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Subject:	Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the Governance of the Energy Union, amending Directive 94/22/EC, Directive 98/70/EC, Directive 2009/31/EC, Regulation (EC) No 663/2009, Regulation (EC) No 715/2009, Directive 2009/73/EC, Council Directive 2009/119/EC, Directive 2010/31/EU, Directive 2012/27/EU, Directive 2013/30/EU and Council Directive (EU) 2015/652 and repealing Regulation (EU) No 525/2013 - Analysis of the final compromise text with a view to agreement

Delegations will find in Annex the consolidated text of doc. 10307/18 + COR 1.

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the Governance of the Energy Union **and Climate Action**, amending Directive 94/22/EC, Directive 98/70/EC, Directive 2009/31/EC, Regulation (EC) No 663/2009, Regulation (EC) No 715/2009, Directive 2009/73/EC, Council Directive 2009/119/EC, Directive 2010/31/EU, Directive 2012/27/EU, Directive 2013/30/EU and Council Directive (EU) 2015/652 and repealing Regulation (EU) No 525/2013

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) and Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

[Having regard to the opinion of the European Economic and Social Committee¹,]

[Having regard to the opinion of the Committee of the Regions²,]

Acting in accordance with the ordinary legislative procedure,

Whereas:

¹ OJ C , , p. .

² OJ C , , p. .

(1) This Regulation sets out the necessary legislative foundation for a reliable, *inclusive, cost-efficient*, transparent *and predictable* Governance that ensures the achievement of the *2030 and long-term* objectives and targets of the Energy Union *in line with the 2015 Paris Agreement on climate change following the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (the “Paris Agreement”)*, through complementary, coherent, and ambitious efforts by the Union and its Member States, while *limiting administrative complexity*.

(2) The European Energy Union should cover five key dimensions: energy security; the internal energy market; energy efficiency; decarbonisation; and research, innovation and competitiveness.

(3) The goal of a resilient Energy Union with an ambitious climate policy at its core is to give Union consumers, both households and businesses, secure, sustainable, competitive and affordable energy, *and to foster research and innovation by means of attracting investments*, which requires a fundamental transformation of Europe's energy system. **This transformation of the energy system is also closely linked to the need to preserve, protect and improve the quality of the environment and to promote the prudent and rational utilisation of natural resources, notably through the promotion of energy efficiency and energy savings and the development of new and renewable forms of energy.** That goal [] can only be achieved through coordinated action, combining both legislative and non-legislative acts at Union, [] *regional*, [] national *and local* level.

(3a) A fully functional and resilient Energy Union would convert the Union into a leading region for innovation, investments, growth and social and economic development, in turn providing a good example of how pursuing high ambitions in terms of climate change mitigation is intertwined with measures to foster innovation, investments and growth.

(4) The Commission's proposal was developed in parallel to and is adopted together with a series of initiatives in sectorial energy policy, notably with regard to renewable energy, energy efficiency (*including on the energy performance of buildings*) and market design. Those initiatives form a package under the overarching theme of energy efficiency first, the Union's global leadership in renewables, and a fair deal for energy consumers, *including by addressing energy poverty and promoting fair competition on the internal market*.

(5) The European Council [] **concluded** on 24 October 2014 on **a 2030 Framework for Energy and Climate for the Union** based on four key **EU level** targets: at least 40% cut in economy wide greenhouse gas ("GHG") emissions, **an indicative target of** at least 27% improvement in energy efficiency, **to be reviewed by 2020** with a view to a level of 30%, at least 27% for the share of renewable energy consumed in the Union, and at least 15% for electricity interconnection. It specified that the target for renewable energy is binding at Union level and that it will be fulfilled through Member States' contributions guided by the need to deliver collectively the Union target.

The recast of Directive 2009/28/EC introduced a new, binding, renewable energy target for the EU for 2030 of at least 32%, including a review clause by 2023 for an upward revision of the EU level target, while Directive 2018/XX amending Directive 2012/27/EU set the Union-level target for improvement in energy efficiency in 2030 to at least 32.5%, including a review clause by 2023 for an upward revision of the EU level target.

(6) The binding target of at least a 40% domestic reduction in economy-wide greenhouse gas emissions by 2030 compared to 1990 was formally approved as the Intended Nationally Determined Contribution of the Union and its Member States to the Paris Agreement at the Environment Council meeting on 6 March 2015. The Paris Agreement was ratified by the Union on 5 October 2016³ and entered into force on 4 November 2016. It replaces the approach taken under the 1997 Kyoto Protocol which will not be continued beyond 2020. Therefore the Union's system for monitoring and reporting emissions and removals should be updated in the light of this.

(6a) The Paris Agreement [] increased the level of global ambition on climate change mitigation and sets out a long-term goal in line with the objective to keep the global average temperature increase [] well below 2°C above pre- industrial levels and to pursue efforts to keep it to 1,5°C above pre-industrial levels.

³ Council Decision (EU) 2016/1841 of 5 October 2016 on the conclusion, on behalf of the European Union, of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (OJ L 282, 19.10.2016, p. 1).

(6b) In pursuit of the temperature goals in the Paris Agreement, [] the Union should aim to achieve a balance between anthropogenic emissions by sources and removals [] by sinks of greenhouse gases [] as early as possible and, as appropriate, go into negative emissions thereafter.

Various scenarios for the EU's contribution towards the long-term objectives, inter alia a scenario on achieving net zero greenhouse gas emissions within the Union by 2050 and negative emissions thereafter, and the implications of these scenarios on the remaining global and Union carbon budget should be analysed by the Commission.

(6c) For the climate system [] the cumulative total anthropogenic emissions over time [] are relevant for the total concentration of greenhouse gases in the atmosphere.

The Commission should prepare an analysis for an EU long-term strategy for the EU contribution to the commitments of the Paris Agreement of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue *efforts to limit the temperature increase to 1,5°C above pre-industrial levels*, including various scenarios, inter alia a scenario on achieving net zero greenhouse gas emissions within the Union by 2050 and negative emissions thereafter and their implications on the global and Union carbon budget.

(6e) Even though the Union pledged to deliver ambitious cuts in GHG emissions by 2030, the threat of climate change is a global issue. Therefore, the Union and its Member States should work with their international partners in order to ensure a high level of ambition by all Parties in line with the long-term goals of the Paris Agreement.

(7) The European Council also concluded on 24 October 2014¹⁴ that a reliable and transparent governance system, without any unnecessary administrative burden *and with sufficient flexibility for Member States*, should be developed to help ensure that the Union meets its energy policy goals, *while* fully respecting *Member States'* freedom to determine their energy mix. It emphasized that such governance system should build on existing building blocks, such as national climate programmes, national plans for renewable energy and energy efficiency as well as the need to streamline and bring together separate planning and reporting strands. It also agreed to step up the role and rights of consumers, transparency and predictability for investors, inter alia by systematic monitoring of key indicators for an affordable, safe, competitive, secure and sustainable energy system and to facilitate coordination of national *climate and* energy policies and foster regional cooperation between Member States.

(8) The Commission's Energy Union Strategy of 25 February 2015 states the need for an integrated Governance to make sure that energy-related actions at Union, regional, national and local level all contribute to the Energy Union's objectives, thereby broadening the scope of Governance – beyond the 2030 Framework for Climate and Energy – to all five key dimensions of the Energy Union.

(9) In its Communication on the State of the Energy Union of 18 November 2015⁴ the Commission further specified that integrated national energy and climate plans, addressing all five key dimensions of the Energy Union, are necessary tools for a more strategic energy and climate policy planning. As part of the State of the Energy Union, the Commission Guidance to Member States on integrated national energy and climate plans provided the basis for Member States to start developing national plans for the period 2021 to 2030 and set out the main pillars of the governance process. The State of the Energy Union also specified that the Governance should be anchored in legislation.

⁴ Communication State of the Energy Union 2015 of 18.11.2015, COM(2015)572 final.

(10) The Conclusions of the Council of 26 November 2015⁵ recognised that the Governance of the Energy Union will be an essential tool for the efficient and effective construction of the Energy Union and the achievement of its objectives. They underlined that the governance system should be based on the principles of integration of strategic planning and reporting on the implementation of climate and energy policies and coordination between actors responsible for energy and climate policy, at Union, regional and national level. They also underlined that the Governance should ensure that the agreed energy and climate targets for 2030 are met; and that the Governance would monitor the Union's collective progress towards the achievement of the policy objectives across the five dimensions of the Energy Union.

(11) The European Parliament's resolution "Towards a European Energy Union" of 15 December 2015⁶ called for the Governance framework for the Energy Union to be ambitious, reliable, transparent, democratic and fully inclusive of the European Parliament and to ensure that the 2030 climate and energy targets are achieved.

(11a) The European Council has repeatedly stressed the need to take urgent measures in order to ensure the achievement of a minimum target of 10% of electricity interconnections. The European Council of 23 and 24 October 2014 decided that the European Commission supported by the Member States will take urgent measures in order to ensure the achievement of a minimum target of 10% of electricity interconnections, as a matter of urgency, and no later than 2020 at least for Member States which have not yet attained a minimum level of integration in the internal energy market. The recent Commission '*Communication on strengthening Europe's energy networks*'⁷ assesses progress towards achieving the 10% interconnection target and suggests ways to operationalise the 15% interconnection target.

⁵ Conclusions of the Council of 26 November 2015 (14459/18)

⁶ European Parliament resolution of 15 December 2015 on "Towards a European Energy Union" (2015/2113(INI)).

⁷ COM(2017) 718 final

(12) Therefore, the main objective of the Energy Union Governance should be to enable the achievement of the objectives of the Energy Union and in particular the targets of the 2030 Framework for Climate and Energy, ***in the field of GHG emissions reduction, renewable energy sources and energy efficiency***. **These objectives and targets stem from the Union policy on energy and from the need to preserve, protect and improve the quality of the environment and to promote the prudent and rational utilisation of natural resources, as provided for under the EU Treaties. Neither of these indissociably linked objectives can be regarded as secondary to the other.** This Regulation is therefore linked to sectorial legislation implementing the 2030 targets for energy and climate. While Member States need flexibility to choose policies that are best-matched to their national energy mix and preferences, that flexibility should be compatible with further market integration, increased competition, the attainment of climate and energy objectives and the gradual shift towards a ***sustainable*** low-carbon economy.

(13) **A socially acceptable and just** transition to a ***sustainable***, low-carbon economy requires changes in investment behaviour, **as regards both public and private investment**, and incentives across the entire policy spectrum, ***taking into consideration citizens and regions which could be adversely impacted by the transition to a low-carbon economy*** *). Achieving greenhouse gas emission reductions requires a boost to efficiency and innovation in the European economy and in particular should also ***create sustainable jobs, including in high-tech sectors, and*** lead to improvements of air quality **and public health**.

(13a) In view of international commitments undertaken in the Paris Agreement, Member States should report on actions that they undertake to phase out energy subsidies, [] in particular for fossil fuels. When reporting, Member States may choose to base themselves on existing definitions for fossil fuels used internationally.

(14) As greenhouse gases and air pollutants largely derive from common sources, policy designed to reduce GHGs can have co-benefits for ***public health and*** air quality, ***in particular in urban areas***, that could offset the near-term costs of GHG mitigation. As data reported under Directive 2001/81/EC of the European Parliament and the Council⁸ represent an important input for the compilation of the GHG inventory and the national plans, the importance of compilation and

⁸ Directive 2001/81/EC of the European Parliament and the Council on National Emission Ceilings for certain pollutants (OJ L 309, 27.11.2001, p. 22).

reporting of consistent data between Directive 2001/81/EC and the GHG inventory should be recognised.

(15) The experience gained in implementing Regulation (EU) No 525/2013 of the European Parliament and the Council⁹ indicated the need for synergies and coherence with reporting under other legal instruments, in particular with Directive 2003/87/EC of the European Parliament and the Council¹⁰, Regulation (EC) No 166/2006 of the European Parliament and the Council¹¹, Regulation (EC) No 1099/2008 of the European Parliament and the Council¹² and Regulation (EC) No 517/2014 of the European Parliament and the Council¹³. The use of consistent data to report greenhouse gas emissions is essential to ensuring the quality of emissions reporting.

(16) In line with the Commission's strong commitment to Better Regulation *and consistent with a policy that promotes research, innovation and investments*, the Energy Union Governance should result in a significant reduction of administrative burden and *complexity* for the Member States *and relevant stakeholders*, the Commission and other Union Institutions and it should help to ensure coherence and adequacy of policies and measures at Union and national level with regard to the transformation of the energy system towards a *sustainable low greenhouse gas emission* economy

⁹ Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC (OJ L 165, 18.6.2013, p. 13).

¹⁰ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community (OJ L 275, 25.10.2003, p. 32).

¹¹ Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register (OJ L 33, 4.2.2006, p. 1).

¹² Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (OJ L 304, 14.11.2008, p. 1).

¹³ Regulation (EC) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 (OJ L 150, 20.5.2014, p. 195).

(17) The achievement of the Energy Union *targets and* objectives should be ensured through a combination of Union initiatives and coherent national policies set out in integrated national energy and climate plans. Sectorial Union legislation in the energy and climate fields sets out planning requirements, which have been useful tools to drive change at the national level. Their introduction at different moments in time has led to overlaps and insufficient consideration of synergies and interactions between policy areas, *to the detriment of cost-efficiency*. Current separate planning, reporting and monitoring in the climate and energy fields should therefore as far as possible be streamlined and integrated.

(18) The integrated national energy and climate plans should cover ten-year periods and provide an overview of the current energy system and policy situation. They should set out national objectives for each of the five key dimensions of the Energy Union and corresponding policies and measures to meet those objectives and have an analytical basis. The national plans covering the first period from 2021 to 2030 should pay particular attention to the 2030 targets for greenhouse gas emission reductions, renewable energy, energy efficiency and electricity interconnection. Member States should aim to ensure that the national plans are consistent with and contribute to achieving the Sustainable Development Goals. **In setting out the national plans, Member States may build upon existing national strategies or plans. For the first draft national plan and national plan, a different deadline is provided as compared to subsequent plans, in order to provide Member States with adequate preparation time for their first plans after the adoption of this Regulation. Nevertheless, the Member States are encouraged to provide their first draft national plans as early as possible in 2018, in order to allow proper preparations, in particular for the facilitative dialogue to be convened under the Paris Agreement in 2018.**

(18a) When preparing their integrated national energy and climate plan, Member States should assess the number of households in energy poverty, taking into account the necessary domestic energy services needed to guarantee basic standards of living in the relevant national context, existing social policy and other relevant policies, as well as Commission indicative guidance on relevant indicators, including geographical dispersion, that are based on a common approach for energy poverty.

In the event that a Member State finds that it has a significant number of households in energy poverty, it should include in its plan a national indicative objective to reduce energy poverty.

(19) A mandatory template for the national plans should be established to ensure that all national plans are sufficiently comprehensive and to facilitate comparison and aggregation of national plans, while at the same time ensuring sufficient flexibility to Member States to set out the details of national plans reflecting national preferences and specificities.

(20) The implementation of policies and measures in the areas of the energy and climate has an impact on the environment. Member States should therefore ensure that the public is given early and effective opportunities to participate in and to be consulted on the preparation of the integrated national energy and climate plans in accordance, where applicable, with the provisions of Directive 2001/42/EC of the European Parliament and of the Council and the United Nations Economic Commission for Europe ("UNECE") Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters of 25 June 1998 (the "Aarhus convention"). Member States should also ensure involvement of social partners in the preparation of the integrated national energy and climate plans, ***and aim at limiting administrative complexity when implementing their obligations on public consultation.***

(20 bis) When implementing their public consultation obligations, and in line with the Aarhus Convention, Member States should aim at equal participation, ensure that the public is informed by public notices or other appropriate means, such as electronic media, that the public can access all relevant documents, and put in place practical arrangements related to the public's participation.

(20ter) Member States should establish a permanent multi-level energy dialogue [] gathering local authorities, civil society organisations, business community, investors and other relevant stakeholders to discuss the different options envisaged for energy and climate policies []. Integrated national energy and climate plans as well as long-term strategies should be discussed within the framework of that dialogue []. Such dialogues may consist of any national structure, such as a website, public consultation platform or other interactive communication tools.

(21) Regional cooperation is key to ensure an effective achievement of the objectives of the Energy Union *in a cost-optimal manner. The Commission should facilitate such cooperation between the Member States.* Member States should get the opportunity to comment on other Member States' plans before they are finalised to avoid inconsistencies and potential negative impacts on other Member States and ensure that common objectives are met collectively. Regional cooperation in elaborating and finalising national plans as well as in the subsequent implementation of national plans should be essential to improve effectiveness and efficiency of measures and foster market integration and energy security.

(21 bis) Where cooperating in the framework of this Regulation, Member States should take into consideration existing regional cooperation fora, such as the Baltic Energy Market Interconnection Plan (BEMIP), Central and South-Eastern Europe Connectivity (CESEC), Central-West Regional Energy Market (CWREM), the North Seas Countries' Offshore Grid Initiative (NSCOGI), the Pentalateral Energy Forum, Interconnections for South-West Europe and the Euro-Mediterranean Partnership.

Member States are encouraged to envisage cooperation with Energy Community contracting parties, with members of the European Economic Area and, if they consider it appropriate, with other relevant third countries.

Moreover, the Commission may, with a view to promoting market integration, cost-efficient policies, effective cooperation, partnerships and consultations, identify further opportunities for regional cooperation covering one or several of the five dimensions of the Energy Union in line with the provisions of this Regulation, with a long-term vision and based on existing market conditions.

(21ter) The Commission may undertake discussions with relevant third countries in order to explore the possibility to extend towards them the application of provisions established under this Regulation, notably those related to regional cooperation.

(22) National plans should be stable to ensure transparency and predictability of national policies and measures in order to ensure [] *investment* certainty. Updates of national plans should however be foreseen once during the ten-year period covered to give Member States the opportunity to adapt to significant changing circumstances. For the plans covering the period from 2021 to 2030, Member States should be able to update their plans by **30 June** [] 2024. Targets, objectives and contributions should only be modified to reflect an increased overall ambition in particular as regards the 2030 targets for energy and climate. As part of the updates, Member States should make efforts to mitigate any adverse environmental impacts that become apparent as part of the integrated reporting.

(23) Stable long-term [] strategies are crucial to contribute towards economic transformation, jobs, growth and the achievement of broader sustainable development goals, as well as to move in a fair and cost-effective manner towards the long-term goal set by the Paris Agreement. Furthermore, Parties to the Paris Agreement are invited to communicate, by 2020, their mid-century, long-term low greenhouse gas emission development strategies. **In this context, the European Council invited on 22 March 2018 the Commission to present by the first quarter of 2019 a proposal for a Strategy for long-term EU greenhouse gas emissions reduction in accordance with the Paris Agreement, taking into account the national plans.**

(23a) Member States should develop long-term strategies with a perspective of at least 30 years contributing to the fulfilments of the Member States' commitments under the UNFCCC and the Paris Agreement, in the context of the objective of the Paris Agreement of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels and achievement of long-term greenhouse gas emission reductions and enhancements of removals by sinks in all sectors in line with the Union's objective. Member States should develop their strategies in an open and transparent manner and should ensure effective opportunities for the public to participate in their preparation. The integrated national energy and climate plans and the long-term strategies should be consistent with each other.

(23b) The land use, land use change and forestry (LULUCF) sector is highly exposed and very vulnerable to climate change. At the same time, the sector has huge potential to provide for long-term climate benefits and to contribute significantly to the achievement of Union and international long-term climate goals. It can contribute to climate change mitigation in several ways, in particular by reducing emissions, maintaining and enhancing sinks and carbon stocks, and providing bio-materials that can substitute fossil or carbon-intensive materials. [] Long-term strategies underpinning sustainable investment aimed at increasing effective carbon sequestration [] sustainable resource management and long-term stability and adaptability of carbon pools is essential.[]

(23c) When developing further interconnections, it is important to make a complete assessment of the costs and benefits, including the full technical, socio-economic and environmental impacts, thereof as required by the TEN-E Regulation and take into account the positive externalities of interconnections, such as the integration of renewables, the security of supply and the increased competition in the internal market.

(24) As is the case for planning, sectorial Union legislation in the energy and climate fields sets out reporting requirements, many of which have been useful tools to drive change at the national level, **complementary to market reforms**, but those requirements have been introduced at different moments in time which has led to overlaps and **cost-inefficiency, as well as** insufficient consideration of synergies and interactions between policy areas such as GHG mitigation, renewable energy, energy efficiency and market integration. To strike the right balance between the need to ensure a proper follow-up of the implementation of national plans and the need to reduce administrative [] **complexity**, Member States should establish biennial progress reports on the implementation of the plans and other developments in the energy system. Some reporting however, particularly with regard to reporting requirements in the climate field stemming from the United Nations Framework Convention on Climate Change ("UNFCCC") and Union Regulations, would still be necessary on a yearly basis.

(25) Member States' integrated progress reports should mirror the elements set out in the template for the national plans. A template for the integrated progress reports should be detailed in subsequent implementing act(s) given their technical nature and the fact that the first progress reports are due in 2023. The progress reports should be carried out in order to ensure transparency towards the Union, other Member States, *regional and local authorities*, market actors including consumers, *any other relevant stakeholders and the general public*. They should be comprehensive across the five dimensions of the Energy Union and, for the first period, at the same time put emphasis on areas covered by the targets of the 2030 Climate and Energy Framework.

(26) Under the UNFCCC, the Union and its Member States are required to develop, regularly update, publish and report to the Conference of the Parties national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases using comparable methodologies agreed by the Conference of the Parties. The GHG inventories are key to enabling the tracking of progress with the implementation of the decarbonisation dimension and for assessing compliance with the legislation in the field of climate, in particular Regulation [OP: act number XXX on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 for a resilient Energy Union and to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 of the European Parliament and the Council on a mechanism for monitoring and reporting greenhouse gas emissions and other information relevant to climate change]¹⁴ ("Regulation [] [ESR]") and Regulation [OP: act number XXX on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry into the 2030 climate and energy framework and amending Regulation (EU) No 525/2013 of the European Parliament and the Council on a mechanism for monitoring and reporting greenhouse gas emissions and other information relevant to climate change] ("Regulation [] [LULUCF]")¹⁵.

(27) Decision 1/CP.16 of the Conference of the Parties to the UNFCCC requires the establishment of national arrangements to estimate anthropogenic emissions by sources and removals by sinks of all greenhouse gases. This Regulation should enable the establishment of those national arrangements.

¹⁴ OJ L [...], [...], p. [...].

¹⁵ OJ L [...], [...], p. [...].

(28) The experience in the implementation of Regulation (EU) No 525/2013 demonstrated the importance of transparency, accuracy, consistency, completeness and comparability of information. Building on that experience, this Regulation should ensure that Member States ***use robust and consistent data and assumptions across the five dimensions and make publicly available comprehensive information concerning the assumptions, parameters and methodologies used for the final scenarios and projections taking into account statistical restrictions, commercially sensitive data, and the need to comply with data protection rules, and*** report on their policies and measures and projections as a key component of the progress reports. The information in those reports should be essential for demonstrating the timely implementation of commitments under Regulation [] [ESR]. Operating and continuously improving systems at Union and Member State level coupled with better guidance on reporting should significantly contribute towards an on-going strengthening of the information necessary in order to track progress in the decarbonisation dimension.

(29) This Regulation should ensure reporting by Member States on adaptation to climate change and the provision of financial, technological and capacity-building support to developing countries, thereby facilitating the implementation of the Union's commitments under the UNFCCC and Paris Agreement. Furthermore, information on national adaptation actions and support is also important in the context of the integrated national energy and climate plans, especially as regards adaptation to those adverse effects of climate change related to the security of the Union's energy supply such as the availability of cooling water for power plants and biomass availability for energy, and information on support relevant to the external dimension of the Energy Union.

(29bis) The Paris Agreement reaffirms that Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights and gender equality. Therefore Member States should adequately integrate the dimensions of human rights and gender equality in their integrated national energy and climate plans and long-term low emission strategies. Through their biennial progress reports they should report information on how the implementation of their integrated national energy and climate plans contributes to the promotion of both human rights and gender equality.

(30) In order to limit administrative burden on Member States and the Commission, the latter should establish an online [] platform to facilitate communication, [] promote cooperation **and facilitate public access to information**. That should **facilitate** [] timely submission of reports **as well as** [] improved transparency on national reporting. The e-reporting platform should complement, build on and benefit from existing reporting processes, databases and e-tools, such as those of the European Environment Agency, Eurostat, the Joint Research Centre and the lessons learned from the Union's Eco-Management and Audit Scheme.

