sectors		10.60	10.60	10.10	8.88	8.56	8.29
Total non-CO ₂ GHGs		12.17	10.76	10.26	8.96	8.64	8.38

France

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		64.07	63.86	60.99	50.45	49.27	48.84
Total N ₂ O		51.90	47.84	48.08	46.50	45.84	45.31
Total F-gases		13.27	14.62	15.00	13.14	9.99	6.85
Agriculture	3A, 3B, 3C, 3D, 3F	75.27	76.15	75.72	73.79	73.05	72.78
Energy	1A, 1B	5.72	5.36	4.88	5.52	4.90	4.47
Industry	2B, 2C, 2E, 2G	9.06	3.06	2.78	1.76	1.80	1.83
Waste	5A, 5B, 5C	18.30	17.92	16.30	6.41	5.84	5.48
Wastewater	5D	4.36	4.08	4.13	4.21	4.27	4.33
Air conditioning & refrigeration	2F.1	6.22	8.93	9.37	8.06	5.50	2.92
Other sectors	2F, 2G	4.79	5.30	5.37	4.82	4.21	3.65
Calibration to UNFCCC 2005		5.53	5.53	5.53	5.53	5.53	5.53
whereof ETS sectors		6.73	1.85	1.67	0.63	0.64	0.66
whereof non-ETS sectors		122.51	124.48	122.39	109.47	104.45	100.34
Total non-CO ₂ GHGs		129.24	126.33	124.07	110.09	105.09	100.99

Germany

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		69.83	60.03	54.44	50.75	48.24	45.57
Total N ₂ O		43.16	36.54	37.17	34.90	34.04	33.26
Total F-gases		15.93	17.13	17.47	14.79	11.77	6.90
Agriculture	3A, 3B, 3C, 3D, 3F	63.40	63.00	63.31	62.41	61.53	60.94
Energy	1A, 1B	21.87	17.24	15.57	14.74	13.40	12.30
Industry	2B, 2C, 2E, 2G	10.65	3.09	3.72	1.75	1.81	1.87
Waste	5A, 5B, 5C	19.05	13.66	9.45	7.09	5.86	4.06
Wastewater	5D	4.26	4.20	4.14	4.19	4.22	4.24
Air conditioning & refrigeration	2F.1	7.75	10.48	10.85	8.48	5.77	3.34
Other sectors	2F, 2G	6.76	6.85	6.86	6.61	6.28	3.81
Calibration to UNFCCC 2005		-4.82	-4.82	-4.82	-4.82	-4.82	-4.82
whereof ETS sectors		8.40	2.22	2.94	0.99	1.04	1.09
whereof non-ETS sectors		120.52	111.48	106.14	99.46	93.01	84.65
Total non-CO ₂ GHGs		128.92	113.70	109.08	100.44	94.05	85.73

Greece

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		12.16	12.47	10.29	8.76	8.28	7.94
Total N ₂ O		5.88	5.58	4.90	4.77	4.67	4.56
Total F-gases		5.59	4.60	4.14	3.41	2.47	1.55
Agriculture	3A, 3B, 3C, 3D, 3F	8.72	9.08	8.26	8.17	8.14	8.17
Energy	1A, 1B	3.21	2.69	2.34	2.02	1.71	1.35
Industry	2B, 2C, 2E, 2G	2.28	0.55	0.28	0.18	0.17	0.17
Waste	5A, 5B, 5C	3.95	4.40	3.07	1.94	1.70	1.58
Wastewater	5D	1.86	1.69	1.59	1.60	1.58	1.59
Air conditioning & refrigeration	2F.1	3.68	4.21	3.78	3.07	2.16	1.26
Other sectors	2F, 2G	0.32	0.43	0.39	0.37	0.34	0.33
Calibration to UNFCCC 2005		-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
whereof ETS sectors		0.58	0.45	0.18	0.08	0.08	0.07
whereof non-ETS sectors		23.05	22.20	19.15	16.86	15.35	13.98
Total non-CO ₂ GHGs		23.62	22.65	19.33	16.95	15.42	14.05

