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COMMISSION STAFF WORKING DOCUMENT

EVALUATION

of the

Council Directive 2003/96/EC of 27 October 2003

**restructuring the Community framework for the taxation of energy products and
electricity**

{SWD(2019) 332 final}

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Glossary

Term or acronym	Meaning or definition
CHP	Combined heat and power generation
CJEU	Court of Justice of the European Union
CN	Combined Nomenclature
DG TAXUD	Directorate-General for Taxation and the Customs Union
eAD	Electronic Administrative Document for excise goods which are moved under duty-suspension
EMCS	Excise Movement Control System
Energy Taxation Directive	Council Directive 2003/96/EC
ETD	Energy Taxation Directive
EU ETS	European Union Emissions Trading System
EUA	European Union Allowance
GHG	Greenhouse Gas (CO ₂ , N ₂ O, PFCs)
Horizontal Excise Directive	Council Directive 2008/118/EC
JRC	Joint Research Centre
LPG	Liquefied Petroleum Gas
Mineral Oils Directives	Directives 92/81/EEC and 92/82/EEC
NACE	European Classification of Economic Activities
RED / RED II	Renewable Energy Directive / Recast Renewable Energy Directive
REFIT	The Commission's regulatory fitness and performance programme
SAAD	Simplified Administrative Document
TFEU	Treaty on the Functioning of the EU
UCC	Union Customs Code

1. INTRODUCTION

Directive 2003/96/EC¹ (hereafter “the Energy Taxation Directive” or “the ETD”), lays down the EU rules for the taxation of energy products used as motor fuel or heating fuel and of electricity. Other uses of energy products and electricity (e.g. energy products used as raw material) are out of scope of the ETD. All these products are also bound by the common provisions applicable to all products subject to excise duties set out in Council Directive 2008/118/EC² (also known as “the Horizontal Excise Directive”).

The ETD identifies the energy products subject to the harmonised rules for excise duties, sets minimum levels of taxation (specified in its Annex I), lays down the conditions for applying tax exemptions and reductions, provides for specific rules³ in addition to the main rules provided for in the Horizontal Excise Directive and, finally, contains some procedural rules. In this context, the Member States are free to apply excise duty rates above these minimum levels of taxation, according to their own national needs. All revenue from excise duties goes entirely to the Member States.

The legal basis of the ETD is former Article 93 of the Treaty Establishing the European Community, now Article 113 of the Treaty on the Functioning of the European Union (TFEU)⁴ for the harmonisation of indirect taxes, including excise duties, to ensure the establishment and the functioning of the internal market and to avoid distortion of competition.

The ETD has been amended by Council Directive 2004/74/EC⁵ and Council Directive 2004/75/EC⁶, both adopted on 29 April 2004, in the context of EU enlargement in 2004,

¹ [Council Directive 2003/96/EC](#) of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity (OJ L 283, 31.10.2003, pp. 51-70). The ETD entered into force as of the day of publication in the Official Journal of the European Union, i.e. 31 October 2003. Member States were to comply with the requirements laid down in the Directive by 1 January 2004.

² [Council Directive 2008/118/EC](#) of 16 December 2008 concerning the general arrangements for excise duty and repealing Directive 92/12/EEC (OJ L 9, 14.1.2009, p. 12).

³ For example, on applicability of control and movement provisions as well as on chargeable event and payment in certain cases. About control and movement provisions, see also the [Commission Implementing Decision 2012/209/EU](#) of 20 April 2012 concerning the application of the control and movement provisions of Council Directive 2008/118/EC to certain additives, in accordance with Article 20(2) of Council Directive 2003/96/EC (notified under document C(2012) 2484) (OJ L 110, 24.4.2012, p. 41–41). The Decision repealed the previous [Commission Implementing Decision 2011/545/EU](#) of 16 September 2011 concerning the application of the control and movement provisions of Council Directive 2008/118/EC to products falling within CN code 3811, in accordance with Article 20(2) of Council Directive 2003/96/EC (notified under document C(2011) 6423) (OJ L 241, 17.9.2011, p. 33–33).

⁴ Establishing that “*The Council shall, acting unanimously in accordance with a special legislative procedure and after consulting the European Parliament and the Economic and Social Committee, adopt provisions for the harmonisation of legislation concerning turnover taxes, excise duties and other forms of indirect taxation to the extent that such harmonisation is necessary to ensure the establishment and the functioning of the internal market and to avoid distortion of competition.*”.

⁵ [Council Directive 2004/74/EC](#) of 29 April 2004 amending Directive 2003/96/EC as regards the possibility for certain Member States to apply, in respect of energy products and electricity, temporary exemptions or reductions in the levels of taxation (OJ L 157, 30.4.2004, p. 87–99). See also [Corrigendum to Council Directive 2004/74/EC](#) of 29 April 2004 amending Directive 2003/96/EC as

and updated by Commission Implementing Decision (EU) 2018/552 of 6 April 2018⁷ to update the references to the codes of the Combined Nomenclature.

In 2011⁸, the Commission proposed to change the scope and structure of the Directive. The proposal, amongst other things, aimed at taxing energy products in a way that reflects both their energy content and CO₂ emissions. The European Parliament and the European Economic and Social Committee gave a positive opinion. However, Member States could not agree on the main political aspects of the proposal after almost four years of negotiations and consequently the Commission decided in 2015 to withdraw its proposal⁹. Thus, the imbalances and distortions this proposal aimed to address remain unanswered.

In light of the examination obligations incumbent on the Commission from the ETD¹⁰ and taking into consideration the legal issues encountered, and the emerging economic, social and environmental challenges that EU policies seek to address, as well as stakeholders' feedback received from Member States' authorities and businesses, the present evaluation started in August 2017 in the framework of the Commission's Regulatory Fitness and Performance (REFIT) exercise¹¹. From March to June 2018, the European Commission ran a public consultation¹² on the evaluation of the functioning of the Directive.

regards the possibility for certain Member States to apply, in respect of energy products and electricity, temporary exemptions or reductions in the levels of taxation (OJ L 157, 30.4.2004) (OJ L 195, 2.6.2004, p. 26–30).

⁶ [Council Directive 2004/75/EC](#) of 29 April 2004 amending Directive 2003/96/EC as regards the possibility for Cyprus to apply, in respect of energy products and electricity, temporary exemptions or reductions in the levels of taxation (OJ L 157, 30.4.2004, p. 100–105). See also [Corrigendum to Council Directive 2004/75/EC](#) of 29 April 2004 amending Directive 2003/96/EC as regards the possibility for Cyprus to apply, in respect of energy products and electricity, temporary exemptions or reductions in the levels of taxation (OJ L 157, 30.4.2004) (OJ L 195, 2.6.2004, p. 31–32).

⁷ [Commission Implementing Decision \(EU\) 2018/552](#) of 6 April 2018 updating the references in Council Directive 2003/96/EC to the codes of the Combined Nomenclature for certain products (OJ L 91, 9.4.2018, p. 27–29).

⁸ Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, [COM\(2011\) 0169 final - CNS 2011/0092 of 13.4.2011](#).

⁹ [Withdrawal of Commission proposals](#) (OJ C 80, 7.3.2015, p. 17–23).

¹⁰ See in particular Article 29 of ETD, but also Articles 15(1)(d), 7(1), 9(2), 15(3) and 16(8).

¹¹ See Evaluation and Fitness Check (FC) Roadmap, Ref. Ares(2017)4224148 - 29/08/2017, published on [Evaluation Energy Taxation Directive](#).

¹² Consultation on [Evaluation of the EU framework for taxation of energy products and electricity](#).

1.1. Purpose

The evaluation, in line with the goals of the Commission's Regulatory Fitness and Performance programme, focuses on identifying the possibilities for simplifying the legislative act and on reducing regulatory burdens as well as identifying and calculating regulatory benefits and savings from the implementation and enforcement of the Directive.

The evaluation looks at the implementation of the different provisions of the ETD, and assesses its application by Member States (in particular unclear provisions, the levels of the minimum rates of taxation as well as tax reductions and exemptions).

The assessment is carried out in accordance with the requirements under the Directive, which provides¹³ that the Commission periodically prepares reports and where appropriate makes legislative proposals in relation to the ETD taking into account the proper functioning of the internal market, the real value of the minimum levels of taxation and the wider objectives of the Treaty.

It assesses the performance of the Directive against the basic principles of relevance, effectiveness, efficiency, coherence and EU added value, in line with the Better Regulation Guidelines¹⁴.

The purpose of this evaluation is twofold. Firstly, it establishes whether the ETD met its main objective, namely supporting the proper functioning of the internal market. Secondly, it assesses whether new concerns and challenges have arisen since its adoption, which cannot be addressed by the Directive in its present form.

This evaluation will help determine whether any subsequent policy action is needed in order to address any identified shortcomings.

1.2. Scope

The evaluation takes into account the ETD objectives, all provisions of the ETD and the relevant case law by the CJEU. The time period covered is from the adoption of the Directive until the availability of the latest reported data¹⁵.

¹³ Articles 29, 15(1)(d), 7(1), 9(2), 15(3), 16(8) of the ETD.

¹⁴ [Better Regulation Guidelines](#).

¹⁵ Availability of the latest data differs across data sets from 2016 to 2018.

2. BACKGROUND TO THE INTERVENTION (DIRECTIVE 2003/96/EC)

2.1. Description of the objectives of the intervention

Prior to the entry into force of the ETD in 2003, the Union framework for energy taxation only covered mineral oils by means of Directives 92/81/EEC and 92/82/EEC (the so-called “Mineral Oils Directives”)¹⁶. The ETD widened the scope of the previous Directives to avoid distortions between competing sources of energy, set new minimum rates for the products introduced under the widened scope and updated rates for mineral oils previously covered.

The Commission proposal at the time¹⁷ did not introduce a new tax, but aimed to establish a new harmonised framework for the taxation of energy products which made it possible to restructure national tax systems and to allow Member States to pursue, through taxation, objectives related to employment, environment, transport and energy policy, while respecting a key EU objective: the single market. The Directive also came at a time when a number of Member States were looking at ways of restructuring and reforming their tax systems. The objectives of the ETD and an overview of its structure, can be deduced from its preamble, synthetically illustrated as follows:

Table 1 Objectives of the ETD

Primary objective	Secondary objectives	Structure and content of the ETD
Proper functioning of the internal market (recitals 2, 3, 4, 8, 15, 19, 24 and 26)	Support the Member States in achieving other EU policies such as: <ul style="list-style-type: none"> - environmental protection and accomplishment of international commitments (recitals 6, 7, 11, 12, 25, 26, 28 and 29); - energy efficiency (recitals 29); - promoting the EU economy by maintaining/improving the competitiveness of EU companies in the international framework (recitals 8, 23 and 28); - transport policies (recitals 12, 19 and 23); - redirecting fiscal policy to combat unemployment and consideration for the social dimension (recitals 11 and 28). 	<p>Minimum levels of taxation for energy products and electricity (recitals 1, 2, 3, 4, 5, 8, 13, 14, 17, 18 and 21)</p> <p>Uses out of scope of the harmonised rules (recitals 16 and 22)</p> <p>Mandatory exemption (recital 23)</p> <p>Flexibility for the Member States (recitals 9, 10, 11, 15, 19, 20, 21, 24, 25, 26, 28, 29 and 30), including the possibility of exemptions or reductions below the minimum levels of taxation to induce the substitution of modes of energy use</p> <p>Procedural rules and relations with other relevant excise rules (recitals 27, 31, 32, 33 and 34)</p>

¹⁶ [Council Directive 92/81/EEC of 19 October 1992](#) on the harmonization of the structures of excise duties on mineral oils (OJ L 316, 31.10.1992, p. 12–15) and [Council Directive 92/82/EEC of 19 October 1992](#) on the approximation of the rates of excise duties on mineral oils (OJ L 316, 31.10.1992, p. 19–20).

¹⁷ See the [Explanatory Memorandum](#) of the Commission Proposal for a Directive restructuring the community framework for the taxation of energy products, COM(97)30 final.

The harmonisation of energy taxation through the ETD was meant to avoid the harmful effects of energy tax competition between the Member States. This harmonisation ultimately aimed at strengthening the internal market by tackling possible distortions of competition stemming from the relocation of consumers of energy (i.e. businesses) to Member States with more beneficial tax regimes.

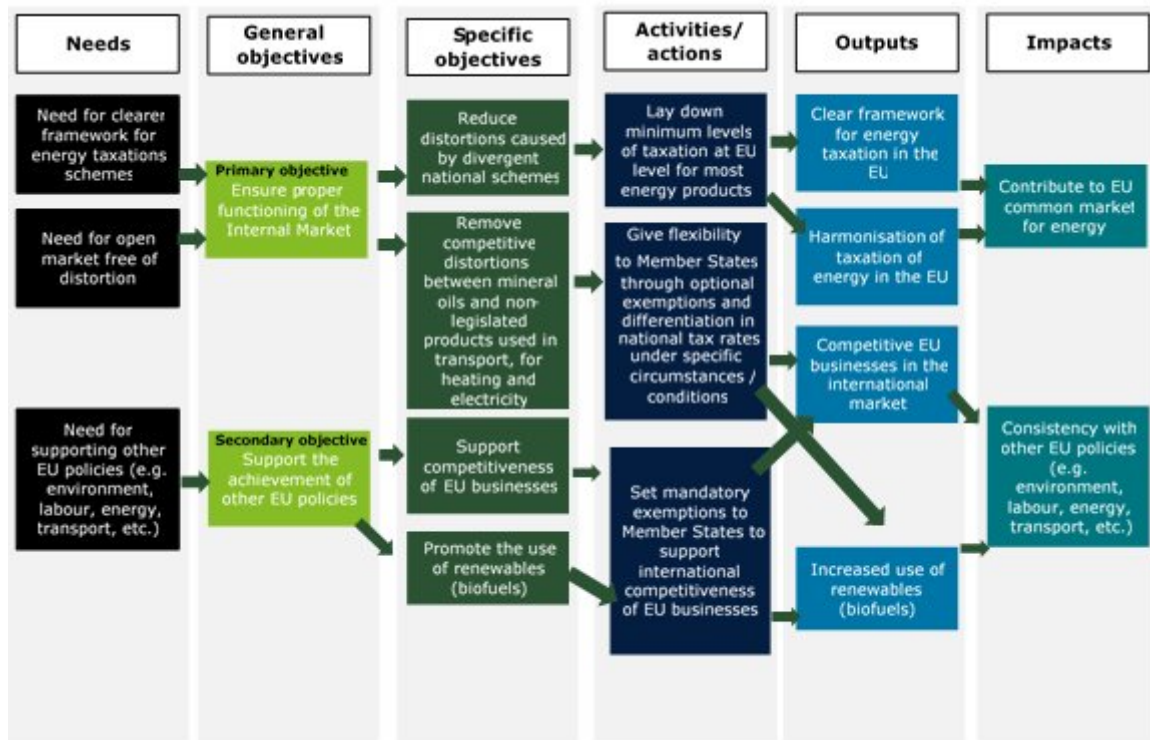
The ETD also intended to allow Member States to use taxation policy in support of other policies, such as: environmental protection and achievement of international climate related commitments (at the time of the adoption of the ETD, specifically the Kyoto Protocol), energy efficiency, promotion of the EU economy by maintaining the competitiveness of EU companies in the international framework, consideration of transport policies and redirection of fiscal policy to combat unemployment.

The above described policy framework was transposed into the legislative structure of the Directive, which leaves considerable flexibility for Member States to design their energy taxation systems in a way that is appropriate to their national circumstances¹⁸.

The ETD sets minimum levels of taxation, while allowing Member States to apply national rate above these minimum rates without an upper limit as well as to introduce additional taxes. The ETD also allows Member States to grant exemptions and reductions, which are not systematically based on the potential of energy savings or emission reductions.

A reconstructed intervention logic of the ETD is presented below. This intervention logic is mainly based on the recitals of the Directive, the case-law by the CJEU and the analysis of any accompanying documentation at the time of the preparation and negotiations of the Directive.

¹⁸ See recital 9 and 11 of the ETD. In this regard, the CJEU pointed out that from “[...] *the examination of the objectives pursued by Directive 2003/96. It is apparent from recitals 9 and 11 of that directive that it seeks to give Member States the flexibility necessary to define and implement policies appropriate to their national circumstances and the arrangements made in connection with the implementation of that directive are a matter for each Member State to decide.*”, judgement of 18.01.17, *IRCCS - Fondazione Santa Lucia*, C-189/15, EU:C:2017:17, paragraph 50.



2.2. Description of the intervention

The ETD, referring to “energy products” (instead of “mineral oils”) and electricity, widened the scope of the minimum rate system applicable under the Mineral Oils Directives to define minimum levels of taxation for products used as motor fuels, and extended the scope to electricity and to most of the products used as heating fuels at that time. It also updated the minimum rates for mineral oils (not revised since 1992). The structure of the ETD can be synthetically illustrated as follows:

Table 2 Structure of the ETD

Tax base	Tax rates	Exemptions	Reductions
<p>Energy products - products used as motor or heating fuel- and electricity.</p> <p>Other uses of energy products and electricity are out of scope of the ETD.</p>	<p>The ETD sets minimum levels of taxation according to the different products and uses.</p> <p>Equivalent products (any product in case of motor fuel and any other hydrocarbon, except for peat, in case of heating fuel) are taxed at the equivalent motor fuel or energy product rate.</p> <p>Above the minima, the Member States are free to set their national rates as they see fit.</p>	<p>Two kind of exemptions:</p> <ul style="list-style-type: none"> - mandatory, e.g. for energy products and electricity used to produce electricity and for aviation and sea navigation¹⁹ fuel; - optional, e.g. for electricity from renewables; for energy products and electricity used for combined heat and power generation; for energy products and electricity used for the carriage of goods and passengers by rail, metro, tram and trolley bus; for electricity, natural gas, coal and solid fuels used by households and/or by organisations recognised as charitable by the Member State; for natural gas and LPG used as propellants; for biofuels and products produced from biomass; in favour of energy-intensive business. <p>The Council, under certain conditions, may authorise any Member State to introduce further exemptions for specific policy considerations.</p>	<p>Optional (same as for optional exemptions).</p> <p>The Council, under certain conditions, may authorise any Member State to introduce further reductions for specific policy considerations.</p>

¹⁹ The ETD allows Member States, however, to make bilateral agreements with other Member States to waive the exemptions for aviation and sea navigation as far as transport between the Member States in question is concerned.

2.3. Baseline (“Mineral Oils Directives”)

The starting point for the proposal leading to the ETD was that the single market must be the common basis for all policies involving the taxation of energy products (policies such as the restructuring of taxation, energy, transport, the environment, etc.). At the same time, it was deemed that any EU system of taxation must be an efficient instrument for the Member States. Neither of these two conditions were considered to be met at that time.

The ETD replaced the “Mineral Oils Directives”. The structure of these Directives, which was based on minimum levels of taxation, was retained. At the same time their scope was extended to new energy products and electricity and minimum rates were increased for existing products. The taxation of other energy products, and taxes other than excise duties, fell within the discretion of each Member State. This situation gave rise to a multitude of problems, notably:

- i) the proliferation of different national taxes, which undermined the unity of the single market and the liberalisation of the energy markets, in particular in the fields of natural gas and electricity;
- ii) the non-harmonisation of national rates for the taxation of energy products (whether these be mineral oils, taxed by all the Member States pursuant to EU texts but at widely differing rates, or other products, taxed or not, depending on the choice of the Member States) leading to distortions due to excessive tax competition;
- iii) the lack of harmonisation between the Member States for the same fuels directly causing distortions on the markets, and affecting the choices of consumers and firms. This was particularly the case in frontier areas between neighbouring Member States, where there was evidence of relocation of the consumption of motor fuels and heating fuels.

At the same time, the previous system did not give Member States sufficient freedom of manoeuvre for their political action (at that time, for example, the European Council asked the Commission to present new proposals enabling Member States who so wished to apply a CO₂/energy tax). Flexibility combined with the definition of certain common rules was deemed to be an effective instrument to give Member States greater freedom for action.

In this regard, the Member States had the opportunity of making greater use of the taxation of energy products, e.g. for environmental purposes. In this area, the previous rules were considered sometimes too rigid. For example, under Article 8(4) of Directive 92/81/EEC, any measure to differentiate the taxation of a product on the basis of environmental standards had to be authorised by the Council.

The new proposal also offered Member States some scope for restructuring national tax systems to alleviate taxation on labour. The purpose was not to lead to any increase in the

overall tax burden, therefore promoting a revenue neutral approach meaning a single market framework enabling a revenue neutral restructuring of tax systems to sustain employment and the environment.

The quantitative comparison with the existing situation at the time of the adoption is difficult because many products were simply not subject to harmonised taxation before the ETD. Therefore the number of possible points of comparison is limited.

As regards how the energy taxes were expected to develop across the EU, the introduction of the ETD was meant, first of all, to widen the scope of taxable products (to treat competing energy products in the same way) and to establish minimum rates (to avoid Member States competing on taxes) while providing certain flexibility (for Member States to pursue other policy goals through taxation).

The Explanatory Memorandum of the Commission proposal for the ETD²⁰ clarified that the intention of widening the scope of the system of taxation to all energy products was to cover the (other) competing sources of energy.

In relation to the treatment of electricity, the harmonisation was in principle done on the basis of output taxation (by taxing the electricity itself). On the other hand, the possibility for the Member States to introduce an additional (non-harmonised) input tax (in the case of non-environmentally desirable fuels) and to refund electricity producers who use environmentally preferable fuels the tax paid by the final consumer, were allowed under the proposal.

As for the new minimum levels of taxation for all energy products, those levels on mineral oils set by Directive 92/82/EEC in 1992 were, in many cases, substantially below the rates applied by Member States in 1997. As a result the minimum levels needed to be up-rated and set for products other than mineral oils, which were now subject to the Directive.

The structure based on minimum levels contained in Directive 92/82/EEC was considered still valid and therefore different minimum levels were set under the ETD for the following three groups: energy products used as motor fuels; energy products used as motor fuels for certain industrial and commercial purposes (for which very low minimum levels of taxation were set); energy products used as heating fuels and electricity²¹.

As stressed above, flexibility for the pursuit of objectives of environmental, transport or energy policy was considered important for the Member States.

²⁰ See the [Explanatory Memorandum](#) of the Commission Proposal for a Directive restructuring the community framework for the taxation of energy products, COM(97)30 final. See also the Recitals 1 to 34 of ETD.

²¹ Other uses of energy products and electricity (e.g. energy products used as raw material) were considered out of scope of the ETD.

In this regard, it was established that all indirect taxes (with the exception of VAT) borne by a product had to be taken into account for the purposes of calculating the minimum levels. This followed from the existence of several national taxes applied by the Member States to energy products (excise duties, other taxes on energy, on emissions, etc.). At the same time, in addition to some mandatory exemptions (energy products and electricity used to produce electricity, aviation and sea navigation fuel), optional exemptions or reductions were established to enable the Member States to pursue more ambitious environmental policies, transport and energy policies while safeguarding the competitiveness of European industry vis-à-vis third countries.

2.4. Transposition of the objectives into specific provisions

Most of the above-mentioned considerations are reflected in the Preamble of the ETD and are transposed into the specific provisions currently in force.

The main legislative elements of the ETD are: EU minimum levels of taxation; obligatory tax exemptions; and a number of optional tax reductions or exemptions. The ETD allows, for example, for:

- lower tax levels for energy products used in agriculture, stationary motors and machinery for construction and public works;
- as well as possibility of lower rate for the commercial use, as opposed to non-commercial use, of gas oil used as propellant;
- possibility of tax exemption or reduction for renewable energy sources such as biofuels and possibility of reduction of the tax burden on energy-intensive businesses involved in efforts to reduce consumption and increase energy efficiency.

3. IMPLEMENTATION / STATE OF PLAY

3.1. Description of the current situation

As already underlined, the main objective of the ETD was to avoid market distortions in the single market, while allowing for Member States to adapt their national taxes according to their national priorities. Considering the flexibility of the Directive, any prioritisation between its objectives including possible trade-offs between potentially conflicting objectives depend on the actual implementations of the ETD at national level and are therefore for the Member States to tackle.

This flexibility is provided for example in the form of minimum levels of taxation, by carving out some uses of these products, and by allowing for optional tax reductions or exemptions in case of justified reasons. This system was considered necessary to define and implement policies appropriate to the Member States' national circumstances. As a result, the implementation of the ETD diverges amongst Member States.

In addition, the implementation of the ETD has resulted over the years in several temporary special regimes. The Directive granted Member States several transitional derogations, and possibilities for reductions and exemptions²². On top of that, the Council, acting unanimously on a proposal from the Commission, may authorise any Member State to adopt time-limited specific tax schemes, in the form of exemptions or reductions (of national tax rates) for specific policy considerations²³. A total of 26 implementing decisions have been adopted by the Council over the years, of which 11 are currently in force. Such measures are of a diverse nature, and include among others: specific rates for specific geographical areas, the tax treatment of electricity directly supplied to vessels at berth in a port (“shore-side electricity”), to charging stations for electric vehicles and tax exemption to operate machinery in humanitarian demining or for low-value solid fuel.

A picture of the energy taxation in Member States was included in the Impact Assessment²⁴ accompanying the 2011 proposal for a revision of the ETD²⁵. At the time the energy taxation in the Member States was summarised as follows²⁶:

“In general, two groups of Member States can be distinguished:

– A group of “low-taxing Member States”. These are typically taxing at rates close to the minima and have often, although not in all cases, introduced taxation only as a consequence of the existence of common minimum rates. Many of the new Member States are in this group (Slovenia is one exception).