(30bis) The Commission should ensure that the final integrated national energy and climate plans are publicly available online. An e-platform, once operational, should be used by the Commission to host and make publicly available the final integrated national energy and climate plans, the updates thereof, the long-term low emission strategies and other relevant reporting information provided by Member States. Before the e-platform becomes operational, the Commission will use its own websites to facilitate public online access to the final integrated national energy and climate plans.

(31) As concerns data to be provided to the Commission by means of national planning and reporting, information from Member States should not duplicate data and statistics which have already been made available via Eurostat in the context of Regulation (EC) No 223/2009 of the European Parliament and of the Council¹⁶ in the same form as under the planning and reporting obligations of this Regulation and are still available from Eurostat with the same values. Where available and appropriate in terms of timing, reported data and projections provided in the national energy and climate plans should build on and be consistent with Eurostat data and the methodology used for reporting European statistics in accordance with Regulation (EC) No 223/2009.

¹⁶ Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities (OJ L 87, 31.3.2009, p. 164).

(32) In view of the collective achievement of the objectives of the Energy Union Strategy, *in particular the creation of a fully functional and resilient Energy Union*, it will be essential for the Commission to assess *draft national plans*, national plans and, based on progress reports, their implementation. For the first ten-year period, this concerns in particular the achievement of the Union-level 2030 targets for energy and climate and national contributions to those targets. Such assessment should be undertaken on a biennial basis, and on an annual basis only where necessary, and should be consolidated in the Commission's State of the Energy Union reports.

(32bis) With due respect to the right of initiative of the Commission, the co-decision procedure and the balance of powers between the institutions, the European Parliament and the Council should address on an annual basis the progress achieved by the Energy Union on all dimensions of Energy and Climate policies.

(32ter) The Commission should assess the overall impact of the policies and measures of the integrated national plans on the operation of the Union climate and energy policy measures, in particular with regard to the need for additional Union policies and measures in view of the necessary increase in greenhouse gas emissions reductions and removals in the Union in line with Paris Agreement commitments.

(33) Aviation has impacts on the global climate as a result of the release of CO₂ as well as of other emissions, including nitrogen oxides emissions, and mechanisms, such as cirrus cloud enhancement. In the light of the rapidly developing scientific understanding of those impacts, an updated assessment of the non-CO₂ impacts of aviation on the global climate is already foreseen in Regulation (EU) No 525/2013. The modelling used in this respect should be adapted to scientific progress. Based on its assessments of such impacts, the Commission *should, by 1 January 2020, present an updated analysis of the non-CO₂ effects of aviation, accompanied, where appropriate, by a proposal on how best to address those effects.*

(33a) In accordance with the current UNFCCC greenhouse gas reporting guidelines, the calculation and reporting of methane emissions is based on global warming potentials (GWP) relating to a 100-year time horizon. Given the high GWP and relatively short atmospheric lifetime of methane, leading to a significant impact on the climate in the short and middle term, the Commission should analyse the implications for implementing policies and measures for the purpose of reducing the short and middle-term impact of methane emissions on Union greenhouse gas emissions []. [] The Commission should consider [] policy options for rapidly addressing methane emissions and should put forward [] a Union strategic plan [] for methane [] as an integral part of the Union's long-term strategy as referred to in Article 14.

(34) To help ensure coherence between national and Union policies and objectives of the Energy Union, there should be an on-going dialogue between the Commission and the Member States *and, where appropriate, between the Member States*. As appropriate, the Commission should issue recommendations to Member States including on the level of ambition of the draft national plans, on the subsequent implementation of policies and measures of the notified national plans, and on other national policies and measures of relevance for the implementation of the Energy Union. **Whereas recommendations have no binding force, as set out in Article 288 of the TFEU, Member States should nevertheless take due [] account of such recommendations and explain in subsequent progress reports how this has been done []. With regard to renewable energy the Commission assessment shall be based on the objective criteria. []**

If the Commission issues a recommendation on a Member State's draft national plan, it should do so as quickly as possible, having regard to, on the one hand, the need for the Commission to add up certain quantified planned contributions of all Member States in order to assess ambition at Union level, and on the other hand, the need to provide adequate time for the Member State concerned to take due consideration of the Commission's recommendations before finalising its national plan, and the need to avoid the risk of delay of the Member State's national plan.

(34bis) Cost-effective deployment of renewable energy is one of the [] key objective criteria [] for assessing Member States' contributions. The cost structure of deploying renewable energy is complex and varies significantly between Member States. It includes not only simply the costs of support schemes, but, *inter alia*, the connection costs of installations, system backup, providing system security and costs that need to be borne when complying with environmental restrictions. Thus when comparing Member States based on this criterion, all costs related to deployment, whether they are borne by the Member State, final consumers or project developers, should be accounted for. The Commission's recommendations on the Member States' renewable ambitions should be based on a formula set out in this Regulation which is based on objective criteria []. Thus, the [] assessment of the renewable energy ambition of the Member States should indicate the relative effort made by the Member States, while also taking into consideration relevant circumstances affecting the renewable energy development. The assessment [] should also include data originating from independent quantitative and/or qualitative data sources.

(35) Should the ambition of integrated national energy and climate plans or their updates be insufficient for the collective achievement of the Energy Union objectives and, for the first period, in particular the 2030 targets for renewable energy and energy efficiency, the Commission should take measures at Union level in order to ensure the collective achievement of these objectives and targets (thereby closing any 'ambition gap'). Should progress made by the Union towards these objectives and targets be insufficient for their delivery, the Commission should, in addition to issuing recommendations, [] **propose measures and make use of relevant empowerments** at Union level or Member States should take additional measures in order to ensure achievement of these objectives and targets (thereby closing any 'delivery gap'). []

Such measures should also take into account early efforts made by Member States to the 2030 target for renewable energy by reaching in or before 2020 a share of energy from renewable sources above its national binding target, or by making early progress towards its national binding 2020 target [] or in the implementation of its contribution to the Union's binding target of at least 32% of renewable energy in 2030.

In the area of renewable energy, such measures can also include **voluntary** financial contributions by Member States to an **EU renewable energy** financing **mechanism** managed by the Commission, which would be used to contribute to **the most cost-efficient** renewable energy projects across the Union, **thus providing the Member State with the option to contribute to the EU target achievement at the lowest possible cost.** [].

Member States' national renewable energy targets for 2020 should serve as baseline shares of renewable energy from 2021 onwards and should be maintained throughout the period. In the area of energy efficiency, additional measures can in particular aim at improving the energy efficiency of products, buildings and transport.

(35bis) Member States' national renewable energy targets for 2020 **as set out in Annex I of [recast of Directive 2009/28/EC as proposed by COM(2016) 767]** should serve as **the starting point for their national indicative trajectory for the period 2021 to 2030, unless a Member State voluntarily decides to set an higher starting point. In addition, they should constitute for this period a mandatory baseline share that forms equally part of [recast of Directive 2009/28/EC as proposed by COM(2016) 767]. Consequently, in this period the share of energy from renewable sources in each Member State's gross final consumption of energy should not be lower than its baseline share.**

(35ter) If a Member State does not maintain its baseline share as measured over a one-year period, it should, within one year, take additional measures to cover this gap to its baseline scenario. Where a Member State has effectively taken such necessary measures and fulfilled its obligation to cover the gap, it should be deemed to comply with the mandatory requirements of its base-line scenario as from the moment in time when the gap in question occurred and both under this Regulation and under [recast of Directive 2009/28/EC as proposed by COM(2016) 767].

(35quater) In order to enable adequate monitoring and early corrective action by Member States and the Commission, and in order to avoid the 'free rider' effect, the indicative trajectories of all Member States (and, as a result, also the indicative trajectory of the Union) should reach, in 2022, 2025 and 2027 at least certain minimum percentages of the total increase in renewable energy foreseen for 2030, as set out in this Regulation. The achievement of these 'reference points' in 2022, 2025 and 2027 will be assessed by the Commission [] on the basis of, inter alia, the Member States' integrated national energy and climate progress reports that Member States should present []. Member States below their reference points should explain in their next progress report how they will cover the gap. If the indicative reference points of the Union are not met, Member States below their reference points should cover the gap by implementing additional measures.

(36) The Union and the Member States should strive to provide the most up-to-date information on their greenhouse gas emissions and removals. This Regulation should enable such estimates to be prepared in the shortest timeframes possible by using statistical and other information, such as, where appropriate, space-based data provided by the Global Monitoring for Environment and Security programme and other satellite systems.

(37) Under Regulation [] [ESR], the approach of the annual commitment cycle taken in Decision No 406/2009/EC of the European Parliament and of the Council¹⁷ should continue. That requires a comprehensive review of Member States' greenhouse gas inventories to enable the assessment of compliance and the application of corrective action, where necessary. A review process at Union level of the greenhouse gas inventories submitted by Member States is necessary to ensure that compliance with Regulation [] [ESR] is assessed in a credible, consistent, transparent and timely manner.

¹⁷ Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 (OJ L 140, 5.6.2009, p. 136).

(38) Member States and the Commission should ensure close cooperation on all matters relating to the implementation of the Energy Union, [] **with close involvement of the European Parliament on matters related to this Regulation []**. The Commission should as appropriate assist Member States in implementing this Regulation, particularly with regard to the establishment of the *integrated national energy and climate* plans and associated capacity building, **including by mobilising internal resources from internal modelling capacity and, where appropriate, external expertise**.

(39) Member States should ensure that integrated national energy and climate plans take into consideration the latest country-specific recommendations issued in the context of the European Semester.

(39bis) Member States should use the 'energy efficiency first' principle , which means to consider, before taking energy planning, policy and investment decisions, whether cost-efficient, technically, economically and environmentally sound alternative energy efficiency measures could replace in whole or in part the envisaged planning, policy and investment measures, whilst still achieving the objectives of the respective decisions []. *This includes notably the treatment of energy efficiency as a crucial element and a key consideration in future investment decisions on energy infrastructure in the Union.*

Such cost-efficient alternatives [] *include measures to make energy demand and energy supply more efficient, in particular by means of cost-effective energy end-use savings, demand-side response initiatives and more efficient conversion, transmission and distribution of energy.* **Member States should also encourage the spread of this principle in regional and local government, as well as in the private sector.**

(40) The European Environment Agency should assist the Commission, as appropriate and in accordance with its annual work programme, with assessment, monitoring and reporting work.

(41) The power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union (TFEU) should be delegated to the Commission in order to amend the general framework for integrated national energy and climate plans (template) **in order to adapt this to amendments to the Union Energy and Climate policy framework that are directly and specifically related to the Union's contributions under the UNFCCC and Paris Agreement []**, take account of changes in the global warming potentials ("GWPs") and internationally agreed inventory guidelines, set substantive requirements for the Union inventory system and set up the registries pursuant to Article 33. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Inter-institutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council should receive all documents at the same time as Member States' experts, and their experts should systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts. It should also take into account, where necessary, decisions adopted under the UNFCCC and the Paris Agreement.

(42) In order to ensure uniform conditions for the implementation of Articles 15(3), Article 17(4), Article 23(6), [] **Article 27bis(4), Article 30(6)**, Article 31(3) and (4) and Article 32(3) of this Regulation, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011¹⁸.

¹⁸ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

(43) In order to exercise the implementing powers laid down in this Regulation, the Commission should be assisted in its tasks by an Energy Union Committee and by a Climate Change Committee which reinstates the existing Climate Change Committee established by Article 8 of Decision 93/389/EEC, Article 9 of Decision 280/2004/EC and Article 26 of Regulation (EU) No 525/2013. In order to ensure consistency of policies and aim at maximising synergies between sectors, both climate and energy experts should be invited to the meetings of both committees when implementing this Regulation.

(44) The Commission should *review* [] the implementation of this Regulation *in 2024 and every five years thereafter* [] and make amending proposals as appropriate to ensure the proper implementation of the Regulation and the achievement of its objectives. The review should take into account evolving circumstances and be informed by the results of the global stocktake of the Paris Agreement [].

(45) This Regulation should integrate, amend, replace and withdraw certain planning, reporting and monitoring obligations currently contained in sectorial energy and climate Union legislation to ensure a streamlined and integrated approach to the main planning, reporting and monitoring strands. The following acts should therefore be amended accordingly:

- Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons¹⁹;
- Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC²⁰;
- Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006²¹;

¹⁹ OJ L 164, 30.6.1994, p. 3.

²⁰ OJ L 350, 28.12.1998, p. 58.

²¹ OJ L 140, 5.6.2009, p. 114.

- Regulation (EC) No 663/2009 of the European Parliament and of the Council of 13 July 2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy²²;
- Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005²³;
- Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC²⁴;
- Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products²⁵;
- Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings²⁶;
- 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/EC²⁷;
- Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC²⁸;
- Council Directive (EU) 2015/652 of 20 April 2015 laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels²⁹.

(45bis) For reasons of coherence and legal clarity, nothing in this Regulation should prevent the application of the derogations pursuant to the relevant European Union sectoral legislation in the area of electricity and electricity risk preparedness [].

²² OJ L 200, 31.7.2009, p. 31.

²³ OJ L 211, 14.8.2009, p. 36.

²⁴ OJ L 211, 14.8.2009, p. 94

²⁵ OJ L 265, 9.10.2009, p. 9.

²⁶ OJ L 153, 18.6.2010, p. 13.

²⁷ OJ L 315, 14.11.2012, p. 1.

²⁸ OJ L 178, 28.6.2013, p. 66.

²⁹ OJ L 107, 25.4.2015, p. 26.

(46) This Regulation should also integrate in full the provisions of Regulation (EU) No 525/2013. As a consequence, Regulation (EU) No 525/2013 should be repealed as of 1 January 2021. However, in order to ensure that the implementation of Decision No 406/2009/EC continues under Regulation (EU) No 525/2013 and that certain aspects linked to the implementation of the Kyoto Protocol remain covered by legislation, it is necessary that certain provisions remain applicable after this date.

(47) Since the objectives of this Regulation cannot be sufficiently achieved by the Member States alone and can therefore, by reason of the scale and effects of the proposed action, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary to achieve those objectives

HAVE ADOPTED THIS REGULATION:

CHAPTER 1 GENERAL PROVISIONS

Article 1

Subject matter and scope

1. This Regulation establishes a Governance mechanism to:
 - (a) implement strategies and measures designed to meet the objectives and targets of the Energy Union **and the long-term Union greenhouse gas emissions commitments consistent with the Paris agreement**, and for the first ten-year period from 2021 to 2030 in particular the **Union's [] 2030 targets for energy and climate;**
 - (aa) stimulate cooperation between Member States, including, where appropriate, at regional level, designed to achieve the objectives and targets of the Energy Union.**
 - (b) ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of reporting by the Union and its Member States to the UNFCCC and Paris Agreement secretariat.
 - (ba) contribute to greater regulatory certainty as well as contribute to greater investor certainty and help take full advantage of opportunities for economic development, investment stimulation, job creation and social cohesion;**

The governance mechanism shall be based on **long-term strategies**, integrated national energy and climate plans covering ten-year periods starting from 2021 to 2030, corresponding integrated national energy and climate progress reports by the Member States and integrated monitoring arrangements by the European Commission. ***It shall ensure effective opportunities for the public to participate in the preparation of the national plans and the long-term strategies.*** It shall define a structured, ***transparent***, iterative process between the Commission and Member States in view of the finalisation of the national plans and their subsequent implementation, including with regard to regional cooperation, and corresponding Commission action.

2. This Regulation shall apply to the [] five dimensions of the Energy Union **that are closely related and mutually reinforcing**:

- (a) energy security,
- (b) ***internal*** energy market,
- (c) energy efficiency,
- (d) decarbonisation and
- (e) research, innovation and competitiveness.

Article 2

Definitions

For the purposes of this Regulation, the definitions in [recast of Directive 2009/28/EC as proposed by COM(2016) 767], [***recast of Directive 2009/72/EC as proposed by COM(2016) XXX***], Directive 2010/31/EU and Directive 2012/27/EU apply.

- (1) 'existing policies and measures' mean implemented and adopted policies and measures;
- (2) 'implemented policies and measures' mean policies and measures for which one or more of the following applies at the date of submission of the national plan or progress report: directly applicable European legislation or national legislation is in force, one or more voluntary agreements have been established, financial resources have been allocated, human resources have been mobilized;

- (3) 'adopted policies and measures' mean policies and measures for which an official government decision has been made by the date of submission of the national plan or progress report and there is a clear commitment to proceed with implementation;
- (4) 'planned policies and measures' are options under discussion and having a realistic chance of being adopted and implemented after the date of submission of the national plan or progress report;
- (5) 'projections' means forecasts of anthropogenic greenhouse gas emissions by sources and removals by sinks or developments of the energy system including at least quantitative estimates for a sequence of four future years ending with 0 or 5 immediately following the reporting year;
- (6) 'projections without measures' means projections of anthropogenic greenhouse gas emissions by sources and removals by sinks that exclude the effects of all policies and measures which are planned, adopted or implemented after the year chosen as the starting point for the relevant projection;
- (7) 'projections with measures' means projections of anthropogenic greenhouse gas emissions by sources and removals by sinks that encompass the effects, in terms of greenhouse gas emission reductions or developments of the energy system, of policies and measures that have been adopted and implemented;
- (8) 'projections with additional measures' means projections of anthropogenic greenhouse gas emissions by sources and removals by sinks or developments of the energy system that encompass the effects, in terms of greenhouse gas emission reductions, of policies and measures which have been adopted and implemented to mitigate climate change or meet energy objectives, as well as policies and measures which are planned for that purpose;

(9) 'the Union's 2030 targets for energy and climate' means the Union-wide binding target of at least 40% domestic reduction in economy-wide greenhouse gas emissions as compared to 1990 to be achieved by 2030, the Union-level binding target of at least **32%** for the share of renewable energy consumed in the Union in 2030, the [] Union-level **headline** targets of [] **at least 32.5%** for improving energy efficiency in 2030, [] and the 15% electricity interconnection target for 2030 or any subsequent targets in this regard agreed by the European Council or Council and Parliament for the year 2030.

(10) 'national inventory system' means a system of institutional, legal and procedural arrangements established within a Member State for estimating anthropogenic emissions by sources and removals by sinks of greenhouse gases, and for reporting and archiving inventory information;

(11) 'indicator' means a quantitative or qualitative factor or variable that contributes to better understanding progress in implementing;

(12) 'policies and measures' means all instruments which contribute to meeting the objectives of the integrated national energy and climate plans and/or to implement commitments under Article 4(2)(a) and (b) of the UNFCCC, which may include those that do not have the limitation and reduction of greenhouse gas emissions or change in the energy system as a primary objective;

(13) 'system for policies and measures and projections' means a system of institutional, legal and procedural arrangements established for reporting policies and measures and projections relating to anthropogenic emissions by sources and removals by sinks of greenhouse gases and to the energy system, inter alia as required by Article 32;

(14) 'technical corrections' means adjustments to the national greenhouse gas inventory estimates made in the context of the review carried out pursuant to Article 31 when the submitted inventory data are incomplete or are prepared in a way that is not consistent with relevant international or Union rules or guidelines and that are intended to replace originally submitted estimates;

(15) ‘quality assurance’ means a planned system of review procedures to ensure that data quality objectives are met and that the best possible estimates and information are reported to support the effectiveness of the quality control programme and to assist Member States;

Article 2(16)

(16) ‘quality control’ means a system of routine technical activities to measure and control the quality of the information and estimates compiled with the purpose of ensuring data integrity, correctness and completeness, identifying and addressing errors and omissions, documenting and archiving data and other material used, and recording all quality assurance activities;

(17) 'key indicators' mean the indicators for the progress made with regard to the five dimensions of the Energy Union as proposed by the Commission;

(17a) ‘energy efficiency first’ means taking utmost account, in energy planning, policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective energy end-use savings, demand-side response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of the respective decisions;

(18) 'SET-Plan' means the Strategic Energy Technology Plan as set out in Commission Communication (2015) 6317.

(19) ‘early efforts’ means: (a) in the context of the assessment of a potential gap between the Union's 2030 target and the collective contributions of Member States, a Member State's achievement [] of a share of energy from renewable sources above its national binding [] target for 2020 as set out in the third column of the table in part A of Annex I of [[recast of Directive 2009/28/EC as proposed by COM(2016) 767] or a Member State's early progress [] towards its [] national binding target [] for 2020;

(b) in the context of Commission recommendations based on the assessment pursuant to Article 25(1)(b) in the area of renewable energy, a Member State's early implementation of its contribution to the Union's binding target of at least 32% of renewable energy in 2030 as measured against its national reference points for renewable energy.

(20) 'regional cooperation' means a cooperation between two or more Member States engaged in a partnership covering at least one of the five dimensions of the Energy Union.

CHAPTER 2 INTEGRATED NATIONAL ENERGY AND CLIMATE PLANS

Article 3

Integrated national energy and climate plans

1. By **31 December 2019, and subsequently by 1 January 2029** and every ten years thereafter³⁰, each Member State shall notify to the Commission an integrated national energy and climate plan. The plans shall contain the elements set out in paragraph 2 [] **and** Annex I. The first plan shall cover the period from 2021 to 2030, **bearing in mind the longer term perspective**. The following plans shall cover the ten-year period immediately following the end of the period covered by the previous plan.

2. The integrated national energy and climate plans shall consist of the following main sections:
 - (a) an overview of the process followed for establishing the integrated national energy and climate plan consisting of an executive summary, a description of the **public** consultation and involvement of stakeholders and their results, and of regional cooperation with other Member States in preparing the plan;
 - (b) a description of [] national objectives, targets and contributions [] relating to the [] dimensions of the Energy Union, as set out in Article 4 and Annex I;
 - (c) a description of the *planned* policies and measures [] foreseen **in relation** to the corresponding objectives, targets and contributions set out under point (b) **as well as a general overview of the investments needed to meet the corresponding objectives and targets/contributions**;

³⁰ Explanatory note: "*1 January 2029 and every ten years thereafter*" is in effect identical to the Commission proposal, which is carefully aligned with the Paris Agreement cycle. The amendments in this first sentence merely enable a later presentation of the *first* plan. This also applies to Art. 9(1). See also recital 18 of Council GA.

(d) a description of the current situation of the five dimensions of the Energy Union including with regard to the energy system and greenhouse gas emissions and removals as well as projections with regard to the objectives referred to in point (b) with already existing (implemented and adopted) policies and measures;

(da) if applicable, a description of the regulatory and non-regulatory barriers and hurdles to delivering the targets, contributions or objectives related to renewable energy and energy efficiency;

(e) an assessment of the impacts of the planned policies and measures to meet the objectives referred to in point (b), **including their consistency with the long term greenhouse gas emission reduction objectives under the Paris Agreement and the long term [] strategies as referred to in Article 14;**

(ea) a general assessment of the impacts of the planned policies and measures on competitiveness linked to the five dimensions of the Energy Union;

(f) an annex, drawn up in accordance with the requirements and structure laid down in Annex II to this Regulation, setting out the Member State's methodologies and policy measures for achieving the energy savings requirement in accordance with Article 7 to Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761] and Annex V thereto.

3. When preparing the national plans referred in paragraph 1, Member States shall:

(a) limit administrative complexity and costs for all relevant stakeholders;

(b) take into account the interlinkages between the five dimensions of the Energy Union, in particular the energy efficiency first principle;

(c) use robust and consistent data and assumptions across the five dimensions where relevant.

(e) assess the number of households in energy poverty taking into account the necessary **domestic energy services needed to guarantee basic standards of living in the relevant national context, existing social policy and other relevant policies, as well as indicative Commission guidance on relevant indicators for energy poverty.**

In the event that a Member State finds that it has a significant number of households in energy poverty as supported by its assessment based on verifiable data, it shall include in its plan a national indicative objective to reduce energy poverty. Where available, those Member States concerned shall outline in their plans policies and measures addressing energy poverty, including social policy measures and other relevant national programmes;

3b. Member States shall make available to the public the plans submitted to the Commission pursuant to this Article.

4. The Commission is empowered to adopt delegated acts in accordance with Article 36 to amend Annex I, **Part 1, Section A, points 2.1.1 and 3.1.1; Section B points 4.1 and 4.2.1; and Part 2 point 3** in order to adapt **these points []** to amendments to the Union Energy and Climate policy framework [] **that are directly and specifically related to the Union's contributions under the [] UNFCCC and Paris Agreement []**.