Hungary

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		8.76	8.52	8.14	5.12	4.58	4.25
Total N ₂ O		5.79	5.41	4.19	4.25	4.25	4.11
Total F-gases		1.05	1.06	1.16	1.03	0.81	0.53
Agriculture	3A, 3B, 3C, 3D, 3F	7.28	6.63	7.14	6.91	6.77	6.59
Energy	1A, 1B	1.78	1.61	1.40	1.26	1.02	0.98
Industry	2B, 2C, 2E, 2G	1.99	1.74	0.21	0.12	0.13	0.15
Waste	5A, 5B, 5C	3.58	3.90	3.51	1.03	0.87	0.61
Wastewater	5D	0.73	0.63	0.61	0.60	0.60	0.60
Air conditioning & refrigeration	2F.1	0.48	0.78	0.91	0.80	0.61	0.35
Other sectors	2F, 2G	0.40	0.34	0.34	0.31	0.27	0.23
Calibration to UNFCCC 2005		-0.63	-0.63	-0.63	-0.63	-0.63	-0.63
whereof ETS sectors		1.94	1.65	0.15	0.05	0.06	0.06
whereof non-ETS sectors		13.66	13.34	13.34	10.35	9.59	8.83
Total non-CO ₂ GHGs		15.60	14.99	13.50	10.41	9.65	8.89

Ireland

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		13.98	12.75	14.24	14.00	14.59	14.74
Total N ₂ O		8.13	7.94	8.31	8.40	8.56	8.69
Total F-gases		0.97	0.84	0.93	0.82	0.62	0.40
Agriculture	3A, 3B, 3C, 3D, 3F	19.01	18.13	19.75	20.37	20.96	21.48
Energy	1A, 1B	0.57	0.50	0.50	0.39	0.39	0.40
Industry	2B, 2C, 2E, 2G	0.30	0.08	0.09	0.10	0.10	0.11
Waste	5A, 5B, 5C	1.87	1.41	1.64	0.97	1.14	0.89
Wastewater	5D	0.36	0.34	0.35	0.36	0.36	0.36
Air conditioning & refrigeration	2F.1	0.41	0.53	0.60	0.53	0.37	0.19
Other sectors	2F, 2G	0.32	0.30	0.31	0.26	0.21	0.16
Calibration to UNFCCC 2005		0.24	0.24	0.24	0.24	0.24	0.24
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		23.09	21.53	23.48	23.23	23.77	23.84
Total non-CO ₂ GHGs		23.09	21.53	23.48	23.23	23.77	23.84

Italy

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		50.34	46.43	44.22	41.43	38.67	37.21
Total N ₂ O		28.40	19.28	20.79	20.51	20.07	19.76
Total F-gases		12.54	15.88	16.17	13.56	10.50	7.16
Agriculture	3A, 3B, 3C, 3D, 3F	32.38	29.92	31.65	30.61	30.26	29.97
Energy	1A, 1B	11.37	10.32	10.39	10.56	10.01	9.75
Industry	2B, 2C, 2E, 2G	9.87	2.52	2.38	1.99	2.01	2.04
Waste	5A, 5B, 5C	20.95	18.19	15.77	13.86	11.46	10.15
Wastewater	5D	4.11	4.14	4.15	4.24	4.31	4.38
Air conditioning & refrigeration	2F.1	8.43	11.90	12.26	9.87	7.04	3.89
Other sectors	2F, 2G	2.56	2.97	2.96	2.76	2.54	2.34
Calibration to UNFCCC 2005		1.61	1.61	1.61	1.61	1.61	1.61
whereof ETS sectors		7.66	0.73	0.61	0.18	0.19	0.20
whereof non-ETS sectors		83.60	80.86	80.56	75.32	69.04	63.92
Total non-CO ₂ GHGs		91.27	81.58	81.17	75.50	69.23	64.13