– A group of “high-taxing Member States” with tax levels more or less clearly above the minima. For these countries the existence of common minima is particularly important to reduce competitive disadvantages for their industry. These countries also often make use of the possibility to apply reduced rates for energy-intensive businesses. The Nordic countries are among the highest taxing Member States, especially for heating fuels.

Member States are also split between those who make use of the possibility to differentiate between business and domestic use for heating fuels and others who do not. In all circumstances “high taxing Member States” ensure that the rates applicable to business use are closer to the EU minima, to avoid distortions of competition.

Some of the Member States (SE, DK, FI, SI, IE) have already introduced taxation based on CO₂. Other Member States (DE, NL, UK) enacted environmental tax reforms in

²² See, for example, Article 18, 18a, 18b and Annex II of the Directive. In addition, the Treaty of Accession of some countries to the EU provided for arrangements and specific measures for these new Member States regarding the implementation and application of the ETD. The articles are inserted by the following two Council directives: Council Directive 2004/74/EC and Council Directive 2004/75/EC.

²³ See, in particular, Article 19 of the Directive.

²⁴ See the document SEC(2011) 409, [vol. 1](#), [vol. 2](#), and SEC(2011) 410 containing the [summary](#).

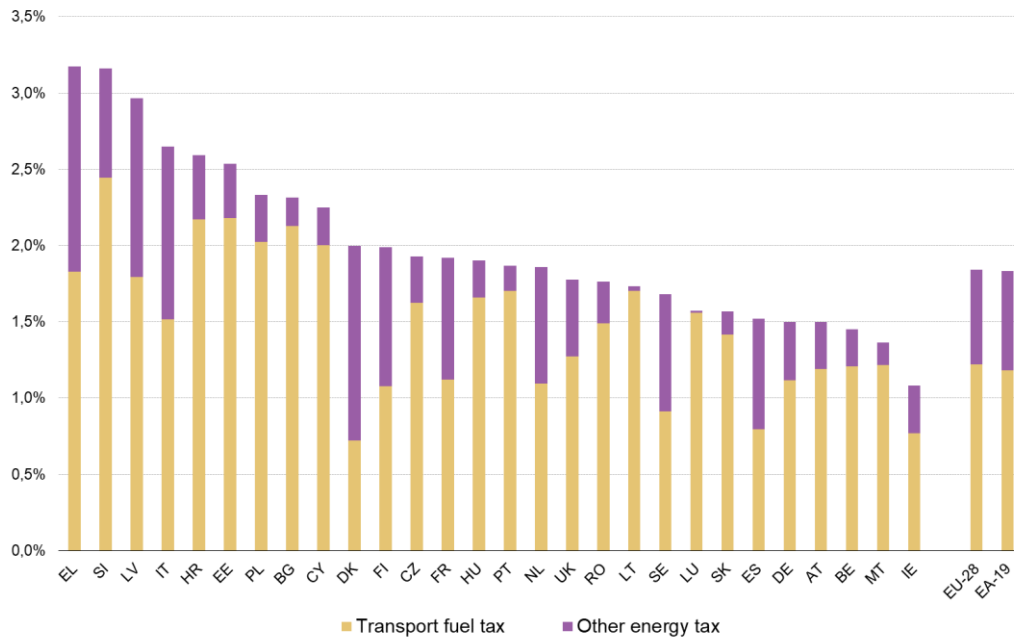
²⁵ Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, [COM\(2011\) 0169 final - CNS 2011/0092 of 13.4.2011](#).

²⁶ See page 8 of the Impact Assessment.

several steps, using energy taxation for environmental reasons but without introducing an explicit CO₂-related component.”

Another important aspect to be considered is the quantification of revenues for the Member States. The figure below shows the share of energy tax revenues by Member State as a percentage of GDP in 2017. This ranged from 1.1% to 3.2%.

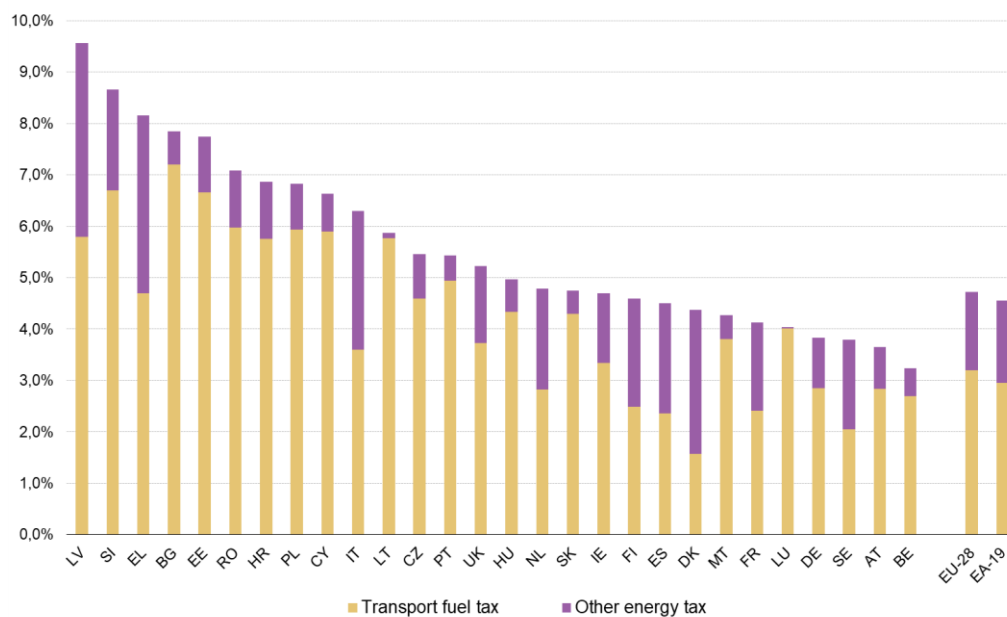
Figure 1 Energy tax revenues by Member State as % of GDP, 2017



Source: DG TAXUD Taxation Trends in the European Union

The figure below shows that the share of energy tax revenues by Member State as a percentage of total tax revenue in 2017 ranged from 3.2% to 9.6%. Therefore, the levels of energy tax revenues are diversified in the EU and generally deliver a relevant contribution to the budget of the Member States

Figure 2 Energy tax revenues by Member State as % of total tax revenue, 2017



Source: DG TAXUD Taxation Trends in the European Union

3.2. Main shortcomings identified before the evaluation

Several actual and potential problems over the years have been identified as regards the structure and the implementation of the ETD. The main unintended shortcomings as identified in the Impact Assessment²⁷ accompanying the 2011 proposal for a revision of the ETD²⁸ and in the Roadmap regarding the current evaluation²⁹, are the following:

- i) late transpositions of the Directive;
- ii) outdated classification of certain energy products under the Combined Nomenclature (CN)³⁰;
- iii) different national interpretation of some provisions;
- iv) need to align the text with CJEU case law;
- v) current provisions which are no longer applicable;

²⁷ See the document SEC(2011) 409, [vol. 1](#), [vol. 2](#), and SEC(2011) 410 containing the [summary](#).

²⁸ Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, [COM\(2011\) 0169 final - CNS 2011/0092 of 13.4.2011](#).

²⁹ See Evaluation and Fitness Check (FC) Roadmap, Ref. Ares(2017)4224148 - 29/08/2017, published on [Evaluation Energy Taxation Directive](#), especially, p. 2, 4, 5.

³⁰ Article 2 of the ETD refers to energy products and electricity according to their CN codes. References in the Directive to codes of the Combined Nomenclature were those of Commission Regulation (EC) No 2031/2001 of 6 August 2001, amending Annex I to Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff (OJ L 279, 23.10.2001, p. 1.). A Decision to update the codes of the Combined Nomenclature for the products referred to in the Directive should be taken once every year. The Decision must not result in any changes in the minimum tax rates applied in the Directive or to the addition or removal of any energy products and electricity. The update of the list foreseen in the ETD was applied by means of the above-mentioned Commission Implementing Decision (EU) 2018/552 of 6 April 2018.

- vi) exemption provisions are spread across the Directive and certain sectors are subject to multiple exemption/reduction provisions;
- vii) outdated or insufficiently clear provisions following technological developments;
- viii) discrepancies in terminology;
- ix) unclear legal provisions and infringement or pre-infringement procedures.

Discrepancies in the interpretation of the common rules by the Member States have been identified. The lack of clarity in the wording of some provisions and in the structure of the ETD may have had an impact on the policy objectives pursued by the Directive. This lack of clarity is also the result of the numerous compromises agreed during the years of negotiations in the European Council that were necessary to achieve the unanimous agreement of the Member States required for the adoption of the Directive.

The ETD was found not to ensure the equal treatment of energy sources based on the externalities resulting from their use. Such externalities include, for example, the emission of greenhouse gases and local pollutants. In other terms, there is no consistent treatment of energy sources in the ETD.

In this regard, as reported in the 2019 Communication from the Commission, “A more efficient and democratic decision making in EU energy and climate policy”³¹, the current European framework for energy taxation has remained unchanged since 2003 and is outdated. It barely delivers on key objectives such as the diversification of energy sources and energy carriers or improvement of energy efficiency of production and consumption, as taxes are not based on the energy content but on the volume of the energy products consumed.

In the same Communication, it is explained that the absence of an increase in minimum rates for more than a decade at EU level has eroded the tax-induced price signal that was supposed to encourage investment in energy-efficient technology and behaviour. Moreover, as some Member States have increased their national level of taxation since then while others have not, there is risk of growing distortion of competition in the Single Market and an erosion of the tax base in high-taxing countries, notably for motor fuels that can be easily and legally transported across borders. In spite of repeated Commission calls for a shift in the taxation from labour to environmental taxes, the overall percentage of tax revenues from environmental taxes in the EU has remained relatively unchanged over the last decade³².

Moreover, as highlighted in the Communication, the presence of sector-specific energy tax exemptions or reductions, notably in the aviation, maritime and road haulage and agricultural/fisheries sectors and for energy-intensive industries, in general substantially weakens the incentives for investing in more energy-efficient capital stock and production processes in these sectors. These tax exemptions or reductions constitute a

³¹ Communication from the Commission to the European Parliament, the European Council and the Council, [A more efficient and democratic decision making in EU energy and climate policy](#), COM(2019) 177 final, of 9.4.2019.

³² Source: [Eurostat, Environmental taxes in the EU, countries compared](#).

burden for other sectors and/or private households that have to make up the revenue shortfalls triggered by them. Furthermore, they may distort competition between industrial sectors and may promote inefficient and polluting modes of transport³³.

Finally, as stressed in the Communication, the taxation of fuels according to volume and not according to their energy content discriminates against renewable fuels in favour of conventional fuels, in particular gas oil, thus contradicting an energy policy that aims at fuel switching and the promotion of renewable and other clean energy sources. Neither does it help rebalancing the supply and demand of gas oil in the European fuel market.

3.3. The ETD and the overall relevant EU legal framework

As shown by the 2011 Impact Assessment³⁴ the Directive is no longer adapted to the new climate change and energy policy framework and contains several shortcomings from the perspective of the proper functioning of the internal market and in relation to the needs of the other EU policies.

In particular energy and climate policies and initiatives have remarkably developed since the ETD's adoption. The EU and its Member States have committed to swiftly and fully implement the Paris Agreement, to contribute to the fulfilment of sustainable finance goals, and to continue to lead in the fight against climate change. Taxation is set to play an important role in the achievement of these objectives. As put forward by the Commission in its 2018 Communication on a “Clean Planet for all - A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy”³⁵, taxation and climate action and energy policies should be aligned. This was reiterated in the 2019 Commission Communication³⁶, where it was stressed that a future energy taxation framework should: (i) support the clean energy transition; (ii) contribute to sustainable and fair growth; and (iii) reflect social equity considerations.

In substance, notwithstanding the overall evolving relevant EU framework, the ETD remained substantially unchanged. The various market and regulatory developments are detailed further in the relevance section.

Several attempts have been made in order to bring the ETD up to date. Starting from 2004, the Commission has adopted several legislative proposals for the amendment of the Directive³⁷. Notably, in 2011 the Commission adopted a proposal³⁸ in order to comprehensively revise the system, which was accompanied by an Impact Assessment³⁹.

³³ Some of these sectors are, however, subject to the EU ETS and hence to a carbon price signal, notably energy-intensive industry and intra-EU flights.

³⁴ See the document SEC(2011) 409, [vol. 1](#), [vol. 2](#), and SEC(2011) 410 containing the [summary](#).

³⁵ [COM\(2018\) 773 final](#) (p. 24). Also known as Long Term Strategy (LTS).

³⁶ [COM\(2019\) 177 final](#) (p. 5-7).

³⁷ See [COM\(2004\) 42 final](#) and [COM\(2004\) 185 final](#), respectively resulted in the adoption of the above mentioned Directives 2004/74/EC and 2004/75/EC of 29 April 2004; [COM\(2007\) 52 final](#) of 13 March 2007, withdrawn by the Commission in 2012.

The revision proposed in 2011 aimed at the following objectives:

- i) ensure consistent treatment of energy sources within the ETD in order to provide a genuine level playing field for energy consumers (by setting a minimum rate for taxation based on energy content and CO₂ emissions, with an equal taxation for competing products),
- ii) provide an adapted framework for the taxation of renewable energies;
- iii) provide a framework for the use of CO₂ taxation to complement the carbon price signal established by the EU ETS while avoiding overlaps between the two instruments.

Following unsuccessful negotiations in the Council, given the requirement for unanimity between Member States, the European Commission withdrew this proposal in 2015⁴⁰. The European Parliament and the Economic and Social Committee had expressed a positive opinion on the proposal.

More recently, as of June 2019 there are two on-going citizen's initiatives which relate to the limited scope of the ETD⁴¹.

4. METHODOLOGY

4.1. Short description of the methodology

The approach to the evaluation of ETD was to reconstruct an intervention logic of how the Directive was intended to work (original needs, objectives, the measures, expected results and broader impacts) as the point of departure for the analysis.

The evaluation then strived to examine the causal mechanisms in which an intervention was expected to generate the desired results and impacts, through collection of evidence. This allows to confirm (or not) the supposed causality and understand how and why these mechanisms led to expected or observed results (or not).

4.2. Limitations and robustness of the findings

A number of challenges and constraints were encountered during the evaluation. Some of them come from the intrinsic nature of the Energy Taxation Directive, which leaves considerable freedom to the Member States as to the implementation and application of the ETD provisions. Taking this into consideration, it proved particularly difficult to design a universal scenario of how precisely the Directive was to achieve the desired results for all market segments.

³⁸ Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, [COM\(2011\) 0169 final - CNS 2011/0092 of 13.4.2011](#).

³⁹ See the document SEC(2011) 409, [vol. 1](#), [vol. 2](#), and SEC(2011) 410 containing the [summary](#).

⁴⁰ [Withdrawal of Commission proposals](#) (OJ C 80, 7.3.2015, p. 17–23).

⁴¹ For more details, see the Relevance section (section 5.2).

Moreover, the specific implementation of the ETD is dependent upon several other factors. These include aspects such as specific national or other EU policies being applied in the same domain, national priorities and industrial legacy, prevailing economic and trading conditions or business models of individual sectors or companies. That means that it is difficult to single out and quantify some effects of the Directive's working. Some of the analysis is therefore qualitative, anecdotal and based on proxy indicators.

Finally, the analysis of the Directive's relevance quickly revealed that the imposed minimum rates are irrelevant for the market in most cases in the way that most products, for most energy uses and users, are taxed way above the ETD and in a rather diverse way. The coherence analysis in turn revealed that the Directive is badly out of touch with the recent policy developments and priorities, particularly in the climate and environmental domains. Consequently, due to this outdatedness, it is inherently difficult to embark on a meaningful evaluation of the Directive's effectiveness.

Consequently, it proved difficult to apply the rigour of the theory-based evaluation, which seemed suited at the onset of the evaluation. The acceleration and intensification of events and actions in the domains related in one way or another to energy taxation, together with the diverse implementation of the ETD across Member States, all of which were systemised – to the extent possible – in the evaluation, made it difficult to identify, break down and analyse all causal links originally identified, without creating an overly complex picture.

Data availability

Although the current ETD has a number of provisions obliging Member States to provide information to the Commission, only limited data is available in the field of energy taxation. Harmonised minimum rates per fuel and use are listed in Annex I of the ETD. Nominal national rates and some of the main reduced rates are available in the Taxes in Europe Data Base⁴² as reported by the Member States using this online tool. National implementation and consequent distortions of the internal market are however, depicted in the most accurate way by effective tax rates. Those take into account exemptions, reductions and refunds and their exact scopes. Due to the wide ranging flexibility left to Member States to apply exemptions, reductions and refunds it is vastly complicated to calculate effective rates in a harmonised way across the EU. In addition, at the time of the evaluation no official data collection existed that was equipped to capture effective tax rates.

Implications of data availability for the validity of conclusions

The Evaluation contains the best possible proxy data derived from different Commission data collections to support its findings. Proxy data however was at times too aggregated,

⁴² [Taxes in Europe Data Base \(TEDB\)](#).

collected for purposes other than taxation, or – being self-reported by the Member States – unverifiable, incomparable, or incomplete (i.e. “Taxes in Europe” database)⁴³. For possible internal market distortions, such as relocation of businesses due to tax competition, no empirical data exists. The possibility of site relocation is a bargaining option used by energy intensive industries to receive tax exemptions and reductions. As in the majority of cases they receive such exemptions and reductions. However no empirical data exists on the number and extent of site relocations resulting directly from tax competition. Furthermore, production site choices depend on a variety of factors, including the availability and qualifications of labour force, the quality of infrastructures and proximity to consumers and/or to raw materials. Energy taxation plays a limited role among these factors.

The availability of transport fuel data is limited. No data is available on commercial consumption (road freight), that often benefits from exemptions and reductions. Similarly no data is available on consumption of biofuels or other products where the rates are differentiated according to product quality. In the absence of such data, no effective tax rates for transport fuels could be calculated. Furthermore, no regional data on transport fuel consumption exists, that would exactly depict tank tourism. National releases for consumption however, elaborated on in the Evaluation, provide a close proxy.

Other methodological difficulties encountered by the evaluation included:

- ***low response rate to the web-based surveys and a data requests sent to Member States*** – these were completed by a limited number of stakeholders. Availability of data on the costs of ETD – as the present evaluation was a REFIT evaluation, there was a special focus on addressing the regulatory costs and burdens linked to implementation and application of the ETD. However, given the leeway left by the Directive as to the modalities of many provisions, meaning that whatever information obligation were, firstly, not homogeneous and, secondly, linked to national implementing measures or other legal requirements, it proved very difficult to quantify any costs linked directly and only to the ETD. The surveys and interviews organised with the Member States authorities and economic operators yielded very little qualitative and even less quantitative results. Even in cases where stakeholders had an impression of particularly burdensome provisions, they were not able to provide any robust evidence. The sought-for mapping of the requirements as implemented by different Member States to benefit from reductions or exemptions, for example, proved impossible.
- ***limited data on tank tourism*** – tank tourism refers to the scenario where a driver takes deliberate action to take advantage of the lower priced fuel in another country. Unfortunately, it was not possible to obtain specific data from Member States and the entire analysis of tank tourism was done on the basis of Eurostat data on releases for consumption and anecdotal evidence;

⁴³ [Taxes in Europe Data Base \(TEDB\)](#).

- **representativeness of respondents** – as some of the data was collected for specific sectors in specific Member States only, which were purposefully selected for the fieldwork, special care had to be taken before generalising any findings and caveats diligently explained.

5. ANALYSIS AND ANSWERS TO THE EVALUATION QUESTIONS

5.1. Effectiveness

This chapter analyses the progress made towards achieving the objectives set by the ETD. The main objective of the Directive is to contribute to the functioning of the EU internal market. The evaluation looks at the impact of minimum rates on the single market as well as on the impact of the wide-ranging flexibility left to Member States to apply rates other than the minima and to grant exemptions and reductions. The evaluation also assesses the clarity of related provisions.

The lack of clarity in the wording of some provisions and in the structure of the ETD may have had a negative impact on the achievement of the policy objectives pursued by the Directive

The main shortcomings with regard to clarity and completeness of provisions as well as structure of the ETD were identified by the Impact Assessment⁴⁴ accompanying the 2011 proposal for a revision of the ETD⁴⁵ as well as in the Roadmap preceding the current evaluation⁴⁶. These shortcomings include: eleven cases of late transposition, outdated classification under the Combined Nomenclature (CN), and lack of clarity of several provisions of the ETD.

Albeit the ETD allows for the update of CN codes, such updates cannot result in the addition or removal of products from the scope of the ETD. Member States, economic operators and Commission analysis find however that it might be necessary to add new products (e.g. ethanol, synthetic methanol and hydrogen) or remove others.

In relation to the clarity of the ETD, different national interpretations emerged for specific provisions. These include: definition of taxable products; tradable permit schemes; definitions of the uses which are out of the scope – mineralogical and metallurgical processes; or interpretation of the exemption related to motor fuels used in air and water navigation, etc. There is also the need to align the terminology of the ETD with case-law by the CJEU. Following the adoption of the Directive the CJEU has clarified the interpretation of certain provisions. As a result, the text of the Directive and

⁴⁴ See the document SEC(2011) 409, [vol. 1](#), [vol. 2](#), and SEC(2011) 410 containing the [summary](#).

⁴⁵ Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, [COM\(2011\) 0169 final - CNS 2011/0092 of 13.4.2011](#).

⁴⁶ See Evaluation and Fitness Check (FC) Roadmap, Ref. Ares(2017)4224148 - 29/08/2017, published on [Evaluation Energy Taxation Directive](#), especially, p. 2, 4, 5.

the Court's interpretation could lead to diverging application of the ETD by the Member States and to different understanding by the economic operators. In addition, removing provisions that are no longer applicable, would improve the clarity of the legislation.

Finally, provisions governing exemptions and reductions are not presented in the ETD in a structured way. Instead, such provisions are spread across the Directive, with some sectors, such as energy intensive industries, being subject to multiple provisions contained in various sections of the legislation.

The flexibility of some ETD provisions has a direct negative impact on the internal market of all energy products

The ETD sets only the minimum levels of taxation. Member States are free to set their respective rates above these minima and introduce additional taxes, without an upper limit.

These minimum rates have not been updated since the ETD was adopted, nor are they indexed to external developments such as inflation or a CO₂ benchmark⁴⁷. As a result, they have remained unchanged since 2003. This has led to an erosion of the impact of minimum rates as well as to the increasingly diverging national implementation of nominal tax rates. In other words, the rates applied by Member States today differ significantly from the minimum rates set out in the ETD, and from the rates in other Member States.

Moreover, the ETD does not require Member States deviating from the minimum rates to set national rates in a way that maintains the proportion between the taxation of the different energy products. Due to the lack of provisions in the current ETD, the favourable tax treatment of low carbon fuels and uses is not ensured in national implementation. For example, renewable energy can be taxed at a higher rate than a competing fossil fuel, as long as the minimum rates are respected.

The ETD also lists possible reductions and exemptions. The conditions under which these can be granted are defined very broadly, resulting in highly divergent national implementation of exemptions and reductions. Beyond the discretionary application of exemptions and reductions, the discretionary implementation of other provisions also undermine the objective of harmonisation. Such include: uncertainty in the application of the control and movement provisions⁴⁸ and the definition of the conditions establishing the chargeable event. A divergent interpretation and implementation of these provisions may be an obstacle to the free movement of goods and investment capital.

Factors such as static minimum rates, diverging national effective rates and discretionary application of exemptions and reductions have different impacts on different energy products. These product-specific impacts are further explored in the following sections.

⁴⁷ For example the European Union Allowance (EUA) price (price of 1 tonne of CO₂ in the EU ETS).

⁴⁸ Article 20(1) of the ETD lists the energy products that are subject to the relevant rules of Directive 92/12/EEC currently replaced by the Horizontal Excise Directive, which sets out the general rules applicable to production, storage and movement of excise products.

However it is true for all products that the lack of clarity of the ETD has a direct negative impact on the achievement of the policy objectives and consequently also on its effectiveness.

ETD Minima and National Tax Rates

Beyond minimum tax rates, which are set by the ETD uniformly for all Member States, the evaluation assesses the impact of national rates. National effective tax rates are defined as the average rates that take into account exemptions and reductions⁴⁹. These effective tax rates applied by Member States differ significantly from the minima set by the ETD and from each other across countries. The evaluation looks first at the impact of the minimum rates on the internal market, followed by the impact of the national effective rates, for two groups of energy products: transport fuels and electricity and natural gas⁵⁰. The implications differ for the two groups. Lastly, the analysis of electricity and natural gas is complemented by the aspect of international competitiveness, as they often serve as input to the production processes of business that face international competition.

Minimum rates introduced by the ETD for petrol and gas oil used as propellant had an initial converging impact which eroded over time

The minimum level of taxation for unleaded petrol already existed under the Mineral Oils Directives of 1992, with a rate fixed at EUR 287 per 1 000 litres. With the entry into force of the ETD, this minimum level of taxation was increased to EUR 359 per 1 000 litres. The ETD raised the minimum level of taxation of gas oil used as propellant from EUR 245 to EUR 302 per 1 000 litres in 2004, and to EUR 330 per 1 000 litres in 2010.