Article 4

National objectives, targets and contributions for [] the five dimensions of the Energy Union Member States shall set out in their integrated national energy and climate plan [] **the following main** objectives, targets and contributions, [] as specified in Section A.2. of Annex I.

[]

(a) as regards the dimension "Decarbonisation":

(1) with respect to greenhouse gas emissions and removals and with a view to contributing to the achievement of the economy wide EU greenhouse gas emissions reduction target:

i. the Member State's binding national target for greenhouse gas emissions and the annual binding national limits pursuant to Regulation [] [ESR];

ii. the Member State's commitments pursuant to Regulation [] [LULUCF];

[]

iv. where applicable **to meet the objectives and targets of the Energy Union and the long term union greenhouse gas emissions commitments consistent with Paris Agreement**, other objectives and targets, including sector targets and adaptation goals;

(2) with respect to renewable energy:

i. with a view to achieving the Union's binding target of at least **32%** renewable energy in 2030 as referred to in Article 3 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767], a contribution to this target in terms of the Member State's share of energy from renewable sources in gross final consumption of energy in 2030, with an **indicative []** trajectory for that contribution from 2021 onwards. **By 2022, the indicative trajectory shall reach a reference point of at least 18% [] of the total increase in the share of energy from renewable sources between that Member State's binding 2020 national target, and its contribution to the 2030 target. By 2025, the indicative trajectory shall reach a reference point of at least 43% of the total increase in the share of energy from renewable sources between that Member State's binding 2020 national target and its contribution to the 2030 target. By 2027, the indicative trajectory shall reach a reference point of at least 65% of the total increase in the share of energy from renewable sources between that Member State's binding 2020 national target and its contribution to the 2030 target. By 2030, the indicative trajectory shall reach at least the Member State's planned contribution. If a Member State expects to surpass its binding 2020 national target, its indicative trajectory may start at the level it is projected to achieve. The Member States' indicative trajectories, taken together, shall add up to the Union reference points in 2022, 2025 and 2027 and to the Union's binding target of at least 32% renewable energy in 2030. Separately from its contribution to the Union target and its indicative trajectory for the purposes of this Regulation, a Member State shall be free to indicate higher ambitions for national policy purposes;**

(b) as regards the dimension "Energy Efficiency":

(1) the indicative national energy efficiency contribution to achieving the Union's [] energy efficiency targets of **at least 32.5%** in 2030 as referred to in Article 1(1) and Article 3(4) of Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761], based on either primary or final energy consumption, primary or final energy savings, or energy intensity. Member States shall express their contribution in terms of absolute level of primary energy consumption and final energy consumption in 2020, **and in terms of absolute level of primary energy consumption and [] final energy consumption in 2030**, with an **indicative []** trajectory for that contribution from 2021 onwards. They shall explain their underlying methodology and the conversion factors used;

(2) the cumulative amount of energy savings to be achieved over the period 2021-2030 under Article 7(1)(b) on energy saving obligations of Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761];

(3) the [] **indicative milestones of [] the long-term strategy for the renovation of the national stock of residential and [] non-residential buildings, [] both public and private[], the roadmap with domestically established measurable progress indicators, an evidence-based estimate of expected energy savings and wider benefits, and the contributions to the Union's energy efficiency targets pursuant to Directive 2012/27/EU [as amended by proposal COM(2016)761] in accordance with Article 2a of Directive 2010/31/EU on the energy performance of buildings as amended by Directive 2018/844/EU**

(4) the total floor area to be renovated or equivalent annual energy savings to be achieved from 2021 to 2030 under Article 5 on the exemplary role of public bodies' buildings of Directive 2012/27/EU;

[]

(c) as regards the dimension "Energy Security":

(1) national objectives with regard to:

- *increasing the diversification of energy sources and supply from third countries, which may be aimed at reducing energy import dependency[];*
- *increasing the flexibility of the national energy system, and*
- *coping with constrained or interrupted supply of an energy source, for the purpose of improving the resilience of regional and national energy systems, including a timeframe for when the objectives should be met;*

[]

(d) as regards the dimension "Internal Energy Market":

(1) the level of electricity interconnectivity that the Member State aims for in 2030 in consideration of the electricity interconnection target for 2030 of at least 15%, with a strategy with the level from 2021 onwards defined in close cooperation with affected Member States, taking into account the 2020 interconnection target of 10% and the indicators of the urgency of action [] based on price differential in the wholesale market, nominal transmission capacity of interconnectors compared to their peak load and to installed renewable generation as set out in Annex I, Part I, Section A, Part 2.4.1. []

Each new interconnector must be subject to a socioeconomic and environmental cost-benefit analysis and implemented only if the potential benefits outweigh the costs.

(2) Key electricity and gas transmission [] infrastructure projects, [] and, where relevant, modernisation projects, that are necessary for the achievement of objectives and targets *under the five dimensions of the Energy Union Strategy*.

(3) national objectives related to other aspects of the internal energy market such as: *increasing system flexibility, in particular [] through policies and measures related to market-based price formation in compliance with applicable legislation []**; market integration and coupling, *aimed at increasing the tradeable capacity of existing interconnectors, smart grids, aggregation, demand response, storage, distributed generation, mechanisms for dispatching, re-dispatching and curtailment and real-time price signals []*, including a timeframe for when the objectives should be met, and other national objectives related to the internal energy market as set out in Annex I, part 1, Section A, Part 2.4.3;

[]

(e) as regards the dimension "Research, Innovation and Competitiveness":

(1) national objectives and funding targets for public and, where available, private research and innovation relating to the Energy Union including, if appropriate, a timeframe for when the objectives shall be met; reflecting the priorities of the Energy Union Strategy and, where [] relevant, of the SET-Plan.

In setting out the abovementioned main objectives, targets and contributions, Member States may build upon existing national strategies or plans that are compatible with Union legislation.

(2) where available, national 2050 objectives related to the promotion of [] clean energy technologies [].

[]

Article 5

Member States' contribution setting process in the area of renewable energy

1. When setting their contribution for their share of energy from renewable sources in gross final consumption of energy in 2030 and the last year of the period covered for the subsequent national plans, pursuant to Article 4(a)(2)(i), Member States shall take into account the following:

(a) the measures provided for in [recast of Directive 2009/28/EC as proposed by COM(2016) 767];

- (b) the measures adopted to reach the energy efficiency target adopted pursuant to Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761];
- (c) **any** other *existing* [] measures to promote renewable energy within Member States and, *where relevant*, at Union level; and
- (d) **any relevant** circumstances affecting renewable energy deployment, such as [] :
 - i) equitable distribution of deployment across the European Union;
 - (ii) economic **conditions and** potential, **including GDP per capita** []
- (iia) potential for cost-effective renewable energy deployment**
- (iii) geographical, **environmental** and natural constraints, including those of non-interconnected areas and regions; []
- (iv) the level of power interconnection between Member States; **and**
- (v) **other relevant circumstances, notably early efforts as defined in Article 2(19)**

A Member State *shall* [] indicate in its integrated national energy and climate plan which relevant circumstances affecting renewable energy deployment it has taken into account.

(da) the Member State binding 2020 national target of energy from renewable sources in its gross final consumption of energy set out in Annex I of Directive (EU) .../... [recast Directive 2009/28/EC];

2. Member States shall collectively ensure that the sum of their contributions adds up to at least 32% of energy produced from renewable *energy* sources in gross final energy consumption at Union level by 2030.

Article 6

Member States' contribution [] setting process in the area of energy efficiency

1. When setting their indicative national energy efficiency contribution for 2030 and the last year of the period covered for the subsequent national plans pursuant to Article 4(b)(1), Member States **shall take into account** that the Union's 2020 energy consumption **has to be** no more than 1483 Mtoe of primary energy and/or no more than 1086 Mtoe of final energy, the Union's 2030 energy consumption **has to be** no more than 1273 Mtoe of primary energy and/or no more than 956 Mtoe of final energy for the first ten-year period ('the Union's **headline** target for 2030 referred to in Articles 1 and 3 of Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761]');

[]

In addition, Member States shall take into account:

- (a) the measures provided for in Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761];
- (b) other measures to promote energy efficiency within Member States and at Union level.

2. When setting their contribution referred to in paragraph 1 Member States may take into account **national** circumstances affecting primary and final energy consumption, such as []:

- (a) remaining cost-effective energy-saving potential;
- (b) evolution and forecast of gross domestic product;
- (c) changes of energy imports and exports;
- (d) **changes in the energy mix and the** development of [] carbon capture and storage; and
- (e) early actions.

If a Member State has taken into account in its integrated national energy and climate plan relevant circumstances affecting primary and final energy consumption under this paragraph, it shall indicate them.

Article 7

National policies and measures for each of the five dimensions of the Energy Union

Member States shall describe, in accordance with Annex I, in their integrated national energy and climate plan, the main existing (implemented and adopted) and planned policies and measures to achieve in particular the objectives set out in the national plan, including, **where applicable**, measures **foreseen for** [] regional cooperation and appropriate financing at national and regional level, *including mobilisation of Union programmes and instruments*.

Member States shall provide a general overview of the investments needed to achieve the objectives and targets/contributions set out in the national plan, as well as a general assessment on the sources of those investments.

Article 8

Analytical basis of the integrated national energy and climate plans

1. Member States shall describe, in accordance with the structure and format specified in Annex I, the current situation for each of the five dimensions of the Energy Union including of the energy system and greenhouse gas emissions and removals at the time of submission of the national plan or on the basis of the latest available information. Member States shall also set out and describe projections for each of the five dimensions of the Energy Union, for **at least the [] duration of the plan, []** expected to result from existing (implemented and adopted) policies and measures.

Member States shall endeavour to describe additional longer term perspectives for the five dimensions beyond the duration of the plan, where relevant and possible.

2. Member States shall describe in their integrated national energy and climate plan their assessment, at national and where applicable regional level, of:

(a) the impacts on the development of the energy system and greenhouse gas emissions and removals for the **[] duration of the plan and for a period of ten years following the last year covered by the plan**, under the planned policies and measures **or groups of measures** including a comparison with the projections based on existing (implemented and adopted) policies and measures **or groups of measures** referred to in paragraph 1;

(b) **[]** the macroeconomic **and, [] to the extent feasible, the health**, environmental, skills and social impact of the planned policies and measures **or groups of measures** referred to in Article 7 and further specified in Annex I, for the first ten-year period at least until the year 2030 including a comparison with the projections **of []** existing (implemented and adopted) policies and measures **or groups of measures** referred to in paragraph 1. ***The methodology used to assess these impacts shall be made public []***.

(c) interactions between existing (implemented and adopted) and planned policies and measures **or groups of measures** within a policy dimension and between existing (implemented and adopted) and planned policies and measures **or groups of measures** of different dimensions for the first ten-year period at least until the year 2030. Projections concerning security of supply, infrastructure and market integration shall be linked to robust energy efficiency scenarios.

(ca) the way existing and planned policies and measures will attract the investment necessary to their implementation.

3. **Member States shall make available to the public comprehensive information concerning the assumptions, parameters and methodologies used for the final scenarios and projections , taking into account statistical restrictions, commercially sensitive data, and the need to comply with data protection rules.**

Article 9

Draft integrated national energy and climate plans

1. **By 31 December 2018, and subsequently by 1 January 2028** and every ten years thereafter, Member States shall prepare and submit to the Commission a draft of the integrated national energy and climate plan referred to in Article 3(1).

2. The Commission *shall assess the draft plans and* may issue *country-specific* recommendations to Member States in accordance with Article 28 *no later than six months before the deadline for submitting the plan, referred to in Article 3(1).*

Those recommendations **may address notably:**

(a) the level of ambition of objectives, targets and contributions in view of collectively achieving the Energy Union objectives and notably the Union's 2030 targets for renewable energy **and** energy efficiency **as well as the level of electricity interconnectivity that the Member State aims for in 2030 as referred to in Article 4(d); in doing so, the Commission shall take due account of relevant circumstances affecting the deployment of renewable energy and energy consumption-indicated by the Member State in question in the draft integrated national energy and climate plan referred to in paragraph 1 and the indicators of the urgency of action for interconnectivity established in Annex I, part 1, Section A, Part 2.4.3;**

(b) policies and measures relating to Member States' and Union level objectives and other policies and measures of potential cross-border relevance;

(ba) additional policies and measures that might be required in the national energy and climate plans;

(c) interactions between and consistency of existing (implemented and adopted) and planned policies and measures included in the integrated national energy and climate plan within one dimension and among different dimensions of the Energy Union.

3. Member States shall take [] **due** account of any recommendations from the Commission when finalising their integrated national energy and climate plan. **If the Member State concerned does not address a recommendation or a substantial part thereof, that Member State shall provide a reasoning and make it public.**

3a. In the context of the public consultation as referred to in Article 10, Member States shall make available to the public the draft plans referred to in paragraph 1.

Article 10

Public consultation

Without prejudice to any other Union law requirements, Member States shall ensure that the public is given early and effective opportunities to participate in the preparation of **the draft plans - [] as regards the plans for the 2021-2030 period, in the preparation of the final plans well before their adoption - as well as of the long-term [] strategies referred to in Article 14. Member States shall [] attach to the submission of [] such documents to the Commission a summary of the public's views or provisional views.** In so far as the provisions of Directive 2001/42/EC are applicable ³¹, consultations undertaken **on the draft** in accordance with that Directive shall be deemed to satisfy also the obligations to consult the public under this Regulation.

1a. Member States shall set reasonable timeframes allowing sufficient time for the public to be informed, to participate and express its views. Member States shall ensure that the public is informed.

1d. Member States shall limit administrative complexity when implementing this Article.

³¹ Explanatory note: Art. 6 (1) of Directive 2001/42/EC (SEA - Strategic Environmental Assessment Directive) on the assessment of the effects of certain plans and programmes on the environment requires consultations to be carried out on the *draft* plans or programmes. The Commission underlined that to the extent that a public consultation under Directive 2001/42/EC has taken place, the request for public consultation in the meaning of Article 10 is fulfilled.

Article 10a

Multilevel Climate and Energy Dialogue

Member States shall establish a Multilevel Climate and Energy Dialogue pursuant to national rules where local authorities, civil society organisations, business community, investors and other relevant stakeholders and the general public can actively engage and discuss the different scenarios envisaged for energy and climate policies, including for the long term, and review progress, unless they have already a structure which serves the same purpose. Integrated national energy and climate plans could be discussed within the framework of such a dialogue.

Article 11

Regional cooperation

1. Member States shall cooperate with each other, ***taking [] consideration of all existing and potential forms of regional cooperation***, to effectively meet the targets, objectives and contributions set out in their integrated national energy and climate plan.

2. Member States shall, well before submitting their draft integrated national energy and climate plan to the Commission pursuant to Article 9(1) [] - ***as regards the plans for the 2021-2030 period, in the preparation of the final plans well before their adoption*** - identify opportunities for regional cooperation and consult neighbouring Member States, ***including in regional cooperation fora. If deemed appropriate by the Member State authoring the plan, it may consult [] other Member States or other third countries*** expressing an interest.

For insular Member States without energy interconnections to other Member States, such consultations shall be with those neighbouring Member States with maritime borders.

Consulted Member States should be given a reasonable timeframe to react, set by the authoring Member State. Member States shall set out in their draft integrated national energy and climate plans [] - ***as regards the plans for the 2021-2030 period, in their final national energy and climate plans [] at least the provisional*** results of such regional consultation, including where applicable how comments have been taken into account.

2a. Member States may engage in a voluntary joint drafting of parts of their integrated national energy and climate plans and progress reports, including in regional cooperation fora. In this case, the result shall replace the equivalent parts of their integrated national energy and climate plan and progress reports. Upon the request by two or more Member States, the Commission shall facilitate this exercise.

3. In order to facilitate market integration and cost-efficient policies and measures, Member States shall, in the period between the deadline for submission of their draft plans and the deadline for submission of their final plans, present the relevant part(s) of their draft integrated national energy and climate plan in relevant regional cooperation fora in view of their finalisation. Where necessary, the Commission shall facilitate such cooperation and consultation among the Member States, and if it identifies opportunities for further regional cooperation, it may provide indicative guidance to Member States to facilitate effective cooperation and consultation.

4. Member States shall **consider** [] the comments received from other Member States pursuant to paragraphs 2 and 3 **when preparing** [] their final integrated national energy and climate plan, and explain **in those plans** how such comments have been **considered** [].

5. For the purposes specified in paragraph 1, Member States shall continue to cooperate at regional level, **and as appropriate in regional cooperation fora**, when implementing the **relevant** policies and measures of their plans.

5a. Member States may also envisage cooperation with Energy Community signatories and third countries that are members of the European Economic Area.

5bis.

In so far as the provisions of Directive 2001/42/EC are applicable, transboundary consultation undertaken on the draft in accordance with Article 7 of that Directive shall be deemed to satisfy also the obligations on regional cooperation under this Regulation provided that the requirements of the present article are also met.

Article 12

Assessment of the integrated national energy and climate plans

On the basis of the integrated national energy and climate plans and their updates as notified pursuant to Articles 3 and 13, **the Commission** shall assess, in particular, whether:

- (a) the targets, objectives and contributions are sufficient for the collective achievement of the Energy Union objectives and for the first ten-years period in particular the targets of the Union's 2030 Climate and Energy Framework;
- (b) the plans comply with requirements of Articles 3 to 11 and **Member States have taken due account of** the Commission recommendations issued pursuant to Article 28.

Article 13

Update of the integrated national energy and climate plan

1. By **30 June 2023**, and **subsequently by 1 January 2033 and** every 10 years thereafter, Member States shall submit to the Commission a draft update of the latest notified integrated national energy and climate plan referred to in Article 3 or **shall justify** to the Commission that the plan remains valid.
2. By **30 June 2024**, and **subsequently by 1 January 2034 and** every 10 years thereafter, Member States shall notify to the Commission an update of the latest notified integrated national energy and climate plan referred to in Article 3, unless they have **justified** that the plan remains valid pursuant to paragraph 1 of this Article.
3. **In the update referred to in paragraph 2**, Member States shall modify **their national target, objective or contribution for any of the quantified EU targets, objectives or contributions set out in Article 4(a)(1) to reflect an increased ambition as compared to the one set in the latest notified integrated national energy and climate plan.**

In the update referred to in paragraph 2, Member States shall only modify their national target, objective or contribution for any of the quantified EU targets, objectives or contributions set out in Article 4(a)(2) and (b) to reflect an equal or increased ambition as compared to the one set in the latest notified integrated national energy and climate plan.

4. Member States shall make efforts to mitigate in the updated plan any adverse environmental impacts that become apparent as part of the integrated reporting pursuant to Articles 15 to 22.

5. Member States shall take into consideration the latest country-specific recommendations issued in the context of the European Semester **as well as obligations deriving from the Paris Agreement** when preparing the update referred to in paragraph 2.

6. The procedures laid down in Article 9(2), **Article 10** and Article 11 shall apply to the preparation and assessment of the updated integrated national energy and climate plans

6bis. [] This Article is without prejudice to the right of [] Member States [] to make changes and adaptations in national policies set out or referred to in their integrated national energy and climate plans at any time, provided such changes and adaptations [] are included in the integrated report as foreseen in Article 15 [].

CHAPTER 3 LONG-TERM [] STRATEGIES

Article 14

Long-term [] strategies

1. Member States shall prepare and report to the Commission by 1 January 2020 and **subsequently by 1 January 2029 and every 10 years thereafter, and should update every 5 years [] if necessary,** their long-term [] strategies with a perspective **of at least 30 years.**

1a. In the context of aiming to achieve the overall climate objectives as referred to in paragraph 1b, the Commission shall adopt, by 1 April 2019, a proposal for a Union's long-term strategy for greenhouse gas emissions reduction in accordance with the Paris Agreement, taking into account the draft national energy and climate plans.

The [] long-term [] strategy referred to in this paragraph shall include an analysis covering at least:

(a) various scenarios [] for the EU's contribution towards the objectives set out in paragraph 1(b) inter alia a scenario on achieving net zero greenhouse gas emissions within the Union by 2050 and negative emissions thereafter;

b) the implications of the scenarios referred to in point (a) on the remaining global and Union carbon budget in order to inform a discussion about cost efficiency, effectiveness and fairness of greenhouse gas emissions reductions.

1b. Member States' and the Union's long-term [] strategies shall contribute to:

(a) fulfilling the Union's and the Member States' commitments under the UNFCCC and the Paris Agreement to reduce anthropogenic greenhouse gas emissions and enhance removals by sinks **and to promoting increased carbon sequestration []**;

(b) fulfilling the objective **of the Paris Agreement** of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels [];

(c) achieving long-term greenhouse gas emission reductions and enhancements of removals by sinks in all sectors in line with the Union's objective, in the context of necessary reductions according to the IPCC [] to reduce *the Union's greenhouse gas* emissions in a cost-effective manner **and enhance removals by sinks in pursuit of the temperature goals in the Paris Agreement so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases within the Union as early as possible and, as appropriate, go into negative emissions thereafter.**

(ca) [] a highly energy efficient and highly renewables-based energy system within the Union

2. **Member States' long-term [] strategies should contain the elements set out in Annex IIa. Furthermore, [] Member States' and the Union's long-term strategies [] shall cover:**

(a) total greenhouse gas emissions reductions and enhancements of removals by sinks;

(b) emissions reductions and enhancement of removals in individual sectors including **among others** electricity, industry, transport, the **heating and cooling and** buildings sector (residential and tertiary), agriculture, **waste** and land use, land-use change and forestry (LULUCF);

(c) expected progress on transition to a low greenhouse gas emission economy including greenhouse gas intensity, CO₂ intensity of gross domestic product, **related estimates of long-term investments** and strategies for related research, development and innovation;

(cb) to the extent feasible, expected socio-economic effect of the *decarbonisation* measures including inter alia aspects related to *macro-economic and social development, health risks and benefits and environmental protection*;

(d) links to other national long-term *objectives, planning and other policies and measures and investments*.

[]

2a. The Commission is empowered to adopt delegated acts in accordance with Article 36 to amend Annex IIa in order to adapt it to the developments in the EU long-term strategy or in the Union Energy and Climate policy framework that are directly and specifically related to the relevant decisions adopted under the UNFCCC and, in particular, under the Paris Agreement.

3. The [] integrated national energy and climate plans referred to in Article 3 [] shall be consistent with [] the long-term [] strategies referred to in this Article.

4. Member States *and the Commission* shall *inform and* make available to the public forthwith their respective long-term [] strategies and any updates thereof, **including by means of the e-platform referred in Article 24. Member States and the Commission shall make relevant data of the final results available to the public, taking into account commercially sensitive data and the need to comply with data protection rules.**

4a. *The Commission [] shall support Member States in their preparation of long-term strategies by providing information on the state of the underlying scientific knowledge [], by providing opportunities for sharing knowledge and best practices including, where relevant, guidance for Member States to use during the development and implementation phase of their strategies.*

4b. *The Commission shall assess whether the national long-term strategies are adequate for the collective achievement of the objectives and targets of the Energy Union [] set out in Article 1 [] and provide information on any remaining collective gap.*

Article 14bis

Strategic plan [] for methane

Given the high global warming potential and relatively short atmospheric lifetime of methane, the Commission shall analyse the implications for implementing policies and measures for the purpose of reducing the short and middle-term impact of methane emissions on Union greenhouse gas emissions. Taking into account the circular economy objectives as appropriate, the Commission shall consider policy options for rapidly addressing methane emissions and shall put forward a Union strategic plan for methane, as an integral part of the Union's long-term strategy as referred to in Article 14.

CHAPTER 4

REPORTING

Section 1

Biennial progress reports and their follow up

Article 15

Integrated National Energy and Climate Progress Reports

1. Without prejudice to Article 23, by 15 March [] 2023, and every two years thereafter, each Member State shall report to the Commission on the status of implementation of the integrated national energy and climate plan by means of integrated national energy and climate progress reports covering all five key dimensions of the Energy Union.
 2. The report referred to in paragraph 1 shall cover the following elements:
 - (a) information on the progress accomplished towards reaching the targets, objectives and contributions set out in the integrated national energy and climate plan, and towards ***financing and*** implementing the policies and measures necessary to meet them, **including a review of actual investments against initial assumptions;**
(ab) If applicable, information on the progress in establishing the dialogue referred to in [] Article 10a;
 - (b) the information referred to in Articles 18 to 22 and, where appropriate, updates on policies and measures, in accordance with those articles
- []

(d) information on [] adaptation in accordance with Article 4(1);

[]

(f) [] as far as possible quantification of the impact of the policies and measures in the Integrated National Energy and Climate plan on air quality and on emissions [] of air pollutants

[].