Latvia

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		2.00	1.95	1.88	1.45	1.41	1.38
Total N ₂ O		1.28	1.34	1.37	1.37	1.39	1.40
Total F-gases		0.05	0.14	0.19	0.18	0.12	0.07
Agriculture	3A, 3B, 3C, 3D, 3F	2.04	2.10	2.18	2.12	2.12	2.14
Energy	1A, 1B	0.28	0.24	0.24	0.22	0.20	0.20
Industry	2B, 2C, 2E, 2G	0.00	0.01	0.01	0.01	0.01	0.01
Waste	5A, 5B, 5C	0.63	0.69	0.56	0.22	0.21	0.18
Wastewater	5D	0.26	0.20	0.21	0.22	0.21	0.21
Air conditioning & refrigeration	2F.1	0.05	0.13	0.19	0.17	0.11	0.06
Other sectors	2F, 2G	0.04	0.03	0.03	0.03	0.03	0.03
Calibration to UNFCCC 2005		0.02	0.02	0.02	0.02	0.02	0.02
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		3.33	3.42	3.44	3.00	2.93	2.85
Total non-CO ₂ GHGs		3.33	3.42	3.44	3.00	2.93	2.85

Lithuania

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		3.97	4.05	3.64	2.99	2.81	2.71
Total N ₂ O		5.15	3.56	3.55	3.10	3.13	3.15
Total F-gases		0.16	0.32	0.37	0.33	0.23	0.12
Agriculture	3A, 3B, 3C, 3D, 3F	5.44	5.45	5.50	5.38	5.44	5.51
Energy	1A, 1B	0.49	0.49	0.44	0.40	0.37	0.32
Industry	2B, 2C, 2E, 2G	2.32	0.71	0.65	0.21	0.21	0.21
Waste	5A, 5B, 5C	1.27	1.39	1.03	0.53	0.38	0.30
Wastewater	5D	0.32	0.31	0.31	0.29	0.28	0.26
Air conditioning & refrigeration	2F.1	0.15	0.30	0.34	0.30	0.21	0.10
Other sectors	2F, 2G	0.06	0.07	0.06	0.06	0.05	0.04
Calibration to UNFCCC 2005		-0.77	-0.77	-0.77	-0.77	-0.77	-0.77
whereof ETS sectors		2.32	0.70	0.64	0.21	0.21	0.20
whereof non-ETS sectors		6.96	7.24	6.92	6.20	5.96	5.77
Total non-CO ₂ GHGs		9.28	7.94	7.56	6.41	6.17	5.97

Luxembourg

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		0.58	0.59	0.58	0.58	0.58	0.58
Total N ₂ O		0.30	0.32	0.32	0.32	0.34	0.35
Total F-gases		0.05	0.06	0.09	0.09	0.06	0.03
Agriculture	3A, 3B, 3C, 3D, 3F	0.64	0.71	0.69	0.66	0.67	0.67
Energy	1A, 1B	0.16	0.13	0.15	0.17	0.18	0.19
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.06	0.05	0.04	0.04	0.04	0.04
Wastewater	5D	0.02	0.02	0.03	0.03	0.03	0.04
Air conditioning & refrigeration	2F.1	0.04	0.05	0.08	0.08	0.05	0.03
Other sectors	2F, 2G	0.02	0.02	0.02	0.02	0.02	0.01
Calibration to UNFCCC 2005		-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		0.92	0.98	0.99	0.99	0.98	0.96
Total non-CO ₂ GHGs		0.92	0.98	0.99	0.99	0.98	0.96

Malta

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		0.17	0.15	0.15	0.13	0.11	0.11
Total N ₂ O		0.06	0.05	0.05	0.05	0.05	0.05
Total F-gases		0.06	0.12	0.15	0.14	0.10	0.06
Agriculture	3A, 3B, 3C, 3D, 3F	0.12	0.10	0.10	0.10	0.09	0.09
Energy	1A, 1B	0.02	0.01	0.01	0.01	0.01	0.01
Industry	2B, 2C, 2E, 2G	0.00	0.00	0.00	0.00	0.00	0.00
Waste	5A, 5B, 5C	0.08	0.08	0.08	0.06	0.05	0.05
Wastewater	5D	0.02	0.02	0.03	0.03	0.03	0.03
Air conditioning & refrigeration	2F.1	0.06	0.12	0.14	0.13	0.10	0.06
Other sectors	2F, 2G	0.01	0.01	0.01	0.01	0.01	0.01
Calibration to UNFCCC 2005		-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
whereof ETS sectors		0.00	0.00	0.00	0.00	0.00	0.00
whereof non-ETS sectors		0.29	0.33	0.35	0.31	0.27	0.22
Total non-CO ₂ GHGs		0.29	0.33	0.35	0.31	0.27	0.22