The implementation of the ETD had an initial one-off converging effect. The initial approximation of rates was strongest for the countries joining the EU after 2004. At the time of the ETD adoption, 14 out of the 15 EU Member States were already taxing unleaded petrol above the new minimum, while at the time of accession all but three of the 13 post-2004 Member States were below the minimum levels of taxation. For gas oil used as propellant, nine EU-15 Member States were taxing it above the new minimum against five of the post-2004 countries. Therefore, the minimum levels of taxation applicable to motor fuels under the ETD provided a safety net to avoid a “race to the bottom” in the taxation rates applied by the Member States.

The standard excise duty rates applied by Member States to unleaded petrol and to gas oil used as propellant have constantly increased since the entry into force of the ETD. In parallel, some convergence in the applied excise duty rates has been observed. However, it cannot be directly attributed to the Directive, as this convergence has taken place whilst

⁴⁹ Nominal rates are defined as the rates set by Member States. Effective rates are defined as nominal rates adjusted to exemptions and reductions. To increase readability, the Evaluation uses the term “National rates”. These represent nominal rates for petrol and gas oil and effective rates for electricity.

⁵⁰ Electricity and natural gas are network bound and more often used as input to the production processes of energy intensive industries. Their price structures and the existence of additional levies, fees and charges also distinguishes them from transport fuels.

the rates were already exceeding the EU minimum levels of taxation. It can be also argued that the fact that some Member States converged towards the minimum levels has given the high taxing countries the opportunity to increase their rates.

In the absence of an indexation mechanism, the relative importance of the minimum levels of taxation for different energy products, and of the “safety net”, tend to decrease over time. Propellant fuels are in most cases taxed at much higher levels than other forms of energy consumption. The share of excise duties in the final retail price averages at almost 60% for petrol and at 52% for gas oil used as propellant. In the case of petrol excise duties make up at least half of the price in every single Member State and range as high as 65%⁵¹.

The figure below illustrates the differences in taxation of unleaded petrol and gas oil across EU in January 2019. While several Member States have multiple rates available for both these products, the rates presented in the figure are the highest available. Article 5 of the ETD allows Member States to differentiate rates according to product quality. Many of them opt to make use of the flexibility provided by the ETD and tax certain products at lower rates, based for example on sulphur content, energy content, CO₂ emissions or biofuel share of the product. Article 5 also allows Member States to differentiate rates according to certain uses (local public passenger transport including taxis, waste collection, armed forces and public administration, disabled people, ambulances).

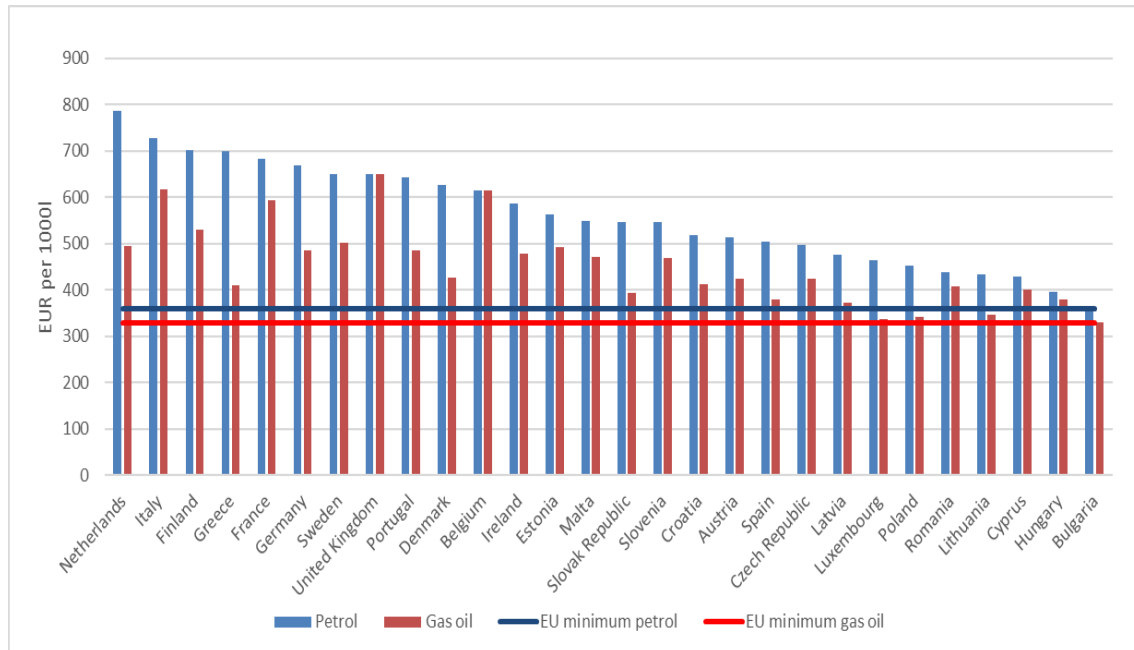
When comparing excise duty rates for petrol to gas oil used as propellant in a Member State or among Member States it is important to notice that Article 7(2) of the ETD allows Member States to apply reduced rate on commercial use of gas oil used as propellant (defined in the paragraph 3 of the same Article). The share of this use is often significant and currently eight Member States have used this option. The common justification for the reduced rate is the objective to support commercial transport and national competitiveness by lowering the commercial transport costs. Some of the Member States where this optional reduction is not in place try to reach the same objective by firstly enacting the rate for gas oil initially lower than they otherwise would. At least five of them are currently compensating for this favourable tax treatment outside of the energy taxation framework by, for example, an additional circulation tax on passenger cars using gas oil. Member States may apply all the mentioned differentiated rates of taxation provided that they respect the minimum levels. However, due to their complexity and the interplay of several factors, it is not possible to quantify the impact of specific shortcomings.

Finally, according to Article 16 of the ETD, Member States may apply an exemption or a reduced rate of taxation for biofuels that are mixed with above-mentioned fossil fuels or sometimes even used alone.

⁵¹ [DG Energy – Weekly Oil Bulletin](#).

It can be concluded that, although ETD allows for a limited amount of exceptions in the taxation of petrol and gas oil in road transport use compared to heating use of energy products and electricity, the taxation differs significantly between Member States in terms of level and also in terms of structure. Therefore, the nominal rates, presented in the following figure, should not be confused with the effective tax rates for petrol or gas oil in the Member States or rates included in the price at the petrol pump.

Figure 3 Excise duty rates on petrol and gas oil in propellant use in road transport



Source: Taxes in Europe Database

National rates applied by Member States for petrol and gas oil in propellant use are divergent and distort the internal market

The contribution of the current minimum levels applicable to petrol and gas oil, to the smooth functioning of the single market by approximating excise duty rates, is limited. This stems from the possibility of setting national rates above the minimum levels defined in the ETD, resulting in highly divergent national rates for transport fuels. Final prices across the EU ranged in 2018 from 1.10 EUR/litre to 1.68 EUR/litre. Most of the difference results from taxation as the variation of commodity prices remained between 0.53 to 0.66 EUR/litre in 2018⁵². The variation of the tax component was significantly higher, ranging from 0.36 to 0.78 EUR/litre. These differences induced a phenomenon of consumers crossing borders in order to refuel their vehicles at lower prices (tank tourism) in bordering regions. This indicates local distortion of competition. Limited availability of data prevented a detailed analysis of this phenomenon in this evaluation. Annex 6 displays the per capita releases for consumption of petrol and gas oil in each Member

⁵² [DG Energy – Weekly Oil Bulletin](#).

State. Significantly higher values in certain Member States might indicate the practice of tank tourism.

Minimum rates on electricity and heating fuels are too low to contribute to the functioning of the internal market

The impact of the ETD on electricity and natural gas⁵³ prices differs significantly from its impact on transport fuels. The ETD minimum levels of taxation applicable to heating fuels (including natural gas) and to electricity are lower than those for transport fuels.

In the absence of an indexation mechanism, these low minima remained unchanged, while electricity and natural gas prices grew steadily since the ETD was adopted in 2003. By 2018, the 0.5 EUR/MWh ETD minimum rate for natural gas accounted for 1.7% of the 29 EUR/MWh average price paid by industrial consumers⁵⁴. The share of the ETD minimum in industrial electricity prices was even more insignificant: it accounted for less than 1% of the average final price of 103 EUR/MWh.

Such a small share in the final price does not allow for a positive contribution to the functioning of the EU internal market. Thus, the potential of the ETD to reinforce core EU policies aimed at driving progress towards the completion of the internal market⁵⁵ remains untapped.

Albeit the minimum rates made up an insignificant share of consumer prices already at the time of their introduction, the ETD made an important positive contribution: it established harmonised common rules at EU level for the taxation of electricity and natural gas. No EU legislation governing their taxation existed prior to the ETD.

National tax rates on electricity and natural gas set by Member States differ significantly from the minimum rates – and from each other, resulting in the fragmentation of the internal market

Several Member States apply nominal rates above the minima set by the ETD. The highest rate applied to electricity in 2017 was above 120 EUR/MWh and 25 EUR/MWh to natural gas⁵⁶. At the same time, 11 Member States applied the minimum rate to either business or non-business electricity use in 2017 and in some Member States households remained exempted. Fewer Member States applied the ETD minimum rate to natural gas consumption than to electricity. At the same time, more Member States imposed a second tax component (in form of a CO₂ tax) on natural gas, than on electricity.

⁵³ Natural gas for heating purposes. Natural gas and other gaseous fuels blended with natural gas in the transmission and distribution network, such as biogas. Other gaseous fuels that are distributed through dedicated networks without being blended with natural gas (e.g. gas works gas, coke oven gas, blast furnace gas and biogas) shall be excluded.

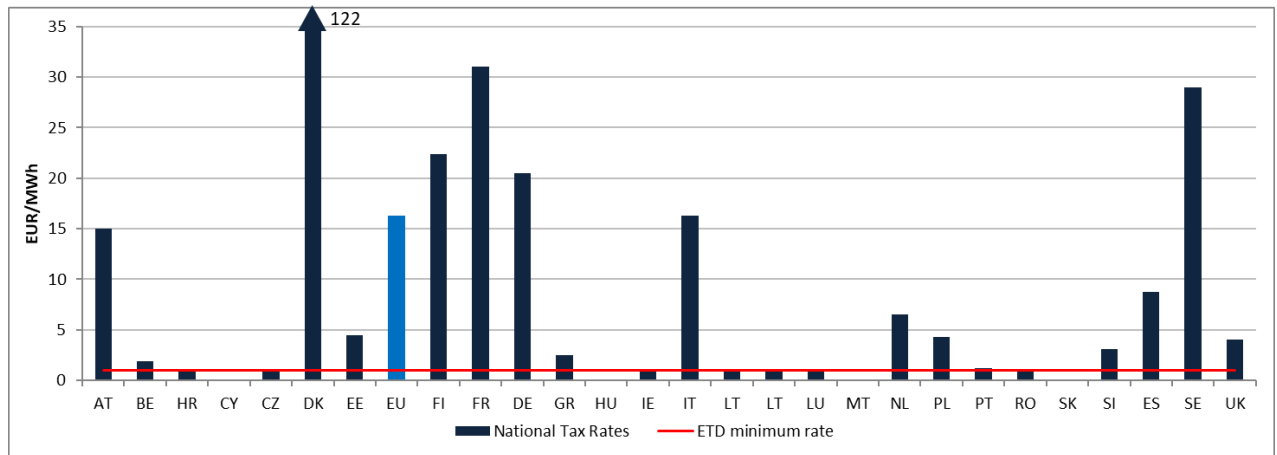
⁵⁴ European Commission – Energy Prices and Costs 2018, weighted EU average.

⁵⁵ Such as the Governance Regulation and the regulations for Electricity Market Design and the Agency for the Cooperation of Energy Regulators (ACER).

⁵⁶ European Commission -Energy Prices and Costs 2018.

The following graph illustrates the divergent levels of national tax rates in 2017, as reported by national authorities to the Commission for the “Energy prices and Costs”⁵⁷ report series.

Figure 4 Minimum and National tax rates for household electricity consumers in 2017⁵⁸



Source: European Commission – Energy Prices and Costs 2018

The use of optional exemptions and reductions further increases the complexity of the implementation of the ETD. In some Member States, exemptions and reductions granted to large industrial users, result in an effective rate 90% lower than the nominal rate⁵⁹. In other Member States, the impact of reductions for the same type of consumer is limited to below 5%⁶⁰. These measures resemble exemptions and reductions from renewable energy support levies and aim to safeguard the global competitiveness of EU industries⁶¹. Consumers with large annual consumption paid in 2017 on average 9 EUR/MWh renewable energy support levies, compared to 29 EUR/MWh average levy paid by small consumers.

Member States apply exemptions and reductions to mitigate EU price premiums and safeguard the international competitiveness of their industries

At EU level, the share of energy costs is estimated at around 2% of total production value in the manufacturing sector and at around 1% in the industry and services sectors combined. For some energy intensive sectors, such as paper, clay building materials, cement, iron and steel the share of energy in total production costs exceeds 10%⁶².

⁵⁷ Underlying data is extracted from the 2018 edition of the Energy Prices and costs report. Therefore, definitions and classifications of the report apply.

⁵⁸ Includes ETD and all non- harmonised taxes. Excludes all other levies, fees and charges such as renewable energy, vulnerable consumers and security of supply.

⁵⁹ European Commission – Energy Prices and Costs, 2018.

⁶⁰ Small reductions result from mandatory exemptions set by the ETD, for example for the power industry’s own use.

⁶¹ These measures are applied at the discretion of Member States as they are not mandatory. In some cases these exemptions and reductions can create competition distortions between companies within the EU internal market.

⁶² European Commission – Energy Prices and Costs 2018.

Electricity and natural gas are often used as input to various production processes of energy intensive industries that face international competition. Consequently, these industries are more impacted by electricity and natural gas taxation levels as well as by accompanying exemptions and reductions. Energy cost shares in production costs in the EU are usually higher than in Asian trading partner countries (Japan, South Korea) and comparable to those in the US, with the exception of sectors like non-ferrous metals (aluminium) or steel, which display lower energy costs shares in the US.

Not only cost shares, but also absolute price levels differ between the EU and its major trading partners. EU industrial electricity prices are below those of Japan, while they are comparable to those in China. At the same time, the average EU price is significantly higher than its US counterpart (EU prices are on average 50% above US prices). Industrial electricity consumers in most other G20 countries (Canada, India, Russia, Mexico, South Korea, Saudi Arabia, and Turkey) also pay lower electricity prices than in the EU. The only exception is Brazil, where industrial electricity prices on average exceed EU prices. Concerning gas, industrial prices in the EU are lower than those in Asia (Japan, South Korea, China) but higher than in the rest of the G20. Particularly industrial consumers in gas producing countries, like the US, Canada, Russia, or Brazil pay prices around half of those in the EU.

The impact of national effective rates on international competitiveness

As described above, EU industries have to pay higher energy prices than industries in most G20 countries. This has an impact on their competitiveness, in particular in the case of energy intensive industries. The ETD can play a role in mitigating these EU price premiums through the exemptions and reductions it provides for. By lowering prices, optional ETD exemptions can maintain the global competitiveness of EU industries.⁶³

Excise duties make up approximately one quarter of all taxes and levies imposed on industrial electricity prices. Therefore, exemptions and reductions are only one of many possible instruments to decrease the costs of EU industries with the aim to maintain their competitiveness. Other options include reductions in levies that support renewable energy, combined heat and power generation (CHP), energy efficiency, security of supply as well as national compensation schemes for the indirect cost of the EU ETS.

The picture is different for natural gas. Excise duties account on average for 88% of all taxes. The reason for this is the composition of the taxes. Levies and charges supporting other policies are much less present than in the case of electricity. While until 2016, 26 Member States applied an explicit levy on electricity to support renewable energy, only 4 did so on natural gas. Therefore, in the absence of other taxes and levies, ETD exemptions and reductions remain one of the most important elements in mitigating the premium of EU natural gas prices.

⁶³ Such an impact may however be different depending on the specific energy product.

The ETD fails to contribute to the functioning of the internal market while maintaining the international competitiveness of EU industries

Albeit international competitiveness is not explicitly mentioned in the ETD as one of its objectives, its relevance can be deduced from its recital calling the Council to re-examine the impact of minimum rates as well as the impact of exemptions and reductions in the context of the international competitiveness of EU businesses.

As noted above, the ETD gives wide ranging freedom to Member States to grant exemptions and reductions. This can be partly justified to compensate for the lack of (carbon) taxation in third countries or to compensate for competitive disadvantages (for example geographical location or lack of infrastructure). However, this broad flexibility left to the Member States increases the fragmentation of the internal market. While exemptions and reductions might have a positive impact on the global competitiveness of EU industries, their lack of harmonisation has a negative impact on the functioning of the internal market. The ETD therefore, fails to cater to the dual objectives of the single market and of international competitiveness, both explicitly mentioned in its recital⁶⁴.

5.2. Relevance

This section aims to determine the gap between the needs of Member States and economic operators today and the objectives the ETD was designed to address. The uptake of new technologies, most importantly renewable energy, as well as the development of environment, energy and climate change policies accelerated in the EU since the adoption of the ETD. At the same time the ETD remained unchanged since.

While the potential of energy taxation to fight climate change remains largely untapped, it is emerging as a possible tool contribute to global and EU efforts aiming to reduce greenhouse gas emissions. Actors, ranging from governments- within and beyond the borders of the EU- to European citizens take initiative to utilize energy taxation to combat global warming.

Energy taxation is discussed on global, EU and citizen's levels

On the global level, the Paris agreement requires strong action to reduce greenhouse gas emissions. In June 2019, the European Council invited the Council and the Commission to advance work on the conditions, the incentives and the enabling framework to be put in place to foster the transition to a climate-neutral EU in line with the Paris Agreement.

⁶⁴ Recital 8 of the ETD.

On EU level, the “Clean Planet for all” communication⁶⁵ states that environmental taxation, carbon pricing systems and revised subsidy structures should play a role in steering the transition towards net-zero emissions of greenhouse gases. Therefore, taxes and carbon pricing should be employed to account for negative environmental impact and to enhance the circular economy, [...] and that a common approach between the EU and the Member States is adopted in order to avoid relocation risks and loss of competitiveness⁶⁶. In a further Communication on EU energy and climate policy⁶⁷, the Commission acknowledged that taxation can be used to address specific environmental challenges. Moreover, it states that energy taxation should contribute to meeting future investment needs, by channelling investment in low-carbon technologies that are key enablers of the energy transition.

The single market dimension of energy taxation was also highlighted by this Communication: *“Energy taxation also has an impact on the proper functioning of the single energy market. Today energy markets, such as electricity, gas and oil, are to a large extent integrated at EU level and energy flows freely across Member States. (...) The EU regulatory framework has progressively enabled the achievement of the Single Market. In contrast, energy taxation policy has not evolved at the same pace to promote better and further integration of the internal energy market. In other words, electricity, gas and motor fuel prices remain significantly impacted by policy support costs and tax instruments set at national level and to a varying degree across Member States”*⁶⁸.

On the front of national governments, the Coalition of Finance Ministers for Climate Action aims to boost international cooperation in fighting climate change⁶⁹. One of the six leading principles of the coalition is working toward measures that put in place effective carbon pricing⁷⁰.

A recent Eurobarometer report⁷¹ indicates that climate change is a serious concern of European citizens as well. In this context, two on-going citizen’s initiatives relate to the ETD. The initiative “The fast, fair and effective solution to climate change”⁷² aims to introduce a steadily increasing price on fossil fuels. The second initiative “Ending the aviation fuel tax exemption in Europe”⁷³ aims to introduce a tax on kerosene⁷⁴.

⁶⁵ A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy.

⁶⁶ [COM\(2018\) 773 final](#) (p.18).

⁶⁷ [COM\(2019\) 177 final](#) (p.6-7).

⁶⁸ Op.cit., p. 6.

⁶⁹ [The Coalition of Finance Ministers for Climate Action](#).

⁷⁰ [Helsinki Principles](#).

⁷¹ According to the Eurobarometer report on climate change, published in September 2017, around three-quarters of European Union (EU) citizens (74%) consider climate change to be a very serious problem and more than nine in ten (92%) see it as a serious problem.

⁷² [The fast fair and effective solution to climate change](#).

⁷³ [Ending the aviation fuel tax exemption in Europe](#).

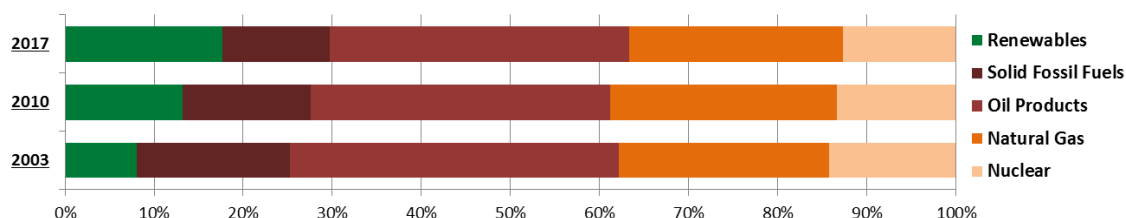
⁷⁴ [The Coalition of Finance Ministers for Climate Action](#).

The ETD is no longer in line with current needs as it provides clear provisions for a shrinking share of the EU's energy mix

The EU's Energy Mix

The EU's energy mix is evolving as the deployment of renewable energy increases and the use of fossil fuels decreases. The share of renewable energy in the EU's energy mix increased almost three-fold since the ETD was adopted: from 6% in 2003 to 17.5% in 2017. Despite the growing market relevance of renewable fuels, their tax treatment under the ETD still relies on rules developed at a time when these fuels were niche alternatives without major market significance. In fact, the ETD does not provide clear provisions for a growing portion of the changing EU's energy mix. The relevance of the current ETD will further decrease as the ambition of climate policies increases. The 2030 climate and energy framework sets a target of at least 32% share for renewable energy⁷⁵.

Figure 5 EU energy mix by type of fuel



Source: Eurostat [nrg_ind_ren]

The ETD was adopted long before the emergence of new technologies and uses that are predicted to become important building blocks on the path to the EU's decarbonised future. As a result, the current ETD regime is not properly devised to ensure the preferential treatment of these new energy products and applications. In the worst cases, uncertainties resulting from the ETD hinder investment in low-carbon technologies. By default, the ETD applies standard tax treatment to electricity and biofuels, without differentiating between renewable and fossil fuel based electricity or the environmental performance of biofuels.

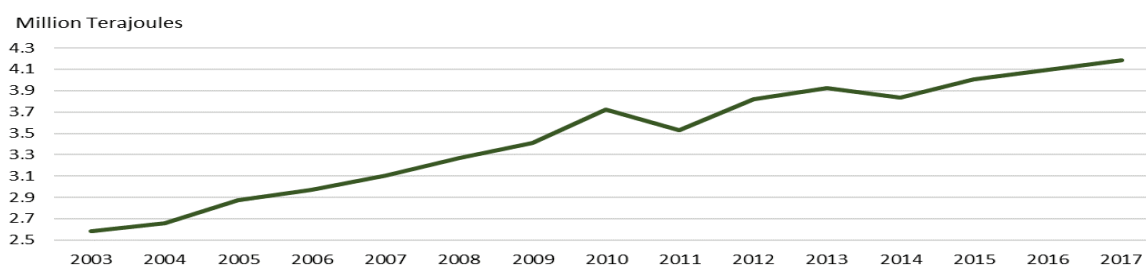
Biofuels versus fossil fuels

Biofuel markets and policies underwent a major evolution since the adoption of the ETD: The consumption of biofuels increased 10-fold in the EU since 2003. The share of biofuels in transport grew from virtually zero to almost 5%⁷⁶. The EU set an ambitious goal of 10% share of renewable energy in transport by 2020. Yet, by default the ETD applies a favourable tax treatment to fossil fuels compared to low-carbon alternatives.

Figure 6 Evolution of biofuel consumption in the EU28

⁷⁵ [2030 Energy Strategy](#).

⁷⁶ [DG Energy - Energy Statistical Data Sheets](#).



Source: Eurostat [nrg_cb_rw]

The taxation of biofuels under the ETD is based on volume (the rate applicable to the volume is the rate applicable to the fossil fuel replaced by the renewable alternative). Thereby the ETD fails to take into account the lower energy content of renewable fuels. This leads to a potentially higher tax burden on the renewable fuel compared to the same volume of the competing fossil fuel.

This goes against EU and international commitments to phase out fossil fuel subsidies, as such subsidies encourage wasteful energy consumption and put an obstacle to green investments. The Commission's “Clean Energy for all Europeans” package⁷⁷ aims to remove inefficient fossil fuel subsidies in line with international G7 and G20 commitments and in the context of the Paris Agreement⁷⁸: “the remaining but still significant public support for oil, coal and other carbon-intensive fuels continues to distort the energy market, creates economic inefficiency and inhibits investment in the clean energy transition and innovation”⁷⁹.

Lack of classification and differentiation of biofuels in the ETD

Alongside markets and policies, biofuel technologies also evolved significantly since the adoption of the ETD. While the ETD does not guarantee the EU-wide preferential tax treatment of biofuels, Member States are free to apply national rates that do so, as Article 16(1) allows for tax exemptions and reductions for biomass based products. This includes biofuels. As taxes account for up to 60% of the final price of transport fuels, the potential preferential tax treatment of low carbon energy products –in other words, the mitigation of the price premium over competing fossil fuels – is a powerful tool to influence investment, production and consumption decisions.

At the time of the adoption of the ETD, biofuels were immature technologies, limited in variety and significance. However, over the last one and a half decades, second⁸⁰ and third⁸¹ generation biofuels emerged. The environmental performance of these successive generations of biofuels kept improving. Yet, the ETD does not differentiate between these types of biofuels.

⁷⁷ [COM\(2016\) 860 final](#).