[]

The Union and the Member States shall submit biennial reports in accordance with Decision 2/CP.17 of the Conference of the Parties to the UNFCCC, and national communications in accordance with Article 12 of the UNFCCC to the UNFCCC Secretariat.

2bis. The report referred to in paragraph 1 shall also cover the information contained in the annual reports referred to in Article 23(2) and the information on policies and measures and projections of anthropogenic greenhouse gas emissions by sources and removals by sinks contained in the reports referred to in Article 16.

3. The Commission, **assisted by the Energy Union Committee referred to in Article 37(1)(b)**, shall adopt implementing acts to set out the structure, format, technical details and process for the information referred to in paragraphs 1 and 2. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 37(3).

4. The frequency and scale of the information and updates referred to in paragraph 2(b) shall be balanced against the need to ensure sufficient certainty for investors.

5. Where the Commission has issued recommendations pursuant to Article 27(2) or (3), the Member State concerned shall include in its report referred to in paragraph 1 of this Article information on the policies and measures adopted, or intended to be adopted and implemented, to address those recommendations. **If applicable**, such information shall include a detailed timetable for implementation.

If the Member State concerned decides not to address a recommendation or a substantial part thereof, that Member State shall provide a reasoning.

5a. Member States shall make available to the public the reports submitted to the Commission pursuant to this Article.

Article 16

Integrated reporting on GHG policies and measures and on projections

1. By 15 March 2021, and every two years thereafter, Member States shall report to the Commission information on:
 - (a) their national policies and measures **or group of measures** as set out in Annex IV, and
 - (b) their national projections of anthropogenic greenhouse gas emissions by sources and removals by sinks, organised by gas or group of gases (Hydrofluorocarbons and Perfluorocarbons) listed in Part 2 of Annex III. National projections shall take into consideration any policies and measures adopted at Union level and shall include the information set out in Annex V.

2. Member States shall report the most up-to-date projections available. Where a Member State does not submit complete projection estimates by 15 March every second year, and the Commission has established that gaps in the estimates cannot be filled by that Member State once identified through the Commission's quality assurance or quality control procedures, the Commission may prepare estimates as required to compile Union projections, in consultation with the Member State concerned.

3. A Member State shall communicate to the Commission any substantial changes to the information reported pursuant to paragraph 1 during the first year of the reporting period, by 15 March of the year following the previous report.

4. Member States shall make available to the public, in electronic form, their national projections pursuant to paragraph 1 and any relevant assessment of the costs and effects of national policies and measures on the implementation of Union policies relevant for limiting GHG emissions along with any relevant underpinning technical reports. Those projections and assessments should include descriptions of the models and methodological approaches used, definitions and underlying assumptions.

Article 17

Integrated reporting on national adaptation actions, financial and technology support provided to developing countries, auctioning revenue

1. By 15 March 2021, and every two years thereafter, Member States shall report to the Commission information on their national climate change adaptation planning and strategies, outlining their implemented [] **and** planned actions to facilitate adaptation to climate change including the information specified in Part 1 of Annex VI [] **and in accordance with the reporting requirements agreed upon under the UNFCCC and the Paris Agreement.**

2. ***By [] 31 July 2021 and every year thereafter (year X), Member States shall report to the Commission information on [] the use of revenues generated by the Member State by auctioning allowances pursuant to Article 10(1) and Article 3d(1) or (2) of Directive 2003/87/EC including the information specified in Part 3 of Annex VI. []***
- 2bis. **by 30 September 2021 and every year thereafter (year X), Member States shall report to the Commission information on support to developing countries, including the information specified in Part 2 of Annex VI and in accordance with the relevant reporting requirements agreed upon under the UNFCCC and the Paris Agreement.**

3. Member States shall make available to the public the reports submitted to the Commission pursuant to this Article, ***with the exception of the information specified in Annex VI Part 2(b).***

4. The Commission, **assisted by the Climate Change Committee referred to in Article 37(1)(a)**, shall adopt implementing acts to set out the structure, format and submission processes for Member States' reporting of information pursuant to this Article. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 37(3).

Article 18

Integrated reporting on renewable energy

Member States shall include in the integrated national energy and climate progress reports the information:

- (a) on the implementation of the following trajectories and objectives:

- (1) **indicative** national trajectory for the overall share of renewable energy in gross final energy consumption from 2021 to 2030;
 - (2) **estimated** [] trajectories for the sectorial share of renewable energy in final energy consumption from 2021 to 2030 in the electricity, heating and cooling and transport sector;
 - (3) **estimated trajectories** [] by renewable energy technology to use to achieve the overall and sectorial trajectories for renewable energy from 2021 to 2030 including total expected gross final energy consumption per technology and sector in Mtoe and total planned installed capacity per technology and sector in MW;
 - (4) trajectories on bioenergy demand, disaggregated between heat, electricity and transport, and on biomass supply, by feedstock and origin (distinguishing between domestic production and imports). For forest biomass, an assessment of its source and impact on the LULUCF sink;
 - (5) if **applicable** [], other national trajectories and objectives including long-term and sectorial ones (such as [] share of electricity produced from biomass without the utilisation of heat, share of renewable energy in district heating, renewable energy use in buildings, renewable energy produced by cities, energy communities and self-consumers), ***energy recovered from the sludge acquired through the treatment of wastewater***;
- (b) on the implementation of the following policies and measures:
- (1) [] implemented, adopted and planned policies and measures to achieve the national contribution to the binding Union-level 2030 target for renewable energy as indicated in Article 4(a)(2)(i), including sector- and technology-specific measures, with a specific review of the implementation of measures laid down in Articles 23, 24 and 25 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767];
- (4a) If applicable, specific measures to assess, make transparent and reduce the need for must-run capacity that can lead to curtailment of renewable energy sources;***
- (2) **where available**, specific measures for regional cooperation;
 - (3) without prejudice to Articles 107 and 108 TFEU, specific measures on financial support, including Union support and the use of Union funds, for the promotion of the use of energy from renewable sources in electricity, heating and cooling, and transport;
- (3bis) When applicable, the assessment of the support for electricity from renewable sources that Member States have to carry out pursuant to Article 6(1b) of the Directive XXXX on the promotion of the use of energy from renewable sources.**

(4) specific measures to fulfil the requirements of Articles 15, 16, 17 and 18 [] of [recast of Directive 2009/28/EC as proposed by COM(2016) 767];

(4bis) a summary of the policies and measures under the enabling framework Member States have to put in place pursuant to Article 21(4) and 22(5) of [Directive XXXX on the promotion of the use of energy from renewable sources] to promote and facilitate the development of renewable self-consumption and renewable energy communities.

(5) [] measures promoting the use of energy from biomass, *especially for new biomass mobilisation taking into account biomass, including sustainable biomass availability* [] as well as measures for the sustainability of [] biomass **produced and used** [];

(6) **measures in place to increase the share of renewable energy in the heating and cooling and transport sector.**

(6bis) Policies and measures facilitating the uptake of power purchase agreements.

(c) as set out in Part 1 of Annex VII.

Article 19

Integrated reporting on energy efficiency

Member States shall include in the integrated national energy and climate progress reports the information:

(a) on the implementation of the following national trajectories, objectives and targets:

(1) the **indicative** trajectory for primary and [] final **annual** energy consumption from 2021 to 2030 as the national energy savings contribution to achieving the Union-level 2030 target including underlying methodology;

(2) the indicative milestones of the long-term strategy for the renovation of the national stock of residential and non-residential buildings, both public and private, and the contributions to the Union's energy efficiency targets pursuant to Directive 2012/27/EU [as amended by proposal COM(2016)761] in accordance with Article 2a of Directive 2010/31/EU on the energy performance of buildings as amended by Directive 2018/844/EU;

(3) if applicable, an update of other national objectives set out in the national plan;

(b) on the implementation of the following policies and measures:

- (1) implemented, adopted and planned policies, measures and programmes to achieve the indicative national energy efficiency contribution for 2030 as well as other objectives presented in Article 6, including planned measures and instruments (also of a financial nature) to promote the energy performance of buildings, measures to utilise energy efficiency potentials of gas and electricity infrastructure and other measures to promote energy efficiency;
 - (2) if applicable, market-based instruments that incentivise energy efficiency improvements, including but not limited to energy taxes, levies and allowances;
 - (3) national energy efficiency obligation scheme and alternative measures pursuant to Article 7a and 7b of Directive 2012/27/EU, [version as amended in accordance with proposal COM(2016) 761] **and** in accordance with Annex II to this Regulation;
 - (4) long-term [] renovation strategies in accordance with Article 2a of Directive 2010/31/EU on the energy performance of buildings as amended by Directive 2018/844/EU**
 - (5) policy and measures to promote energy services in the public sector and measures to remove regulatory and non-regulatory barriers that impede the uptake of energy performance contracting and other energy efficiency service models;
- []
- (6) regional cooperation in the area of energy efficiency, if applicable;
 - (7) without prejudice to Articles 107 and 108 TFEU, financing measures, including Union support and the use of Union funds, in the area of energy efficiency at national level, if applicable;
- (c) as set out in Part 2 of Annex VII.

Article 20

Integrated reporting on energy security

Member States shall include in the integrated national energy and climate progress reports the information on the implementation of:

- (a) national objectives for the diversification of energy sources ***and supply***;
- (b) **If applicable**, national objectives with regard to reducing energy import dependency from third countries;
- (c) national objectives for the development of the ability to cope with constrained or interrupted supply of an energy source, including gas and electricity;

- (d) National objectives with regard to *increasing the flexibility of the national energy system, in particular by means of deploying domestic energy sources, demand response and energy storage.*
- (e) implemented, adopted and planned policies and measures to achieve the objectives referred to in points (a) to (d);
- (f) regional cooperation in implementing the objectives and policies referred to in points (a) to (d);
- (g) without prejudice to Articles 107 and 108 TFEU, financing measures, including Union support and the use of Union funds, in this area at national level, if applicable;

Article 21

Integrated reporting on the internal energy market

1. Member States shall include in the integrated national energy and climate progress reports information on the implementation of the following objectives and measures:
- (a) the level of electricity interconnectivity that the Member State aims for in 2030 in **consideration of the electricity interconnection target for 2030 of at least 15% and the indicators set out in Annex I, Part I, Section A, Part 2.4.1, as well as measures for the implementation of the strategy for the achievement of this level, including those relating to the granting of authorisations.**
- (b) key electricity and gas transmission infrastructure **projects** that are necessary for the achievement of objectives and targets *under the five key dimensions of the Energy Union;*
- (c) if applicable, main infrastructure projects envisaged other than Projects of Common Interest *including infrastructure projects involving third countries, and, to the extent feasible, a general assessment of its compatibility with, and contributions to, the aims and targets of the Energy Union.*
- (d) National objectives related to other aspects of the internal energy market such as *increasing system flexibility , market integration and coupling, aimed at increasing the tradeable capacity of existing interconnectors, smart grids, aggregation, demand response, storage, distributed generation, mechanisms for dispatching, re-dispatching and curtailment, real-time price signals;*

- (ea) If applicable, *national objectives and measures related to the non-discriminatory participation of renewable energy, demand response and storage, including via aggregation, in all energy markets;*
- (eb) If applicable, *national objectives and measures with regard to ensuring that consumers participate in the energy system and benefits from self-generation and new technologies, including smart meters;*
- (f) [] **measures** with regard to ensuring electricity system adequacy [];
- (g) implemented, adopted and planned policies and measures to achieve the objectives referred to in points (a) to (f);
- (h) regional cooperation in implementing the objectives and policies referred to in points (a) to (g);
- (i) without prejudice to Articles 107 and 108 TFEU, financing measures **at national level**, including Union support and the use of Union funds, in the area of the internal energy market [], **including for the electricity interconnection target**, if applicable;
- (j) measures to increase the flexibility of the energy system with regard to renewable energy production, including the roll-out of intraday market coupling and cross-border balancing markets.

2. The information provided by Member States under paragraph 1 shall be coherent with and as appropriate be based on the report by the national regulators referred to in Article 59(1)(h) of the [recast of Directive 2009/72/EC as proposed by COM(2016) 864] and Article 41(1)(e) of Directive 2009/73/EC.

Article 21 a (new)

Article 21a

Integrated Reporting on Energy Poverty

[] Where the second subparagraph of Article 3(3)(e) applies, *the Member State concerned shall include in its integrated national energy and climate progress report:*

(a) *information on progress towards the national indicative objective to reduce the number of households in energy poverty; and*

(b) *quantitative information on the number of households in energy poverty, and, where available, information on policies and measures addressing energy poverty.*

The Commission shall share data communicated by Member States pursuant to this Article with the European Energy Poverty Observatory.

Article 22

Integrated reporting on research, innovation and competitiveness

Member States shall include in the integrated national energy and climate progress reports the information on the implementation of the following objectives and measures:

- (a) **where applicable**, national objectives and policies translating to a national context the SET Plan objectives and policies;
- (b) national objectives for total public and, **where available**, private spending in research and innovation relating to **clean** energy technologies as well as for technology cost and performance development;
- (c) if appropriate, national objectives including long term targets for 2050 for the deployment of technologies for decarbonising energy- and carbon-intensive industrial sectors and, if applicable, for related carbon transport, use, and storage infrastructure;
- (d) national objectives to phase out energy subsidies, in particular for fossil fuels;*
- (e) implemented, adopted and planned policies and measures to achieve the objectives referred to in points (b) and (c);
- (f) cooperation with other Member States in implementing the objectives and policies referred to in points (b) to (d), including coordination of policies and measures **in the context of** the SET Plan, such as alignment of research programmes and common programmes;
- (g) financing measures, including Union support and the use of Union funds, in this area at national level, if applicable.

Section 2

Annual Reporting

Article 23

Annual Reporting

1. By **15 March** 2021, and every year thereafter (year X), Member States shall report to the Commission:

- (b) the information referred to in Article 6(2) of Directive 2009/119/EC;
- (c) the information referred to in Annex IX, point 3, to Directive 2013/30/EU, in accordance with Article 25 of that directive.

1a. *By 31 July 2021, and every year thereafter (year X), Member States shall report to the Commission* their approximated greenhouse gas inventories for the year X-1.

For the purposes of *this paragraph*, the Commission shall, on the basis of the Member States' approximated greenhouse gas inventories or, if a Member State has not communicated its approximated inventories by that date, on the basis of its own estimates, annually compile a Union approximated greenhouse gas inventory. The Commission shall make that information available to the public by 30 September every year.

2. As of 2023, Member States shall determine and report to the Commission final greenhouse gas inventory data by 15 March each **reporting** year (X) and preliminary data by 15 January each year including the greenhouse gases and the inventory information listed in Annex III. The report on the final greenhouse gas inventory data shall also include a complete and up-to-date national inventory report. **Within three months of receiving the reports, the Commission shall make the information referred to in Annex III, part 1, point (n) available to the Climate Change Committee referred to in Article 37.**

3. Member States shall submit to the UNFCCC Secretariat national inventories containing the information submitted to the Commission on the final greenhouse gas inventory data in accordance with paragraph 2 of this Article by 15 April each year. The Commission shall, in cooperation with the Member States, annually compile a Union greenhouse gas inventory and prepare a Union greenhouse gas inventory report and shall submit them to the UNFCCC Secretariat by 15 April each year.

4. Member States shall report to the Commission the preliminary and the final national inventory data, by 15 January and 15 March respectively in the years 2027 and 2032, prepared for their LULUCF accounts for the purpose of the compliance reports in accordance with Article [12] 14 of Regulation [] [LULUCF].

[]

5. The Commission is empowered to adopt delegated acts in accordance with Article 36 to:

(a) amend Part 2 of Annex III by adding or deleting substances in the list of greenhouse gases, **in accordance with relevant decisions adopted by the bodies of the UNFCCC or Paris Agreement;**

(b) supplement this Regulation by adopting values for global warming potentials and specifying the inventory guidelines applicable in accordance with relevant decisions adopted by the bodies of the UNFCCC or Paris Agreement.

6. The Commission, **assisted by the Climate Change Committee referred to in Article 37(1)(a)**, shall adopt implementing acts to set out the structure, technical details, format and processes for the Member States' submission of approximated greenhouse gas inventories pursuant to paragraph 1, greenhouse gas inventories pursuant to paragraph 2, and accounted greenhouse gas emissions and removals in accordance with Articles 5 and **14** of Regulation [] [LULUCF]. When proposing such implementing acts, the Commission shall take into account the UNFCCC or Paris Agreement timetables for the monitoring and reporting of that information and the relevant decisions adopted by the bodies of the UNFCCC or Paris Agreement in order to ensure compliance by the Union with its reporting obligations as a Party to the UNFCCC and the Paris Agreement. Those implementing acts shall also specify the timescales for cooperation and coordination between the Commission and the Member States in preparing the Union greenhouse gas inventory report. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 37(3).

SECTION 2bis

Reporting on the 2020 targets

Article 23 bis

Reporting on the 2020 targets

By 30 April 2022, Member States shall report to the Commission on the achievement of the 2020 energy efficiency national targets by providing the information set out in Part 2 of Annex VII of this Regulation, and of the national overall targets for the share of energy from renewable sources in 2020 as set out in Directive 2009/28/EC as in force on 31 December 2020 by providing the following information:

- (a) the sectoral (electricity, heating and cooling, and transport) and overall shares of energy from renewable sources in 2020;**
- (b) the measures taken to achieve the 2020 national renewable energy targets, including measures related to support schemes, guarantees of origin and simplification of administrative procedures;**

- (c) the share of energy from biofuels and bioliquids produced from cereal and other starch-rich crops, sugars and oil crops in energy consumption in transport;
- (d) the share of energy from biofuels produced from feedstocks and of other fuels listed in part A of Annex IX of Directive 2009/28/EC as in force on 31 December 2020 in energy consumption in transport.

SECTION 3

Reporting Platform

Article 24

E-platform

1. The Commission shall establish an online [] platform to facilitate communication between the Commission and Member States, *to* [] promote cooperation among Member States *and to* [] **facilitate public access to information.**
 2. Member States shall use the online platform for the purposes of submitting to the Commission the reports referred to in this Chapter once the platform becomes operational.
- 2a. [] The e-platform shall become operational [] by 1 January 2020. The Commission shall use the e-platform to facilitate public online access to the reports referred to in this Chapter, the final integrated national energy and climate plans, the updates thereof, and the long-term low emission strategies referred to in Article 14, taking into account commercially sensitive data and the need to comply with data protection rules.*

CHAPTER 5

AGGREGATE ASSESSMENT OF PROGRESS AND POLICY RESPONSE TO ENSURE UNION TARGETS ACHIEVEMENT — COMMISSION MONITORING

Article 25

Assessment of progress

1. By 31 October 2021 and every second year thereafter, the Commission shall assess, in particular on the basis of the integrated national energy and climate progress reports, of other information reported under this Regulation, of the indicators and of European statistics *and data* where available:

- (a) the progress made at Union level towards meeting the objectives of the Energy Union, including for the first ten-year period the Union's 2030 targets for energy and climate, notably in view of avoiding any gaps to the Union's 2030 targets for renewable energy and energy efficiency;
- (b) the progress made by each Member State towards meeting its targets, objectives and contributions and implementing the policies and measures set out in its integrated national energy and climate plan;
- (c) the overall impact of aviation on the global climate including through non-CO₂ emissions or effects, based on the emission data provided by Member States pursuant to Article 23, and improve that assessment by reference to scientific advancements and air traffic data, as appropriate.

(ca) the overall impact of the policies and measures of integrated national plans on the operation of the Union climate and energy policy measures;

(cb) the overall impact of the policies and measures included in the integrated national plans on the operation of the EU ETS and on the supply-demand balance of allowances in the European carbon market.

2. In the area of renewable energy, as part of its assessment referred to in paragraph 1, the Commission shall assess the progress made in the share of energy from renewable sources in the Union's gross final consumption on the basis of an **indicative Union [] trajectory that starts from 20% in 2020, reaches reference points of at least 18% [] in 2022, [] 43% in 2025 and 65% in 2027 of the total increase in the share of energy from renewable sources between the Union's 2020 renewable energy target and the Union's 2030 renewable energy target, and reaches the Union's 2030 renewable energy target of at least 32% in 2030 []**.

3. In the area of energy efficiency, as part of its assessment referred to in paragraph 1, the Commission shall assess progress towards collectively achieving a maximum energy consumption at Union level of **1273 Mtoe** of primary energy consumption and **956 Mtoe** of final energy consumption in 2030 as referred to in Article 6(1)(a);

In carrying out its assessment, the Commission shall take the following steps:

- (a) consider whether the Union's milestone of no more than 1483 Mtoe of primary energy and no more than 1086 Mtoe of final energy in 2020 is achieved;

- (b) assess whether Member States' progress indicates that the Union as a whole is on track towards the level of energy consumption in 2030 as referred to in the first subparagraph, taking into account the assessment of information provided by Member States in their integrated national energy and climate progress reports;
- (c) use results from modelling exercises in relation to future trends in energy consumption at Union level and national level and use other complementary analysis.
- (d) take due account of relevant circumstances affecting primary and final energy consumption indicated by the Member States in their national energy and climate plans, in line with Article 6(2).**

3bis. In the area of the internal energy market, as part of its assessment referred to in paragraph 1, the Commission shall assess the progress made towards the level of electricity interconnectivity that the Member State aims for in 2030.

4. By 31 October 2021 and every year thereafter, the Commission shall assess, in particular on the basis of the information reported pursuant to this Regulation, whether the Union and its Member States have made sufficient progress towards meeting the following points:

- (a) commitments under Article 4 of the UNFCCC and Article 3 of the Paris Agreement as set out in decisions adopted by the Conference of the Parties to the UNFCCC, or by the Conference of the Parties to the UNFCCC serving as the meeting of the Parties to the Paris Agreement;
- (b) obligations set out in Article 4 of Regulation [] [ESR] and Article 4 of Regulation [] [LULUCF];
- (c) the objectives set in the integrated national energy and climate plan in view of achieving the Energy Union objectives and for the first ten-year period in view of fulfilling the 2030 targets for energy and climate.

[]

6. In its assessment the Commission should take into consideration the latest country-specific recommendations issued in the context of the European Semester.

7. The Commission shall report on its assessment according to this Article as part of the State of the Energy Union report referred to in Article 29.

Article 26

Follow-up in case of inconsistencies with overarching Energy Union objectives and targets under the Effort Sharing Regulation

[] Based on the assessment pursuant to Article 25, the Commission shall issue recommendations to a Member State pursuant to Article 28 if policy developments in that Member State show inconsistencies with the overarching objectives of the Energy Union.

1a. A Member State that intends to use the flexibility pursuant to Article 7 of Regulation (EU) .../... [Effort Sharing] shall, as this information becomes available, include in the plan pursuant to Article 3 of this Regulation the level of intended use and the planned policies and measures to [] meet the requirements under Article 4 of Regulation (EU) .../... [LULUCF] for the period from 2021 to 2030 [].

[]

Article 27

Response to insufficient ambition of integrated national energy and climate plans and insufficient progress towards the Union's energy and climate targets and objectives

1. If, on the basis of its assessment of the draft integrated national energy and climate plans pursuant to Article 9 or its assessment of the draft updates of the final plans pursuant to Article 13, and as part of the iterative process, the Commission concludes that the targets, objectives and contributions of the Member States are insufficient for the collective achievement of the Energy Union objectives and in particular, for the first ten-year period, for the Union's binding 2030 target for renewable energy and the Union's 2030 target for energy efficiency, it shall - as regards the Union's target for renewable energy - and may - as regards the other Energy Union objectives - issue recommendations to Member States whose contributions it deems insufficient to increase their ambition [] in order to ensure a sufficient level of collective ambition.

(1a) If a gap between the Union's 2030 target and the collective contributions of Member States occurs in the area of renewable energy, the Commission shall base its assessment on the formula set out in Annex Ia of this Regulation which is based on [] the objective criteria listed in Article 5(1)(d)(i) - (iv), whilst having due regard to relevant circumstances affecting renewable energy deployment as indicated by the Member State in accordance with Article 5(1)(d).