Netherlands

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		20.48	21.05	17.30	16.96	16.88	17.12
Total N ₂ O		13.84	9.36	9.64	8.79	8.64	8.71
Total F-gases		2.70	2.89	2.93	2.57	1.96	1.39
Agriculture	3A, 3B, 3C, 3D, 3F	19.14	19.62	20.27	19.69	19.41	19.59
Energy	1A, 1B	1.84	1.76	1.62	1.71	1.62	1.62
Industry	2B, 2C, 2E, 2G	6.91	2.38	2.42	1.69	1.76	1.83
Waste	5A, 5B, 5C	6.92	6.96	2.84	2.87	2.95	3.02
Wastewater	5D	0.99	0.92	0.93	0.95	0.97	0.99
Air conditioning & refrigeration	2F.1	1.43	1.92	2.04	1.72	1.15	0.68
Other sectors	2F, 2G	0.72	0.68	0.68	0.62	0.55	0.43
Calibration to UNFCCC 2005		-0.93	-0.93	-0.93	-0.93	-0.93	-0.93
whereof ETS sectors		5.54	1.23	1.30	0.50	0.52	0.55
whereof non-ETS sectors		31.47	32.08	28.57	27.82	26.96	26.68
Total non-CO ₂ GHGs		37.02	33.31	29.86	28.31	27.48	27.23

Poland

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		46.98	43.56	43.47	38.68	37.33	37.56
Total N ₂ O		22.17	19.68	20.27	20.22	20.58	20.92
Total F-gases		5.59	7.81	9.42	8.60	6.69	3.58
Agriculture	3A, 3B, 3C, 3D, 3F	30.90	31.21	31.78	32.75	33.52	34.55
Energy	1A, 1B	17.69	14.94	14.87	14.27	12.36	11.45
Industry	2B, 2C, 2E, 2G	4.64	1.19	1.54	0.88	0.98	1.06
Waste	5A, 5B, 5C	10.31	10.11	9.70	5.12	5.16	5.51
Wastewater	5D	1.75	1.76	1.81	1.84	1.86	1.87
Air conditioning & refrigeration	2F.1	4.67	7.45	9.06	8.27	6.41	3.35
Other sectors	2F, 2G	1.29	0.88	0.88	0.85	0.80	0.74
Calibration to UNFCCC 2005		3.51	3.51	3.51	3.51	3.51	3.51
whereof ETS sectors		4.37	0.91	1.15	0.42	0.47	0.52
whereof non-ETS sectors		70.38	70.13	72.00	67.07	64.12	61.54
Total non-CO ₂ GHGs		74.74	71.04	73.15	67.49	64.60	62.05

Portugal

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		14.00	13.25	11.82	10.04	9.81	8.68
Total N ₂ O		4.21	3.79	3.71	3.58	3.60	3.61
Total F-gases		0.94	1.40	1.40	1.23	0.92	0.55
Agriculture	3A, 3B, 3C, 3D, 3F	7.56	7.24	7.54	7.67	7.86	8.02
Energy	1A, 1B	1.36	0.96	1.00	0.90	0.89	0.82
Industry	2B, 2C, 2E, 2G	0.57	0.38	0.16	0.08	0.09	0.09
Waste	5A, 5B, 5C	5.87	6.17	4.61	2.71	2.28	1.05
Wastewater	5D	3.17	2.64	2.56	2.60	2.65	2.67
Air conditioning & refrigeration	2F.1	0.84	1.29	1.30	1.13	0.82	0.46
Other sectors	2F, 2G	0.22	0.22	0.21	0.20	0.20	0.20
Calibration to UNFCCC 2005		-0.45	-0.45	-0.45	-0.45	-0.45	-0.45
whereof ETS sectors		0.54	0.33	0.11	0.04	0.04	0.04
whereof non-ETS sectors		18.60	18.11	16.82	14.81	14.29	12.81
Total non-CO ₂ GHGs		19.14	18.44	16.93	14.85	14.33	12.85