⁷⁸ [SWD \(2019\) 1 final](#).

⁷⁹ [COM\(2016\) 860 final](#), p.12.

⁸⁰ For example, non- food biomass.

⁸¹ For example, biofuels derived from algae.

In the absence of differentiation of biofuels in the ETD, Member States apply their own classifications. These are often diverging or cannot be applied to the characteristics of biofuels produced in other Member States. As a result, economic operators have no certainty whether preferential tax treatment applies to their products in other Member States. This might create an insecure business environment for biofuel producers operating across borders. Additionally, Member States may even use the lack of EU-wide harmonisation to benefit their domestically produced biofuels by applying tax reductions to a specific type of domestically produced biofuel but not to others with similar environmental performance.

The lack of differentiation of biofuels in the ETD also creates a misalignment with the EU's legislative framework for renewable energy. The 2009 Renewable Energy Directive (RED) introduced a sustainability criteria for biofuels, which was further strengthened by the Recast Renewable Energy Directive (RED II). This new directive reinforces the sustainability criteria of bioenergy through different provisions, including the negative impact through indirect land use change (ILUC). Taking into account the sustainability of a biofuel is however absent in the ETD.

Hydrogen and other sustainable transport fuels

Alternative transport fuels, such as hydrogen⁸², e-fuels⁸³, synthetic fuels, bio-methane and renewable fuels of non-biological origin are gaining traction. The ETD does not ensure the preferential tax treatment of these low-carbon alternatives, albeit their potential to reduce GHG emissions could mandate so. The ETD does not even provide clear legal provisions for the taxation of some of these new products.

The ETD's classification of products and uses is based on the Combined Nomenclature (CN). This materialises in the form of static references to CN codes listed in Article 2 of the ETD. Uncertainties arise as several new products and uses cannot be clearly attributed to CN codes as at the time of the ETD's adoption, their significance was very limited or they did not exist at all⁸⁴. In addition, the ETD does not qualify some of these products as taxable when used as motor or heating fuels. Exemptions to preferential tax treatment to these sustainable fuels is granted only upon request and through the process of a derogation.

Certain advanced biofuels are derived from renewable energy or waste and therefore do not have a biomass origin. The ETD's explicit reference to the biomass origin of biofuels in Article 16 creates additional uncertainty regarding the taxation of these fuels.

⁸² For use both in dedicated combustion engines and in fuel cells for electric vehicles.

⁸³ Drop-in fuels produced from power-to-gas, power-to-liquid, to be used in internal combustion engines.

⁸⁴ The ETD allows for updates of the CN codes used but these updates cannot result in the addition or removal of products from its scope. The CN codes have been recently updated by means of [Commission Implementing Decision \(EU\) 2018/552](#) of 6 April 2018 updating the references in Council Directive 2003/96/EC to the codes of the Combined Nomenclature for certain products (OJ L 91, 9.4.2018, [p. 27–29](#)).

The ETD's possible relevance to the decarbonisation of the transport sector

The above factors lead to the fragmentation of the internal market and consequently hinders the uptake of low- carbon fuels that could replace polluting fossil fuels. This is especially of concern, as the decarbonisation of the transport sector progresses slower than expected.

Several Member States are likely to miss their sectoral target set for the share of renewable energy in transport. In 2017, the share of renewables in the transport sector stood at 7%⁸⁵ across the EU, as compared to the 10% binding target for 2020⁸⁶. To close this gap by fostering the uptake of advanced renewable energy in the transport sector, the Revised Renewable Energy Directive (RED II) introduced⁸⁷ multipliers, allowing for example renewable electricity in transport to be counted up to 4 times of its actual energy content⁸⁸.

The EU's analysis that lays out different pathways for its long term decarbonisation strategy lists taxation as an enabler for the clean energy transition in the transport sector⁸⁹. At the same time, the ETD applies by default standard tax treatment to renewable fuels⁹⁰. This discrepancy highlights the decreasing relevance of the ETD.

Renewable Electricity

Renewable electricity generation increased from 440 TWh in the year the ETD was adopted, to 1005 TWh in 2017. At the same time, the capital cost of renewable energy generation fell significantly. Solar photovoltaic module prices fell by 80% since 2009, while wind turbine prices experienced a decrease of up to 40%⁹¹. An important consequence of these cost reductions is that mature renewable technologies are becoming commercially viable options to fossil fuels. Renewable electricity entered a virtuous cycle of falling costs and increasing deployment, supported by ambitious EU policies, and accelerated technological progress. These developments are necessary to drive electrification – an essential building block of long-term decarbonisation in all scenarios modelled by the European Commission. By 2050, the power system is expected to double in terms of installed capacity.

The present ETD taxes electricity delivered for consumption irrespective of its source and its use. Therefore, no difference is made between low carbon and carbon intensive electricity generation. Albeit the ETD gives Member States the option to apply tax exemptions and reductions to renewable electricity and CHP, it does not ensure the EU-

⁸⁵ Eurostat (nrg_ind_ren).

⁸⁶ A policy framework for climate and energy in the period from 2020 to 2030 ([COM\(2014\) 15](#)).

⁸⁷ Prior to RED II, the ILUC directive of 2015 introduced multipliers for the propellant use of electricity in transport. The aim of the directive was to foster the achievement of the 10% by the use of advanced biofuels while restricting the use of conventional (also listed as first generation or crop- based) biofuels by means of a 7% cap.

⁸⁸ Renewable electricity in road transport: 4x, rail transport: 1,5x, maritime transport: 1,2x.

⁸⁹ An in depth analysis in support of Commission communication ([COM\(2018\) 773 final](#)).

⁹⁰ while allowing Member States to put in place optional exemptions and reductions.

⁹¹ IRENA, <https://www.irena.org/costs>.

wide application of such preferential tax treatment. Therefore, the current ETD does not foster electrification powered by renewable electricity.

Electricity for electric vehicles

Taxes under the ETD make up on average 10% of electricity prices across the EU⁹². On top of this, other charges and levies represent an additional 40% of the final price on average. Therefore, taxation plays an important role in investment and consumption decisions of businesses and households. These include decisions related to electric vehicles. The European Commission's Long Term Strategy⁹³ projects the share of electric vehicles between 50% and 80% by 2050.

Yet, the ETD does not contain a specific minimum level of taxation for electricity used as propellant. At present, the ETD provides minimum levels of taxation for electricity for business and non-business use⁹⁴. These minimum rates are lower than the minimum levels of taxation applicable to motor fuels. In principle, electricity used as propellant in passenger cars, is not covered by optional or mandatory tax reductions and exemptions⁹⁵. At present, one Member State is authorised to apply preferential tax treatment to electricity supplied to charging stations directly used for charging electric vehicles⁹⁶.

Electricity Storage

Electricity storage enables the grid integration of renewable energy by storing excess energy and discharging it when demand increases or production of variable renewable sources, such as wind and solar, decreases. The EU's electricity storage capacity has grown 4.5-fold over the last 4 years with an increasing share of commercial storage providers⁹⁷. The need for storage services is projected to further accelerate as the share of renewable energy increases in the EU's power grids. Several storage technologies, including chemical, electrical and mechanical solutions, are entering the market. Hydrogen is one of these chemical storage technologies.

The current ETD was adopted long before these storage technologies emerged, therefore its provisions leave the possibility of divergent national implementation open. The ETD states that electricity is taxed when released for consumption but does not define whether electricity is released for consumption when supplied to storage facilities. This opens the possibility of double taxation of electricity that is stored and re-sold. The lack of EU-

⁹² European Commission - Energy Prices and Costs report 2018. Depending on country, consumer type and consumption volume.

⁹³ In-depth analysis in support of the Commission communication COM(2018) 773.

⁹⁴ Table C of the Annex I in the ETD: "Minimum levels of taxation applicable to heating fuels and electricity".

⁹⁵ Electricity used in transport can be subject to a differentiated rate when used by local public transport, taxis or railways.

⁹⁶ Supplied to battery-driven means of transport (road transport in particular) via dedicated charging equipment excluding charging stations for the exchange of batteries for electric vehicles, provided that the minimum levels of taxation laid down in Article 10 of Directive 2003/96/EC are respected. Source: Council Implementing Decision (EU) 2016/2266 of 6 December 2016 authorising the Netherlands to apply a reduced rate of taxation to electricity supplied to charging stations for electric vehicles.

⁹⁷ European Association for Storage of Energy.

wide harmonisation creates an insecure environment for business and consequently might hinder investment in storage technologies.

Shore-side Electricity

Shore-side power allows ships to turn off their engines and plug into an electrical grid. This realizes environmental benefits, such as the reduction of local air and noise pollution. Shore-side electricity also holds the potential of reducing GHG emissions. Ships can connect to an on-shore grid, possibly powered by renewable or low carbon electricity⁹⁸, instead of further running their on-board internal combustion engines powered by tax-exempted fossil fuels. Yet, the ETD does not provide for EU-wide preferential tax treatment of shore-side electricity. As a result, shore-side electricity is disadvantaged compared to on-board generation. As of 2019, four Member States have applied for a derogation in order to be authorised to apply a reduced tax rate to electricity directly supplied to vessels berthed in ports⁹⁹.

Energy Efficiency

Energy efficiency holds the combined potential of increasing the competitiveness of EU industries, increasing energy security and abating greenhouse gas emissions. In 2018 the EU set a binding target of 32.5% energy savings by 2030¹⁰⁰. In general, the ETD could play a role as an environmental instrument that enhances energy efficiency. Given that taxes have an impact on consumer behaviour they can incentivise a more efficient use of energy. Excise taxation of energy products is often noted as means to incentivise consumers to invest in more efficient appliances, buildings and industrial processes. The EU's analysis that lays out different pathways for its 2050 decarbonisation strategy "A Clean Planet for all" refers to taxation as means of improving energy efficiency¹⁰¹.

A paper by the Technical University of Delft finds that the ETD provides no financial incentives for final consumers to participate in demand response, neither in the form of energy savings, nor in the form of demand flexibility¹⁰². The current ETD sends wrong price signals, discouraging users from choosing greener and more efficient energy sources. More information on the interaction of the ETD with energy efficiency policies is presented in the coherence section (section 5.4).

⁹⁸ Additional environmental benefits include decreasing local air and noise pollution.

⁹⁹ Other than private pleasure crafts.

¹⁰⁰ [Directive \(EU\) 2018/2002](#) of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (OJ L 328, 21.12.2018, p. 210–230).

¹⁰¹ Clean Planet for all - A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy, p. 39.

¹⁰² Nina Voulis, Max J.J. van Etten, Émile J.L. Chappin, Martijn Warnier, Frances M.T. Brazier - [Rethinking European energy taxation to incentivise consumer demand response participation](#)

Member States and economic operators find it necessary to update the scope of the ETD

The views expressed by the respondents of the consultation are largely aligned to the findings of the above analysis. One of the main concerns raised by the stakeholders relates to the relevance of the ETD in terms of its static definition of energy products and electricity. Article 2 links the definition of products to tariff codes of the Combined Nomenclature (CN). Although the CN codes were updated in 2018¹⁰³, economic operators can still face uncertainty regarding the classification of new products. Furthermore, the periodic update of the CN codes poses a recurring problem as it can lead to legal uncertainty and practical difficulties for economic operators, who need to keep track of two sets of codes for customs and excise purposes. Moreover, CN codes may differ depending on the use and level of energy efficiency for cogeneration and power generation. Due to these concerns, stakeholders stressed the need to clarify the scope of the ETD, including products and uses that fall outside of it.

The consultation conducted for this evaluation also revealed that national authorities and economic operators are generally in favour of bringing new products under the coverage of the ETD, mostly to ensure equal tax treatment of different products for the same use. The inclusion and definition of products was especially relevant for the transport sector, reflecting this, 90% of respondents of the public consultation stated that the scope of the ETD should be updated to cover new energy products and uses. At the same time, no Member State or economic operator was in favour of excluding any further energy products or uses, which are currently covered by the ETD.

In some cases economic operators were motivated to include new products and uses into the scope of the ETD in order for those to be covered by exemptions and reductions. Although the ETD qualifies many of those products as taxable if used as motor fuel or for heating purposes, it does not provide any clear legal framework for the exemption of these alternative products used for similar purposes, as its provisions on exemptions and reductions mostly contain explicit references to energy products and electricity.

In conclusion, both Member States and economic operators agree on the need of improving the clarity of the ETD without compromising on its flexibility. The current mismatch between their needs and the ETD stems mainly from the lack of constant alignment between the ETD and CN and the lack of explicit definitions for equivalent fuels.

ETD's eroding role in promoting biofuels reflects stakeholder views

At the time of its adoption, the ETD was one of the most effective instruments to facilitate the uptake of biofuels, especially in the transport sector. Over time, the RED

¹⁰³ [Commission Implementing Decision \(EU\) 2018/552](#) of 6 April 2018 updating the references in Council Directive 2003/96/EC to the codes of the Combined Nomenclature for certain products (OJ L 91, 9.4.2018, p. 27–29).

took over¹⁰⁴ as main instrument for promoting biofuels¹⁰⁵. The RED II framework and the Guidelines on State aid for environmental protection and energy (the EEAG)¹⁰⁶ emphasise the differentiation of biofuels with the aim of reducing the role of conventional biofuels. As described above, such differentiation is missing from the ETD.

Partly due to this, the number of Member States that apply preferential tax treatment to biofuels under the ETD decreased from 25 to 6. In 2018 only Czechia, Germany, Hungary, Lithuania, Slovakia and Sweden applied tax exemptions and reductions to biofuels. The fragmentation of preferential tax schemes could indicate a negative impact for the competitiveness of biofuels against polluting fossil fuel alternatives¹⁰⁷. The erosion of the role of the ETD does not result from the potential of energy taxation to promote biofuels, but from the reduced relevance of the current legislation governing energy taxation.

Beyond the ETD, other factors also contributed to the decreasing number of Member States applying preferential tax treatment to biofuels. These include other incentives for biofuels, such as blending obligations and investment aid as well as the increasing importance attributed to electrification in the transport sector. The combustion of most biofuels generates CO₂ emissions, whereas this impact is mitigated by the biofuel crop acting as an emission sink during its growth. At the same time, renewable electricity powered electro mobility can provide carbon neutral transport solutions¹⁰⁸.

5.3. Efficiency

The section on efficiency aims at studying the relationship between the resources required by a policy intervention and the changes generated by the intervention. The ETD dates back quite a while and it has left the Member States significant flexibility as to the scope and application of its provisions. Over the years of application this initial diversity has been further accentuated by rapid technological development and

¹⁰⁴ It is not necessarily negative that the role of one instrument erodes, as long as other instruments are able to offset that effect and effectively contribute to the decarbonisation of the transport sector. However, as demonstrated in above, the achievement of the national 2020 targets, set for the share of renewable energy in the transport sector, seems challenging in several Member States. Others are likely to fail their national emission reduction targets.

¹⁰⁵ The sustainability criteria included in the 2009 RES Directive are applicable to all biofuels –advanced and food-based. It is only the ILUC Directive first and the 2018 RED II that make a distinction between food-based and advanced biofuels. For instance, the RED II includes a cap for food-based biofuels beyond which Member States would not be able to count towards the RES target and transport target.

¹⁰⁶ [Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020.](#)

¹⁰⁷ Study in support of the REFIT evaluation of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity in relation to the minimum levels of taxation and special tax schemes including tax exemptions and reductions

¹⁰⁸ Zero carbon when life cycle emissions are not taken into account.

emergence of new products. As a result the application of the ETD has resulted in discrepancies and confusion over certain legal provisions.

Member States and economic operators reported to have sufficient and available knowledge base to allow for implementation of the Directive

In order to minimise the time and resources spent collecting information, interpreting rules, and resolving disputes arising from uncertainties on the applicable legislation, it is important Member States and economic operators have a sufficient knowledge base about the ETD.

As mentioned under the Implementation section (Section 3), some problems emerged in the interpretation and implementation of some provisions of the Directive (see the document listed in Annex 4).

According to the surveys to the Member States' authorities and economic operators, they both replied to have sufficient and available knowledge of the ETD, though mainly focused on its national implementation provided through national guidance or training, and, partly, through the Commission guidance and CJEU rulings. Companies that might sometimes face challenges are the ones that work across borders and smaller and newly established companies.

Data on excises duties applied in the Member States are publicly available through the "Taxes in Europe Database"¹⁰⁹, as provided to the European Commission by the Ministries of Finance of the EU Member States¹¹⁰.

Although continuously updated, the current dataset is not perfect, as it does not include all the features of the national legislation (e.g. all the reduced rates and their scope), tax structures, product categories or rationale for tariff diversification (e.g. product quality vs produce use). The database is of a general nature only and is not intended to address the specific circumstances of any particular individual or entity and is not necessarily comprehensive, complete, accurate or up to date¹¹¹. However, it is still the only source available to compare tax rates across Member States. Some Member States also publish updated rates of excise duties on energy products on their relevant websites.

As already noted, the CJEU rulings have played an important role in interpreting specific provisions of the ETD and thus have helped their efficient application (each of the main provisions of the ETD have been covered by one or more judgements: see the list of judgments in Annex 5).

Some tax authorities have nonetheless indicated that updated guidance from the Commission would be necessary in order to reach a common understanding on the implementation of several recent judgments by the CJEU.

¹⁰⁹ [Taxes in Europe Database](#).

¹¹⁰ Reporting obligation is stated for example in Articles 25 and 26 of the ETD.

¹¹¹ Legal notice: https://ec.europa.eu/info/legal-notice_en.

The ETD did not lead to any considerable regulatory burden or costs for the Member States or the economic operators

The regulatory costs can be divided into substantive compliance costs (i.e. those investments and expenses that are faced by Member States' authorities and economic operators in order to comply with obligations or requirements contained in the Directive), and administrative burdens (i.e. costs borne as a result of administrative activities performed to comply with information obligations included in legal rules)¹¹². As it was explained under the methodological challenges (section 4), despite the evaluation's ambition to map the main national provisions regulating implementation of the excise duties, including exemptions and reduced rates, the research yielded limited information on the regulatory costs linked to the ETD.

On the basis of the available feedback¹¹³, the evaluation concluded that ensuring compliance with the minimum levels of taxation overall did not cause notable compliance costs. For the majority of the Member States the initial calculations to ensure that the levels of taxation effectively applied respect the minimum levels specified in the Directive were made several years ago and in many cases the tax rates applied were higher than the minimum levels of taxation and have increased over time. In addition, it was not time-consuming to perform the calculations or the periodic verifications, and adapting a tax rate in the IT applications was not considered burdensome. For the economic operators in turn, although the small sample does not allow for generalised conclusions, the costs incurred in order to comply with obligations and requirements of the Directive – such as adaptations of the IT systems – were subjectively perceived as very low. Many Member States make use of different measuring units than those specified in the ETD for minimum levels of taxation¹¹⁴. The legal study¹¹⁵ concluded that this provision of the ETD lacks clarity and that Member States use different systems to do the conversion which may result in unequal results. The fact that a conversion mechanism has to be applied in order to make sure that the minimum levels in the ETD are respected results in some administrative burdens for Member States and economic operators.

Where anecdotal feedback on administrative burdens was provided, it often related to burdens stemming from national implementation of the ETD or the provisions of the Horizontal Excise Directive concerning the general arrangements for excise duty.

Article 6 of the ETD, for example, provided different possibilities for the Member States to give effect to the exemptions or reductions laid down in the Directive: directly, by

¹¹² CEPS, "Assessing the costs and benefits of Regulation", Study for the European Commission Secretariat General, 2013.

¹¹³ These aspects were mostly covered under the "Study on Technical and legal aspects of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity".

¹¹⁴ Article 12 states that Member States may express their national levels of taxation in units other than those specified in Articles 7 to 10 provided that the corresponding levels of taxation, following conversion into those units, are not below the minimum levels specified in this Directive.

¹¹⁵ See Annex 1.5.

means of a differentiated rate, or by refunding all or part of the amount of taxation. Moreover, it does not prescribe any specific administrative approach to any of those exemptions or reductions. Among the Member States analysed in-depth for the evaluation, it was not possible to identify a common pattern, or a guiding principle, applied constantly across Member States or sectors of economic activities. On the contrary, large variations have been identified.

Annex 7 provides an illustrative overview of the key processes and obligations related to the production and trade in energy products and electricity. To understand where the administrative burdens come from, the evaluation examined in detail relevant processes and obligations behind declaration and payment of excises, application of excise exemptions and reductions, storage and production of energy products and movement of excise products.

With regard to the *declaration and payment of excise duties*, in general, the tax administrations interviewed did not consider the respective administrative burden deriving from the ETD provisions, and in general, from administering taxation of energy, as excessive, especially when compared with the fiscal revenues they receive from excise duties on energy. Therefore, from their perspective, any procedure they implement for collecting, monitoring and controlling taxation and payment could be considered justified in the light of avoiding tax fraud and preserving fiscal revenues. Limited difficulties reported by the administrations and economic operators alike related to uncertainties in the understanding and interpretation of some of the ETD articles (e.g. definition of an “equivalent product” or “energy-intensive” business).

Articles 14 to 17 of the ETD cover situations in which energy products and electricity must or can benefit from an *excise duty reduction or exemption*. The implementation of the specific requirements for benefitting from the reductions or the exemptions – such as licenses, pre-authorisation visits, detailed bookkeeping, monitoring - remains a national matter. These procedures, regardless of their origin, were in any case found reasonable in terms of administrative burdens by almost all of the Member States when compared against the need to ensure adequate fiscal controls.

As for the economic operators, they occasionally flagged that it is burdensome to apply for authorisations and receiving reimbursements but, as stated before, any such phenomena cannot be attributed to the ETD. Such burdens vary significantly not only across Member States but also across specific industries, which again corroborates the finding that the ETD is not the main cause of the administrative burden as Member States are given the freedom to both apply as well as to set-up the administrative procedures for granting taxation exemptions and reductions. Difficulties that could be reported relate to the complexity, lack of clarity, ambiguous wording and interpretations of some of the

ETD provisions such as unclear definitions of the scope of some exemptions or reduced rates¹¹⁶.

Such uncertainty can indeed represent a cost for both parties, particularly when it leads to litigation. The latter could be seen as the opportunity costs of the time spent dealing with litigation as well as the associated legal expenses. Although not many economic operators took part in the evaluation, a third of them did indeed declare that their company or sector was affected by a specific legal dispute over the calculation and application of the tax rate¹¹⁷.

Economic operators in some sectors reported dealing with particular difficulties in differentiating exempt from non-exempt consumption of energy products. For example, in the maritime and aviation sectors, the excise treatment of the fuels used depends on the specific use of the aircraft or vessel. Companies consuming fuels like natural gas for cogeneration purposes and other purposes face similar problems¹¹⁸.

The agricultural sector provides an example of how much ETD implementation procedures depend on national decisions and how this influences the administrative burden for economic operators. Article 15(3) of the ETD allows Member States to apply an exemption or a reduced rate on energy products and electricity used for agricultural, horticultural works, piscicultural and in forestry. The same general rules are applied differently by Member States. Differences exist in the scope of implementation (i.e. only farming or contractors as well), type of works (e.g. agricultural only, or forestry and others as well), in the implementation mechanism (e.g. via a refund or an exemption), in the requirements for applying the special regime (e.g. prior registration or authorisation, the types of fuels used, etc.). The administrative burdens differ very much according to the Member State involved as there could be different number of fuels in the scope and the reporting obligations may differ in terms of number of declarations and frequency.

Concerning the *control and movement provisions*, Article 20(1) of the ETD¹¹⁹ lists the energy products that are subject to the relevant rules of Directive 92/12/EEC since

¹¹⁶ Examples mentioned concerned the application of Article 14(1) – listing situations when specific uses of some energy products can be exempted - which was often applied on a case-by case basis, not granting predictability or certainty, or determination – in a quantitative way – of the status of an energy-intensive business as laid down in Article 17.

¹¹⁷ The most frequently quoted disputes concerned minimum level of taxation for electricity (Article (10)) and uses of energy products and electricity out of the scope of the ETD (Article 2(4)(b)), followed by application of the rate of the equivalent fuel, differentiated rates of taxation, minimum level of taxation for heating fuels and taxation of biomass.

¹¹⁸ In those cases where these companies have just one connection to the distribution grid, it is sometimes burdensome for them, and their distributors, to assign appropriate volumes to each excise category (exempt or not).

¹¹⁹ See also the [Commission Implementing Decision 2012/209/EU](#) of 20 April 2012 concerning the application of the control and movement provisions of Council Directive 2008/118/EC to certain additives, in accordance with Article 20(2) of Council Directive 2003/96/EC (notified under document C(2012) 2484) (OJ L 110, 24.4.2012, p. 41–41). The Decision repealed the previous [Commission Implementing Decision 2011/545/EU](#) of 16 September 2011 concerning the application of the control and movement provisions of Council Directive 2008/118/EC to products falling within CN code 3811,

replaced by the Horizontal Excise Directive, which sets out the general rules applicable to production, storage and movement of excise products.

In principle, products subject to excise duties must be produced and stored, under duty suspension, in tax warehouses¹²⁰ authorised by national authorities, in line with specified EU legislation.

Alternatively, an authorised warehouse-keeper (or a registered consignor) can move excise products – under duty suspension – from a tax warehouse (or the place of importation into the EU) to:

- another tax warehouse;
- a registered consignee;
- place of exit from the EU (Article 25(1) Horizontal Excise Directive) when the excise goods are exported;
- an exempt consignee referred to in Article 12(1) - (see Article 17(1)(a)iv Horizontal Excise Directive).