If a gap between the Union's 2030 target and the sum of the national targets occurs in the area of energy efficiency, the Commission shall evaluate notably the relevant circumstances listed in Article 6(2), information provided by Member States in their integrated national energy and climate plans, results from modelling exercises in relation to future trends in energy consumption and other complementary analysis as appropriate

Without prejudice to the other provisions of this Article, and for the sole purpose of assessing whether a gap between the Union's 2030 target and the collective contributions of Member States occurs, the Commission shall, in its assessment, assume [] a national contribution of the Member States which did not submit their draft integrated national energy and climate plans in accordance with Article 9(1) [].

In its assumption, in the area of renewable energy, the Commission shall take into account the Member State's national binding target for 2020 [] as set out in Annex I of [RED], results from modeling exercises on renewable energy development and the results from the formula set out in Annex Ia. In the area of energy efficiency, it shall take into account [] modelling exercises in relation to future trends in energy consumption and other complementary analysis as appropriate.

In its assessment of the renewable energy contributions, based on the formula set out in Annex Ia, the Commission shall take into consideration any potential negative impacts on the security of supply and grid stability in small or isolated energy systems or in Member States/systems where there may be significant implications due to the change of synchronous area.

In its assessment of the energy efficiency contributions, the Commission shall take into consideration the potential impact on electricity system operation and grid stability in Member States where there may be significant implications due to the change of synchronous area.

1bis. If, on the basis of its assessment of the integrated national energy and climate plans and their updates pursuant to Article 12, the Commission concludes that the targets, objectives and contributions of the national plans or their updates are insufficient for the collective achievement of the Energy Union objectives and, in particular, for the first ten-years period, for the Union's 2030 targets for renewable energy and energy efficiency, it shall **propose [] measures and make use of relevant empowerments** at Union level in order to ensure the collective achievement of those objectives and targets. With regard to renewable energy such measures shall take into consideration the level of ambition of contributions to the Union's 2030 target by Member States set out in the national plans and their updates.

2. If, on the basis of its assessment pursuant to Article 25(1)(b), the Commission concludes that insufficient progress is made by a Member State towards meeting [] **their [] targets, objectives and contributions, their reference points for renewable energy, or in implementing the policies and measures set out in its integrated national climate and energy plan, it shall issue recommendations to the Member State concerned pursuant to Article 28.**

[] In issuing **the recommendations in the area of renewable energy []**, the Commission shall take into consideration **the relevant circumstances indicated by the Member State in accordance with [] Article 5 (1) (d).**

The Commission shall also take into consideration renewable energy projects for which a final investment decision has been taken [], provided that these projects will become operational in the period 2021-2030 and will have a significant impact on a Member State's national contribution).

In issuing the recommendations in the area of energy efficiency [], the Commission shall take due account of [] the objective criteria listed in Article 6(1)(a) and (b) and the relevant national circumstances indicated by the Member State in accordance with Article 6(2).

3. If, on the basis of its aggregate assessment of Member States' integrated national energy and climate progress reports pursuant to Article 25(1)(a), and supported by other information sources, as appropriate, the Commission concludes that the Union is at risk of not meeting the objectives of the Energy Union and, in particular, for the first ten-years period, the targets of the Union's 2030 Framework for Climate and Energy, it may issue recommendations to all Member States pursuant to Article 28 to mitigate such risk.

In the area of renewable energy, the Commission shall **assess if the national measures foreseen in paragraph 4 are sufficient to achieve the EU renewable energy targets and**, **in case of insufficient national measures, shall**, as appropriate, **propose measures and make use of relevant empowerments** at Union level in addition to the recommendations in order to ensure, in particular, the achievement of the Union's 2030 target for renewable energy .

In the area of energy efficiency, the Commission shall as appropriate, **propose measures and make use of relevant empowerments** at Union level in addition to the recommendations in order to ensure, in particular, the achievement of the Union's 2030 target for energy efficiency.

1a. In the area of energy efficiency, such additional measures may in particular improve the energy efficiency of:

- (a) products, pursuant to Directives 2009/125/EC and 2010/30/EU;**
- (b) buildings, pursuant to Directives 2010/31/EU and 2012/27/EU; and**
- (c) transport.**

4. If, in the area of renewable energy the Commission concludes, based on its assessment pursuant to Article 25(1) and (2), that **one or more of the reference points of the indicative Union trajectory in 2022, 2025 and 2027** referred to in Article 25(2) **were not met**, Member States **that have fallen below one or more of their national reference points in 2022, 2025 and 2027 as referred to in Article 4(a)(2)(i)** shall ensure that **additional measures are implemented within one year following the date of reception of the Commission's assessment in order to cover the gap compared to their national reference points**, such as:

- (d) national measures to increase deployment of renewable energy;**

- (a) adjusting the share of renewable energy in the heating and cooling sector set out in Article 23(1) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767];
 - (b) adjusting the share of renewable energy in the transport sector set out in Article 25(1) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767];
 - (c) making a **voluntary** financial *payment* to the **EU renewable energy financing mechanism** set up at Union level, contributing to renewable energy projects and managed directly or indirectly by the Commission **as set out in Article 27bis**;
- (ca) using cooperation mechanisms set out in Directive (EU) .../... [recast of the RED];*

Such measures shall take into account the **Commission's considerations as set out in paragraph 2bis. Member States concerned shall present these measures as part of the progress report referred in Article 15.**

[]

4bis. From 1 January 2021 onwards, the share of energy from renewable sources in each Member State's gross final consumption of energy shall not be lower than a baseline share [] that is equal to its mandatory national overall target for the share of energy from renewable sources in 2020 set out in Article 3(3) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767]. If a Member State does not maintain its baseline share as measured over a one-year period, the Member State concerned shall take, within one year, additional measures such as those as set out in points (a) to (d) of paragraph 4 sufficient to cover the gap within [] one year.

Member States fulfilling the obligation to cover the gap to the baseline [] shall be deemed to be in compliance with the obligations set out in the first sentence of the first subparagraph of paragraph 4bis and in Article 3(3) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767] throughout the period where the gap occurred.

For the purposes of [] point (c) of the first subparagraph **of paragraph 4**, Member States may use their revenues from annual emission allowances under Directive 2003/87/EC.

4ter. When a Member State's [] share of energy from renewable sources falls below one or more of its national reference points in 2022, 2025 and 2027 as referred to in Article 4(a)(2)(i), it shall include in the next integrated report to the Commission pursuant to Article 15 an explanation on how it will cover the gap compared to its national reference points.

5. If, in the area of energy efficiency, without prejudice to other measures at Union level pursuant to paragraph 3, the Commission concludes, based on its assessments pursuant to Article 25(1) and (3), [] **carried out by the years 2022 [], 2025 and 2027** that progress towards collectively achieving the Union's energy efficiency target mentioned in the first subparagraph of Article 25(3) is insufficient, it shall **propose measures and make use of relevant empowerments at Union level []** in addition to those set out in Directive 2010/31/EU [version as amended in accordance with proposal COM(2016) 765] and Directive 2012/27/EU [version as amended in accordance with proposal COM(2016) 761] to ensure that the Union's [] 2030 energy efficiency targets are met. Such additional measures may in particular improve the energy efficiency of:

- (a) products, pursuant to Directives 2009/125/EC and 2010/30/EU;*
- (b) buildings, pursuant to Directives 2010/31/EU and 2012/27/EU; and*
- (c) transport.*

5a. Each Member State concerned referred to in paragraph 4 [~~or 5~~] shall detail the additional implemented, adopted and planned measures [] as part of its following progress report referred to in Article 15.

(6) If, in the area of interconnections, the Commission concludes, based on its assessment pursuant to Article 25(1) and (4), in the year 2025 that progress is insufficient, the Commission shall cooperate with concerned Member States by the year 2026 aiming at addressing the circumstances encountered.

Article 27bis

EU renewable energy financing mechanism

- 1. By 1 January 2021, the Commission shall establish the EU renewable energy financing mechanism referred to in paragraph 4(c) of Article 27 to tender support for new renewable energy projects in the Union with the aim of covering a gap to the indicative Union trajectory. Support may be provided inter alia in the form of a premium on top of market prices, and shall be allocated to projects bidding for the lowest cost or premium.*

2. *Without prejudice to paragraph 1, the financing mechanism shall contribute to the enabling framework pursuant to Article 3(4) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767] with the aim of supporting renewable energy deployment across the Union irrespectively of a gap to the indicative Union trajectory. To this end:*
 - i. *payments from Member States referred to in Article 27 may be complemented by additional sources, such as Union funds, private sector contributions or additional payments by Member States in order to contribute to the achievement of the Union target.*
 - ii. *The financing mechanism may, inter alia, provide support in the form of low-interest loans, grants, or a mix of both and may support, inter alia, joint projects according to Article 9 and Member States' participation in joint projects according to Article 11 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767].*

3. *Member States shall retain the right to decide whether, and if so, under which conditions, they allow installations located on their territory to receive support from the financing mechanism.*

4. *The Commission, assisted by the Energy Union Committee referred to in Article 37(1)(b) is empowered to adopt implementing acts in accordance with the examination procedure referred to in Article 37(3) [] to set out the necessary provisions for the establishment and functioning of the financing mechanism, in particular:*
 - i. *the methodology for the calculation of the maximum level of the premium for each tender;*
 - ii. *the tender design to be applied, including conditions for delivery and associated penalties;*
 - iii. *the methodology for the calculation of the payments of Member States and the resulting statistical benefits for the contributing Member States;*
 - iv. *minimum requirements for Member States' participation, having regard to the need to ensure both continuity of the mechanism by means of a sufficient duration of the Member State payment, as well as the maximum amount of flexibility for Member States' participation.*

- v. *provisions ensuring the participation and/or approval of hosting Member States, and where necessary provisions relating to additional system cost charges.*

5. Every year, renewable energy generated by installations financed by the financing mechanism shall be statistically attributed to the participating Member States, reflecting their relative payments. Projects supported by this financing mechanism that are financed by other sources than Member States payments shall not count towards Member States' national contributions but towards the EU binding target pursuant to Article 3(1) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767]]

Article 28

Commission recommendations to Member States

1. The Commission shall as appropriate issue recommendations to Member States to ensure the achievement of the objectives of the Energy Union. **The Commission shall make such recommendations publicly available forthwith.**

2. Where reference in this Regulation is made to this Article the following principles shall apply:
[]
 - (a) the Member State concerned shall take [] **due** account of the recommendation in a spirit of solidarity between Member States and the Union and between Member States;
 - (b) the Member State shall set out, in its integrated national energy and climate progress report made in the year following the year the recommendation was issued, how it has taken [] **due** account of the recommendation []. ***If the Member State concerned decides not to address a recommendation or a substantial part thereof, that Member State shall provide a reasoning.***
 - (c) the recommendations should be complementary to the latest country-specific recommendations issued in the context of the European Semester.

Article 29

State of the Energy Union report

1. By 31 October every year, the Commission shall submit to the European Parliament and to the Council a State of the Energy Union report. []

2. The State of the Energy Union report shall include, inter alia, the following elements:
- (a) the assessment carried out pursuant to Article 25;
 - (b) where appropriate, recommendations pursuant to Article 28;
 - (c) functioning of the carbon market referred to in Article 10(5) of Directive 2003/87/EC, including information on the application of Directive 2003/87/EC referred to in Article 21(2) of the same Directive;
 - (d) biennially, [] a report on Union bioenergy sustainability, containing the information specified in Annex VIII;
 - (e) biennially, a report on voluntary schemes in respect of which the Commission has adopted a decision according to Article 27(4) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767], containing the information specified in Annex IX to this Regulation;
 - (f) an overall progress report on the application of [recast of Directive 2009/72/EC as proposed by COM(2016) 864] pursuant to Article 69 of that Directive;
 - (g) an overall progress report on the application of Directive 2009/73/EC pursuant to Article 52 of that Directive;
 - (h) an overall progress report on energy efficiency obligation schemes **and alternative policy measures** as referred to in Articles 7a **and 7b** of Directive 2012/27/EU [version as amended in accordance with COM(2016) 761];
 - (hh) biennially, an overall progress report on the renovation of the national stock of residential and non-residential buildings, both public and private, in line with the roadmaps set out in the long-term renovation strategies that each Member State shall establish in accordance with Article 2a of Directive 2010/31/EU on the energy performance of buildings as amended by Directive 2018/844/EU;**
 - (jj) every four years, an overall progress report on Member States' increase in the number of nearly zero-energy buildings in accordance with Article 9, paragraph 5, of Directive 2010/31/EU on the energy performance of buildings**
 - (i) an overall progress report on Member States' progress in creating a complete and operational energy market;
 - (j) actual fuel quality in the different Member States and geographical coverage of fuels with a maximum sulphur content of 10 mg/kg, aiming to provide an overview of the fuels quality data in the different Member States as reported pursuant to Directive 98/70/EC;
 - (jb) a progress report on competitiveness**

(jc) Member States' progress towards phasing out energy subsidies, [] in particular for fossil fuels [];

(k) other issues of relevance to the implementation of the Energy Union, including public and private support.

(l) by 31 October 2019 and every four years thereafter, an assessment of the implementation of Directive 2009/31/EC.

Article 29bis

[] Monitoring of the governance

In the context of the State of the Energy Union as referred to in Article 29, the Commission shall inform the European Parliament and the Council on the [] implementation of the integrated national energy and climate plans. The European Parliament and the Council shall address on an annual basis the progress achieved by the Energy Union [] on all dimensions of Energy and Climate policies. []

CHAPTER 6

NATIONAL AND UNION SYSTEMS ON GREENHOUSE GAS EMISSIONS AND REMOVALS BY SINKS

Article 30

National and Union inventory systems

1. By 1 January 2021, Member States shall establish, operate and seek to continuously improve national inventory systems to estimate anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Part 2 of Annex III to this Regulation and to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of their greenhouse gas inventories.
2. Member States shall ensure that their competent inventory authorities have access to the information specified in Annex X to this Regulation, make use of reporting systems established pursuant to Article 20 of Regulation (EU) No 517/2014 to improve the estimate of fluorinated gases in the national greenhouse gas inventories and are able to undertake the annual consistency checks referred to in points (i) and (j) of Part 1 of Annex III to this Regulation.

3. A Union inventory system to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of national inventories with regard to the Union greenhouse gas inventory is hereby established. The Commission shall manage, maintain and seek to continuously improve that system which shall include the setting of a quality assurance and quality control programme, setting quality objectives and drafting an inventory quality assurance and quality control plan, procedures for completing emission estimates to compile the Union inventory pursuant to paragraph 5 of this Article and the reviews referred to in Article 31.

4. The Commission shall perform an initial check of the accuracy of the preliminary greenhouse gas inventory data to be submitted by Member States pursuant to Article 23(2). It shall send the results of that check to Member States within six weeks of the submission deadline. Member States shall respond to any relevant questions raised by the initial check by 15 March, together with the final inventory submission for the year X-2.

5. Where a Member State does not submit the inventory data required to compile the Union inventory by 15 March, the Commission may prepare estimates to complete the data submitted by the Member State, in consultation and close cooperation with the Member State concerned. The Commission shall use, for that purpose, the guidelines applicable for preparing the national greenhouse gas inventories.

6. The Commission, **assisted by the Climate Change Committee referred to in Article 37(1)(a), shall adopt implementing acts** in order to set out rules on the [] structure, format and submission process of the information relating to national inventory systems and requirements on the establishment, operation and functioning of national [] inventory systems. **Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 37(3).** In the preparation of such acts, the Commission shall take into account any relevant decisions adopted by the bodies of the UNFCCC or of the Paris Agreement.

6bis. The Commission shall adopt delegated acts in accordance with Article 36 in order to supplement this Regulation by setting out rules concerning the requirements on the establishment, operation and functioning of the Union inventory system. In the preparation of such acts, the Commission shall take into account any relevant decisions adopted by the bodies of the UNFCCC or of the Paris Agreement.

Article 31

Inventory review

1. [] With a view to monitoring Member States' greenhouse gas emission reductions or limitations pursuant to Articles 4, 9 and 10 of Regulation [] [ESR] and their reduction of emissions and enhancement of removals by sinks pursuant to Articles 4 and [~~12~~] 14 of Regulation [] [LULUCF] and any other greenhouse gas emission reduction or limitation targets set out in Union legislation, **the Commission shall carry out in 2027 and 2032 a comprehensive review of the national inventory data submitted by Member States pursuant to Article 23(3) of this Regulation.** Member States shall participate fully in that process.

2. The comprehensive review referred to in paragraph 1 shall include:
 - (a) checks to verify the transparency, accuracy, consistency, comparability and completeness of information submitted;
 - (b) checks to identify cases where inventory data is prepared in a manner which is inconsistent with UNFCCC guidance documentation or Union rules;
 - (c) checks to identify cases where LULUCF accounting is carried out in a manner which is inconsistent with UNFCCC guidance documentation or Union rules, and
 - (d) where appropriate, calculating the resulting technical corrections necessary, in consultation with the Member States.

3. The Commission, **assisted by the Climate Change Committee referred to in Article 37(1)(a)**, shall adopt implementing acts to determine the timing and the procedure for carrying out the comprehensive review including the tasks set out in paragraph 2 of this Article and ensuring due consultation of the Member States with regard to the conclusions of the reviews. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 37(3).

4. The Commission shall, by means of an implementing act, determine the total sum of emissions for the relevant years arising from the corrected inventory data for each Member State upon completion of the review split between emissions data relevant for Article 9 of Regulation [] [ESR] and emission data referred to in Annex III part 1 (c) to this Regulation and also determine the total sum of emissions and removals relevant for Article 4 of Regulation [] [LULUCF].

5. The data for each Member State as recorded in the registries set up pursuant to Article [] **15** of Regulation [] [LULUCF] [] [] **four months** following the date of publication of an implementing act adopted pursuant to paragraph 4 of this Article, shall be used for the compliance check with Article 4 of Regulation [] [LULUCF] including changes to such data arising as a result of that Member State making use of the flexibilities pursuant to Article 11 of Regulation [] [LULUCF].

6. The data for each Member State as recorded in the registries set up pursuant to Article [] **12** of Regulation [] [ESR] [] **two months** following the compliance check date with Regulation [] [LULUCF] referred to in paragraph 5 of this Article, shall be used for the compliance check pursuant to Article 9 of Regulation [] [ESR] for the years 2021 and 2026. The compliance check pursuant to Article 9 of Regulation [] [ESR] for each of the years 2022 to 2025 and 2027 to 2030 shall be performed at a date falling one month following the date of the compliance check for the previous year. This check shall include changes to such data arising as a result of that Member State making use of the flexibilities pursuant to Articles 5, 6 and 7 of Regulation [] [ESR].

Article 32

National and Union systems for policies and measures and projections

1. By 1 January 2021, Member States and the Commission shall operate and seek to continuously improve national and Union systems respectively, for reporting on policies and measures and for reporting on projections of anthropogenic greenhouse gas emissions by sources and removals by sinks. Those systems shall include the relevant institutional, legal and procedural arrangements established within a Member State and the Union for evaluating policy and making projections of anthropogenic greenhouse gas emissions by sources and removals by sinks.

2. Member States and the Commission respectively shall aim to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of the information reported on policies and measures and projections of anthropogenic greenhouse gas emissions by sources and removals by sinks, as referred to in Article 16, including the use and application of data, methods and models, and the implementation of quality assurance and quality control activities and sensitivity analysis.

3. The Commission, **assisted by the Climate Change Committee referred to in Article 37(1)(a)**, shall adopt implementing acts to set out the structure, format and submission process of information on national and Union systems for policies and measures and projections pursuant to paragraphs 1 and 2 of this Article and Article 16. When proposing such acts, the Commission shall take into account the relevant decisions adopted by the bodies of the UNFCCC or the Paris Agreement, including internationally agreed reporting requirements as well as timetables for monitoring and reporting of that information. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 37(3).

Article 33

Establishment and operation of registries

1. The [] Member States **and the Union** shall set up and maintain registries to accurately account for nationally determined contributions pursuant to Article 4(13) of the Paris Agreement and for internationally transferred mitigation outcomes pursuant to Article 6 of that agreement.
2. The Union and the Member States may maintain their registries in a consolidated system, together with one or more other Member States.
3. The data in the registries referred to in paragraph 1 of this Article shall be made available to the central administrator designated pursuant to Article 20 of Directive 2003/87/EC.
4. The Commission [] **shall** adopt delegated acts in accordance with Article 36 in order to set up the registries referred to in paragraph 1 of this Article and in order to give effect, by means of the registries of the Union and of the Member States, to the necessary technical implementation of relevant decisions of the UNFCCC or Paris Agreement bodies, in accordance with paragraph 1 of this Article.

CHAPTER 7
COOPERATION AND SUPPORT

Article 34

Cooperation between the Member States and the Union

1. The Member States shall cooperate and coordinate fully with each other and with the Union in relation to obligations under this Regulation, in particular concerning:
 - (a) the process for preparing, adopting, notifying and assessing the integrated national energy and climate plans pursuant to Articles 9 to 12;
 - (b) the process for preparing, adopting, notifying and assessing the integrated national energy and climate progress report pursuant to Article 15 and annual reporting pursuant to Article 23;
 - (c) the process related to the Commission recommendations and addressing those recommendations pursuant to Article 9(2) and (3), Article 15(5), Article 26(1) and Article 27(2) and (3);
 - (d) compiling the Union greenhouse gas inventory and preparing the Union greenhouse gas inventory report, pursuant to Article 23(3);
 - (e) preparing the Union national communication pursuant to Article 12 of the UNFCCC and the Union biennial report pursuant to Decision 2/CP.17 or subsequent relevant decisions adopted by the bodies of the UNFCCC;
 - (f) review and compliance procedures under the UNFCCC and the Paris Agreement in accordance with any applicable decision under the UNFCCC as well as the Union's procedure to review Member States greenhouse gas inventories referred to in Article 31;
 - (g) any adjustments following the review process referred to in Article 31 or other changes to inventories and inventory reports submitted, or to be submitted, to the UNFCCC Secretariat;
 - (h) compiling the Union approximated greenhouse gas inventory, pursuant to Article 23(1)(a) and the last subparagraph of Article 23(1).

2. The Commission may provide technical support to the Member States in relation to obligations under this Regulation upon request from a Member State.

Article 35

Role of the European Environment Agency

The European Environment Agency shall assist the Commission in its work as regards the decarbonisation and energy efficiency dimensions to comply with Articles 14, 15, 16, 17, 18, 19, 23, 24, 25, 29, 30, 31, 32 and 34 in accordance with its annual work programme. That shall include assistance, as required, with:

- (a) compiling the information reported by Member States on policies and measures and projections;
- (b) performing quality assurance and quality control procedures on the information reported by Member States on projections and policies and measures;
- (c) preparing estimates or complementing the ones available to the European Commission for data on projections not reported by the Member States;
- (d) compiling data, wherever available taken from European statistics and appropriate in terms of timing, as required for the State of the Energy Union report to the European Parliament and the Council prepared by the Commission;
- (e) disseminating information collected under this Regulation, including maintaining and updating a database on Member States' mitigation policies and measures and the European Climate Adaptation Platform relating to impacts, vulnerabilities and adaptation to climate change;
- (f) performing quality assurance and quality control procedures in the preparation of the Union greenhouse gas inventory;
- (g) compiling the Union greenhouse gas inventory and preparing the Union greenhouse gas inventory report;
- (h) preparing estimates for data not reported in the national greenhouse gas inventories;
- (i) conducting the review referred to in Article 31;
- (j) compiling the Union approximated greenhouse gas inventory.

CHAPTER 8
DELEGATION

Article 36

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Articles 3(4), **14(2a)**, 23(5), [] 30(6bis) and 33(4) shall be conferred on the Commission for a period of five years from [the date of entry into force of this Regulation]. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Articles 3(4), **14(2a)**, 23(5), [] 30(6bis) and 33(4) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Articles 3(4), **14(2a)**, 23(5), [] 30(6bis) and 33(4) shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council

CHAPTER 9 FINAL PROVISIONS

Article 37

[] Committees

1. The Commission shall be assisted by:

a) a Climate Change Committee with regard to the implementation of the issues referred to in Articles 17(4), 23(6), 30(6), 31(3) and 32(3); and

b) an Energy Union Committee with regard to the implementation of issues referred to in Article 15(3) [] and Article 27bis(4).

2. These committees shall be [] committees within the meaning of Regulation (EU) No 182/2011 [].

The Climate Change Committee referred to in point (a) of paragraph 1 of this Article replaces the committee established by Article 8 of Decision 93/389/EEC, Article 9 of Decision 280/2004/EC and Article 26 of Regulation (EU) No 525/2013. References to the committee set up pursuant to those legal acts shall be construed as references to the Climate Change Committee established by this Regulation.