Romania

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		35.27	31.34	30.74	28.19	27.85	26.77
Total N ₂ O		10.41	8.82	8.13	7.79	7.90	7.72
Total F-gases		1.05	0.79	0.97	0.93	0.72	0.45
Agriculture	3A, 3B, 3C, 3D, 3F	20.11	17.90	18.27	16.14	16.25	15.66
Energy	1A, 1B	4.42	3.96	3.53	3.70	3.54	3.24
Industry	2B, 2C, 2E, 2G	3.09	1.93	0.56	0.29	0.31	0.32
Waste	5A, 5B, 5C	4.89	3.38	3.56	2.88	2.70	2.33
Wastewater	5D	2.49	2.34	2.32	2.34	2.34	2.33
Air conditioning & refrigeration	2F.1	0.91	0.60	0.78	0.74	0.54	0.27
Other sectors	2F, 2G	0.35	0.36	0.35	0.34	0.32	0.30
Calibration to UNFCCC 2005		10.47	10.47	10.47	10.47	10.47	10.47
whereof ETS sectors		3.08	1.87	0.49	0.22	0.24	0.25
whereof non-ETS sectors		43.65	39.07	39.35	36.69	36.24	34.69
Total non-CO ₂ GHGs		46.72	40.94	39.85	36.91	36.47	34.94

Slovakia

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		5.14	4.85	4.62	3.39	3.35	3.23
Total N ₂ O		3.70	3.54	2.64	2.52	2.50	2.49
Total F-gases		0.30	0.50	0.57	0.52	0.41	0.27
Agriculture	3A, 3B, 3C, 3D, 3F	3.00	2.62	2.60	2.49	2.45	2.45
Energy	1A, 1B	1.62	1.48	1.43	1.41	1.39	1.29
Industry	2B, 2C, 2E, 2G	1.30	1.34	0.30	0.15	0.16	0.17
Waste	5A, 5B, 5C	1.50	1.58	1.54	0.46	0.45	0.39
Wastewater	5D	0.83	0.79	0.80	0.81	0.83	0.84
Air conditioning & refrigeration	2F.1	0.21	0.40	0.48	0.44	0.33	0.18
Other sectors	2F, 2G	0.11	0.11	0.10	0.10	0.09	0.09
Calibration to UNFCCC 2005		0.57	0.57	0.57	0.57	0.57	0.57
whereof ETS sectors		1.28	1.32	0.28	0.13	0.14	0.14
whereof non-ETS sectors		7.86	7.57	7.54	6.31	6.13	5.84
Total non-CO ₂ GHGs		9.15	8.89	7.83	6.44	6.27	5.99

Slovenia

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		2.37	2.02	1.98	1.80	1.73	1.68
Total N ₂ O		0.83	0.80	0.72	0.72	0.69	0.69
Total F-gases		0.27	0.22	0.26	0.22	0.17	0.11
Agriculture	3A, 3B, 3C, 3D, 3F	1.80	1.75	1.68	1.64	1.60	1.64
Energy	1A, 1B	0.46	0.48	0.48	0.46	0.45	0.43
Industry	2B, 2C, 2E, 2G	0.16	0.03	0.04	0.04	0.04	0.04
Waste	5A, 5B, 5C	0.77	0.49	0.45	0.32	0.27	0.20
Wastewater	5D	0.34	0.25	0.25	0.26	0.26	0.26
Air conditioning & refrigeration	2F.1	0.10	0.18	0.21	0.17	0.12	0.06
Other sectors	2F, 2G	0.05	0.04	0.04	0.04	0.04	0.03
Calibration to UNFCCC 2005		-0.19	-0.19	-0.19	-0.19	-0.19	-0.19
whereof ETS sectors		0.14	0.01	0.03	0.03	0.03	0.03
whereof non-ETS sectors		3.33	3.02	2.94	2.71	2.57	2.45
Total non-CO ₂ GHGs		3.47	3.03	2.96	2.74	2.59	2.47