The movement of the same products between Member States must be accompanied by required documents: Electronic Administrative Document (eAD) for goods which are under duty-suspension; Simplified Administrative Document (SAAD) for goods on which duty has been paid in the Member State where they were dispatched.

The authorised warehouse-keeper in the Member State of departure must provide a guarantee for excise goods they dispatch, under duty-suspension, to another Member State, until the excise duty has been secured (Report of Receipt has been received) in the Member State of destination.

The Excise Movements and Control System (EMCS) is the computerised system for tracing the movement of excise goods travelling within the EU under duty suspension.

Even when considering listing energy products subject to the control and movement provisions as a role of the ETD, the procedures mentioned as difficult did not stem directly from compliance with the ETD but rather from the general rules applicable to the production, storage and movement of all excise products.

5.4. Coherence

This section analyses how well the ETD is aligned to other EU policies in numerous fields as well as to international agreements in place.

in accordance with Article 20(2) of Council Directive 2003/96/EC (notified under document C(2011) 6423) (OJ L 241, 17.9.2011, p. 33–33).

¹²⁰ Relevant exceptions to this rule are contained in Article 21 of the ETD for electricity, natural gas, coal, coke and lignite, which are subject to taxation and become chargeable at the time of supply/delivery.

Inconsistency with the Horizontal Excise Directive

The ETD contains cross-references to the Directive 92/12/EEC, which was repealed in 2008 by the Horizontal Excise Directive. The ETD refers, among others, to movement provisions, whereas the Horizontal Excise Directive has two types of movement provisions (duty-suspension and duty-paid).

Alignment to other EU legislation and policy objectives is not fully exploited

The objectives of the ETD relate primarily to the proper functioning of the single market. However, a well-functioning market cannot disregard the impact of energy taxation on the cost of energy products and electricity, and thus the broader influence on environmental, and climate policies. In fact, energy prices are considered “key elements of Community energy, transport and environment policies”¹²¹.

The ETD refers to a number of legal instruments related to the single market, environment and climate, and taxation, including other EU legislation and international agreements¹²². However, although taxation is recognised as an important tool to influence behaviour regarding the use of energy products and investments, the ETD is rarely referred to in other EU policy instruments. The most notable reference is made in the Energy Efficiency Directive¹²³, in the context of setting up alternative systems to energy efficiency obligation schemes. More generally, taxation is referred to in the EU ETS Directive as a mean of national policies to limit emissions from the installations temporarily excluded from the EU ETS¹²⁴. Since 2003, the EU objectives in other policy areas have evolved, e.g. as regards energy efficiency, reduction of emissions of greenhouse gases and other air pollutants, including the decarbonisation of transport, and the ETD provisions are not currently aligned with them.

With regard to the Energy Efficiency Directive, the evaluation concluded that there was room to further align the ETD to it. In accordance with Article 7(9) of the Energy

¹²¹ Recital 12 ETD.

¹²² **Single market:** the ETD refers to [Council Directive 70/156/EEC](#) of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers (OJ L 42, 23.2.1970, p. 1–15, no longer in force) and [Council Directive 83/189/EEC](#) of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (OJ L 109, 26.4.1983, p. 8–12, no longer in force);

Environment and climate: the ETD refers to the [United Nations Framework Convention on Climate Change](#) and to the [Kyoto Protocol](#);

Taxation: the references to the Horizontal Directive ([Council Directive 92/12/EEC](#) of 25 February 1992 on the general arrangements for products subject to excise duty and on the holding, movement and monitoring of such products, OJ L 76, 23.3.1992, p. 1–13, now replaced by Council Directive 2008/118/EC of 16 December 2008) and to the [Council Directive 92/83/EEC](#) of 19 October 1992 on the harmonisation of the structures of excise duties on alcohol and alcoholic beverages, OJ L 316, 31.10.1992, p. 21–27, aim at ensuring alignment and no overlap between the existing EU instruments (see e.g. Article 3 of the ETD which extended the scope of Directive 92/12/EEC).

¹²³ [Directive 2012/27/EU](#) of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1–56).

¹²⁴ Recital 24. The EU ETS and the possible overlaps with the ETD are investigated under the overlaps, gaps and/or inconsistencies that significantly hamper the achievements of the objectives.

Efficiency Directive Member States may opt to take policy measures to achieve energy savings among final consumers other than energy efficiency obligation schemes. Such policy measures may include energy or CO₂ taxes that have the effect of reducing end-use energy consumption and specific references are made to tax credits¹²⁵.

Regarding the relation between the ETD and the EU ETS, the two sets of rules exhibit a lack of coherence, along with differences in their logic and scope. This creates inconsistencies and overlaps between the two instruments.

As regards State aid rules, Article 26(2) of the ETD provides that measures such as tax exemptions, tax reductions, tax differentiation and tax refunds within the meaning of the Directive might constitute State aid and in those cases have to be notified to the Commission under the relevant applicable rules. State aid rules do not prevent the ETD from contributing to more flexibility for Member States regarding their tax system¹²⁶. The ETD provides when Member States shall or can provide for tax reductions or exemptions. State aid rules give a framework to assess whether a tax differentiation regime constitutes State aid, and if so, whether it is compatible with the internal market. In this sense, the two sets of rules are complementary.

In addition, in accordance with Article 19(1) ETD, the Council may authorise a Member State to introduce further exemptions or reductions for specific policy considerations. Each request for derogation under this Article must be examined taking into account the proper functioning of the internal market, the need to ensure fair competition and EU health, environment, energy and transport policies¹²⁷.

Member States would benefit from immediate clarity about which tax differentiation measures could involve state aid. In this regard, additional training to national authorities on state aid aspects, as well as an increased recourse to mandatory exemptions in the ETD could help increase clarity and simplification.¹²⁸ To conclude, currently the

¹²⁵ Annex II to the Energy Efficiency Directive allows credit to be given for energy savings from taxation measures exceeding the minimum levels of taxation applicable to fuels as required by Council Directive 2003/96/EC.

¹²⁶ According to the CJEU, “50 [...] It is apparent from recitals 9 and 11 of that directive [the ETD] that it seeks to give Member States the flexibility necessary to define and implement policies appropriate to their national circumstances and the arrangements made in connection with the implementation of that directive are a matter for each Member State to decide.

51 Nevertheless, it must be pointed out that the fact that national rules such as those at issue in the main proceedings, which restrict the benefit of a tax reduction to an industrial sector, do not run counter to Article 17(1) of Directive 2003/96 is, as follows from Article 26(2) of that directive, without prejudice to whether those rules constitute State aid. [...]”, judgement of 18.01.17, *IRCCS - Fondazione Santa Lucia*, C-189/15, EU:C:2017:17, paragraphs 50-51.

¹²⁷ An example of this assessment is in the last “Proposal for a Council Implementing Decision authorising Italy to apply, in determined geographical areas, reduced rates of taxation on gas oil and liquid petroleum gas used for heating purposes in accordance with Article 19 of Directive 2003/96/EC” ([COM/2019/138 final](#)).

¹²⁸ From a State aid perspective, a mandatory tax exemption in the ETD in principle does not involve aid, if it is applied in a non-discriminatory way. Since a mandatory exemption shall be by definition applied by all Member States, it cannot affect the trade between Member States and cannot constitute State aid.

alignment to other EU legislation and policy objectives is only partially exploited. Legislation in other policy in areas such as energy, climate environment and transport does not refer to the ETD in most cases.

The ETD contributes to a limited extent to the wider economic, social and environmental EU policy objectives

The ETD takes into account certain externalities, competitiveness factors as well as distributional concerns relating to other policies. For instance: (a) Member States may tax energy products and electricity used as input for the production of electricity for reasons of environmental policy¹²⁹; or (b) differentiate between commercial and non-commercial use of gas oil used as propellant¹³⁰, which has a direct link to transport policy; or (c) apply differentiated rates of taxation, among others, for the use for local public passenger transport, disabled people and ambulance, which relate to social policy¹³¹.

With regard to *energy policy*, the ETD contains provisions that could support policy efforts to promote the use of renewable energy and increase energy efficiency. On the contrary, the ETD has been less supportive to the objectives of the reduction of greenhouse and other pollutant emissions as well as energy diversification or energy independence and security. A recurring reason behind the limited contribution raised by the stakeholders during the evaluation was that the ETD does not take into account the energy content and CO₂ emissions of energy products and electricity, and includes too low minimum levels of taxation and many exemptions. It was also argued that the imbalance between petrol and gas oil used as propellant introduced by their differentiated treatment in the ETD takes its toll on the EU energy security increasing dependence of foreign imports of gas oil. Such findings came from the targeted consultations with the Member States authorities, the economic operators and the public consultation, which all unanimously pointed to deficiencies of the ETD with regard to energy objectives.

With regard to *environmental and climate change policies*, there are four provisions in the ETD allowing for exemptions and reduced rates, which aim explicitly to support environmental objectives identified by the 7th Environmental Action Programme¹³². According to the opinion of stakeholders replying to public consultation all four provisions contribute to the EU's environmental objectives, although, as explained later

¹²⁹ Article 14(1)(a) of the ETD. This Article however lacks clarity and does not define, what is meant by “for reasons of environmental policy”.

¹³⁰ Article 7(2) of the ETD. In addition, according to Article 7(4) of the ETD, notwithstanding paragraph 2, Member States which introduce a system of road user charges for motor vehicles or articulated vehicle combinations intended exclusively for the carriage of goods by road may apply a reduced rate on gas oil used by such vehicles which goes below the national level of taxation in force on 1 January 2003.

¹³¹ Article 5, 3rd indent of the ETD.

¹³² Protecting the Union's natural capital; turning the Union into a resource-efficient, competitive low-carbon economy and safeguarding citizens from environment-related pressures and risks to health and well-being. [Decision No 1386/2013/EU](#) of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 “Living well, within the limits of our planet” (OJ L 354, 28.12.2013, p. 171–200).

in this section, the evaluation concluded that for example the provisions on taxation of biofuels are not in line with the EU energy, climate change and environment policies.

At the same time, the 2016 Heating and Cooling Strategy¹³³ recognised that heating and cooling will remain the largest EU energy use by 2050 and underlined the need for transition towards the use of renewables and excess heat from industries in order to meet decarbonisation targets. These uses are often not profitable compared to fossil fuels, and the latter enjoy low minimum rates and numerous exemptions under the ETD.

The ETD provisions do not seem to contribute to the EU *transport policy* objectives, in particular to the decarbonisation of transport and reduction of the air pollution emissions. The differentiated minimum levels of taxation set in the ETD on motor fuels are not tailored to take into account the different energy contents or environmental costs of these fuels. The favourable minimum taxation for gas oil used as propellant compared to petrol has contributed to excessive dieselization of the European vehicle fleet resulting in negative consequences on air quality. The ETD allows a differentiated rate on commercial use of gasoil used as propellant, which may favour road freight over more sustainable transport modes. Moreover, Article 14 of the Energy Tax Directive (ETD) exempts fuel used for air navigation other than private pleasure transport, as well as fuel supplied for the maritime EU waters. However, the directive allows Member States to tax fuel used for domestic flights unilaterally and intra-EU flights if a bilateral agreement is signed between two Member States.

As far as the EU's broader *social policies* are concerned, reducing unemployment is one of the main objectives of the EU, along with modernising social security systems, alleviating poverty, and protecting people with disabilities. Recital 11 of the ETD stipulates that whereas fiscal arrangements to implement the Directive are a matter of national competence, the Member States may decide not to increase the overall burden with the view to encourage behaviour conducive to greater protection of environment and increased labour use. The ETD is thus designed to allow Member States to pursue their national objectives, including a shift from labour taxation to energy taxation, coherently with the “double-dividend”¹³⁴ notion. In the Explanatory Memorandum of the 1997 Commission Proposal for the current Directive, the Commission linked its initiative to the responsibility “to orient in a pro-employment manner those policy choices which lie within the Community's competence.”¹³⁵

In 2011 the Commission suggested that “additional revenue from energy taxation of polluting sources could also be used to mitigate the impact of underlying policies on household income by compensating less well-off sections of the population. The

¹³³ An EU Strategy on Heating and Cooling SWD(2016) 24 final, [part 1](#) and [part 2](#).

¹³⁴ As defined by European Environmental Agency double dividend refers to the notion that environmental taxes can both reduce pollution (the first dividend) and reduce the overall economic costs associated with the tax system by using the revenue generated to displace other more distortionary taxes that slow economic growth at the same time (the second dividend).

¹³⁵ [Explanatory Memorandum](#) of the Commission Proposal for a Directive restructuring the community framework for the taxation of energy products, COM(97)30 final.

progressivity of the whole taxation system as well as targeted subsidies to low income households (lump-sum checks unrelated to energy consumption) would be the best way to tackle distributional concerns related to the progressivity of some energy tax provisions.”¹³⁶

Moreover, without additional measures, energy taxation in general can also generate inequalities: for the time being, cleaner technologies with favourable taxation might not be available for everyone and require investments that only wealthier people can afford. Such technologies include electric vehicles, heat pumps and roof-top installed solar panels.

The idea was to encourage the shift from labour to energy taxation in view of the expected positive effects on growth and employment. In fact, the economic theory and empirical evidences suggest that environmental taxation is generally less damaging to growth and employment than direct taxation, in particular taxation of labour. The role of tax policy in fostering growth was the subject of some research¹³⁷ by the Organisation for Economic Co-operation and Development (OECD) suggesting a ranking of taxes with respect to their relationship to economic growth. This ranking has been influential for policy recommendations over the past decade from international organisations, including the OECD, the International Monetary Fund (IMF) and the European Commission. One common policy recommendation for EU Member States was to shift taxes away from labour to other tax bases (e.g. environmental taxes) that are less detrimental to growth.

Further to the positive impact of the tax shift, well-designed environmental taxes are considered to have the potential to directly contribute to economic growth by providing a cost-effective way to reduce pollution emissions and correct other negative externalities. Therefore, an increase in the level of environmental taxation, all other factors remaining unchanged, could lead a positive impact on economic growth and employment.

Based on the available evidence it is not possible to argue that the ETD has contributed to the desirable tax shift. Most Member States tax energy products well over the minimum rates of the ETD. Therefore the minimum rates are too low to effectively support growth and the reduction of unemployment. The possible positive impacts of energy taxation in achieving economic growth and increasing employment are not the result of the ETD, but of higher national rates.

¹³⁶ Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee, Smarter energy taxation for the EU: proposal for a revision of the Energy Taxation Directive, [COM\(2011\)168/3](#).

¹³⁷ Arnold, J. (2008), Do Tax Structures Affect Aggregate Economic Growth? Empirical Evidence from a Panel of OECD Countries, OECD Economic Department Papers, 643 and Johansson, A., Heady, C., Arnold, J., Brys, B. and L. Vartia (2008), Taxation and Economic Growth, OECD Economics Department Working Papers, 620.

The ETD provisions on taxation of biofuels are not in line with the EU energy, climate change and environment policies

The EU policy framework for biofuels is laid down in the Renewable Energy Directives, the Fuel Quality Directive¹³⁸ and the Directive to reduce indirect land use change for biofuels and bioliquids¹³⁹, which are described in Annex 8.

The current Article 16 of the ETD provides for an optional exemption for certain products, which are commonly referred to as “biofuels”. This term, however, is not used in Article 16 itself. Instead, the provision refers to the products concerned either as “products produced from biomass” or via specific CN codes.

The optional favourable treatment of biofuels under the ETD was introduced in the interest of environmental protection. Article 16 of the ETD does not, however, set clear conditions relating to the environmentally-friendly character of the biofuels for which the exemption is granted. The European Strategy for a low-emission mobility¹⁴⁰ of July 2016 pointed out that food-based biofuels have a limited role in decarbonising the transport sector and should be gradually phased out and replaced by advanced biofuels.

RED II promotes renewables in transport with a dedicated measure. The current 10% target is replaced by a requirement for Member States to introduce an obligation on fuel suppliers, enabling the achievement of a 14% target for renewables by 2030, which includes a 3.5% share of advanced biofuels.

The total contribution of conventional biofuels in each Member State would be limited to a maximum of 1 percentage point higher than the contribution from those to the gross final consumption of energy from renewable energy sources in 2020 in that Member State (with a maximum of 7% and minimum of 2%).

The contribution towards the renewable transport target of high ILUC risk biofuels produced from crops associated with deforestation (crops for which a significant expansion of the production area into land with high carbon stock is observed) would be limited to the level of consumption in 2019. As of 31 December 2023, their contribution will be gradually reduced down to 0% by 2030. Low indirect land-use change-risk biofuels are excluded from this limit.

The fact that the distinction between different types of biofuels is not considered for the exemption under the ETD implies that the ETD is no longer aligned with the current environmental and climate standards even though the sheer principle of promoting

¹³⁸ [Fuel Quality Directive](#).

¹³⁹ [Directive to reduce indirect land use change for biofuels and bio liquids](#).

¹⁴⁰ European Strategy for Low- Emission mobility available at <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52016DC0501>.

biofuels is still valid. This seems to be confirmed by all groups of stakeholders who took part in the evaluation¹⁴¹.

As the optional exemption for biofuels could be considered as a State aid, Member States have to take into account the relevant set of rules. The Guidelines on State aid for environmental protection and energy¹⁴² make a distinction between different biofuels by approving aid in certain conditions.¹⁴³

There are overlaps, gaps and inconsistencies that significantly hamper the achievements of objectives in the field of energy, environment, climate change and transport

In general, the inconsistencies between the ETD and the EU energy policy are due to outdated definitions as it was already discussed above with regard to energy from renewable sources and of biofuels. In particular, the ETD does not reflect many aspects present in more recent EU legislation on energy – notably the Recast Renewable Energy Directive – such as landfill gas, sewage treatment plant gas, and biogas and thus some alternative fuels, which are recognised by the Renewable Energy Directive, as biomethane, but are currently not recognised by the ETD. Consequently, whereas the former encourages the use of these products, the ETD does not grant reductions or exemptions to them. Also the Alternative Fuels Infrastructure Directive¹⁴⁴ includes biomethane among the alternative fuels. Unlike the ETD, it also distinguishes between natural gas in gaseous form and liquefied form which better reflects their respective levels of greenhouse gas emissions.

In the field of climate and environment policies, the most important co-existing legislation is the EU ETS. The EU ETS is the world's first large installation-level “cap-and trade” system. The EU ETS is a cornerstone of the EU's policy to combat climate change and serves as its primary tool for reducing greenhouse gas emissions.

The spirit of the legislators was for energy taxation and emissions trading to operate in a complementary fashion to achieve comprehensive coverage of CO₂ emissions. However, as noted before, the two pieces of legislation have partly different objectives, along with differences in their approach and scope. This results in inconsistencies and overlaps

¹⁴¹ They are convinced of the positive impact of the exemption on biofuels on the environmental policies and these views were rather firmly confirmed (61% of the public consultation respondents held a positive or very positive views, with a relatively low 31% not having an opinion and 7% having a negative one).

¹⁴² [The Guidelines on State aid for environmental protection and energy.](#)

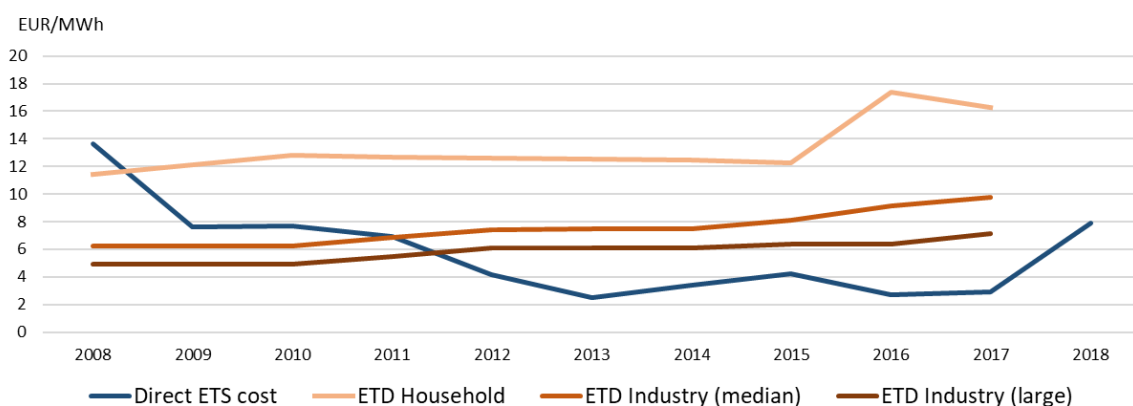
¹⁴³ “*In view of the overcapacity in the food-based biofuel market, the Commission will consider investment aid in new and existing capacity for food-based biofuel is not to be justified. However, investment aid to convert food-based biofuel plants into advanced biofuel plants is allowed to cover the cost of such conversion. Other than in this particular case, investments aid to biofuels can only be granted in favour of advanced biofuels*”. Moreover, “*aid cannot be found compatible with the internal market if the aid is granted for biofuels which are subject to a supply or blending obligation, unless a Member State can demonstrate that the aid is limited to sustainable biofuels that are too expensive to come on the market with a supply or blending obligation only.*”.

¹⁴⁴ Alternative [Fuels](#) Infrastructure Directive.

between the two instruments. Both instruments cover some uses of energy, such as power and heat generation, energy-intensive industries. Others areas are excluded either by one or by both the ETD and EU ETS. Such include for example process emissions that are covered by EU ETS and not by ETD. In the case of double coverage the incentive might not be the most optimal one.

The EU ETS puts a price on greenhouse gas emissions of the power sector¹⁴⁵, serving as the EU's primary emission abatement tool. The ETD on the other hand, serves primarily as a revenue generation tool with a very limited, indirect climate impact¹⁴⁶. The following graph compares the cost of ETD taxation¹⁴⁷ to the cost of EU ETS¹⁴⁸ for residential and industrial electricity consumers¹⁴⁹.

Figure 7 ETD and EU ETS Components in Electricity Prices



Source: European Commission- Energy Prices and Costs 2016 and 2018, EEA - ENER38 indicator

Over the last decade, the ETD price component (raising revenues) was significantly higher than the EU ETS price component (combating climate change)¹⁵⁰. In 2017¹⁵¹ the

¹⁴⁵ Beyond power the ETS covers the following sectors: energy-intensive industries, including oil refineries, steel works and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, bulk organic chemicals, intra- EU commercial aviation, production of nitric, adipic and glyoxylic acids and glyoxal and aluminium production.

¹⁴⁶ Higher taxes result in higher prices, which in turn dampen consumption resulting in an energy saving impact. This impact is indirect and limited, especially in the case of the residential sector (households) where demand elasticity is low.

¹⁴⁷ The ETD cost is calculated as a weighted average of energy taxation across the EU28. Includes the only non-harmonised tax imposed by a Member State on electricity consumption (local tax in France). Excludes renewable energy levies and all other levies, fees and charges earmarked to specific policies.

¹⁴⁸ The direct cost of EU ETS is calculated as the annual average EUA price multiplied by the annual average emission intensity of fossil fuel electricity generation (excluding renewable and nuclear electricity) of the EU28. Emission intensity values are derived from the European Environmental Agency's ENER38 indicator.

¹⁴⁹ EU28 weighted average figures for median household median and large industrial electricity consumption. Households: 2500 to 5000 annual consumption (Eurostat code DC). Industry: 2000 to 20 000 MWh annual consumption (Eurostat code ID) and 70 000 to 150 000 MWh (Eurostat code (IF)).

¹⁵⁰ The ETS also has a revenue raising function. The EU ETS Directive (Directive 2003/87/EC) provides that at least 50% of the revenues generated from the auctioning of allowances (or the equivalent in financial value of these revenues) should be used to support the achievement of specific climate and energy activities.³ This intention is further declared in a 2008 European Council Statement on the use

ETD component was almost 3 times higher than the EU ETS component. Large industrial electricity consumers benefit from tax exemptions and reductions and consequently pay a lower average ETD tax. Still, since 2011 the ETD cost has been above the EU ETS cost even for large industrial consumers. Two factors which could not be visualised for the above figure, further lower the ETS cost component. Firstly, utilities might not fully pass on the ETS cost (direct ETS cost) to consumers (indirect ETS cost) but absorb it partially. Secondly, Member States are free to apply national schemes for the compensation of indirect ETS costs. On the other hand, it is also to be noted that since 2017 the European Union allowance (EUA)¹⁵² price has been rising continuously, from 5 EUR/tonne annual average in 2017, to 16 EUR/tonne in 2018 and 23 EUR/tonne in the first 4 months of 2019. This indicates a decreasing difference between the ETD and EU ETS cost components.¹⁵³

The current ETD rates (minima and effective national rates) do not ensure alignment to the EU ETS, nor do they allow for tapping the greenhouse gas reduction potential of energy taxation in the power sector. However, the two instruments could be complimentary and mutually reinforcing each other in the framework of the EU's climate policy. In particular, given that a report published by the European Court of Auditors in August 2019¹⁵⁴, finds that the progress made so far might not be enough to achieve 20% share of renewables in the EU's energy consumption¹⁵⁵ by 2020. The report finds that by 2017, 11 of the 28 Member States already reached their 2020 target¹⁵⁶ and 3 more¹⁵⁷ are likely to meet theirs given they continue to implement RES support measures at current pace. In 8 other Member States¹⁵⁸, the share of renewables would need to increase between 2 and 4 percentage points to meet the 2020 target. This would require faster growth and consequently higher investment levels, than in the past. The report concludes that 6 Member States are unlikely to meet their 2020 target.¹⁵⁹ The 2018 Renewable Energy Progress report paints a more optimistic picture. It states that "in 2017, the EU reached a share of 17.52% of renewable energy in gross final energy consumption,

of auctioning revenues. Source: [European Commission - Analysis of the use of Auction Revenues by the Member States](#).