[]

2bis. When a Committee referred to in paragraph 1 considers horizontal issues and common actions, it shall inform the other Committee referred to in paragraph 1 in order to ensure consistency of policies and to maximise synergies between sectors.

2ter. Each Member State shall appoint its representative(s) for the Climate Change Committee and for the Energy Union Committee. The representative(s) of the Energy Union Committee shall be invited to the meetings of the Climate Change Committee, and vice-versa.

3. Where reference is made to this article, Article 5 of Regulation (EU) No 182/2011 shall apply.

Article 38

Review

The Commission shall report to the European Parliament and to the Council ***within six months of each global stocktake agreed under Article 14 of the Paris Agreement*** [] on the operation of this Regulation, its contribution to the Governance of the Energy Union [], ***its contribution to the long-term goals of the Paris Agreement, [] progress towards the achievement of the 2030 climate and energy targets, [] additional Energy Union objectives*** and the conformity of the planning, reporting and monitoring provisions of this Regulation with other Union legislation or future decisions relating to the UNFCCC and the Paris Agreement. The Commission may make proposals if appropriate.

Article 39

Amendments to Directive 94/22/EC

Directive 94/22/EC is amended as follows:

- (1) in Article 8, paragraph 2 is deleted;
- (2) Article 9 is deleted.

Article 40

Amendments to Directive 98/70/EC

Directive 98/70/EC is amended as follows:

- (1) in Article 8(4), the second sentence is deleted;
- (2) in the third subparagraph of Article 7a(1), point (a) is replaced by the following:

"the total volume of each type of fuel or energy supplied; and";

- (3) in Article 7a(2), the first sentence is replaced by the following:

"Member States shall require suppliers to reduce as gradually as possible life cycle greenhouse gas emissions per unit of energy from fuel and energy supplied by up to 10 % by 31 December 2020, compared with the fuel baseline standard set out in Annex II to Council Directive (EU) 2015/652.".

Article 41

Amendment to Directive 2009/31/EC

In Article 27 of Directive 2009/31/EC, the first sentence of the first paragraph is replaced by:

"Every *four* years the Member States shall submit to the Commission a report on the implementation of this Directive, including the register referred to in Article 25(1)(b)."

In Article 38 of Directive 2009/31/EC, paragraph 1 is deleted.

Article 42

Amendments to Regulation (EC) No 663/2009

Regulation (EC) No 663/2009 is amended as follows:

- (1) in Article 27, paragraphs 1 and 3 are deleted;
- (2) Article 28 is deleted.

Article 43

Amendment to Regulation (EC) No 715/2009

Article 29 of Regulation (EC) No 715/2009 is deleted.

Article 44

Amendments to Directive 2009/73/EC

Directive 2009/73/EC is amended as follows:

- (1) Article 5 is deleted;
- (2) Article 52 is replaced by the following:

"Article 52

Reporting

The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council as an annex to the State of the Energy Union Report referred to in Article 29 of Regulation [XX/20XX] [this regulation]."

Article 45

Amendment to Council Directive 2009/119/EC

In Article 6 of Council Directive 2009/119/EC, paragraph 2 is replaced by the following:

"2. By **15 March** [] each year, each Member State shall send the Commission a summary copy of the stock register referred to in paragraph 1 showing at least the quantities and nature of the emergency stocks included in the register on the last day of the preceding calendar year."

Article 46

Amendments to Directive 2010/31/EU

(1) Article 2a of Directive 2010/31/EU **on the energy performance of buildings as amended by Directive 2018/844/EU** is amended as follows:

in paragraph 1, second sentence, the words "shall be submitted in accordance with the applicable planning and reporting obligations and" are deleted;

the following paragraph 8 is inserted:

"**8.** The long-term **renovation** strategy under paragraph 1 shall be submitted to the Commission as part of the **final** Integrated National Energy and Climate Plan, pursuant to Article 3 of Regulation [XX/20XX] [this regulation].

As a derogation to Article 3 (1) of Regulation [XX/20XX] [this regulation], the first long-term renovation strategy under paragraph 1 shall be submitted to the Commission by 10 March 2020."

(2) in Article 5(2), second subparagraph, the sentence "The report may be included in the Energy Efficiency Action Plans referred to in Article 14(2) of Directive 2006/32/EC" is deleted;

(3) in Article 9, paragraph 5 is replaced by the following:

"As part of its State of the Energy Union report referred to in Article 29 of Regulation [XX/20XX] [this regulation], the Commission shall report every **four** years to the European Parliament and to the Council on the progress of Member States in increasing the number of nearly zero-energy buildings. On the basis of this reported information the Commission shall, **if necessary**, develop an action plan and [] propose recommendations and measures [] **in accordance with** Article [] 28 of Regulation [XX/20XX] [this regulation] to increase the number of those buildings and encourage best practices as regards the cost-effective transformation of existing buildings into nearly zero-energy buildings.";

(4) in Article 10, paragraphs 2 and 3 are deleted.

(4a) In Article 14(3), the third subparagraph is replaced by the following:

“Such a report shall be submitted to the Commission as part of the Member States’ integrated national energy and climate plans pursuant to Article 3 of Regulation (EU) ... [Governance Regulation]”.

(4b) In Article 15(3), the third subparagraph is replaced by the following:

“Such a report shall be submitted to the Commission as part of the Member States’ integrated national energy and climate plans pursuant to Article 3 of Regulation (EU) ... [Governance Regulation]”.

Article 47

Amendments to Directive 2012/27/EU

Directive 2012/27/EU is amended as follows:

- (1) [] Article 4 [] is deleted;
- (2) in Article 18(1), point (e) is deleted;
- (3) in Article 24, paragraphs 1, 3, [] 4 and 11 are deleted;
- (3bis) in Article 24, paragraph 2 is deleted;**
- (4) Annex XIV is deleted;

Article 48

Amendment to Directive 2013/30/EU

In Article 25 of Directive 2013/30/EU, paragraph 1 is replaced by the following:

"1. Member States shall report annually to the Commission, as part of the annual reporting pursuant to Article 23 of Regulation [XX/20XX] [this regulation], the information specified in Annex IX, point 3."

Article 49

Amendments to Council Directive (EU) 2015/652

Council Directive (EU) 2015/652 is amended as follows:

(1) in Annex I, Part 2, points **1(h)**, 2, 3, 4 and 7 are deleted.

(1bis) Article 5(1) is replaced by the following:

“Each year by 31 December Member States shall provide the Commission with data for the preceding calendar year related to compliance with Article 7a of Directive 98/70/EC, as defined in Annex III to this Directive.”

(2) Annex III is amended as follows:

(a) point 1 is replaced by the following:

"1. Member States are to report the data listed in point 3. These data must be reported for all fuel and energy placed on the market in each Member State. Where multiple biofuels are blended with fossil fuels, the data for each biofuel must be provided."

(b) in point 3, points (e) and (f) are deleted;

(3) Annex IV is amended as follows:

(a) the following templates for reporting information for consistency of the reported data are deleted:

- Origin — Single Suppliers
- Origin — Joint Suppliers
- Place of Purchase

(b) in the format notes, points 8 and 9 are deleted.

Article 50

Repeal

Regulation (EU) No 525/2013 shall be repealed with effect as from 1 January 2021, subject to transitional provisions laid down in Article 51 **and with the exception of Article 26(1) of that Regulation, which shall be repealed with effect from ... (the date of entry into force of this Regulation)**. References to the repealed Regulation shall be construed as references to this Regulation and shall be read in accordance with the correlation table in Annex XI.

Article 51

Transitional provisions

By way of derogation from Article 50 of this Regulation, Articles 7 and 17(1)(a) and (d) of Regulation (EU) No 525/2013 shall continue to apply to the reports containing the data required under those Articles for the years 2018, 2019 and 2020.

Article 11(3) of Regulation (EU) No 525/2013 shall continue to apply as regards the second commitment period of the Kyoto Protocol.

Article 19 of Regulation (EU) No 525/2013 shall continue to apply to the reviews of the GHG inventory data for the years 2018, 2019 and 2020.

Article 22 of Regulation (EU) No 525/2013 shall continue to apply to the submission of the report required under that Article.

For reasons of coherence and legal clarity, nothing in this Regulation should prevent the application of the derogations pursuant to the relevant European Union sectoral legislation in the area of electricity and electricity risk preparedness [].

Article 52

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Articles 33, 46(2) to (4) and 47(3) and (4) **and Article 48** shall apply from 1 January 2021.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament

The President

For the Council

The President

GENERAL FRAMEWORK FOR INTEGRATED NATIONAL ENERGY AND CLIMATE PLANS

Part 1

General framework

SECTION A: NATIONAL PLAN

1. OVERVIEW AND PROCESS FOR ESTABLISHING THE PLAN

Part 1

General framework of the plan

1.1. Executive Summary

- i. Political, economic, environmental, and social context of the plan
- ii. [] Strategy [] relating to the five dimensions of the Energy Union
- iii. Overview table with key objectives, policies and measures of the plan

1.2. Overview of current policy situation

- i. National and EU energy system and policy context of the national plan
- ii. Current energy and climate policies and measures [] relating to the five dimensions of the Energy Union
- iii. Key issues of cross-border relevance
- iv. Administrative structure of implementing national energy and climate policies

1.3. Consultations and involvement of national and EU entities and their outcome

- i. Involvement of the Parliament
- ii. Involvement of local and regional authorities
- iii. Consultations with stakeholders, including social partners, and engagement of civil society

and the general public

- iv. Consultations with other Member States
- v. Iterative process with the European Commission

1.4. Regional cooperation in preparing the plan

- i. Elements subject to joint or coordinated planning with other Member States
- ii. Explanation of how regional cooperation is considered in the plan

2. NATIONAL OBJECTIVES AND TARGETS

2.1. Dimension Decarbonisation

2.1.1. GHG emissions and removals ³² []

- i. The elements set out in Article 4(a)(1) []
- ii. If applicable, other national objectives and targets consistent with *the Paris Agreement and the* existing long-term [] strategies.

If applicable **for the contribution to the overall Union commitment of reducing the greenhouse gas emissions**, other objectives and targets, including sector targets **and adaptation goals, if available.**

2.1.2. Renewable energy []

- i. The elements set out in Article 4(a)(2) []
[]
- iii. **Estimated trajectories** [] for the sectorial share of renewable energy in final energy consumption from 2021 to 2030 in the electricity, heating and cooling, and transport sectors
- iv. *estimated trajectories* [] by renewable energy technology that the Member State projects to use to achieve the overall and sectorial trajectories for renewable energy from 2021 to 2030 including expected total gross final energy consumption per technology and sector in Mtoe and total planned installed capacity (divided by new capacity and repowering) per technology and sector in MW
- v. [] **Estimated trajectories** on bioenergy demand, disaggregated between heat, electricity and transport, and on biomass supply, by feedstocks and origin (distinguishing between domestic production and imports). For forest biomass, an assessment of its source and impact on the LULUCF sink []
- vi. If *applicable* [], other national trajectories and objectives, including long-term or sectorial ones (e.g. [], share of renewable energy in district heating, renewable energy use in buildings, renewable energy produced by cities, energy communities and self-consumers, *energy recovered from the sludge acquired through the treatment of wastewater*)

³² Consistency to be ensured with long-term low emission strategies pursuant to Article 14.

2.2. Dimension Energy efficiency []

i. The elements set out in Article 4(b)

[]

(iii) The indicative milestones for 2030, 2040 and 2050, the domestically established measurable progress indicators and their contributions to the Union’s energy efficiency targets as included in the roadmaps set out in the long-term renovation strategies for the national stock of residential and non-residential buildings, both public and private, in accordance with Article 2a of Directive 2010/31/EU on the Energy Performance of Buildings [as amended by Directive 2018/844/EU]

v. If applicable, other national objectives, including long-term targets or strategies and sectorial targets, **and** national objectives in areas such as energy efficiency in the transport sector and with regard to heating and cooling

2.3. Dimension Energy security

i. The elements set out in Article 4(c) []

i bis. [] National objectives with regard to increasing: the diversification of energy sources and supply from third countries; [], for the purpose of increasing the resilience of regional and national energy systems;

ii. If applicable, national objectives with regard to reducing energy import dependency from third countries, for the purpose of increasing the resilience of regional and national energy systems;

[]

iv. [] National objectives with regard to *increasing the flexibility of the national energy system, in particular by means of deploying [] [] domestic energy sources, demand response and energy storage.*

2.4. Dimension Internal energy market

2.4.1. Electricity interconnectivity []

i. The level of electricity interconnectivity that the Member State aims for in 2030 **in consideration of the electricity interconnection target for 2030 of at least 15%, with a strategy with the level from 2021 onwards defined in close cooperation with affected Member States, taking into account *the 2020 interconnection target of 10% and the following indicators of the urgency of action:***

- (1) **Price differential in the wholesale market exceeding an indicative threshold of 2€/MWh between Member States, regions or bidding zones;**
- (2) **Nominal transmission capacity of interconnectors below 30% of their peak load;**
- (3) **Nominal transmission capacity of interconnectors below 30% of installed renewable generation.**

Each new interconnector shall be subject to a socioeconomic and environmental cost-benefit analysis and implemented only if the potential benefits outweigh the costs;

2.4.2. Energy transmission infrastructure

- i. Key [] electricity and gas transmission [] infrastructure **projects, and, where relevant, modernisation projects**, that are necessary for the achievement of objectives and targets *under the five dimensions of the Energy Union Strategy*. []
- ii. If applicable, main infrastructure projects envisaged other than Projects of Common Interest (PCIs)

2.4.3. Market integration

- i. National objectives related to other aspects of the internal energy market such as *increasing system flexibility, in particular related to the promotion of competitively determined electricity prices in line with relevant sectoral legislation*, market integration and coupling, *aimed at increasing the tradeable capacity of existing interconnectors, smart grids, aggregation, demand response, storage, distributed generation, mechanisms for dispatching, re-dispatching and curtailment, and real-time price signals* [], including a timeframe for when the objectives shall be met;
 - ia. **If applicable, national objectives related to the non-discriminatory participation of renewable energy, demand response and storage, including via aggregation, in all energy markets including a timeframe for when the objectives should be met;**
 - ib. **If applicable, national objectives with regard to ensuring that consumers participate in the energy system and benefit from self-generation and new technologies, including smart meters;**
- ii. National objectives with regard to ensuring electricity system adequacy, as well as for the flexibility of the energy system with regard to renewable energy production, including a timeframe for when the objectives shall be met
- iii. **If applicable, national objectives to protect energy consumers and improve the competitiveness of the retail energy sector**

2.4.4. Energy poverty

If applicable, national objectives with regard to energy poverty including a timeframe for when the objectives shall be met

2.5. Dimension Research, innovation and competitiveness

- i. National objectives and funding targets for public and, **where available**, private research and innovation relating to the Energy Union including, if appropriate, a timeframe for when the objectives shall be met;
- ii. **Where available, national 2050 objectives related to the promotion of clean energy technologies and**, if appropriate, national objectives including long-term targets for the deployment of low-carbon technologies, including for decarbonising energy- and carbon-intensive industrial sectors and, if applicable, for related carbon transport and storage infrastructure
- iii. **If applicable**, National objectives with regard to competitiveness

3. POLICIES AND MEASURES

3.1. Dimension Decarbonisation

3.1.1. GHG emissions and removals

- i. Policies and measures to achieve the target set under Regulation [ESR] as referred to in 2.1.1 and policies and measures to comply with Regulation [LULUCF], covering all key emitting sectors and sectors for the enhancement of removals, with an outlook to the long-term vision and goal to become a low **emission** economy and achieving a balance between emissions and removals in accordance with the Paris Agreement
- ii. **Where relevant**, regional cooperation in this area
- iii. If applicable, without prejudice to the applicability of State aid rules, financing measures, including EU support and the use of EU funds, in this area at national level

3.1.2. Renewable energy

- i. Policies and measures to achieve the national contribution to the binding EU-level 2030 target for renewable energy and trajectories as **referred to in Article 4(a)(2), and, if applicable or available, the elements** presented in 2.1.2 including sector- and technology-specific measures³³

³³ When planning these measures, Member States shall take into account the end of life of existing installations and the potential for repowering.

ii. **Where relevant**, specific measures for regional cooperation, as well as, **optionally**, the estimated excess production of energy from renewable sources which could be transferred to other Member States in order to achieve the national contribution and trajectories presented in 2.1.2

iii. Specific measures on financial support, **where applicable** including EU support and the use of EU funds, for the promotion of the production and use of energy from renewable sources in electricity, heating and cooling, and transport

iiibis. When applicable, the assessment of the support for electricity from renewable sources that Member States have to carry out pursuant to Article 6 (1b) of the Directive XXXX on the promotion of the use of energy from renewable sources.

iv. Specific measures to introduce [] **one or more contact points**, streamline administrative procedures, provide information and training, and [] **facilitate the uptake of power purchase agreements**

Summary of the policies and measures under the enabling framework Member States have to put in place pursuant to Articles 21(4) and 22(5) of [Directive XXXX on the promotion of the use of energy from renewable sources] to promote and facilitate the development of renewable self-consumption and renewable energy communities

v. Assessment of the necessity to build new infrastructure for district heating and cooling produced from renewable energy sources

vi. **If applicable**, specific measures on the promotion of the use of energy from biomass, especially for new biomass mobilisation taking into account:

- [] biomass availability, **including sustainable biomass**: both domestic potential and imports from third countries

- other biomass uses by other sectors (agriculture and forest-based sectors); as well as measures for the sustainability of biomass production and use

3.1.3. Other elements of the dimension

i. If applicable, national policies and measures affecting the EU ETS sector and assessment of the complementarity and impacts on the EU ETS

[]

iii. Policies and measures to achieve other national targets, if applicable

iv. Policies and measures to achieve low-emission mobility (including electrification of transport)

iva. If applicable, national policies, timelines and measures planned to phase out energy subsidies, [] in particular for fossil fuels []

3.2. Dimension Energy efficiency []

Planned policies, measures and programmes to achieve the indicative national energy efficiency **contributions** [] for 2030 as well as other objectives presented in 2.2, including planned measures and instruments (also of financial nature) to promote the energy performance of buildings, in particular as regards the following:

- i. Energy efficiency obligation schemes and alternative **policy** measures under Article 7a and 7b of Directive 2012/27/EU, [version as amended in accordance with proposal COM(2016)761] **and** [(to be prepared in accordance with Annex II)]
- ii. long-term **renovation** strategy **to support the** renovation of the national stock of residential and non-residential buildings, both public and private, **including policies, measures and actions to stimulate cost-effective deep renovation and policies and actions to target the worst performing segments of the national building stock, in accordance with Article 2a of Directive 2010/31/EU on the Energy Performance of Buildings as amended by Directive 2018/844**
- iii. Description of policy and measures to promote energy services in the public sector and measures to remove regulatory and non-regulatory barriers that impede the uptake of energy performance contracting and other energy efficiency service models
- iv. Other planned policies, measures and programmes to achieve the indicative national energy efficiency **contributions** [] for 2030 as well as other objectives presented in 2.2 (for example measures to promote the exemplary role of public buildings and *energy-efficient public procurement*, measures to promote energy audits and energy management systems³⁴, consumer information and training measures³⁵, and other measures to promote energy efficiency³⁶)
- v. **Description of measures to utilise energy efficiency potentials of gas and electricity infrastructure**

³⁴ In accordance with Article 8 of Directive 2012/27/EU.

³⁵ In accordance with Articles 12 and 17 of Directive 2012/27/EU

³⁶ In accordance with Article 19 of Directive 2012/27/EU.

- vi. Regional cooperation in this area, if applicable
- vii. Financing measures, including EU support and the use of EU funds, in the area at national level

iva. Where applicable, a description of policies and measures to promote the role of local energy communities in contributing to the implementation of policies and measures in points i, ii, iii and iv

3.3. Dimension Energy security³⁷

- i. Policies and measures **related to the elements []** set out in 2.3³⁸
- ii. Regional cooperation in this area
- iii. If applicable, financing measures in this area at national level, including EU support and the use of EU funds,

3.4. Dimension Internal energy market³⁹

3.4.1. Electricity infrastructure

- i. Policies and measures to achieve the targeted level of interconnectivity [] **as set out in Article 4(d)**
- ii. Regional cooperation in this area⁴⁰
- iii. If applicable, financing measures in this area at national level, including EU support and the use of EU funds

3.4.2. Energy transmission infrastructure

- i. Policies and measures **related to the elements set out []** in 2.4.2, including, if applicable, specific measures to enable the delivery of Projects of Common Interest (PCIs) and other key infrastructure projects

³⁷ Policies and measures shall reflect the energy efficiency first principle.

³⁸ Consistency shall be ensured with the preventive action and emergency plans under Regulation [as proposed by COM(2016) 52] concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010, as well as the risk preparedness plans under Regulation [as proposed by COM(2016) 862] on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC.

³⁹ Policies and measures shall reflect the energy efficiency first principle.

⁴⁰ Other than the PCI Regional Groups established under Regulation (EU) No 347/2013.

- ii. Regional cooperation in this area⁴¹
- iii. If applicable, financing measures in this area at national level, including EU support and the use of EU funds

3.4.3. Market integration

- i. Policies and measures **related to the elements** [] set out in 2.4.3
- ii. [] Measures to increase the flexibility of the energy system with regard to renewable energy production **such as smart grids, aggregation, demand response, storage, distributed generation, mechanisms for dispatching, re-dispatching and curtailment, real-time price signals**, including the roll-out of intraday market coupling and cross-border balancing markets
- iii. If applicable, measures to ensure the non-discriminatory participation of renewable energy, demand response and storage, including via aggregation, in all energy markets*
[]
- iv. [] Policies and measures to protect consumers, especially vulnerable and, **where applicable**, energy poor consumers, and to improve the competitiveness and contestability of the retail energy market
- v. Description of measures to enable and develop demand response including those addressing tariffs to support dynamic pricing⁴²

3.4.4. Energy Poverty

- i. **If applicable**, policies and measures to achieve the objectives set out in 2.4.4

3.5. Dimension Research, innovation and competitiveness

- i. Policies and measures **related to the elements** [] set out in 2.5
- ii. **If applicable**, cooperation with other Member States in this area, including information on how the SET Plan objectives and policies are being translated to a national context, **where appropriate**
- iii. If applicable, financing measures in this area at national level, including EU support and the use of EU funds

⁴¹ Other than the PCI Regional Groups established under Regulation (EU) No 347/2013.

⁴² In accordance with Article 15(8) of Directive 2012/27/EU.

SECTION B: ANALYTICAL BASIS⁴³

4. CURRENT SITUATION AND PROJECTIONS WITH EXISTING POLICIES AND MEASURES^{44,45}

4.1. Projected evolution of main exogenous factors influencing energy system and GHG emission developments

- i. Macroeconomic forecasts (GDP and population growth)
- ii. Sectorial changes expected to impact the energy system and GHG emissions
- iii. Global energy trends, international fossil fuel prices, EU ETS carbon price
- iv. Technology cost developments

4.2. Dimension Decarbonisation

4.2.1. GHG emissions and removals

- i. Trends in current GHG emissions and removals in the EU ETS, Effort Sharing Regulation and LULUCF sectors and different energy sectors
- ii. Projections of sectorial developments with existing national and EU policies and measures at least until 2040 (including for the year 2030)

4.2.2. Renewable energy

- i. Current share of renewable energy in gross final energy consumption and in different sectors (heating and cooling, electricity and transport) as well as per technology in each of these sectors
- iii. **Indicative projections of development with existing policies for the year 2030 (with an outlook to the year 2040) []**

⁴³ See Part 2 for a detailed list of parameters and variables to be reported in Section B of the Plan.

⁴⁴ Current situation shall reflect the date of submission of the national plan (or latest available date). Existing policies and measures encompass implemented and adopted policies and measures. Adopted policies and measures are those for which an official government decision has been made by the date of submission of the national plan and there is a clear commitment to proceed with implementation. Implemented policies and measures are those for which one or more of the following applies at the date of submission of the national plan or progress report: directly applicable European legislation or national legislation is in force, one or more voluntary agreements have been established, financial resources have been allocated, human resources have been mobilised.

⁴⁵ The selection of exogenous factors may be based on the assumptions made in the EU Reference Scenario 2016 or other subsequent policy scenarios for the same variables. Besides, Member States specific results of the EU Reference Scenario 2016 as well as results of subsequent policy scenarios may also be a useful source of information when developing national projections with existing policies and measures and impact assessments.