Spain

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		39.61	39.12	36.66	33.60	31.79	30.49
Total N ₂ O		25.03	23.56	23.91	24.68	24.59	24.11
Total F-gases		6.31	7.21	7.16	5.68	4.12	2.50
Agriculture	3A, 3B, 3C, 3D, 3F	36.66	35.30	35.79	37.79	37.86	37.64
Energy	1A, 1B	4.37	3.63	3.52	3.58	2.99	2.78
Industry	2B, 2C, 2E, 2G	2.25	1.11	0.84	0.67	0.69	0.73
Waste	5A, 5B, 5C	12.94	13.93	11.66	7.48	6.11	4.72
Wastewater	5D	3.38	3.38	3.36	3.37	3.35	3.35
Air conditioning & refrigeration	2F.1	4.17	5.28	5.46	4.36	3.22	1.76
Other sectors	2F, 2G	2.17	2.26	2.09	1.70	1.28	1.11
Calibration to UNFCCC 2005		5.01	5.01	5.01	5.01	5.01	5.01
whereof ETS sectors		1.56	0.59	0.37	0.16	0.17	0.17
whereof non-ETS sectors		69.40	69.31	67.37	63.79	60.34	56.92
Total non-CO ₂ GHGs		70.95	69.89	67.73	63.96	60.50	57.09

Sweden

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		6.58	5.43	5.07	4.76	4.55	4.39
Total N ₂ O		5.05	4.97	4.79	4.73	4.75	4.77
Total F-gases		1.95	1.95	1.88	1.57	1.18	0.90
Agriculture	3A, 3B, 3C, 3D, 3F	7.04	6.88	6.86	6.77	6.76	6.85
Energy	1A, 1B	1.82	1.91	1.81	1.82	1.81	1.79
Industry	2B, 2C, 2E, 2G	0.84	0.55	0.18	0.11	0.12	0.12
Waste	5A, 5B, 5C	2.83	1.78	1.53	1.29	1.09	0.85
Wastewater	5D	0.83	0.83	0.85	0.87	0.89	0.91
Air conditioning & refrigeration	2F.1	1.10	1.34	1.48	1.19	0.81	0.55
Other sectors	2F, 2G	0.57	0.50	0.47	0.46	0.45	0.43
Calibration to UNFCCC 2005		-1.45	-1.45	-1.45	-1.45	-1.45	-1.45
whereof ETS sectors		0.72	0.48	0.14	0.08	0.08	0.08
whereof non-ETS sectors		12.87	11.86	11.60	10.99	10.40	9.97
Total non-CO ₂ GHGs		13.59	12.35	11.74	11.06	10.48	10.06

United Kingdom

Non-CO2 GHG emissions EUCO30 scenario

Non-CO ₂ GHG in Mt CO ₂ eq	UNFCCC CRF code 2015	2005	2010	2015	2020	2025	2030
Total CH ₄		92.26	64.48	52.22	45.81	41.51	35.67
Total N ₂ O		31.39	27.75	27.74	26.31	26.33	25.93
Total F-gases		9.52	10.30	10.56	8.75	6.45	4.05
Agriculture	3A, 3B, 3C, 3D, 3F	50.87	47.91	48.53	46.96	46.50	46.47
Energy	1A, 1B	23.94	19.03	15.14	12.88	12.55	10.02
Industry	2B, 2C, 2E, 2G	4.21	2.14	1.14	0.73	0.74	0.76
Waste	5A, 5B, 5C	49.60	27.98	19.45	15.71	12.10	8.24
Wastewater	5D	5.23	4.85	5.00	5.10	5.19	5.32
Air conditioning & refrigeration	2F.1	4.45	6.38	6.86	5.61	3.90	2.07
Other sectors	2F, 2G	4.59	3.98	4.13	3.61	3.04	2.49
Calibration to UNFCCC 2005		-9.73	-9.73	-9.73	-9.73	-9.73	-9.73
whereof ETS sectors		2.95	1.40	0.63	0.21	0.21	0.22
whereof non-ETS sectors		130.22	101.14	89.89	80.66	74.08	65.43
Total non-CO ₂ GHGs		133.16	102.54	90.52	80.87	74.29	65.65

Appendix II.c: EUCO+ scenarios and EUCO3030 sensitivity - non-CO₂ GHG emissions

As no policy incentives until 2030 are assumed for the EUCO+ and EUCO3030 scenarios, similarly to the case of the EUCO30 scenario, the results of all the former in terms of non-CO₂ GHG emissions are identical to the ones for EUCO30 presented in Appendix II.b.