¹⁵¹ Last year for which a weighted average ETD cost can be calculated. ETD component for households.

¹⁵² European Union Allowance (EUA) means the tradable unit under the EU ETS, giving the holder the right to emit one tonne of carbon dioxide (CO₂), or the equivalent amount of two more powerful greenhouse gases, nitrous oxide (N₂O) and perfluorocarbons (PFCs).

¹⁵³ The EU ETS and ETD impact different levels of the electricity value chain. EU ETS costs are imposed on the wholesale level, while ETD costs are applied on the retail level. It is assumed that utilities pass on the full cost of EU ETS to retail consumers. In case utilities absorb part of the EU ETS costs, the impact of the EUA price is even smaller compared to the impact of the ETD.

¹⁵⁴ https://www.eca.europa.eu/Lists/ECADocuments/SR19_08/SR_PHOTOVOLTAIC_EN.pdf

¹⁵⁵ Gross Final Energy Consumption.

¹⁵⁶ Bulgaria, the Czech Republic, Denmark, Estonia, Croatia, Italy, Lithuania, Hungary, Romania, Finland, Sweden.

¹⁵⁷ Greece, Latvia, Austria.

¹⁵⁸ Belgium, Germany, Spain, Cyprus, Malta, Portugal, Slovenia and Slovakia.

¹⁵⁹ Netherlands, France, Ireland, United Kingdom, Luxembourg, Poland.

against a target of 20% for 2020, and above the indicative trajectory of 16% for 2017/2018” and concludes that “The EU is on track to reach its 2020 target.”¹⁶⁰

Under the Relevance section, the evaluation stresses that the ETD minimum levels are too low to contribute to the smooth functioning of the internal market meanwhile the Coherence section highlights that cost of energy taxation is above the indirect costs of ETS. This stems from the difference between ETD minimum rates and effective national rates (the latter displayed on Figure 7).

There is room to increase the alignment of the ETD to policies and instruments of the transport sector as well. The ETD's general structure, based on the principle of taxing at the rate of the “equivalent” product without taking into account the products’ different energy content or environmental performance, is in contrast with the aim of encouraging the decarbonisation of transport using alternative fuels. In addition, according to Article 14 of the ETD Member States must exempt from taxation energy products supplied for use as fuel for the purpose of air navigation other than in private pleasure-flying and energy products supplied for use as fuel for the purposes of navigation within Community waters (including fishing), other than private pleasure craft, and electricity produced on board a craft¹⁶¹, which potentially contradicts the decarbonisation objectives of the EU transport policy as well as EU climate objectives. The strong growth of air traffic has caused air transport emissions to more than double in the last years. Aviation activities have been included in the EU ETS, but in order to further support the process led by the International Civil Aviation Organisation (ICAO) and allow for an agreement at global level on a “Carbon Offsetting and Reduction Scheme for International Aviation” (CORSIA), the EU has limited the EU ETS to flights within the European Economic Area (EEA), applies equal treatment to all operators on those routes and grants free emission allowances covering about 85% of the activity covered by the EU ETS.

For international maritime, global efforts to limit emissions are led by the International Maritime Organisation (IMO). IMO adopted in April 2018 an initial strategy to reduce greenhouse gas emissions from ships¹⁶². The strategy defines an emission reduction objective of at least 50% reduction by 2050 compared to 2008 annual emissions coupled with a vision for the decarbonisation of the sector.

Moreover, the mandatory tax exemptions for air navigation and navigation within Community waters may distort the level playing field in the transport sector.

¹⁶⁰ [Renewable Energy Progress Report](#).

¹⁶¹ Member States may limit the scope of the exemptions to international and intra-Community transport. In addition, where a Member State has entered into a bilateral agreement with another Member State, it may also waive the exemptions and may apply a level of taxation below the minimum level set out in the ETD.

¹⁶² [Note by the International Maritime Organization to the UNFCCC Talanoa Dialogue](#) (adoption of the initial IMO strategy on reduction of GHG emissions from ships and existing IMO activity related to reducing GHG emissions in the shipping sector).

The optional tax exemptions under the ETD contradict other policy instruments

The ETD leaves room for the Member States to implement total or partial exemptions or reductions in the level of taxation. The effective application of optional exemptions reflects the individual interests of Member States.

There is a disconnection – and in some cases, a contradiction – between some optional tax exemptions allowed by the ETD and other EU instruments for energy and climate. Most exemptions and reductions concern business use and in particular energy-intensive businesses.

One of the examples is the optional exemption granted to biofuels as discussed earlier on, while others include:

- The Energy Efficiency Directive encourages Member States to adopt policies promoting efficient technologies such as combined heat and power in “high-efficiency cogeneration”, distinguishing between “high-efficiency cogeneration” and “cogeneration”, with the first providing primary energy savings of at least 10%. The ETD in turn, provides for an optional tax exemption under Article 15(1)(c) to energy products and electricity used for combined heat and power generation, without any precise requirement in terms of energy savings;
- The incentive to use alternative fuels in public transport, in line with the Directive on Alternative Fuels Infrastructure, is not, at present, supported by the ETD. In fact, Article 5 enables Member States to apply, if they respect the minimum levels, differentiated rates of taxation rate for local public passenger transport. Energy products and electricity used for the carriage of passengers by rail, metro, tram and trolley bus can be completely exempted from taxes, according to Article 15(1)(e). This list of eligible vehicles is outdated considering the recent technological developments.
- The exemption for on-board electricity generation allowed under Article 15(1)(f)¹⁶³ deters actions to improve energy efficiency and reduce emissions in the maritime transport sector, for instance via the electrification of harbours, making generation on-board artificially cheaper than shore-side electricity generation despite its worse environmental impact;
- The optional exemption/reduction from taxation of fossil fuels used by households and by organisations under Article 15(1)(h) could be interpreted as contradictory to EU decarbonisation targets and international commitments;
- Article 17 of the ETD may be in contradiction with environmental policy or energy efficiency objectives in the sense that it allows Members States to apply

¹⁶³ In this regard see also Article 14(1)(c) of the ETD which grants an exemption to energy products supplied for use as fuel for the purposes of navigation within Community waters (including fishing), other than private pleasure craft, and electricity produced on board a craft. Member States may limit the scope of the exemptions to international and intra-Community transport. In addition, where a Member State has entered into a bilateral agreement with another Member State, it may also waive the exemptions and may apply a level of taxation below the minimum level set out in the ETD.

tax exemptions or reductions on the consumption of energy products for various specified uses, which could have a high level of CO₂ emissions. In particular, the requirement of qualifying as an energy-intensive business may even be an incentive for companies to consume more energy than strictly required (i.e. not to lose their “energy-intensive business” status). In any case, the effects of the application of Article 17 of the ETD depend on possible agreements between economic operators and Member States, tradable permit schemes or equivalent arrangements at national level, which should lead to the achievement of environmental objectives or increased energy efficiency. The actual effects of the implementation of this Article rely on the national tools adopted to this extent by the Member States.

The minimum levels of taxation set out by the ETD are not in line with the developments in other EU policies

The ETD establishes minimum levels of taxation for certain products used as motor fuels (petrol, gas oil, kerosene, LPG and natural gas), as heating fuels (gas oil, heavy fuel oil, kerosene, LPG, natural gas, coal and coke) and for electricity. Products, for which there is no specific rate of taxation established in the ETD, should be taxed at the rate of the equivalent fuel in accordance with Article 2(3). The minimum tax rates are reflected in EUR per 1 000 litre (leaded petrol, unleaded petrol, gas oil, kerosene, heavy fuel oil), in EUR per 1 000 kilogram (LPG), in EUR per gigajoule gross calorific value (natural gas, coal and coke), or in EUR per megawatt hour (electricity).

At present, the level of the minimum tax rates does not reflect any specific logic¹⁶⁴. Notably, they do not take account of the energy content of the energy product and externalities of the different products covered by the Directive. Furthermore, the Member States can set their national rates above the minimum tax rates without having to follow any indication or ratio between products.

As a result, the price signals reflected by the minimum rates of taxation when set off against CO₂ emissions and energy content are very diverse (see Annex 8) and sending the wrong price signals. For example, using the same values as in the year 2010 analysis of minimum rates in the impact assessment for the proposal for revision of the ETD, expressed in EUR tonne of CO₂, the motor fuels, can be taxed as low as EUR 43 for LPG to EUR 159 for petrol. When the energy output expressed in EUR per GJ is the indicator, the tax varies from EUR 2.6 for the natural gas to EUR 11 for petrol. Moreover, gas oil is

¹⁶⁴ According to Recital 14 of the ETD, “*The minimum levels of taxation should reflect the competitive position of the different energy products and electricity. It would be advisable in this connection to base the calculation of these minimum levels as far as possible on the energy content of the products. However, this method should not be applied to motor fuels.*” Environmental policy considerations were taken into account when introducing the ETD. However, these policy goals are limited, and set off against other policy considerations regarding e.g. competitiveness.

favoured over petrol¹⁶⁵, taxed respectively at EUR 120 and EUR 159 per tonne of CO₂ or EUR 8.9 and EUR 11 per GJ. For heating fuels, coal is taxed at EUR 0.3 GJ or EUR 3 per tonne of CO₂ (non-business use), which is well below the minimum rate for gas oil or natural gas for instance.

These price signals are different for energy products taxed at the rate of the equivalent fuel in accordance with Article 2(3). For example, in the case of biofuels – as already discussed under the effectiveness and relevance sections (sections 5.1 and 5.2 respectively) – when taking the same volume of product, compared to petrol for instance, the energy content will be lower, requiring consumption of a larger volume of biofuel in terms of litres to achieve the same result. This mechanism results in a disadvantageous fiscal treatment of these biofuels compared to petrol or gas oil. The ETD does not provide for the consistent treatment of fuels as its volume based taxation follows no specific logic.

Consequently, the structure and minimum rates as prescribed by the ETD are not in line with the current policy developments. The minimum levels of taxation in the ETD are not substantially higher, and in some cases they are in real terms even lower than the rates before the introduction of the ETD.

In conclusion, whilst the spirit of the ETD and the legislator's intentions did take into account an array of other relevant policies, the design and application of the Directive, with its multiple exemptions and tax reductions as well as outdated provisions not devised to keep pace with the technological, political and economic developments, reduces significantly the ETD's effective coherence with other EU policies.

¹⁶⁵ Per litre, gas oil results also in higher NO_x and Particulate Matter emissions than petrol; there is therefore a conflict between the ETD and the air quality legislation (in particular the Ambient Air Quality Directive 2008/50/EC which objective is to achieve and maintain good air quality).

Table 3 Market and Regulatory Developments

Since the adoption of the ETD, the EU's energy market experienced significant developments:

- The share of renewable energy in the EU's energy mix tripled, reaching 18%.
- As the decarbonisation of the power sector progressed, the share of renewable electricity increased from 13% to 31%.
- The consumption of biofuels increased 10- fold. The share of biofuels in transport grew from virtually zero to almost 5%.
- Several new products including fuels of non- biological origin and synthetic gases entered the market. The EU supports guarantees of origin programmes to certify their low- carbon origin and create a market for them.
- The EU's electricity storage capacity has grown 4,5- fold over the last 4 with an increasing share of commercial storage providers.

These market developments were supported by EU legislation, updated multiple times since the adoption of the ETD. The Clean Energy for All European Package has been in force since mid- 2019, covering the following areas:

- Renewable energy: To show global leadership on renewables, the EU set an ambitious, binding target of 32% for renewable sources in the EU's energy mix by 2030.
- Energy efficiency: The EU set a binding target of at least 32.5% energy efficiency by 2030, relative to a "business as usual" scenario.
- Energy performance in buildings: Buildings are responsible for approximately 40% of energy consumption and 36% of CO2 emissions in the EU, making them the single largest energy consumer. By improving their energy performance, the EU is better prepared to achieve its energy and climate goals.
- Electricity market design: establishes a modern design for the EU electricity market, adapted to new realities - more flexible (storage and market coupling), more market-oriented and better placed to integrate a greater share of renewables.
- Emission abatement: launched in 2005, the EU Emissions Trading Scheme (EU ETS) is the world's largest carbon market, covering more than 11 000 industrial and power plants as well as intra-EU aviation since 2012. Its rules were reformed for the period 2021-2030. Sectors not covered by the EU ETS such as, transport, buildings and waste are bound by the Effort Sharing Regulation of 2018 to reduce their emissions by 30% until 2030.

5.5. EU added value

This evaluation criterion examines the developments that have resulted from EU policy intervention represented by the ETD, compared to what could have been delivered by national actions of Member States or no action. In particular, this section focuses on describing the likely situation in the absence of the ETD and the additional benefits from the EU-level intervention in this field. The impact and added value of the ETD is considered for three areas: (i) functioning of the single market, (ii) protection of the environment, and (iii) public revenues.

The EU added value of the ETD for a good functioning of the single market is hampered by the Directive's outdatedness

The ETD's impact on the functioning of the single market is examined in detail under the effectiveness section (section 5.1), while the key findings are taken up here to substantiate the EU added value of the Directive. The ETD contributed only initially and only to some extent through a convergence of the basic nominal minimum tax rates for energy products although this effect was not equal for all products or all Member States.

In the absence of an indexation mechanism, the relative value of the minimum levels of taxation prescribed by the Directive has continuously decreased over time, with the great majority of the Member States applying rates significantly above the minima. The significance of the initial "safety net" preventing a possible race to the bottom quickly diminished although did not disappear altogether, helping to cap the negative effects of the tank tourism phenomenon and limiting market distortion at least to some extent.

Despite the evidence pointing to the generally limited effect of minimum rates on the functioning of the single market, (understood as rates approximation and "safety net"), a large part of respondents to the public consultation (122 out of total 150 respondents) considers the EU to be best placed to ensure that the race to the bottom does not take place. Given that there was some initial convergence of excise duty rates upon implementation of the ETD (at least to adhere to the new minima), and that for some products taxed at the minimum level in some Member States the ETD can still work as the "safety net", the overall added value of the ETD should not be discarded. Also, the ETD provides a common framework and a level of systematisation of product definitions, categories and respective tax rates. Therefore, as a legislative notion, the EU-wide minima can indeed be considered as the best warrant of preserving the single market's integrity. However, this added value is largely limited by the Directive's broad outdatedness, as discussed in detail under the relevance section (section 5.2).

The EU added value of the ETD with regard to protection of the environment is limited

Despite the legislators' explicit intention to support environmental objectives with some of the ETD provisions¹⁶⁶, there is a degree of dissonance between the desired and the actual effects, notably in light of recent developments concerning environmental policy at Union level. The overlaps, gaps and inconsistencies between ETD and other policies pursuing environmental and climate change objectives were discussed at length under the coherence section (section 5.4). The point of invoking them here is to show the lost opportunity, or rather, the lost value that the ETD suffers from in this regard.

For example, the already analysed optional exemption on biofuels (Article 16 of the ETD) was introduced in the interest of the environmental protection. However, it does not foresee any conditions relating to the environmentally-friendly character of the biofuels for which the exemption is granted, which can lead to the perverse situation where unsustainable biofuels are still promoted through preferential tax rate. In addition, some optional and mandatory exceptions are in stark contrast with the environmental objectives, e.g. the exemption from taxation of certain fossil fuels, including coal used by households under Article 15(1)(h) of the ETD. This is also the case of the exemption for fuel commercially used in aviation and maritime sectors under Article 14 of the ETD.

As under the single market analysis directly above, what could have been a tangible added value brought by energy taxation framework set up at the EU level was, again, swept away by the growing outdatedness, imprecise provisions and broad misalignment with current knowledge and policies. In extreme cases the ETD as it stands now generates negative EU added value, for example, by disregarding the energy content or the CO₂ levels in the excise rates of energy products.

The EU added value as regards safeguarding revenues from energy taxation exists but hampered by the Directive's outdatedness

The ETD was put in place to provide the structures of excise duties and minimum rates for energy products and electricity as their absence was deemed potentially adverse to the proper functioning of the internal market. The taxes thus raised were also expected to contribute to encouraging behaviour conducive to greater protection of the environment and increased labour use, as it was already discussed under the coherence section (section 5.4). Whereas the ultimate fiscal arrangements and taxation structures were left entirely to the Member States, the ETD was not to jeopardise the Member States revenue raising prerogative. In its present form, the ETD's added value in this context is ambiguous.

The Directive's greatest added value with regard to revenue raising resides in the fact that it works as a "safety net" preventing tax erosion and race to the bottom, as described above. To recall, it is true that the relative value of the minimum rates has successively decreased due to no indexation of any sort and the "safety net" effect cannot be

¹⁶⁶ See Recitals 6, 7, 11, 12, 25, 26, 28 and 29 and Article 14, 15, 17 and 19.

ascertained. However, a few arguments speak to its favour. Firstly, the pre-2004 taxation levels for energy products in the post-2004 EU Member States were overall significantly lower than those in the 15 EU Member States at the time and remain so, in general, today. It is not a given that by sheer market forces the new Member States would have caught up quickly with the rest of the EU, deciding instead to maintain the competitive edge. Secondly, there are still certain Member States who tax certain energy products at the minimum level or close by, with a degree of likelihood that they might have taxed even lower if that was not prohibited. How those two impacted the proper functioning of the internal market was described under the effectiveness section (section 5.1) – convergence of rates and “tank tourism” – and recalled above. There is no firm evidence confirming or refuting that such a race to the bottom could take place apart from anecdotal evidence on the “tank tourism”, particularly in the border regions, but if it did, the ETD would limit the revenue erosion.

Looking at the revenues from energy taxation from another perspective, the shift from consumption of petroleum products and solid fuels to electricity inevitably erodes the Member States’ tax revenues, as the former’s tax rates are much higher. To illustrate, Member State applying the minimum rates of taxation would raise twice (non-business use) or four times (business use) the amount of revenue from gas oil than from electricity (if the same amount of energy was used). This ratio is even higher if electricity is used as motor fuel as the ETD does not provide a minimum rate for electricity used as propellant. Despite the growth of taxable consumption of electricity – representing around 20% of the total energy consumption in 2016 – total revenues from excise duties on electricity comprised often a small share of all energy tax revenues. In this respect, the ETD’s outdatedness has loosened up the link with the revenue preserving role of any tax structure.

It should be noted that the ETD does leave the Member States full flexibility to set taxation rates above the minimum levels. In the light of the above example, Member States can – and some do so indeed – tax electricity at much higher rates. Overall, many Member States have used that flexibility and adopted their own excise taxation framework by applying taxation rates largely exceeding the EU minimum levels. Therefore, the minimum levels of taxation themselves do not have a key role in determining effective tax rates and consequently excise duty revenues. The total excises duty revenues on electricity and energy products collected by the Member States amount to approximately EUR 220 to 230 billion annually. However, the complicated system of tax exemptions and tax reductions guaranteed by the Directive’s flexibility leads to a situation whereby a significant portion of energy products and electricity consumption remains lawfully untaxed.

The share of energy tax revenues by Member States as percentage of GDP, ranging from 1.1% to 3.2%, shows that energy tax revenues deliver a relevant contribution to the budget of Member States.

6. CONCLUSIONS

The adoption of the ETD represented a positive contribution to the EU legislative framework in 2003 by updating and widening the scope of the harmonised common rules at the EU level for the taxation of energy products used as motor and heating fuel and of electricity.

Prior to the adoption of the ETD in 2003, the Union framework for energy taxation only covered mineral oils under the so-called “Mineral Oils Directives”¹⁶⁷. The ETD extended the scope of EU legislation to electricity and to most of the products used as motor and heating fuels at that time. It also updated the minimum rates for mineral oils.

The ETD initially made an overall positive contribution towards its main objective of ensuring the proper functioning of the internal market, preventing double taxation or any distortion of trade and competition between energy sources and energy consumers and suppliers.

However, as technologies, national tax rates and energy markets evolved over the past 15 years, the ETD in its present form no longer makes the same positive contribution. Furthermore, the EU legislative framework and policy objectives developed significantly since the adoption of the ETD in 2003. As the ETD has not kept pace with such developments, there are some aspects of it which now lack relevance and coherence. As a result the overall EU added value of the ETD has eroded significantly over time in particular due to the lack of indexation of the minimum rates and the extensive and highly divergent use of optional tax exemptions by Member States and because of the changing policy environment.

The information collection on the national implementation of the ETD has to be further developed to include national features of the energy taxation and the data validation. The available data collection tools are advanced, but more work is needed to ensure that the Commission has sufficient information on the national energy taxation structures for monitoring and assessing its performance in the future.

The conclusions below have been grouped according to the basic principles used to assess the performance of the directive.

Effectiveness and efficiency

- The minimum rates of taxation had initially some converging effect on the rates of petrol and gas oil used as propellant fuels. Even though some approximation of rates is still observable, it happens much above the ETD minimum rates and is more attributable to market forces and national policies.

¹⁶⁷ [Council Directive 92/81/EEC of 19 October 1992](#) on the harmonization of the structures of excise duties on mineral oils (OJ L 316, 31.10.1992, p. 12–15) and [Council Directive 92/82/EEC of 19 October 1992](#) on the approximation of the rates of excise duties on mineral oils (OJ L 316, 31.10.1992, p. 19–20).

- The ETD prevented a possible race to the bottom at the subsequent enlargements of the Union through the system of minimum rates and might have worked as a “safety net”. This effect has been gradually diminishing in the absence of an indexation mechanism of the minimum rates and because the vast majority of Member States tax most energy products considerably above the ETD minima.
- The ETD does not contain any provision that would require Member States to set the national levels of taxation of different products above the minimum rates in a way which would replicate the relationship between minimum rates set by the ETD. As a result, no consistent treatment of energy sources is ensured at the national level.
- Minimum rates on electricity and heating fuels are too low to contribute to the smooth functioning of the internal market as they represent only a negligible share of the price of these products. Moreover, the use of optional exemptions and reductions granted to households and business users alike further increase divergence, leading to effective taxation rates being significantly lower in some Member States than in others.
- Highly divergent rates on electricity and natural gas are applied in combination with a wide range of tax exemptions and reductions in order to safeguard the competitiveness of EU industries. This, however, increases the fragmentation of the internal market.
- The ETD covers a shrinking share of the EU's energy mix as new technologies and products (e.g. hydrogen, e-fuels, fuels of non-biological origin) continue to emerge or come to importance. Consequently, the current regime of energy taxation cannot ensure preferential treatment of environmentally sustainable new technologies and products.
- The ETD's role in promoting biofuels eroded over time. Volume-based taxation does not ensure taking into account the energy content and environmental performance of different energy products leading to a disproportionately high tax burden on sustainable biofuels.
- In the absence of differentiation of biofuels in the ETD, Member States apply their own classifications, which are often diverging or might not be applied to the characteristics of biofuels produced in other Member States. This uncertainty leads to the fragmentation of the single market and hinders the uptake of advanced biofuels.
- As the levels of taxation under the ETD do not reflect any specific logic – for example, by not taking into account the energy content and externalities – Member States are allowed to set their national rates as they wish without having to follow any indication or ratio between products. Consequently, the current ETD can result in inappropriate price signals to users, thereby discouraging them from choosing greener and more efficient energy sources.

Regulatory burden

- The ETD did not create any considerable regulatory burden or cost for the Member States or the economic operators to comply with the Directive. Much of the costs and burdens come either from horizontal legislation or national implementing measures not prescribed in the Directive and varying significantly across Member States or sector of economic activity.
- The identified difficulties with the ETD's implementation related to the complexity, the lack of clarity, ambiguous wording and interpretations of some of the ETD provisions. This in turn led to uncertainties such as unclear conditions for eligibility to preferential tax treatment. Such uncertainty can represent a cost for tax authorities and economic operators, particularly when it leads to litigation, expressed as opportunity costs or legal expenses.

Relevance and coherence

- The opportunity for the creation of synergies between the ETD and other EU legislation is not exploited. Therefore, the ETD contributes only to a very limited extent to the wider economic, social and environmental EU policy objectives.
- The ETD is at least partially coherent with policy efforts to promote the use of renewable energy and increased energy efficiency but less so with regard to the reduction of greenhouse and other pollutant emissions as well as energy diversification or energy independence and security. The main reasons identified for lack of coherence include disregard of the energy content and CO₂ emissions of energy products and electricity, (too) low minimum levels of taxation and (too) many exemptions. For the same reasons, the ETD does not contribute to the decarbonisation of transport.
- The contribution of the ETD to meeting the objectives set in international agreements such as the 2015 Paris Agreement is limited. There are overlaps, gaps and inconsistencies that significantly hamper the achievements of objectives in the field of energy, environment, climate change and transport. In particular, there is a lack of alignment to some extent between the ETD and the EU ETS. The ETD is also not aligned with other key legislative instruments in the energy domain (e.g. the Renewable Energy Directive and air quality legislation).
- The mandatory tax exemptions concerning international commercial aviation and maritime transport and optional exemptions and reductions for other modes of transport may distort the level playing field in the sector. Moreover, some of the preferential tax treatments may restrict the potential contribution of the transport sector to the EU's climate policies.
- The ETD does not oblige Member States to differentiate between renewable and carbon intensive sources of electricity nor does it take into account the environmental performance of biofuels. The ETD provisions on taxation of biofuels are therefore not in line with the EU energy, climate change and environment policies, although the sheer principle of promoting biofuels is still relevant.