4.3. Dimension Energy efficiency

- i. Current primary and final energy consumption in the economy and per sector (including industry, residential, service and transport)
- ii. Current potential for the application of high-efficiency cogeneration and efficient district heating and cooling⁴⁶
- iii. Projections considering existing energy efficiency policies, measures and programmes as described under 1.2. ii) for primary and final energy consumption for each sector at least until 2040 (including for the year 2030)⁴⁷
- iv. Cost-optimal levels of minimum energy performance requirements resulting from national calculations, according to Article 5 of Directive 2010/31/EU

4.4. Dimension Energy security

- i. Current energy mix, domestic energy resources, import dependency, including relevant risks
- ii. Projections of development with existing policies and measures at least until 2040 (including for the year 2030)

4.5. Dimension Internal energy market

4.5.1. Electricity interconnectivity

- i. Current interconnection level and main interconnectors⁴⁸
- ii. Projections of interconnector expansion requirements [] (including for the year 2030)⁴⁹

4.5.2. Energy transmission infrastructure

- i. Key characteristics of the existing transmission infrastructure for electricity and gas⁵⁰
- ii. Projections of network expansion requirements at least until 2040 (including for the year 2030)⁵¹

4.5.3. Electricity and gas markets, energy prices

- i. Current situation of electricity and gas markets, including energy prices
- ii. Projections of development with existing policies and measures at least until 2040 (including for the year 2030)

⁴⁶ In accordance with Article 14(1) of Directive 2012/27/EU.

⁴⁷ This reference business as usual projection shall be the basis for the 2030 final and primary energy consumption target which is described in 2.3 and for conversion factors.

⁴⁸ With reference to overviews of existing transmission infrastructure by Transmission System Operators (TSOs).

⁴⁹ With reference to national network development plans and regional investment plans of TSOs.

⁵⁰ With reference to overviews of existing transmission infrastructure by TSOs.

⁵¹ With reference to national network development plans and regional investment plans of TSOs.

4.6. Dimension Research, innovation and competitiveness

- i. Current situation of the low-carbon-technologies sector and, **to the extent possible**, its position on the global market (**this analysis should be done on the European and/or global level**)
 - ii. Current level of public and, **if available**, private research and innovation spending on low-carbon-technologies, current number of patents, and current number of researchers
 - iii. **Breakdown of current price elements that make up the main three price components (energy, network, taxes/levies)**
- iiia. Description of energy subsidies, including for fossil fuels*
- []

5. IMPACT ASSESSMENT OF PLANNED POLICIES AND MEASURES⁵²

5.1. **Impacts of planned policies and measures described in section 3 on energy system and greenhouse gas emissions and removals** including comparison to projections with existing policies and measures (as described in section 4).

- i. Projections of the development of the energy system and greenhouse gas emissions and removals as well as, **where relevant** of emissions of air pollutants in accordance with Directive **2016/2284/EU** [] under the planned policies and measures at least until ten years after the period covered by the plan (including for the last year of the period covered by the plan), including relevant EU policies and measures.
- ii. Assessment of policy interactions (between existing and planned policies and measures within a policy dimension and between existing and planned policies and measures of different dimensions) at least until the last year of the period covered by the plan, ***in particular to establish a robust understanding of the impact of energy efficiency / energy savings policies on the sizing of the energy system and to reduce the risk of stranded investments in energy supply.*** []
- iii. ***Assessment of interactions between existing and planned national policies and measures, and Union climate and energy policy measures.***

⁵² Planned policies and measures are options under discussion and having a realistic chance of being adopted and implemented after the date of submission of the national plan. The resulting projections under section 5.1.i shall therefore include not only implemented and adopted policies and measures (projections with existing policies and measures), but also planned policies and measures.

Macroeconomic and, to the extent feasible, the health, environmental, employment and education, skills and social impacts *including the just transition aspects* (in terms of costs and benefits as well as cost-effectiveness) of the planned policies and measures described in section 3 at least until the last year of the period covered by the plan, including comparison to projections with existing policies and measures.

5.2c *Overview of investment needs*

i. existing investment flows and forward investment assumptions with regards to the planned policies and measures;

iii. sector or market risk factors or barriers in the national or regional context;

iv. analysis of additional public finance support or resources to fill identified gaps identified under (iii);

5.3. Impacts of planned policies and measures described in section 3 on other Member States and regional cooperation at least until the last year of the period covered by the plan, including comparison to projections with existing policies and measures

i. Impacts on the energy system in neighbouring and other Member States in the region to the extent possible

ii. Impacts on energy prices, utilities and energy market integration

iii. **Where relevant, impacts on regional cooperation**

Part 2

List of parameters and variables to be reported in Section B of National Plans^{53 54 55 56}

The following parameters, variables, energy balances and indicators are to be reported in Section B 'Analytical Basis' of the National Plans, **if used**:

1. General parameters and variables

- (1) Population [million]
- (2) GDP [euro million]
- (3) Sectorial gross value added (including main industrial, construction, services, and agriculture sectors) [euro million]
- (4) Number of households [thousands]
- (5) Household size [inhabitants/households]
- (6) Disposable income of households [euro]
- (7) Number of passenger-kilometres: all modes, i.e. split between road (cars and buses separated if possible), rail, aviation and domestic navigation (when relevant) [million pkm]
- (8) Freight transport tonnes-kilometres: all modes excluding international maritime, i.e. split between road, rail, aviation, domestic navigation (inland waterways and national maritime) [million tkm]
- (9) International oil, gas and coal fuel import prices [euro/GJ or euro/toe] [] **based on the Commission's recommendations**
- (10) EU-ETS carbon price [euro/EUA] – [] **based on the Commission's recommendations**
- (11) Exchange rates to euro and to US Dollar (if applicable) assumptions [euro/ currency and USD/currency]
- (12) Number of Heating Degree Days (HDD)

⁵³ For the plan covering the period from 2021 to 2030: for each parameter/variable in the list, trends over the years 2005-2040 (2005-2050 where appropriate) including for the year 2030 in five year intervals shall be reported both in section 4 and 5. Parameter based on exogenous assumptions vs. modelling output shall be indicated.

⁵⁴ As far as possible, reported data and projections shall build on and be consistent with EUROSTAT data and methodology used for reporting European statistics in respective sectorial legislations, as European statistics are the primary source of statistical data used for reporting and monitoring, in accordance with Regulation (EC) No 223/2009 on European statistics.

⁵⁵ Note: all projections are to be performed on the basis of constant prices (2016 prices used as base year)

⁵⁶ The Commission will provide recommendations for key parameters for projections, at least covering oil, gas, and coal import prices as well as EU ETS carbon prices.

- (13) Number of Cooling Degree Days (CDD)
- (14) Technology cost assumptions used in modelling for main relevant technologies

2. Energy balances and indicators

2.1. Energy supply

- (1) Indigenous Production by fuel type (all energy products [] **that are produced in significant quantities**) [ktoe]
- (2) Net imports by fuel type (including electricity and split into intra- and extra EU net imports) [ktoe]
- (3) Import dependency from third countries [%]
- (4) Main import sources (countries) for main energy carriers (including gas and electricity)
- (5) Gross Inland Consumption by fuel type source (including solids, all energy products: coal, crude oil and petroleum products, natural gas, nuclear energy, electricity, derived heat, renewables, waste) [ktoe]

2.2. Electricity and heat

- (1) Gross electricity generation [GWh]
- (2) Gross electricity generation by fuel (all energy products) [GWh]
- (3) Share of combined heat and power generation in total electricity and heat generation [%]
- (4) Capacity electricity generation by source including retirements and new investments [MW]
- (5) Heat generation from thermal power generation
- (6) Heat generation from combined heat and power plants, including industrial waste heat
- (7) Cross-border interconnection capacities for gas and electricity [Definition for electricity in line with outcome of ongoing discussions on basis for 15% interconnection target] and their projected usage rates

2.3. Transformation sector

- (1) Fuel inputs to thermal power generation (including solids, oil, gas) [ktoe]
- (2) Fuel inputs to other conversion processes [ktoe]

2.4. Energy consumption

- (1) Primary and final energy consumption [ktoe]
- (2) Final energy consumption by sector (including industry, residential, tertiary, agriculture and transport (including split between passenger and freight transport, when available)) [ktoe]
- (3) Final energy consumption by fuel (all energy products) [ktoe]

- (4) Final non-energy consumption [ktoe]
- (5) Primary energy intensity of the overall economy (primary energy consumption per GDP [toe/euro])
- (6) Final energy intensity by sector (including industry, residential, tertiary and transport (including split between passenger and freight transport, when available))

2.5. Prices

- (1) Electricity prices by type of using sector (residential, industry, tertiary)
- (2) National retail fuel prices (including taxes, per source and sector) [euro/ktoe]

2.6. Investments

[] **Investment costs in energy transformation, supply, transmission and distribution sectors.**

2.7. Renewables

- (1) Gross final consumption of energy from renewable sources and share of renewable energy in gross final energy consumption and by sector (electricity, heating and cooling, transport) and by technology
- (2) Electricity and heat generation from renewable energy in buildings (as defined in Article 2(1) of Directive 2010/31/EU); this shall include, **where available**, disaggregated data on energy produced, consumed and injected into the grid by solar photovoltaic systems, solar thermal systems, biomass, heat pumps, geothermal systems, as well as all other decentralized renewables systems)
- (3) If applicable, other national trajectories, including long-term or sectorial ones (the share of food-based and advanced biofuels, the share of renewable energy in district heating, as well as the renewable energy produced by cities and energy communities as defined by Article 22 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767])

3. GHG emissions and removals related indicators

- (1) GHG emissions by policy sector (EU ETS, Effort Sharing Regulation and LULUCF)
- (2) GHG emissions by IPCC sector and by gas (where relevant split into EU ETS and Effort Sharing sectors) [tCO₂eq]
- (3) Carbon intensity of the overall economy [tCO₂eq/GDP]
- (4) CO₂ emission related indicators
 - (a) **GHG intensity of domestic power and heat generation** [] [tCO₂eq/MWh]
 - (b) **GHG intensity of final energy consumption by sector** [] [tCO₂eq/toe]
- (5) Non-CO₂ emission related parameters

- (a) Livestock: dairy cattle [1000 heads], non-dairy cattle [1000 heads], sheep [1000 heads], pig [1000 heads], poultry [1000 heads]
- (b) Nitrogen input from application of synthetic fertilizers [kt nitrogen]
- (c) Nitrogen input from application of manure [kt nitrogen]
- (d) Nitrogen fixed by N-fixing crops [kt nitrogen]
- (e) Nitrogen in crop residues returned to soils [kt nitrogen]
- (f) Area of cultivated organic soils [hectares]
- (g) Municipal solid waste (MSW) generation
- (h) Municipal solid waste (MSW) going to landfills
- (i) Share of CH₄ recovery in total CH₄ generation from landfills [%]

ANNEX Ia

National contributions [] for the share of energy from renewable sources in gross final consumption of energy in 2030⁵⁷

1. [] The following indicative formula represents the objective criteria listed in Article 5(1)(d)(i) - (iv) of this Regulation [], each expressed in percentage points:

- (a) *the Member State's national binding target for 2020 as set out in out in the third column of the table in part A of Annex I of [recast of Directive 2009/28/EC as proposed by COM(2016) 767;*
- (b) *a flat rate contribution ("C_{Flat}");*
- (c) *a GDP-per-capita based contribution ("C_{GDP}");*
- (d) *a potential-based contribution ("C_{Potential}");*
- (e) *a contribution reflecting the interconnection level of the Member State ("C_{Interco}").*

2. *C_{Flat} shall be the same for each Member State. All Member States' C_{Flat} shall together contribute 30 % of the difference between the Union's targets for 2030 and 2020.*

3. *C_{GDP} shall be allocated between Member States based on Eurostat's GDP per capita index to the Union average over the 2013-2017 period, expressed in purchasing power standard, where for each Member State individually the index is capped at 150 % of the Union average. All Member States' C_{GDP} shall together contribute 30 % of the difference between the Union targets for 2030 and 2020.*

4. *C_{Potential} shall be allocated between Member States based on the difference between a Member State's RES share in 2030 as shown in PRIMES [] scenario and its national binding target for 2020. All Member States' C_{Potential} shall together contribute 30 % of the difference between the Union targets for 2030 and 2020.*

⁵⁷ In order to be able to achieve the national objectives set out in this Annex, it is underlined that the State aid guidelines for environmental protection recognise the continued need for national mechanisms of support for the promotion of energy from renewable sources.

5. $C_{Interco}$ shall be allocated between Member States based on an electricity interconnection share index to EU average in 2017, measured by the net transfer capacity over total installed generation capacity, where for each Member State individually the interconnection share index is capped at 150% of the EU average. All Member States' $C_{Interco}$ shall together contribute 10% of the difference between the EU targets for 2030 and 2020.]

NOTIFICATION OF MEMBER STATES' MEASURES AND METHODOLOGIES TO IMPLEMENT ARTICLE 7 OF DIRECTIVE 2012/27/EU [VERSION AS AMENDED IN ACCORDANCE WITH PROPOSAL COM(2016)761]

Member States shall notify to the Commission their proposed detailed methodology pursuant to Annex V(5) to Directive 2012/27/EU for the operation of the energy efficiency obligation schemes and alternative **policy** measures referred to in Articles 7a and 7b and Article 20(6) of that Directive.

1. Calculation of the level of the energy savings requirement to be achieved over the whole period from 1 January 2021 to 31 December 2030, showing how the following elements are taken into account:

(a) **the annual final energy consumption []**, averaged over **the three years (2016, 2017 and 2018)** prior to 1 January 2019 [] [in ktoe];

(b) **the total cumulative amount of energy savings to be achieved [in ktoe] as referred to in Article 7(1), points (a) and (b) of Directive 2012/27/EU;**

(d) **data used in the calculation of final energy consumption and sources of such [] data, including justification for the use of alternative statistical sources and any differences of the resulting quantities (if other sources than Eurostat are used);**

1a. Member States that decide to use any of the possibilities under Article 7(2) of Directive 2012/27/EU shall also notify their calculation of the level of the energy savings requirement to be achieved over the whole period from 1 January 2021 to 31 December 2030, showing how the following elements are taken also into account:

(a) **their own annual savings rate;**

(b) **their own calculation baseline and [] energy used in transport excluded from the calculation baseline [in ktoe];**

[]

[]

(e) **calculated cumulative amount of energy savings [] over the whole period from 1 January 2021 to 31 December 2030 (before the exemptions (b), (c), (d), (e), (f) and (g) referred to in Article 7(3) of Directive 2012/27/EU []); [in ktoe];**

- (f) application of **options** (b), (c), (d) , (e), (f) and (g) referred to Article 7(2) and (3) of Directive 2012/27/EU:
- (i) **final** **energy consumption** in industrial activities [in ktoe] listed in Annex I to Directive 2003/87/EC excluded from the calculation, **in line with Article 7(3), point (b), of Directive 2012/27/EU;**
- (ii) amount of energy savings [in ktoe] achieved in the energy transformation, distribution and transmission sectors, **including efficient district heating and cooling infrastructure**, in line with **Article 7(3), point (c), of Directive 2012/27/EU;**
- (iii) amount of energy savings [in ktoe] resulting from individual actions newly implemented since 31 December 2008 that continue to have an impact in 2020 and beyond, in line with **Article 7(3), point (d), of Directive 2012/27/EU;**
- (iv) amount of energy savings [in ktoe] that stem from policy measures, provided it can be demonstrated that those policy measures result in individual actions undertaken after 1 January 2018 and before 31 December 2020, which deliver savings after 31 December 2020, in line with **Article 7(3), point (e), of Directive 2012/27/EU;**
- (v) amount of energy generated [in ktoe] on or in buildings for own use as a result of policy measures promoting new installation of renewable energy technologies, in line with **Article 7(3), point (f), of Directive 2012/27/EU;**
- (vi) amount of excess energy savings [in ktoe] achieved in the period from 1 January 2014 to 31 December 2020, which Member States count towards the period from 1 January 2021 to 31 December 2030 in line with **Article 7(3), point (g), of Directive 2012/27/EU;**
- (g) total cumulative amount of energy savings [in ktoe] (after the **options (b), (c), (d), (e), (f) and (g) referred to Article 7(3) of Directive 2012/27/EU .**
-

2. Policy measures in view of the achievement of the savings requirement referred to in Article 7(1) of Directive 2012/27/EU:

2.1. Energy efficiency obligation schemes referred to in Article 7a of Directive 2012/27/EU:

- (a) description of the energy efficiency obligation scheme;
- (b) expected cumulative and annual amount of savings and duration of the obligation period(s);
- (c) obligated parties and their responsibilities;
- (d) target sectors;

- (e) eligible actions foreseen under the measure;
 - (f) information on the application of **the following** provisions [] of Directive 2012/27/EU:
 - (i) **if applicable**, specific actions, share of savings to be achieved in households affected by energy poverty **in line with Article 7 (6a)**[];
 - (ii) savings achieved by energy service providers or other third parties in line with point (b) of Article 7a (5);
- “banking and borrowing” in line with [] Article 7 [] **5b** [].
- (g) Information on trading of energy savings (if relevant).

2.2. Alternative measures referred to in Article 7b and Article 20(6) of Directive 2012/27/EU (except taxation):

- (a) type of policy measure;
- (b) brief description of the policy measure including the design features per each policy measure notified;
- (c) expected total cumulative and annual amount of savings per each measure and/ or amount of energy savings in relation to any intermediate periods;
- (d) implementing **public authorities**, participating **or** entrusted parties and their responsibilities for implementing the policy measure(s);
- (e) target sectors;
- (f) eligible actions foreseen under the measure;
- (g) **if applicable**, specific policy measures or individual actions targeting energy poverty [].

2.3. Information on taxation measures:

- (a) brief description of taxation measure;
 - (b) duration of taxation measure;
- (ba) implementing public authority;**
- (c) expected cumulative and annual amount of savings per measure;
 - (d) target sectors **and segment of taxpayers**;
 - (e) **calculation methodology, including which price elasticities are used and how they have been established, in line with Annex V, point (4), to Directive 2012/27/EU.**

3. Calculation methodology for measures notified under Articles 7a, 7b and 20(6) of Directive 2012/27/EU(except for taxation measures):

- (a) measurement methods used referred to in Annex V(1) to Directive 2012/27/EU;
- (b) method to express the energy savings (primary or final energy savings);
- (c) lifetimes of [] measures, [] **rate at which the savings decline over time and approach used to take into account the lifetime of savings;**
- (d) brief description of the calculation methodology including how additionality and materiality of savings are ensured **and which methodologies and benchmarks are used for deemed and scaled savings;**
- (e) information on how the possible overlaps between the measures and individual actions are addressed to avoid double counting of energy savings;
- (f) climatic variations and approach used (if relevant).

4. Monitoring and verification

- (a) brief description of the monitoring and verification system and the process of the verification;
- (b) implementing public authority and its main responsibilities in charge of monitoring and verification system in relation to the energy efficiency obligation scheme and/ or alternative measures;
- (c) independence of monitoring and verification from the obligated, [] participating **or** entrusted parties;
- (d) statistically significant proportion of energy efficiency improvement measures and proportion and criteria used to define and select a representative sample⁵⁸;
- (e) reporting obligations for obligated parties (savings achieved by each obligated party, or each sub-category of obligated party, and in total under the scheme).
- (f) publication of energy savings achieved (each year) under the energy efficiency obligation scheme and alternative measures;
- (g) information on **Member States legislation on penalties to be** applied in case of non-compliance;⁵⁹ .
- (h) Information on policy measures foreseen if progress is not satisfactory.**

⁵⁸ Note: according to Article 7a.4 and 7b.3 EED GA.

⁵⁹ Note: according to the general condition in Article 13 EED.

Annex IIa

GENERAL FRAMEWORK FOR LONG-TERM [] STRATEGIES

1. OVERVIEW AND PROCESS FOR DEVELOPING THE STRATEGIES

1.1. Executive summary

1.2. Legal and policy context

1.3. Public consultation

2. CONTENT

2.1. TOTAL GREENHOUSE GAS EMISSIONS REDUCTIONS AND ENHANCEMENTS OF REMOVALS BY SINKS

2.1.1. Projected emission reductions and enhancement of removals by 2050

2.1.2. National target for 2030 and beyond, if available, and indicative milestones for 2040 and 2050

2.1.3. Adaptation policies and measures

2.2. RENEWABLE ENERGY

2.2.1. To the extent feasible, the estimated likely share of renewable energy in final energy consumption by 2050

2.3. ENERGY EFFICIENCY

2.3.1. To the extent feasible, the estimated likely energy consumption by 2050

2.4. Sector-specific related content

2.4.1. Energy system

2.4.1.1 Intended or likely future emissions trajectory or range

2.4.1.2 General description of main drivers for energy efficiency, demand-side flexibility and energy consumption and their evolution from 2021 and beyond

2.4.2 Industry

2.4.2.1. Expected emissions reductions by sector and energy demands

2.4.2.2. General overview of the policies, existing plans and measures for decarbonisation as described in Annex I, Part I, Section A, Part 2.1. of this Regulation

2.4.3. Transport

2.4.3.1. Expected emissions and energy sources by transport type (e.g. cars and vans, heavy duty road transport, shipping, aviation, rail)

2.4.3.2. Decarbonisation options

2.4.4. Agriculture and land use, land-use change and forestry (LULUCF)

2.4.4.1. To the extent feasible, expected emissions by sources and by individual greenhouse gases

2.4.4.2. Emission reduction options envisaged

2.4.4.3. Links to agricultural and rural development policies

3. FINANCING

3.1. Estimates of investment needed

3.2. Policies and measures for related research, development and innovation

4. IMPACT ASSESSMENT OF THE SOCIO-ECONOMIC ASPECTS

5. Annexes (as necessary)

5.1. Details on modelling (including assumptions) and/or analysis, indicators etc.

GHG INVENTORIES INFORMATION

Part 1

Information to be included in the reports referred to in Article 23(2):

- (a) their anthropogenic emissions of greenhouse gases listed in part 2 of this Annex and the anthropogenic emissions of greenhouse gases referred to in Article 2(1) of Regulation [] [ESR] for the year X-2;
- (b) data on their anthropogenic emissions of carbon monoxide (CO), sulphur dioxide (SO₂), nitrogen oxides (NO_x) and volatile organic compounds, consistent with data already reported pursuant to Article 8 [] of Directive 2016/2284/EU [] for the year X-2;
- (c) their anthropogenic greenhouse gas emissions by sources and removals of CO₂ by sinks resulting from LULUCF, for the year X-2, in accordance with the methodologies specified in part 3 of this Annex. This data shall also be relevant for the compliance report under Article [42] 14 of Regulation [] [LULUCF];
- (d) any changes to the information referred to in points (a) to (c) for the years between the relevant base year or period and the year X-3, indicating the reasons for these changes;
- (e) information on indicators, as set out in part 4 of this Annex, for the year X-2;
- (f) summary information on concluded transfers pursuant to Article 5 of Regulation [] [ESR] and Articles 12 and 13 [44] of Regulation [] [LULUCF] for the year X-1;
- (g) information on the steps taken to improve inventory estimates, in particular in areas of the inventory that have been subject to adjustments or recommendations following expert reviews;
- (h) the actual or estimated allocation of the verified emissions reported by installation operators under Directive 2003/87/EC to the source categories of the national greenhouse gas inventory and the ratio of those verified emissions to the total reported greenhouse gas emissions in those source categories, for the year X-2;
- (i) **where relevant**, the results of the checks performed on the consistency of the emissions reported in the greenhouse gas inventories, for the year X-2, with the verified emissions reported under Directive 2003/87/EC;
- (j) **where relevant**, the results of the checks performed on the consistency of the data used to estimate emissions in preparation of the greenhouse gas inventories, for the year X-2, with:

- (i) the data used to prepare inventories of air pollutants under Directive **2016/2284/EU** [];
- (ii) the data reported pursuant to Article 19(1) and Annex VII to Regulation (EU) No 517/2014;
- (iii) the energy data reported pursuant to Article 4 of, and Annex B to Regulation (EC) No 1099/2008;
- (k) a description of changes to their national inventory system, **if any**;
- (l) a description of changes to the national registry, **if any**;
- (m) information on their quality assurance and quality control plans, a general uncertainty assessment, a general assessment of completeness and, any other elements of the national greenhouse gas inventory report needed to prepare the Union greenhouse gas inventory report;
- (n) information of the Member State's intentions to make use of the flexibilities in Article 5(4) and (5) **and Article 7(1) and of the use of revenues under Article 5(6)** of Regulation [] [ESR].

A Member State may request derogation from point c to apply a different methodology than specified in Part 3 of this Annex if the methodology improvement required could not be achieved in time for the improvement to be taken into account in the greenhouse gas inventories of the period from 2021 to 2030, or the cost of the methodology improvement would be disproportionately high compared to the benefits of applying such methodology to improve accounting for emissions and removals due to the low significance of the emissions and removals from the carbon pools concerned. Member States wishing to benefit from the derogation shall submit a reasoned request to the Commission by 31 December 2020, indicating the timeline by when the methodology improvement could be implemented and/or the alternative methodology proposed, and an assessment of the potential impacts on the accuracy of accounting. The Commission may request additional information to be submitted within a reasonable time period specified. Where the Commission considers that the request is justified, it shall grant the derogation. If the request is rejected, the Commission shall give reasons for its decision.

Part 2

The greenhouse gases to be covered are:

Carbon dioxide (CO₂)

Methane (CH₄)

Nitrous Oxide (N₂O)

Sulphur hexafluoride (SF₆)

Nitrogen trifluoride (NF₃)

Hydrofluorocarbons (HFCs):

- HFC-23 CHF₃
- HFC-32 CH₂F₂
- HFC-41 CH₃F
- HFC-125 CHF₂CF₃
- HFC-134 CHF₂CHF₂
- HFC-134a CH₂FCF₃
- HFC-143 CH₂FCHF₂
- HFC-143a CH₃CF₃
- HFC-152 CH₂FCH₂F
- HFC-152a CH₃CHF₂
- HFC-161 CH₃CH₂F
- HFC-227ea CF₃CHF₂CF₃
- HFC-236cb CF₃CF₂CH₂F
- HFC-236ea CF₃CHFCHF₂
- HFC-236fa CF₃CH₂CF₃
- HFC-245fa CHF₂CH₂CF₃
- HFC-245ca CH₂FCF₂CHF₂
- HFC-365mfc CH₃CF₂CH₂CF₃
- HFC-43-10mee CF₃CHFCHF₂CF₃ or (C₅H₂F₁₀)

Perfluorocarbons (PFCs):

- PFC-14, Perfluoromethane, CF₄
- PFC-116, Perfluoroethane, C₂F₆
- PFC-218, Perfluoropropane, C₃F₈
- PFC-318, Perfluorocyclobutane, c-C₄F₈
- Perfluorocyclopropane c-C₃F₆
- PFC-3-1-10, Perfluorobutane, C₄F₁₀
- PFC-4-1-12, Perfluoropentane, C₅F₁₂
- PFC-5-1-14, Perfluorohexane, C₆F₁₄
- PFC-9-1-18, C₁₀F₁₈

Part 3 - Methodologies for monitoring and reporting in LULUCF sector

Geographically-explicit land-use conversion data in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Note: text provisionally agreed at technical level

Tier 1 methodology [] in accordance with the 2006 IPCC guidelines for National Greenhouse Gas Inventories.

For emissions and removals for a carbon pool that accounts for at least 25-30% of emissions or removals in a source or sink category which is prioritised within a Member State's national inventory system because its estimate has a significant influence on a country's total inventory of greenhouse gases in terms of the absolute level of emissions and removals, the trend in emissions and removals, or the uncertainty in emissions and removals in the land-use categories, at least Tier 2 methodology [] in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Member States are encouraged to apply Tier 3 methodology [], in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Part 4 - Inventory indicators

Indicator title	Indicator
TRANSFORMATION B0	Specific CO ₂ emissions of public and auto-producer power plants, t/TJ CO ₂ emissions from public and auto-producer thermal power stations, kt divided by all products — output by public and auto-producer thermal power stations, PJ
TRANSFORMATION E0	Specific CO ₂ emissions of auto-producer plants t/TJ CO ₂ emissions from auto-producers, kt divided by All products output by auto-producer thermal power stations, PJ
INDUSTRY A1.1	Total CO ₂ intensity — iron and steel industry, t/million euro Total CO ₂ emissions from iron and steel, kt divided by gross value added – iron and steel industry
INDUSTRY A1.2	Energy-related CO ₂ intensity — chemical industry, t/million euro Energy-related CO ₂ emissions chemical industries, kt divided by gross value added – chemical industry
INDUSTRY A1.3	Energy-related CO ₂ intensity — glass, pottery and building materials industry, t/million euro Energy-related CO ₂ emissions glass, pottery and building materials, kt divided by gross value added – glass, pottery and buildings material industry
INDUSTRY A1.4	Energy-related CO ₂ intensity — food, drink and tobacco industry, t/million euro Energy-related CO ₂ emissions from food, drink and tobacco industry, kt divided by gross value-added — food, drink and tobacco industry, million euro (EC95)

INDUSTRY A1.5	Energy-related CO ₂ intensity — paper and printing industry, t/million euro Energy-related CO ₂ emissions paper and printing, kt - Gross value-added — paper and printing industry, million euro (EC95)
HOUSEHOLDS A0	Specific CO ₂ emissions of households for space heating, t/m ² CO ₂ emissions of households for space heating divided by surface area of permanently occupied dwellings, million m ²
SERVICES B0	Specific CO ₂ emissions of commercial and institutional sector for space heating, kg/m ² CO ₂ emissions from space heating in commercial and institutional, kt divided by Surface area of services buildings, million m ²
TRANSPORT B0	Specific diesel related CO ₂ emissions of passenger cars, g/100 km
TRANSPORT B0	Specific petrol related CO ₂ emissions of passenger cars, g/100 km

POLICIES AND MEASURES INFORMATION IN THE AREA OF GREENHOUSE GAS EMISSIONS

Information to be included in the reports referred to in Article 16:

- a) a description of their national system for reporting on policies and measures, **or groups of measures**, and for reporting on projections of anthropogenic greenhouse gas emissions by sources and removals by sinks pursuant to Article 32(1) or information on any changes made to that system where such a description has already been provided;
- (b) updates relevant to their long-term low emission strategies referred to in Article 14 and progress in implementing those strategies;
- (c) information on national policies and measures, or groups of measures, and on implementation of Union policies and measures, or groups of measures, that limit or reduce greenhouse gas emissions by sources or enhance removals by sinks, presented on a sectoral basis and organised by gas or group of gases (HFCs and PFCs) listed in Part 2 of Annex III. That information shall refer to applicable and relevant national or Union policies and shall include:
 - (i) the objective of the policy or measure and a short description of the policy or measure;
 - (ii) the type of policy instrument;
 - (iii) the status of implementation of the policy or measure or group of measures;
 - (iv) indicators **used** to monitor and evaluate progress over time;
 - (v) **where available**, quantitative estimates of the effects on emissions by sources and removals by sinks of greenhouse gases broken down into:
 - the results of ex ante assessments of the effects of individual or groups of policies and measures on the mitigation of climate change. Estimates shall be provided for a sequence of four future years ending with 0 or 5 immediately following the reporting year, with a distinction between greenhouse gas emissions covered by Directive 2003/87/EC, Regulation [] [ESR] and Regulation [] [LULUCF];
 - the results of ex post assessments of the effects of individual or groups of policies and measures on the mitigation of climate change where available, with a distinction between greenhouse gas emissions covered by Directive 2003/87/EC, Regulation [] [ESR] and Regulation [] [LULUCF];
 - (vi) **available** estimates of the projected costs and benefits of policies and measures, as well as estimates of the realised costs and benefits of policies and measures

- (vii) all **existing** references to the assessments of the costs and effects of national policies and measures, to information in the implementation of Union policies and measures that limit or reduce greenhouse gas emissions by sources or enhance removals by sinks and to the underpinning technical reports;
- (viii) an assessment of the contribution of the policy or measure to the achievement of the long-term low emission strategy referred to in Article 14;
- (d) information on planned additional national policies and measures, **or groups of measures**, envisaged with a view to limiting greenhouse gas emissions beyond their commitments under Regulation [] [ESR] and Regulation [] [LULUCF];
- (e) information regarding the links between the different policies and measures, **or groups of measures**, reported pursuant to point c and the way such policies and measures, **or groups of measures**, contribute to different projection scenarios.

PROJECTIONS INFORMATION IN THE AREA OF GREENHOUSE GAS EMISSIONS

Information to be included in the reports referred to in Article 16:

- (a) projections without measures where available, projections with measures, and **where available** projections with additional measures;
- (b) total greenhouse gas projections and separate estimates for the projected greenhouse gas emissions for the emission sources covered by Directive 2003/87/EC and by Regulation [] [ESR] and the projected emissions by sources and removals by sinks under the Regulation [] [LULUCF];
- (c) the impact of policies and measures identified pursuant to Article 16(1)(a). Where such policies and measures are not included, this shall be clearly stated and explained;
- (d) results of the sensitivity analysis performed for the projections and information on the models and parameters used;
- (e) all relevant references to the assessment and the technical reports that underpin the projections referred to in Article 16(4).

INFORMATION ON NATIONAL ADAPTATION ACTIONS, FINANCIAL AND TECHNOLOGY SUPPORT PROVIDED TO DEVELOPING COUNTRIES, AUCTIONING REVENUE**Part 1***Reporting on Adaptation*

Information to be included in the reports referred to in Article 17(1):

- (a) the main goals, objectives and institutional framework for adaptation;
- (b) climate change projections including weather extremes, climate-change impacts, assessment of climate vulnerability and risks and key climate hazards;
- (c) **adaptive capacity**;
- (d) adaptation plans and strategies;
- (e) **monitoring and evaluation framework**;
- (f) progress made in implementation, including good practices and governance changes.

Part 2*Reporting on support to developing countries*

Information to be included in the reports referred to in Article 17(2)(a):

- (a) information on financial support **committed and provided** to developing countries for the year X-1, including:
 - (i) quantitative information on public and mobilised financial resources by the Member State. The information on financial flows is to be based on the so-called 'Rio markers' for climate change mitigation-related support and climate change adaptation-related support and other tracking systems introduced by the OECD Development Assistance Committee;
 - (ii) qualitative methodological information explaining the method used to calculate the quantitative information, including an explanation of methodology for quantifying their data, and where relevant, also other information on the definitions and methodologies used to determine any figures, notably for information reported on mobilised financial flows;
 - (iii) available information on activities by the Member State related to public-funded technology transfer projects and capacity-building projects for developing countries under the UNFCCC, including whether the technology transferred or capacity-building project was used for mitigating or adapting to the effects of climate change, recipient country, amount of support provided (**if possible**), and type of technology transferred or capacity-building project;

(b) **available** information for the year X and subsequent years on the planned provision of support, including information on planned activities related to public-funded technology transfer projects or capacity building projects for developing countries under the UNFCCC and on technologies to be transferred and capacity-building projects, including whether the technology transferred or capacity-building project is intended for mitigating or adapting to the effects of climate change, recipient country, amount of support provided (**if possible**), and type of technology transferred or capacity-building project.

Part 3

Reporting on auctioning revenues

Information to be included in the reports referred to in Article 17(2)(b):

- (a) information on the use of revenues during the year X-1 generated by the Member State by auctioning allowances pursuant to Article 10(1) of Directive 2003/87/EC, including information on such revenue that has been used for one or more of the purposes specified in Article 10(3) of that Directive, or the equivalent in financial value of that revenue, and the actions taken pursuant to that Article;
- (b) information on the use, as determined by the Member State, of all revenue generated by the Member State by auctioning aviation allowances pursuant to Article 3d(1) or (2) of Directive 2003/87/EC; that information shall be provided in accordance with Article 3d(4) of that Directive;

Auctioning revenue not disbursed at the time a Member State submits a report to the Commission pursuant to Article 17(2)(b) shall be quantified and reported in reports for subsequent years.

ADDITIONAL REPORTING OBLIGATIONS

Part 1

Additional reporting obligations in the area of renewable energy

The following additional information shall, unless otherwise stated, be included pursuant to Article 18(c):

- (a) the functioning of the system of guarantees of origin for electricity, gas and heating and cooling from renewable energy sources, the levels of issuance and cancellation of guarantees of origin and the resulting annual national renewable energy consumption, as well as the measures taken to ensure the reliability and protection against fraud of the system;
- (b) **amounts of biofuels, biogas, renewable transport fuels of non-biological origin, recycled carbon fuels and renewable electricity consumed in the transport sector and, if relevant, their greenhouse saving performance. Reporting shall distinguish between fuels produced from different types of food and feed crops and each type of feedstock listed in IX to [recast of Directive 2009/28/EC as proposed by COM(2016)]**;
- (c) ***developments in the availability***, origin and use of biomass resources for energy purposes;
[]
- (e) the estimated excess production of energy from renewable sources which could be transferred to other Member States so that these comply with Article 3, paragraph 3 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767] and achieve the national contributions and trajectories referred to in Article 4(a)(2)(i);
- (f) **where applicable**, the estimated demand for energy from renewable sources to be satisfied by means other than domestic production until 2030, [] **including imported biomass feedstock**;
- (g) the **technological** development and **deployment** of biofuels made from feedstocks listed in Annex IX to [recast of Directive 2009/28/EC as proposed by COM(2016) 767] []
- (h) **if available**, the estimated impact of the production or use of biofuels, bioliquids and biomass fuels on biodiversity, water resources, water availability and quality, soils and air quality within the Member State;
- (i) [] observed cases of fraud in the chain of custody of biofuels, bioliquids and biomass fuels;
- (j) information on how the share of biodegradable waste in waste used for producing energy has been estimated, and what steps have been taken to improve and verify such estimates;

- (k) electricity and heat generation from renewable energy in buildings (as defined in Article 2(1) of Directive 2010/31/EU). This shall include disaggregated data on energy produced, consumed and injected into the grid by solar photovoltaic systems, solar thermal systems, biomass, heatpumps, geothermal systems, as well as all other decentralized renewables systems;
- (l) if applicable, [] the share of renewable energy in district heating, as well as the renewable energy produced by cities and energy communities as defined by Article 22 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767];
- (m) Primary supply of solid biomass (in 1000 m³, except 1)b)iii) in tons)**
- (1) Forest biomass used for energy production (domestic production and import [])**
- (a) Primary biomass from forest used directly for energy production**
- i) If available, branches and tree tops**
- ii) If applicable, stumps**
- iii) Round wood (split into industrial roundwood and fuelwood)**
- (b) If applicable, forest-based industry co-products used directly for energy**
- i) If applicable, bark**
- ii) Chips, sawdust and other wood particles**
- iii) If applicable, black liquor and crude tall oil**
- (c) If available, post-consumer wood used directly for energy production**
- (d) Processed wood-based fuel, produced from feedstocks not accounted under points 1a), 1b) or 1c):**
- i) If applicable, wood charcoal**
- ii) Wood pellets and wood briquettes**
- (2) If available, agricultural biomass used for energy production (domestic production, import and export)**
- (a) Energy crops for electricity or heat (including short rotation coppice)**
- (b) Agricultural crop residues for electricity or heat**
- (3) If available, [] organic waste biomass for energy production (domestic production, import and export)**
- (a) Organic fraction of industrial waste**
- (b) Organic fraction of municipal waste**
- (c) Waste sludges**
- (n) final energy consumption of solid biomass (amount of solid biomass used for energy production in the following sectors):**

- (1) *Energy sector*
 - (a) *Electricity*
 - (b) *Combined heat and power*
 - (c) *Heat*
- (2) *Industry sector internal (consumed and autoproduced electricity, CHP and heat)*
- (3) *Direct final consumption residential*
- (4) *Other*

Part 2

Additional reporting obligations in the area of energy efficiency

In the area of energy efficiency, the following additional information shall be included pursuant to Article 19(c):

(a) major legislative and non-legislative policies, measures, financing measures and programmes implemented in year X-2 and X-1 (with X as the year when the report is due) to achieve their objectives set under Article 4(b) which promote energy service markets, improve the energy performance of buildings, measures to utilise energy efficiency potentials of gas and electricity infrastructure and heating and cooling, improve information and qualification, other measures to promote energy efficiency;

(b) **the cumulative amount of** energy savings achieved through Article 7 of Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761] in years X-3 and X-2;

(v) **amount of savings achieved by policy measures aimed at alleviation of energy poverty in line with Article 7(6a) of Directive 2012/27/EU;**

(vi) **if applicable, amount of savings achieved in accordance with Article 7(3)(c) of Directive 2012/27/EU;**

(c) progress in each sector and reasons why energy consumption remained stable or was growing in year X-3 and X-2 in final energy consumption sectors;

(d) total building floor area of the buildings with a total useful floor area over 250 m² owned and occupied by the Member States' central government that, on 1 January in year X-2 and X-1, which did not meet the energy performance requirements referred to in Article 5(1) of Directive 2012/27/EU;

(e) total building floor area of heated and/or cooled buildings owned and occupied by the Member States' central government that was renovated in year X-3 and X-2 referred to in Article 5(1) of the Directive 2012/27/EU or the amount of energy savings in eligible buildings owned and occupied by their central government as referred to in Article 5(6) of Directive 2012/27/EU;

- (f) number of energy audits carried out in in year X-3 and X-2. In addition, the total **estimated** number of large companies in their territory to which Article 8(4) of Directive 2012/27/EU is applicable and the number of energy audits carried out in those enterprises in the year X-3 and X-2;
- (g) applied national primary energy factor for electricity **and a justification if this is different from the default coefficient referred to in footnote (3) of Annex IV of Directive 2012/27/EU**;
- (h) number and floor area of new and renovated nearly zero-energy buildings in year X-2 and X-1, as defined in Article 9 of the Directive 2010/31/EU, **if necessary based on statistical sampling**;
- (i) the internet link to the website where the list or the interface of energy services providers referred to in point (c) of Article 18(1) of Directive 2012/27/EU can be accessible.

UNION BIOENERGY SUSTAINABILITY REPORT

The EU bioenergy sustainability report on energy from biomass to be adopted biennially by the Commission together with the State of the Energy Union report pursuant to Article 29(2)(d), shall contain as a minimum the following information:

- (a) the relative environmental benefits and costs of different biofuels, bioliquids and biomass fuels, the effects of the Union's import policies thereon, the security of supply implications and the ways of achieving a balanced approach between domestic production and imports
- (b) the impact of the production and use of biomass on sustainability in the Union and in third countries, including impacts on biodiversity;
- (c) data and analysis of current and projected sustainable biomass availability and demand, including the impact of increased demand for biomass on biomass using sectors;
- d) the technological development **and deployment** [] of biofuels made from feedstocks listed in Annex IX to [recast of Directive 2009/28/EC as proposed by COM(2016) 767], **and an assessment of the feedstock availability and resource competition taking into account the principles of the circular economy and the waste hierarchy established in Directive 2008/98/EC**;
- (e) information on, and analysis of, the available scientific research results regarding indirect land-use change in relation to all production pathways, accompanied by an assessment of whether the range of uncertainty identified in the analysis underlying the estimations of indirect land-use change emissions can be narrowed and the possible impact of Union policies, such as environment, climate and agricultural policies, can be factored in; and
- (f) in respect of both third countries and Member States that are a significant source of biofuels, bioliquids and biomass fuels consumed within the Union, on national measures taken to respect the sustainability criteria and greenhouse gas saving criteria set out in Article 26, paragraphs 2 to 7, of [recast of Directive 2009/28/EC as proposed by COM(2016) 767], for soil, water and air protection.
- (g) aggregated information from the database referred in Article 25(4) of the Directive XXXX on the promotion of the use of energy from renewable sources.**

In reporting on greenhouse gas emission savings from the use of biomass, the Commission shall use the amounts reported by Member States in accordance to Annex VII, Part 1 (b), including the provisional mean values of the estimated indirect land-use change emissions and the associated range derived from the sensitivity analysis as set out in Annex VIII to [recast of Directive 2009/28/EC as proposed by COM(2016) 767]. The Commission shall make data on the provisional mean values of the estimated indirect land-use change emissions and the associated range derived from the sensitivity analysis publicly available. In addition, the Commission shall evaluate whether and how the estimate for direct emission savings would change if co-products were accounted for using the substitution approach.

**VOLUNTARY SCHEMES IN RESPECT OF WHICH THE COMMISSION HAS ADOPTED A
DECISION ACCORDING TO ARTICLE 27(4) OF [RECAST OF DIRECTIVE 2009/28/EC AS
PROPOSED BY COM(2016) 767]**

The report on voluntary schemes in respect of which the Commission has adopted a decision according to Article 27(4) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767], to be adopted biennially by the Commission together with the State of the Energy Union report pursuant to Article 29(2)(e), shall contain the Commission's assessment of, as a minimum, the following:

- (a) the independence, modality and frequency of audits, both in relation to what is stated on those aspects in the scheme documentation, at the time the scheme concerned was approved by the Commission, and in relation to industry best practice;
- (b) the availability of, and experience and transparency in the application of, methods for identifying and dealing with non-compliance, with particular regard to dealing with situations or allegations of serious wrongdoing on the part of members of the scheme;
- (c) transparency, particularly in relation to the accessibility of the scheme, the availability of translations in the applicable languages of the countries and regions from which raw materials originate, the accessibility of a list of certified operators and relevant certificates, and the accessibility of auditor reports;
- (d) stakeholder involvement, particularly as regards the consultation of indigenous and local communities prior to decision making during the drafting and reviewing of the scheme as well as during audits and the response to their contributions;
- (e) the overall robustness of the scheme, particularly in light of rules on the accreditation, qualification and independence of auditors and relevant scheme bodies;
- (f) **where available**, market updates of the scheme, the amount of feedstocks and biofuels certified, by country of origin and type, the number of participants;
- (g) the ease and effectiveness of implementing a system that tracks the proofs of conformity with the sustainability criteria that the scheme gives to its member(s), such a system intended to serve as a means of preventing fraudulent activity with a view, in particular, to the detection, treatment and follow-up of suspected fraud and other irregularities and where appropriate, number of cases of fraud or irregularities detected;
- (h) options for entities to be authorised to recognise and monitor certification bodies;
- (i) criteria for the recognition or accreditation of certification bodies;
- (j) rules on how the monitoring of the certification bodies is to be conducted;
- (k) ways to facilitate or improve the promotion of best practice.

NATIONAL INVENTORY SYSTEMS

Information referred to in Article 30 includes the following:

- (a) data and methods reported for activities and installations under Directive 2003/87/EC for the purpose of preparing national greenhouse gas inventories in order to ensure consistency of the reported greenhouse gas emissions under the Union's emissions trading scheme and in the national greenhouse gas inventories;
- (b) data collected through the reporting systems on fluorinated gases in the **relevant** sectors **established** pursuant to Article 20 of Regulation (EU) No 517/2014 for the purpose of preparing national greenhouse gas inventories;
- (c) emissions, underlying data and methodologies reported by facilities under Regulation (EC) No 166/2006 for the purpose of preparing national greenhouse gas inventories;
- (d) data reported under Regulation (EC) No 1099/2008;
- (e) data collected via the geographical tracking of land areas in the context of existing Union and Member State programmes and surveys including the LUCAS Land Use Cover Area frame Survey and the European Earth observation programme Copernicus.

CORRELATION TABLE

Regulation (EU) No 525/2013	This Regulation
Article 1	Article 1(1)
Article 2	—
Article 3	—
Article 4	Article 14
Article 5	Article 30(1); 30(2); 30(6); Annex X
Article 6	Article 30(3); 30(6)
Article 7	Article 23(2); 23(3); 23(5); 23(6); Annex III
Article 8	Article 23(1)(a); last subparagraph of Article 23(1); 23(6)
Article 9	Article 30(4); 30(5)
Article 10	Article 33
Article 11	—
Article 12	Article 32
Article 13	Article 16(1)(a); 16(3); 16(4); Annex IV
Article 14	Article 16(1)(b); 16(2); 16(3); 16(4); Annex V

Article 15	Article 17(1); Annex VI, Part 1
Article 16	Article 17(2)(a); Annex VI, Part 2
Article 17	Article 17(2)(b); 17(3); 17(4); Annex VI, Part 3
Article 18	Article 15(2)(e); the second subparagraph of Article 15(2)
Article 19	—
Article 20	—
Article 21	Article 25(1)(c); 25(4); 25(7)
Article 22	—
Article 23	Article 34(1)(d); 34(1)(e); 34(1)(f); 34(1)(g); 34(1)(h)
Article 24	Article 35
Article 25	—
Article 26	Article 37
Article 27	—
Article 28	Article 50
Article 29	—