- The ETD creates distortions between transport fuels by generating an imbalance between the demand for gas oil and petrol. In particular, the ETD disadvantages fuels with lower energy content per volume through the mechanism of taxation as “equivalent fuel”, and allows the use of subsidies favouring fossil fuels over low-carbon renewable energies, hence going against EU and internationally stated objectives of phasing out fossil fuel subsidies¹⁶⁸.

EU value added

- The analysis presented in this document shows that, in general terms, the EU added value of the ETD for a good functioning of the single market is hampered by the Directive’s outdatedness. Despite the evidence pointing to the present generally limited effect of minimum rates on the functioning of the single market, and also considering the large number of exemptions, a large part of respondents to the public consultation (122 out of total 150 respondents) believe that the EU is best placed to ensure that the race to the bottom does not take place.
- Despite the legislators’ explicit intention to support environmental objectives with some of the ETD provisions, there is a degree of dissonance between the desired and the actual effects, notably in light of recent developments concerning environmental policy at Union level. This is due to the high level of flexibility allowed to Member States for the implementation of the Directive and to the lack of coherence of the definition of rates in terms of energy content and CO2 emission.
- The EU added value as regards safeguarding revenues from energy taxation exists but it is hampered by the Directive’s outdatedness.

¹⁶⁸ E.g. under the 7th Environment Action Programme (EAP), phasing out environmentally harmful subsidies by 2020 forms part of priority objectives. The G20 committed (in Pittsburgh 2009, most recently renewed under the German G20 presidency in 2017), to “phase out and rationalize over the medium term inefficient fossil fuel subsidies”.

ANNEX 1: PROCEDURAL INFORMATION

1. LEAD DG, DeCIDE PLANNING/CWP REFERENCES

Agenda Planning Reference AP N°	Title	Foreseen adoption
PLAN/2017/1028	Evaluation of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity	September 2019

2. ORGANISATION AND TIMING

The Inter Service Steering Group (ISSG) for the Evaluation was set up in April 2017 and included the following DGs and Services: SG, SJ, CLIMA, COMP, ECFIN, ENER, ENV, JRC and MOVE.

Seven meetings of the Steering Group were organised between 21 April 2017 and 25 April 2019. Further consultations with the ISSG were carried out by e-mail. The ISSG approved the Evaluation and Fitness Check Roadmap. The ISSG also discussed the main milestones in the process, in particular the consultation strategy and main stakeholder consultation activities, the terms of reference for the external support study, key deliverables from the support study, and the draft evaluation report before the submission to the Regulatory Scrutiny Board.

3. EXCEPTIONS TO THE BETTER REGULATION GUIDELINES

Not applicable.

4. CONSULTATION OF THE RSB

The evaluation was submitted to the Commission's Regulatory Scrutiny Board on 20 May 2019. Following the meeting on 19 June 2019, the Board issued a negative opinion on 21 June 2019. A revised evaluation was resubmitted to the Regulatory Scrutiny Board on 2 July 2019. The Board issued a positive opinion on 23 July 2019. On both occasions the Board made recommendations. Those were addressed in this final evaluation as follows:

1st RSB Opinion - Recommendations	
Main considerations	Modification of the evaluation
(1) The report is not sufficiently clear on what the Energy Taxation Directive was supposed to achieve.	Detailed explanation on the primary and secondary objectives have been added to Section 2.1.
(2) The evaluation does not sufficiently explain	Additional information on market

relevant market developments and how the regulatory framework has evolved.	developments and the evolving regulatory framework has been added to Section 5.4.
(3) The evaluation does not provide clear and robust analysis of and conclusions on whether the Directive achieved its objectives, and on possible unintended effects.	Sections 5.1, 5.2 and 5.4 have been revised to provide additional analysis and Chapter 6 has been revised to provide clear conclusions.
Further considerations and adjustment requirements	
(1) The evaluation should present more clearly the context in which the Directive was proposed and adopted, including the reasons for revising the previous Directive. It should clarify the objectives established at the time, and identify points of comparison and expected outcomes. It should explain that the objective of the evaluation was narrow: to avoid detrimental energy tax competition, while giving the necessary flexibility to Member States to use tax policy for other objectives (e.g. promotion of renewable energy).	Explanations concerning the previous Directive, the reasons for its revision and the objectives pursued have been added to Section 2.3 and a new Section 2.2 has been added to describe the intervention.
(2) The evaluation should explain better how Member States implemented the Directive. The implementation section should also describe relevant market and related regulatory developments.	Addition information has been included in Sections 3.1 and 3.2. regarding implementation and market developments have been described in more detail in Section 5.4
(3) The evaluation should present a consistent narrative of the evidence and findings on effectiveness, relevance and coherence, based on the Directive's narrow objective. It should identify any unintended effects that may have occurred. Such unintended effects could influence the Directive's coherence with other policies and instruments, as well as its relevance. The relevance analysis should take into account that also other regulations exists to promote renewable energy and to tackle climate change.	Additional information and analysis have been added to Sections 5.1, 5.2 and 5.4. Additional information regarding other relevant EU legislation has been added to section 5.4.
(4) The evaluation should be clear about the evidence supporting its findings and about its level of	Additional information concerning the methodology, data

robustness. To the extent that it identifies considerable data gaps, it should draw conclusions on the needs for data collection for future monitoring and evaluation purposes. The evaluation should be transparent in reporting the observed variety in stakeholder views, collected during the exercise, and make clear how the different views were used.	availability issues and stakeholder views have been included in Sections 4.2 and 5.1.
(5) The report might usefully prioritise its conclusions, based on the magnitude of the issues identified.	Chapter 6 has been updated to group conclusions and highlight the main conclusions

2nd RSB Opinion - Recommendations	
Main considerations	Modification of the evaluation
(1) The intervention logic is not in line with the revised explanation of how the Directive was intended to work.	A revised intervention logic is presented in Section 2.1.
(2) The report is not sufficiently transparent about significant data limitations and associated uncertainty around some conclusions.	Extended explanation was added to the section “Limitations and robustness of findings” explaining data limitations/lack of existing data, the data used as proxy and implications for the findings of the Evaluation. The added section identifies data related concerns for specific energy carriers where relevant.
(3) The report does not sufficiently distinguish the views of different stakeholder groups on the Directive and its impact.	A short summary of OPC was added to Annex 2. All the available information is included in the main text.
Further considerations and adjustment requirements	
(1) The report should present an intervention logic that corresponds to the updated explanation of the objectives and how the Directive works. In particular, it should reflect the flexibility that the Directive accords Member States to pursue additional policy	A revised intervention logic is presented in Section 2.1.

objectives.	
(2) The baseline section should present the points of comparison that the report uses as reference points for the analysis.	Section 2.3 has been updated to clarify the limited number of possible points of comparison between the ETD and its predecessor, the Mineral Oils Directives.
(3) The updated intervention logic and the analysis should make clearer that exemptions from minimum taxation include substitution of modes of energy use.	Section 2.1 has been updated in order to include this consideration
(4) The report should be clear where and why there are not enough data to assess how well the Directive has delivered on objectives. The report identifies several hypothetical issues without substantiating evidence (e.g. by having a certain kind of flexibility there is a risk that...). It should either present supporting evidence or make clear that there is none available.	Extended explanation was added to the section “Limitations and robustness of findings” explaining data limitations/lack of existing data, the data used as proxy and implications for the findings of the Evaluation. The added section identifies data related concerns for specific energy carriers where relevant.
(5) The report should draw conclusions on the limits of the underlying data. The conclusions should identify the data necessary to collect and assess the performance of the initiative in the future.	A conclusion has been added
(6) The views of different stakeholder groups could provide an indication of where the problems lie or if there are tensions between different interests. The report should present these views more clearly.	A short summary of OPC was added to Annex 2. All the available information is included in the main text.
(7) While the presentation of the arguments is now better structured, some parts of the report still seem misplaced. For example, much of the baseline section arguably belongs under the description; many of the shortcomings identified in the implementation section call for discussion under the effectiveness and relevance analysis; some of the effectiveness conclusions seem better placed under relevance.	In the effectiveness and relevance sections discussion on many shortcomings identified in the implementation section has been added.

5. EVIDENCE, SOURCES AND QUALITY

The drafting of the evaluation report was supported by a wide range of legal and analytical documents, such as EU legislation, the Taxes in Europe Data base, Eurostat data and analytical reports by the European Commission, including amongst others the Energy Prices and Costs series and the Weekly Oil Bulletin. Information provided by the stakeholders through the stakeholder consultation activities was a further source of information (see Annex 2).

Two studies were contracted in order to evaluate the Directive (respectively on technical and legal aspects and in support of the REFIT evaluations) by an independent contractor¹⁶⁹.

¹⁶⁹ The first study, “Technical and legal aspects of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity”, looked at the ETD implementation and application in the Member States, taking into account the jurisprudence of the CJEU.

ANNEX 2: STAKEHOLDER CONSULTATION

Objective and scope

The overall objective of the consultation with stakeholders was to gather factual information, data, knowledge and perception about the application of the Energy Taxation Directive in order to identify whether the current levels of taxation applied to motor fuels, heating fuels and electricity in accordance with the Directive were still fit for purpose, in particular to ensure the proper functioning of the internal market. In fact, given the shortcomings and data gaps in the available datasets, consultation with the best-informed stakeholders – that is the Member States authorities and economic operators in specific sectors– was important for the evaluation.

Stakeholder mapping and consultation tools

All stakeholder consultation activities were organised within the supporting evaluation studies. The analysis of the results of the public consultation¹⁷⁰, as well as all contributions received, are available on the Commission’s website¹⁷¹.

Stakeholder type	Method of consultation	Content
Citizens/general public	Public consultation	The practical implementation of the provisions of Directive 2003/96/EC with a particular focus on its effectiveness, EU added value and coherence with other EU policies
Public authorities in Member States	Public consultation	The practical implementation of the provisions of Directive 2003/96/EC
	Targeted consultations/interviews under case studies	
Economic operators and related organizations/associations	Public consultation	The practical implementation of the provisions of Directive 2003/96/EC with a particular focus on efficiency, relevance and EU added value
	Targeted consultations/interviews under case studies	
NGOs active in the environmental area	Public consultation	The practical implementation of the provisions of Directive 2003/96/EC with a particular focus on efficiency, relevance and EU added value

¹⁷⁰ [Report on the public consultation](#) on Energy Taxation Directive.

¹⁷¹ [Results of the public consultation](#) on Energy Taxation Directive.

Public consultation

As indicated in the report¹⁷², the above mentioned open public consultation on the evaluation of the EU framework for taxation of energy products and electricity took place between 12 March 2018 and 4 June 2018. It mainly concerned the impacts of the Directive and was structured around two sections: relevance of the objectives of the Energy Taxation Directive and its effectiveness and EU added value, as regards in particular the functioning of the single market, the protection of the environment and the competitiveness of EU companies.

Respondents

In total, 150 responses were received, not all the respondents added comments on all questions and, in addition, 45 position papers were received as part of the consultation process. In terms of geographical spread, respondents from 20 different Member States participated in the open public consultation. The largest group of respondents was business organisations (81%). Civil society covered 12% of the respondents and public authorities accounted for 2% of the overall respondents.

Results: relevance

As regards the results on the relevance of the objectives of the ETD, the main trends reveal that while only a very small group of respondents thinks the Directive's objectives are not relevant anymore (ranging between 5% and 8%), there are different views on the extent to which these objectives are still relevant. According to business organisations, creating a common energy market remains the main concern (73 out of 150), while 55 out of 150 respondents think that the objective of safeguarding and improving the competitiveness of EU companies meets the needs of stakeholders. Protecting the environment is deemed relevant by 46 out of 150 business organisation respondents. In addition, protecting the environment emerges as a major concern from the comments received on this topic. Some of the most shared views are reported as follows.

In relation to the protection of environment, the ETD, is considered outdated and must be brought in line with the current EU climate and energy policy framework, which has developed after its entry into force in 2003. Respondents stress the need for coordination with new policy instruments, including EU ETS, the Effort Sharing Regulation, and the revised directives on energy efficiency (EED) and renewable energy sources (REDII). In addition, some specific aspects have emerged as the most controversial (see the report, page 8).

In relation to the common market, the energy market remains substantially national, with protectionist measures favouring domestic products. The possibility for the Member States to differentiate the levels of taxation above the minimum levels and apply -or not- optional exemptions leaves space for a distortion of competition.

¹⁷² [Report on the public consultation](#) on the ETD.

In relation to competitiveness, a common EU framework is deemed necessary for the smooth functioning of the EU energy market; however, minimum tariffs do not exist in large parts of the rest of the world and the ETD should take this into account so as not to negatively impact the international competitiveness of EU companies (some actions have been suggested, see the report, pages 8-9).

In relation to other possible objectives, a very significant number of respondents (109) confirmed the three objectives above while suggesting to give a higher priority to climate and environmental goals, and first of all decarbonising the European economy. Other possible objectives mentioned are: control and saving of raw materials in the EU; ensuring security of supply by differentiating taxes according to the geographical position of the source of energy or to the level of energy diversification.

Results: effectiveness and EU added value

As regards the functioning of the single market, in general, minimum levels of taxation are seen as ensuring the good functioning of the single market (67%), although to different extents. Qualitative data (123) shows that respondents are well aware of differences in taxation of energy products among Member States, as no ceilings are imposed. Even considering the different views emerged (see the report, pages 9-10), a large part of respondents sees at least some benefits in having EU rather than national minimum levels in terms of: level playing field between economic operators; transparency of rules; legal certainty for economic operators, particularly in cross-border situations; limited race to the bottom in taxation rates. Different views are anyway expressed on this regard (see the report, page 11).

The majority of respondents answered that exemptions have positively impacted the level playing field across sectors in some cases (Article 14(1)(a), Article 15(1)(a) and Article 16 of the ETD).

The exemption which received the highest proportion of negative responses is that on electricity (Article 15(1)(b) of the ETD). Some respondents (26) think that the exemption on electricity has a negative or strongly negative impact on the level playing field across sectors. Indeed, as remarked also in the comments section (80), several Member States have decided not to implement such a reduction.

The general view is that mandatory exemptions significantly contribute to creating a level playing field, whereas the optional ones are likely to lead to distortions between Member States.

Respondents highlight the need for a common understanding and common interpretation of some articles of the ETD (Articles 4(2), 11(3), 14(1)(a)(b): see the report, page 14).

Moreover, tax exemptions for aviation and maritime shipping foreseen under Article 14(1)(a) and (b) of the ETD are seen by some respondents as having a negative impact on the level playing field when compared to rail transport.

The impact of the exemptions on products containing biomass is generally considered positive in the field of environment (61%) and energy (53%). Although the majority of respondents (67%) are not aware of impacts on tax revenues, 44 out of 150 respondents think it has a negative or strongly negative impact. This view is shared by all types of stakeholders and Member States.

Similarly, exemption accorded under Article 17 of the ETD to energy-intensive businesses and undertakings which have concluded agreements leading to the achievement of environmental protection objectives or to improvements in energy efficiency is believed to have a negative or strongly negative impact on tax revenues according to 41 out of 150 respondents (28%). On the other hand, the majority of respondents maintain that these tax reductions have a positive or strongly positive impact on the industry (58%), competitiveness (55%) and energy (50%).

Respondents (63) highlight that granting exemptions to energy intensive industries allows the latter to remain competitive in the global market, provided that the exemption applies to all energy products. In the respondents' view, a competitive industry delivers benefits in terms of (direct and indirect) employment and development of industrial activities along the whole value chain, thus contributing to the overall welfare. On the contrary, others see this exemption as distorting the market and stalling investments in the energy sector.

In view of the aforementioned, the calculation of the feature "energy-intensive" is considered problematic. The current identification criteria are believed to lead to an arbitrary result, because their fulfilment varies according to the national energy tax regime. Reportedly this may result in a company being considered energy intensive in Member States with low taxes on energy, and not intensive in Member States with higher taxes on energy (while considering one and the same technical production process).

In the view of some respondents, exemptions under Article 17(1)(b) of the ETD have a positive impact on the environment as long as the requirements of the agreements are sufficiently strong to compensate the energy intensive character of the business.

Business organisations consider the administrative procedures related to Article 17 long and burdensome, requiring a lot of resources and limited economic benefits.

Concerning discrepancies with other relevant EU policies in the application of the ETD in terms of coverage of energy products and their use, respondents (58) mentioned several issues (as regards in particular the relations with the Renewable Energy Directive, or RED II, Directive on the Deployment of Alternative Fuel Infrastructure, or DAFI, EU Emission Trading Scheme, or EU ETS, Guidelines on State Aid for Environment protection and Energy 2014 -2020, or EEAG: see the report, page 17).

In relation to the protection of the environment, according to a large part of the respondents (131), this categorisation should be updated and complemented with new products (e.g. advanced biofuels, biomethane), new roles (e.g. renewable electricity consumed for transport) and additional categories (e.g. natural gas split to compressed

natural gas and liquefied natural gas in view of different emissions). In addition, to move forward towards better environmental protection, according to respondents, the Directive should also take (more) into account the way electricity is produced (i.e. from renewable sources versus coal power plants) and not only how it is consumed.

In general, respondents think that ETD exemptions contribute to the environmental objectives set out by the Seventh Environmental Action Programme, namely: (i) protecting the Union's natural capital; turning the Union into a resource-efficient, green, and competitive low-carbon economy, (ii) competitive low-carbon economy; (iii) safeguarding citizens from environment-related pressures and risks to health and well-being.

However, some of them (32) suggest to include cogeneration (currently covered by Article 15(1)(d) of the ETD) among the mandatory exemptions in the light of its environmental advantages. Article 15(1)(e) of the ETD, which provides an optional exemption for energy products and energy used for the carriage of goods and passengers via rail, metro, tram and trolleybus, is seen as environment-friendly, as such transport is suggested to be cleaner and more competitive than road transport due to low CO₂ emissions, low fuel consumption to carried mass ratio and no emission of dust caused by the wear of tires and asphalt surfaces.

On the contrary, Article 15(1)(f) of the ETD, exempting for on-board gas oil-electricity generation, and Article 14(1)(b) and (c) of the ETD, exempting air and sea transport, are seen as controversial from an environmental perspective.

In relation to the competitiveness of EU companies, the possibility for Member States to apply optional exemptions, reduced rates and non-harmonised taxes under the Energy Taxation Directive impact (positively or negatively) the international competitiveness of EU businesses more than the introduction of minimum levels of taxation (31% vs. 11%).

Minimum levels are indeed perceived as having limited impacts on the international competitiveness of the EU businesses: on the one hand, these levels are perceived as being very low, and on the other national levels might be well above them. For those reasons, it is also difficult to investigate such a relation (132 respondents).

However, the Energy Taxation Directive is seen as creating an obstacle to competitiveness by increasing the price of energy. Data shows that obstacles mainly concern innovation, rather than production, procurement and mobility, as investment decisions are seen as difficult due to legal uncertainty. Moreover, the ETD has proven to adapt very slowly to technological developments and other policy requirements such as the Paris Climate Agreement.

Notwithstanding the link with the EU environmental policy, ETD provisions seem to contribute only to a limited extent to other EU policy objectives. The majority of the respondents think that ETD contributes at least to some extent to: promoting the use of renewable fuels (58%); increasing energy efficiency (50%). On the contrary, 29% of respondents maintain that the ETD does not contribute at all to securing energy supply.

ANNEX 3: METHODS AND ANALYTICAL MODELS

Evaluation criteria

Consistently with the Better Regulation Guidelines, the five evaluation criteria set for the studies were effectiveness, efficiency, relevance, coherence and EU added-value as well as the status quo or implementation status.

As a starting point, the evaluation focused on the **status quo/implementation** of the ETD in relation to minimum taxation levels and special tax schemes including tax exemptions and reductions.

With regard to **effectiveness**, the evaluation focused on the progress made over time to meet the objectives set by the Directive. In particular, it considered questions such as the progress of Member States towards the objectives, extent to which the minimum levels of taxation ensure the proper functioning of the single market and avoid distortion of competition, and how the ETD (and in particular the minimum levels of taxation and the mandatory and optional exemptions it sets) has affected the international competitiveness of EU businesses.

The assessment of **efficiency** of the ETD with regard to the minimum levels of taxation and special tax schemes including tax exemptions and reductions focused on implementation of the Directive and on the regulatory costs (e.g. administrative and/or compliance costs) of the ETD for the different categories of stakeholders involved.

The assessment of **relevance** of the ETD with regard to the minimum levels of taxation and special tax schemes including tax exemptions and reductions focused on issues such as whether the scope of the ETD still matches the (current) needs of Member States and economic operators, and on the level of support for the Directive among stakeholders. It also covered the level of the implementation and the relevance of the optional tax schemes (reduction and exemptions) for biofuels set under the ETD.

The assessment of **coherence** focused on the contradictions of the ETD with other policy instruments, contributions to other EU policy objectives, and consistency with other EU policies and technological developments.

Finally, the assessment of the **EU added value** looked for changes, which could have been reasonably credited to the EU policy intervention, beyond what could have been expected from national actions by Member States. The analysis also focused on what would be the likely situation in case of absence of the Energy Taxation Directive.

ANNEX 4: TECHNICAL AND LEGAL PROVISIONS

The study “Technical and legal aspects of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity” aimed to analyse the technical and legal aspects of the ETD and to identify the potential weaknesses and problems resulting from its implementation by the Member States and from its concrete application by economic operators.

The information and views set out in the study are those of the contractor and do not necessarily reflect the official opinion of the Commission. The full document including the findings per Article of the ETD can be found from:

<https://publications.europa.eu/en/publication-detail/-/publication/816b578d-d04f-11e9-b4bf-01aa75ed71a1/language-en/format-PDF/source-103949128>

ANNEX 5: MAIN CJEU RULINGS ON ETD INTERPRETATION AND IMPLEMENTATION¹⁷³

Article	CJEU Rulings
1	CJEU C-145/06, <i>Fendt Italiana Srl</i> , ECLI:EU:C:2007 CJEU C-503/10, <i>Evroetil AD</i> , ECLI:EU:C:2011
2(1)	CJEU C-5/14, <i>Kernkraftwerke Lippe-Ems</i> , EU:C:2015 CJEU C-606/13, <i>OKG AB</i> , ECLI:EU:C:2015
2(3)	CJEU C-275/14, <i>Jednostka</i> , ECLI:EU:C:2015 CJEU C-517/07, <i>Afton Chemical Limited</i> , ECLI:EU:C:2008 CJEU C-43/13 and C-44/13, <i>Kronos Titan GmbH</i> , ECLI:EU:C:2014. CJEU C-240/01, <i>Commission v. Germany</i> , ECLI:EU:C:2003
2(4)	CJEU C-437/01, <i>Commission v. Italy</i> , ECLI:EU:C:2003 CJEU C-426/12, <i>X</i> , ECLI:EU:C:2014 CJEU C-529/14, <i>YARA Brunsbüttel GmbH</i> , ECLI:EU:C:2015 CJEU C-465/15, <i>Hüttenwerke Krupp Mannesmann GmbH</i> , ECLI:EU:C:2017
3	CJEU C-103/17, <i>Messer France SAS</i> , ECLI:EU:C:2018:587
4	CJEU C-437/97, <i>EKW and Wein & Co</i> , ECLI:EU:C:2000 CJEU C-82/12, <i>Transportes Jordi Besora</i> , ECLI:EU:C:2014 CJEU C-553/13, <i>Talinna Ettevõtlusamet/Statoil Fuel & Retail</i> , ECLI:EU:C:2015 CJEU C-189/15, <i>IRCCS - Fondazione Santa Lucia</i> , ECLI:EU:C:2017 General Court T-251/11, <i>Commission/Austria</i> , ECLI:EU:T:2014
6	CJEU C-55/12, <i>European Commission v. Ireland</i> , ECLI:EU:C:2013 CJEU C-151/16, <i>Vakarų Baltijos laivų statykla</i> , ECLI:EU:C:2017
7	CJEU C-418/14, <i>ROZ-SWIT</i> , ECLI:EU:C:2016 CJEU C-185/00, <i>Commission v. Finland</i> , ECLI:EU:C:2003
14(1)(a)	CJEU C-355/14, <i>Polihim-SS EOOD</i> , ECLI:EU:C:2016 CJEU C-226/07, <i>Flughafen Köln/Bonn GmbH</i> , ECLI:EU:C:2008 CJEU C-31/17, <i>Sucrierie de Toury SA</i> , ECLI:EU:C:2018:168
14(1)(b)	CJEU C-389/02, <i>Deutsche See-Bestattungs-Genossenschaft eG</i> , ECLI:EU:C:2004 CJEU C-79/10, <i>Systeme Helmholz</i> , ECLI:EU:C:2011 CJEU C-250/10, <i>Haltergemeinschaft</i> , ECLI:EU:C:2011
14(1)(c)	CJEU C-505/10, <i>Sea Fighter</i> , ECLI:EU:C:2011 CJEU C-391/05, <i>Jan De Nul NV</i> , ECLI:EU:C:2007 CJEU C-503/17, <i>Commission v. U.K. of Great Britain and Northern Ireland</i> , ECLI:EU:C:2018:831 CJEU C-504/17, <i>Commission v. Ireland</i> , ECLI:EU:C:2018:832
15(1)(a)	General Court T-184/97, <i>BP Chemicals/ Commission</i> , ECLI:EU:T:2000
15(1)(c)	CJEU C-31/17, <i>Sucrierie de Toury SA v. Ministre de l'économie et des finances</i> , OJ. C. 112
15(1)(j)	CJEU C-79/10, <i>Systeme Helmholz GmbH v Hauptzollamt Nürnberg</i> , ECLI:EU:C:2011
21(3)	CJEU C-49/17, <i>Koppers Denmark ApS v Skatteministeriet</i> , ECLI:EU:C:2018:395
21(5)	CJEU C-475/07, <i>Commission v. Poland</i> , ECLI:EU:C:2009

¹⁷³ Source: *Study on Technical and legal aspects of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity* (updated).

	CJEU C-90/17, <i>Produtora Energética, SA v. Autoridade Tributária e Aduaneira</i> , ECLI:EU:C:2018:498
24(1)	CJEU C-292/02, <i>Meiland Azewijn BV v. Hauptzollamt Duisburg</i> , ECLI:EU:C:2004
24(2)	CJEU C-152/13, <i>Holger Forstmann Transporte GmbH & Co. KG v Hauptzollamt Münster</i> , ECLI:EU:C:2014 CJEU C-250/11, <i>Lietuvos geležinkeliai</i> , ECLI:EU:C:2012

ANNEX 6: RELEASES FOR CONSUMPTION PER INHABITANT IN MEMBER STATES

Releases for consumption per inhabitant (kg)		
	Petrol	Diesel
EU average	155,9	547,5
Belgium	134,9	922,7
Bulgaria	74,1	308,8
Czechia	150,9	462,4
Denmark	220,8	622,0
Germany	222,9	653,4
Estonia	198,2	510,2
Ireland	190,4	762,5
Greece	218,9	377,6
Spain	104,2	614,5
France	117,9	701,4
Croatia	125,1	468,4
Italy	120,4	419,7
Cyprus	406,0	495,3
Latvia	104,6	529,3
Lithuania	76,9	583,5
Luxembourg	502,9	3198,8
Hungary	139,4	351,2
Malta	163,8	330,9
Netherlands	240,5	413,2
Austria	183,5	915,1
Poland	115,5	441,4
Portugal	100,3	475,3
Romania	75,6	267,8
Slovenia	200,2	792,6
Slovakia	113,9	367,1
Finland	263,9	729,9
Sweden	240,8	533,6
United Kingdom	186,3	455,2

Source: EUROSTAT

ANNEX 7: OVERVIEW OF THE ADMINISTRATIVE BURDEN IN THE PRODUCTION AND TRADE OF ENERGY PRODUCTS AND ELECTRICITY

ADMINISTRATIVE BURDEN	For economic operators	For Member States	Source
Declaration and payment of excises			
Excise declaration	<ul style="list-style-type: none"> * Register for the use of the electronic declaration system * Prepare data for the declaration * File the declaration (electronically) 	<ul style="list-style-type: none"> * Set up and maintain IT system * Control the correctness of declarations * Ensure all consumptions have been duly declared --> perform physical and document-based audits 	National legislation Horizontal Directive Commission Regulation EMCS
Payment of duties	<ul style="list-style-type: none"> * Establish a payment method * Ensure continuous operability (E.g. provide for sufficient amount on bank account) 	<ul style="list-style-type: none"> * Set up payment system * Control payment is made 	National legislation
Respect of minimum rates	/	<ul style="list-style-type: none"> * Ensure compliance with EU minimum levels of taxation 	Energy Taxation Directive (art. 4) National legislation
Excise classification	<ul style="list-style-type: none"> * Ensure that categorization of products is up to date * Inform on the categorization of taxable products not explicitly listed in the legislation 	<ul style="list-style-type: none"> * Update the IT system with Combined Nomenclature changes 	Energy Taxation Directive (art. 2) National legislation
Exemptions and reductions			
Provide direct tax exemption/reduction (in practice, based on licensing schemes)	<ul style="list-style-type: none"> * Prepare and submit request for licenses/authorizations 	<ul style="list-style-type: none"> * Assess and issue licenses/authorizations 	Energy Taxation Directive (Art. 6) National legislation
Request for a refund	<ul style="list-style-type: none"> * Prepare and submit request for refund 	<ul style="list-style-type: none"> * Assess and grant refunds 	Energy Taxation Directive (Art. 6) National legislation
Record keeping and reporting requirements (fiscal control)	<ul style="list-style-type: none"> * Ensure compliant record keeping 	<ul style="list-style-type: none"> * Perform physical and document-based audits 	Energy Taxation Directive (Art. 5, 14-18, 21) National legislation
State aid	/	<ul style="list-style-type: none"> * Verify that State aid rules are not breached 	State aid rules (EU and national)
Movement			
<i>Under suspension</i> - Operate EMCS	<ul style="list-style-type: none"> * Register to the EMCS system 	<ul style="list-style-type: none"> * Set up and maintain EMCS system 	Horizontal Directive Commission Regulation EMCS
<i>Under suspension</i> - Placing and release from goods in EMCS	<ul style="list-style-type: none"> * Prepare the data and use EMCS to place and subsequently release the movement under suspension of goods 	<ul style="list-style-type: none"> * Ensure the movement under suspension of goods is compliant --> perform physical and document-based audits 	Horizontal Directive Commission Regulation EMCS National legislation
<i>Under suspension and duty-paid</i> - Guarantee	<ul style="list-style-type: none"> * Foresee a guarantee 	<ul style="list-style-type: none"> * Calculate the amount of guarantee 	Horizontal Directive National legislation
<i>Duty-paid</i> - Request for a refund	<ul style="list-style-type: none"> * Prepare and submit request for refund in case of MS movements of duty-paid goods 	<ul style="list-style-type: none"> * Assess and grant refunds 	Horizontal Directive National legislation
Storage and production			
Request for a license	<ul style="list-style-type: none"> * Prepare and submit request for licenses/authorizations 	<ul style="list-style-type: none"> * Assess and issue licenses/authorizations 	Horizontal Directive National legislation
Guarantee	<ul style="list-style-type: none"> * Foresee a guarantee 	<ul style="list-style-type: none"> * Calculate the amount of guarantee * Ensure guarantee is in place 	Horizontal Directive National legislation
Record keeping and reporting requirements	<ul style="list-style-type: none"> * Ensure compliant record keeping 	<ul style="list-style-type: none"> * Perform physical and document-based audits 	Horizontal Directive National legislation
Member States derogations			
Monitor MS derogations	/	<ul style="list-style-type: none"> * Introduce request for further exemptions or reductions for specific policy considerations 	Energy Taxation Directive (art. 19) National legislation
Statistical reporting			
Report to the EU Commission	/	<ul style="list-style-type: none"> * Inform the EU Commission about the levels of taxation applied and about the exemptions, reductions, differentiations and tax refunds adopted 	Energy Taxation Directive (art. 25 26) National legislation

Source: Study on “Technical and legal aspects of Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity”

ANNEX 8: COHERENCE

A description of the main characteristics and objectives of the EU policy and international agreements in the fields of energy, climate change and environment, and transport

Energy

The EU legal package on energy consists of a number of instruments, which are connected to the ETD, for example:

- Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (Renewable Energy Directive¹⁷⁴);
- Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency (Energy Efficiency Directive), as amended by Directive (EU) 2018/2002¹⁷⁵ ;
- Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (Energy Performance of Buildings Directive¹⁷⁶), as amended by Directive (EU) 2018/844¹⁷⁷;
- Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators (ACER Directive¹⁷⁸), currently under revision¹⁷⁹;
- Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity (Electricity Directive¹⁸⁰), currently under revision¹⁸¹;
- Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity (Electricity Regulation¹⁸²), currently under revision¹⁸³;
- Directive 2003/87/EC of the European Parliament and the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union (Emission Trading System Directive¹⁸⁴) lastly amended by Directive 2018/410 on enhancing cost-effective emission reductions and low carbon investments¹⁸⁵.

¹⁷⁴ [OJ.L. 328, 21 December 2018.](#)

¹⁷⁵ [OJ.L. 328, 21 December 2018.](#)

¹⁷⁶ [OJ.L. 153, 18 June 2010.](#)

¹⁷⁷ [OJ.L. 156, 19 June 2018.](#)

¹⁷⁸ [OJ.L. 211, 14 August 2009.](#)

¹⁷⁹ Proposal for a Regulation establishing a European Union Agency for the Cooperation of Energy Regulators (recast), [COM\(2016\)863 final/2, 23 February 2017.](#)

¹⁸⁰ [OJ.L. 211, 14 August 2009.](#)

¹⁸¹ Proposal for a Directive on common rules for the internal market in electricity (recast), [COM\(2016\)864 final/2, 23 February 2017.](#)

¹⁸² [OJ.L. 211, 14 August 2009.](#)

¹⁸³ Proposal for a Regulation on the internal market for electricity (recast), [COM\(2016\)0861 final/2 – 2016/0379, 23 February 2017.](#)

¹⁸⁴ [OJ.L. 275, 25 October 2003.](#)

¹⁸⁵ [OJ.L 076, 19 March 2018.](#)

The EU legislation on energy taxation relates to the broader EU energy strategy and is an important pillar of the Energy Union. Taxation is seen as an important policy instrument to enhance energy efficiency, as it could provide steering effects with the potential of long-term efficiency gains (Energy 2020 Strategy¹⁸⁶). At the same time, taxation and pricing can be used as tools to encourage other behavioural changes or to fund investments. Taxation to impact behaviour regarding the use of energy products is also included in the Energy Roadmap 2050¹⁸⁷.

The EU Energy Strategy and Energy Union aims at encouraging the transition towards clean energy and sets targets and rules for the increased use of renewables, energy efficiency and greenhouse gas reduction. This policy framework rests on the same principles as the EU climate change policy, with the addition of the Clean Energy Package¹⁸⁸. The Energy Union is made of five dimensions: energy diversification and security; a fully-integrated internal energy market; energy efficiency; climate action and decarbonising the economy; and research, innovation and competitiveness in the field of low-carbon and clean energy technologies.

Climate change and environment

The EU environmental policy revolves around binding targets for the reduction of emissions of greenhouse gases and other air pollutants. The revised Emission Trading System¹⁸⁹, Effort Sharing¹⁹⁰ and Land Use, Land Use Change and Forestry regulations¹⁹¹, Renewables¹⁹² and Energy Efficiency¹⁹³ Directives update the 2030 Climate and Energy Framework¹⁹⁴, adopted in 2014, setting a 40% greenhouse gas emissions reduction target compared with 1990 levels, a target to reach at least a 32% share of renewable energy in the Union's gross energy final consumption and a 32.5% improvement target in energy efficiency by 2030.

Beyond 2030 the EU already adopted in 2009 an objective to reduce emissions by 80-95% in 2050, in the context of necessary reductions of the developed countries as a group. In order to prepare for an EU long term strategy, it's the Commission in its Communication on A Clean Planet for All: A European strategic long-term vision for a

¹⁸⁶ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Energy 2020 – A strategy for competitive, sustainable and secure energy, [COM\(2010\) 639 final](#).

¹⁸⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Energy Roadmap 2050, [COM/2011/0885 final](#).

¹⁸⁸ See: <https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition>.

¹⁸⁹ [Directive \(EU\) 2018/410](#).

¹⁹⁰ [Regulation \(EU\) 2018/ 842](#).

¹⁹¹ [Regulation \(EU\) 2018/841](#).

¹⁹² [Directive \(EU\) 2018/2001](#).

¹⁹³ [Directive \(EU\) 2018/2002](#).

¹⁹⁴ European Commission, A policy framework for climate and energy in the period from 2020 to 2030 ([COM\(2014\)015 final](#)).

prosperous, modern, competitive and climate neutral economy, the Commission has called for a climate neutral Europe by 2050, i.e. with net zero greenhouse gas emissions.

In addition, the National Emission Ceilings Directive (2016/2284/EU) which came into force in 2016, sets emissions reduction commitments for air pollutants for the period 2020 to 2029 and for 2030 onwards, compared with 2005 for five air pollutants. For 2030 for the whole EU:

- 79% for sulphur dioxide (SO₂);
- 19% for ammonia (NH₃);
- 40% for volatile organic compounds (NMVOC);
- 63% for nitrogen oxides (NO_x);
- 49% for fine particulate matter (PM 2.5).

In order to achieve the EU level objectives, Directive 2016/2284 on the reduction of national emissions of certain atmospheric pollutants¹⁹⁵ sets national reduction commitments for each pollutant. In addition, the Ambient Air Quality Directives (2008/50/EC and 2004/107/EC, which are both undergoing a Fitness Check evaluation planned to be finalised by the end of 2019) set limit and target values for concentrations of air pollution in zones and agglomerations in the EU.

Recital 7 of the ETD refers to the EU's commitment under the 1992 Kyoto Protocol. The G20 agreed in 2009 to phase-out fossil fuel subsidies, a commitment which was reaffirmed in the closing statement on the 2016 G20 Leaders Closing Statement after the Hangzhou Summit. In addition, under the Paris Climate Change Agreement, EU governments have agreed to limit the global average temperature rise to well below 2°C and pursue effort to limit it to 1.5°C, requiring a reduction in the use of fossil fuels and an increased finance for clean technology.

The EU emissions trading system (EU ETS) puts a limit on overall greenhouse gases emissions from over 11,000 covered installations and airlines operating between the EU, Iceland, Liechtenstein and Norway, amounting to around 45% of total EU greenhouse emissions. Companies can buy and sell emission allowances within this limit¹⁹⁶. In addition, Member States agreed on a 30% emissions reduction target by 2030 compared to 2005 for the sectors not covered by the EU ETS as their contribution to the overall 40% reduction target. The Effort Sharing Regulation (2018/842), which entered into force in July 2018, sets binding annual greenhouse gas emission targets for each Member State for the period 2021–2030.

Transport

Recital 12 of the ETD establishes the link between the Directive and transport policy by stating that “energy prices are key elements of Community energy, transport and environment policies”. The 2011 White Paper on transport provided a roadmap of 40

¹⁹⁵ [OJ.L 344, 17 December 2016.](#)

¹⁹⁶ See the [revision for phase 4 \(2021-2030\)](#).

concrete initiatives for the next decade to build a competitive transport system that will safeguard mobility, remove major barriers in key areas and fuel growth and employment. These initiatives are meant to reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050 with respect to 1990 levels. The White Paper objectives also include modal shift from road to other modes such as rail and waterborne transport for freight transport over 300 kilometres, a shift to rail for medium-distance passenger transport and promotion of more sustainable urban mobility. The White Paper also mentioned the need to restructure transport charges and taxes to underpin transport's role in promoting European competitiveness while reflecting the costs of transport in terms of infrastructure and external costs. The incentives in the ETD are crucial for the uptake of different alternative fuels and vehicle technologies. For example, favouring alternative fuels, including electricity used as propellant, would be in line with the White Paper objectives of reducing oil dependency and cutting emissions. Aligning taxes and charges more closely to the “polluter pays” and “user pays” principles could also encourage modal shift towards rail and waterborne transport.

Alternative Fuels Infrastructure Directive (2014/94/EU)¹⁹⁷ requires Member States to notify to the European Commission National Policy Frameworks for the development of the market as regards alternative fuels in the transport sector and the deployment of the relevant infrastructure.

The European Strategy for Low-Emission Mobility was adopted in July 2016. The Strategy aims at ensuring that Europe stays competitive and is able to respond to the increasing mobility needs of people and goods, while meeting the challenge of shifting towards low-emission mobility. The Strategy confirms the 2011 White Paper goals: by mid-century, greenhouse gas emissions from transport need to be at least 60% lower than in 1990 and be firmly on the path towards zero. Emissions of air pollutants from transport that harm our health need to be drastically reduced.

The 2017-2018 Mobility Packages¹⁹⁸ entail a number of measures for the transport sector, including:

- New CO₂ standards for cars vans and heavy goods vehicles aimed at progressively reducing the emissions of new road vehicles, with a proposal including targets for 2025 and 2030 and a technology-neutral mechanism incentivising the uptake of zero- and low-emission vehicles;
- Public procurement can act as a strong demand-side stimulus for the industry. The revision of the Clean Vehicles Directive is expected to increase the market uptake of clean vehicles, leading to lower production costs and lower prices with a positive effect also on private demand ;
- The Alternative Fuels Action Plan will boost investment in alternative fuel infrastructure and develop a network of fast and interoperable charging and clean refuelling stations across Europe. The Action Plan includes new funding

¹⁹⁷ Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure ([OJ L 307, 28.10.2014, p. 1–20](#)).

¹⁹⁸ See: https://ec.europa.eu/transport/modes/road/news/2017-11-08-driving-clean-mobility_en.

opportunities with up to €800 million being made available for blending of grants with loans or for financial instruments (debt, loans) under the Connecting Europe Facility. This will leverage considerable additional public and private investment into fleets and interoperable infrastructure;

- The revision of the Combined Transport Directive will generate: reduced costs for transport operators, clearer conditions in its implementation, usage of electronic transport documents and means, and extended economic support. As companies will claim incentives more easily, it will stimulate the economy behind the combined use of trucks and trains, barges or ships for the transport of goods.
- The proposed revision of the Eurovignette Directive (1999/62/EC), currently under discussion by the co-legislators¹⁹⁹, aims at extending the application of the “polluter pays” and “user pays” principles. In particular, the Commission proposed to extend the scope of the Eurovignette Directive to light vehicles and to phase out time-based user charges first for trucks and buses (end 2023), then for light vehicles (end 2027). Mandatory variation of tolls and user charges according to CO₂ emissions was also part of the proposal, with provisions for the application of external costs charging simplified.

Furthermore, the Fuel Quality Directive (2009/30/EC) sets a 6% decarbonisation target for transport fuels by 2020 compared to the EU-average level of life cycle greenhouse gas emissions per unit of energy from fossil fuels in 2010. This target is to be reached through the use of biofuels and alternative fuels by fuel distributors achieving reductions in the overall lifecycle carbon intensity of the fuels they sell

In addition, the 2016 “Clean Energy for All Europeans” package included important transport-related measures. The revised Renewable Energy Directive covers the transport sector. Through obligations on fuel suppliers, renewables will reach a level of at least 14% in transport by 2030, supplemented by a set of facilitative multipliers to boost renewables in different sectors. In the context of the revised Energy Efficiency Directive, Member States will have to notify measures (including in the transport sector) as part of their integrated national energy and climate plans to ensure the achievement of 32.5% energy savings by 2030. The revision of the Energy Performance of Buildings Directive supports electro-mobility infrastructure deployment in buildings' car parks and introduces new provisions to enhance smart technologies and technical building systems, including automation.

The Paris Climate Agreement requires economy wide action, and as such also international shipping and aviation are expected to contribute, together with all other sectors, to the achievement of the goals of this Agreement.

As acknowledged by the “Clean Planet for all - A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy” long term vision, given

¹⁹⁹ European Commission, Proposal for a Council Directive amending Directive 1999/62/EC on the charging of heavy good vehicles for the use of certain infrastructures, as regards certain provisions on vehicle taxation ([COM\(2017\)276 final](#)), 31 May 2017; Proposal for a Directive of the European Parliament and of the Council amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures (COM(2017)275).

the intrinsically global character of the shipping and aviation sectors, the EU needs to work with global partners to encourage further efforts and build on the progress that has been recently achieved in the International Maritime Organisation (IMO) and the International Civil Aviation Organisation (ICAO) with a view to have them secured, as an essential first step towards the decarbonisation of these sectors. Further efforts will however be necessary.

New aircraft CO₂ emissions and engine particulate matter standards will become applicable on 1 January 2020 and work is ongoing in ICAO on a Carbon Offsetting and Reduction Scheme for International Aviation. The Carbon Offsetting and Reduction Scheme for International Aviation, or CORSIA, aims to stabilise CO₂ emissions at 2020 levels by requiring airlines to offset the growth of their emissions after 2020. CORSIA is the first sectoral Global Market based mechanism to tackle emissions and it is part of a broader package defined by ICAO and its Member States as a basket of measures to address emissions from international aviation.

In addition, IMO has adopted in April 2018 an initial strategy to reduce greenhouse gas emissions from ships. The strategy defines an emission reduction objective of at least 50% reduction by 2050 compared to 2008 annual greenhouse gas emissions coupled with a vision for the decarbonisation of the sector. This comes after the IMO adopted design standard for new ships (Energy Efficiency Performance Index) in 2011. In the same year the IMO also adopted an operational measure (the Ship Energy Efficiency Management Plan) to reduce the energy consumption of ships. The impact of both measures is expected to be measured by the IMO Data Collection Scheme to measure the fuel consumption of ships on international voyages, adopted in 2017. Large ships can undertake very long voyages on single bunkering enabling them, without significantly adding to operational costs, to re-tank at ports with lower fuel prices. Any taxation regime for marine fuels, if not established at the international level, would likely be circumvented by a shift of bunkering operations to countries with no or lower fuel taxes.

In the maritime transport sector, SO_x emissions from ships are regulated by the Sulphur Directive (2016/802), which sets limits on the maximum sulphur content of gas oil, heavy fuel oil in land-based applications and marine fuels. The Directive also includes fuel-specific requirements for ships calling at EU ports related to the use of fuels covered by the Directive and the placing on the market of certain fuels (e.g. marine gas oil).

The EU policy framework for biofuels

The EU policy framework for biofuels is laid down in the Renewable Energy Directive, the Fuel Quality Directive and the Directive to reduce indirect land use change for biofuels and bioliquids²⁰⁰ :

Treatment of biofuels for energy taxation purposes and the Renewable Energy Directive

Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (Renewable Energy Directive) lays down minimum shares of energy of renewable sources and biofuels, in particular:

- 32% of renewables for the overall share of energy;
- 14% of biofuels for the transport sector

The mere imposition of a binding target for the use of biofuels was not considered sufficient, however. Energy from biofuels, bioliquids and biomass fuels is taken into account only if it fulfils the sustainability and the greenhouse gas emissions saving criteria laid down in the Directive.

Treatment of biofuels for energy taxation purposes and the Fuel Quality Directive

Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, gas oil and gas oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels²⁰¹ (Fuel Quality Directive) sets inter alia a target for the reduction of life cycle greenhouse gas emissions and standards for fuel quality.

The Fuel Quality Directive lays down requirements for the content of fuels, and only allows Member States for the placing on the market of fuels if they meet the requirements of the directive. Biofuels can contribute to reaching the standard of greenhouse gas emission reductions, to the extent they are “sustainable” – which is determined through sustainability criteria. For the definition of “biofuels”, the Fuel Quality Directive refers to the Renewable Energy Directive.

EU sustainability criteria

In order to ensure sustainable biofuel production, the EU has defined a set of sustainability criteria to ensure that the use of biofuels (used in transport) and bioliquids (used for electricity and heating) is done in a way that guarantees real carbon savings and

²⁰⁰ [O.J.L. 239, 15 September 2015.](#)

²⁰¹ [O.J.L. 140, 5 June 2009.](#)

protects biodiversity. Only biofuels and bioliquids that comply with the criteria can receive government support or count towards national renewable energy targets²⁰².

The main sustainability criteria are the following:

- Biofuels must achieve greenhouse gas savings of at least 35% in comparison to fossil fuels (50% in 2017, 60% in 2018 for new production plants), with the entire life cycle to be taken into account for the calculation of the emissions (i.e. cultivation, processing, transport);
- Biofuels cannot be grown in areas converted from land with previously high carbon stock such as wetlands or forests;
- Biofuels cannot be produced from raw materials obtained from land with high biodiversity such as primary forests or highly biodiverse grasslands.

Whether biofuels comply with the EU sustainability criteria is determined by voluntary schemes. The Renewable Energy Directive and the Fuel Quality Directive were amended in 2015 to reduce Indirect Land Use Change (ILUC), i.e. the (partial) displacement of agricultural lands to non-cropland such as grasslands and forests, due to the production of biofuels taking place on cropland.

Under the Guidelines on State aid for environmental protection and energy for 2014-2020²⁰³, investment support to biofuels can only be granted in favour of advanced – rather than conventional – biofuels and to convert food-based biofuel plants into advanced biofuels plant²⁰⁴. Investment aid to support food-based biofuels ceased from the date of application of the Guidelines and operating aid to food-based biofuels can only be granted to plants which started operation before 31 December 2013 and until plants are depreciated but no later than 2020²⁰⁵.

²⁰² See: <https://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/sustainability-criteria>.

²⁰³ [O.J.C. 200, 28 June 2014](#).

²⁰⁴ Recital 112.

²⁰⁵ Recital 113.

Analysis of minimum rates in the impact assessment for the Proposal for revision of the ETD (2010)²⁰⁶

	Minima as set in the ETD		
	In current units	in €/GJ	in €/tonne CO ₂
(1)	(2)	(3)	(4)
Motor fuel use			
Petrol	359 €/1000 litres	11	159
gas oil	330 €/1000 litres	8.9	120
kerosene	330 €/1000 litres	9.5	132
LPG	125 €/1000 kg	2.7	43
natural gas	2.6 €/GJ	2.6	46
Motor non-fuel use (certain commercial and industrial uses)			
gas oil	21 €/1000 litres	0.6	8
kerosene	21 €/1000 litres	0.6	9
LPG	41 €/1000 kg	0.9	14
natural gas	0.3 €/GJ	0.3	5
Heating use (non-business use)			
gas oil	21 €/1000 litres	0.6	8
heavy fuel oil	15 €/1000 kg	0.4	5
kerosene	0	0	0
LPG	0	0	0
natural gas	0.3 €/GJ	0.3	5
Coal	0.3 €/GJ	0.3	3
electricity	1.0 €/MWh	0.3	
Heating use (business use)			
gas oil	21 €/1000 litres	0.6	8
heavy fuel oil	15 €/1000 kg	0.4	5
kerosene	0	0	0
LPG	0	0	0
natural gas	0.15 €/GJ	0.15	2.7
Coal	0.15 €/GJ	0.15	1.6
Electricity	0.5 €/MWh	0.15	

²⁰⁶ [Accompanying document](#) to the Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity.