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From:	General Secretariat of the Council
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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

Delegations will find attached the text of the draft Regulation, amended in light of the discussions in the Energy Working Party and the written comments received. Consequential changes reflecting the current state of play of discussions on the EPBD and EED proposals are also included (and will be updated in the future in light of those discussions).

Changes compared to the Commission proposal are indicated in **bold underlined**; deletions are marked with **[]** or **[~~strikethrough~~]**.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the Governance of the Energy Union and Climate Action¹,

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 Committee²,]

[Having regard to the opinion of the Committee of the Regions³,]

Acting in accordance with the ordinary legislative procedure,

Whereas:

¹ **Note: if this proposal is accepted, the necessary consequential changes will be made throughout the text.**

² OJ C , , p. .

³ OJ C , , p. .

- (1) This Regulation sets out the necessary legislative foundation for a reliable and transparent Governance that ensures the achievement of the objectives and targets of the Energy Union through complementary, coherent and ambitious efforts by the Union and its Member States, while promoting the Union's Better Regulation principles.
- (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, which requires a fundamental transformation of Europe's energy system. That objective can only be achieved through coordinated action, combining both legislative and non-legislative acts at Union and national level.
- (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 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.
- (5) The European Council agreed on 24 October 2014 on the 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.

- (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 2016⁴ 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.
- (7) The European Council also concluded on 24 October 2014⁵ that a reliable and transparent governance system, without any unnecessary administrative burden, should be developed to help ensure that the Union meets its energy policy goals, with the necessary flexibility for Member States and fully respecting their 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 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.

⁴ 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).

⁵ Conclusions of the European Council 23 - 24 October 2014 (EUCO 169/14).

- (9) In its Communication on the State of the Energy Union of 18 November 2015⁶ 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.
- (10) The Conclusions of the Council of 26 November 2015⁷ 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 2015⁸ 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.

⁶ Communication State of the Energy Union 2015 of 18.11.2015, COM(2015)572 final.

⁷ Conclusions of the Council of 26 November 2015 (14459/15).

⁸ European Parliament resolution of 15 December 2015 on "Towards a European Energy Union" (2015/2113(INI)).

- (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. 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 low-carbon economy.
- (13) The transition to a low-carbon economy requires changes in investment behaviour and incentives across the entire policy spectrum. Achieving greenhouse gas emission reductions requires a boost to efficiency and innovation in the European economy and in particular should also lead to improvements of air quality.
- (14) As greenhouse gases and air pollutants largely derive from common sources, policy designed to reduce GHGs can have co-benefits for air quality that could offset some or all of the near-term costs of GHG mitigation. As data reported under Directive 2001/81/EC of the European Parliament and the Council⁹ represent an important input for the compilation of the GHG inventory and the national plans, the importance of compilation and reporting of consistent data between Directive 2001/81/EC and the GHG inventory should be recognised.

⁹ 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).

- (15) The experience gained in implementing Regulation (EU) No 525/2013 of the European Parliament and the Council¹⁰ 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 Council¹¹, Regulation (EC) No 166/2006 of the European Parliament and the Council¹², Regulation (EC) No 1099/2008 of the European Parliament and the Council¹³ and Regulation (EC) No 517/2014 of the European Parliament and the Council¹⁴. 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, the Energy Union Governance should result in a significant reduction of administrative burden for the Member States, 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 low-carbon economy.

¹⁰ 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).

¹¹ 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).

¹² 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).

¹³ 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).

¹⁴ 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 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. 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.
- (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 Council¹⁵ 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.
- (21) Regional cooperation is key to ensure an effective achievement of the objectives of the Energy Union. 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.
- (22) National plans should be stable to ensure transparency and predictability of national policies and measures in order to ensure investor 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 1 January 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.

¹⁵ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (OJ L 197, 21.7.2001, p.30).

- (23) Stable long-term low emission 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.
- (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, but those requirements have been introduced at different moments in time which has led to overlaps and 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 burden, 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 2021. The progress reports should be carried out in order to ensure transparency towards the Union, other Member States and market actors including consumers. 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]¹⁶ ("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]")¹⁷.
- (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.

¹⁶ OJ L [...], [...], p. [...].

¹⁷ 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 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.
- (30) In order to limit administrative burden on Member States and the Commission, the latter should establish an online reporting platform to facilitate communication and promote cooperation. 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.

- (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 Council¹⁸ 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.
- (32) In view of the collective achievement of the objectives of the Energy Union Strategy, it will be essential for the Commission to assess 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.
- (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 could consider relevant policy options for addressing them.

¹⁸ 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).

- (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. 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. Member States should take utmost account of such recommendations and explain in subsequent progress reports how they have been implemented.
- (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, take measures 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 take into account early ambitious contributions made by Member States to the 2030 targets for renewable energy and energy efficiency when sharing the effort for collective target achievement. In the area of renewable energy, such measures can also include financial contributions by Member States to a financing platform 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. In the area of energy efficiency, additional measures can in particular aim at improving the energy efficiency of products, buildings and transport.

- (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 Council¹⁹ 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.
- (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 European Parliament should be fully included in the governance framework.]~~ The Commission should as appropriate assist Member States in implementing this Regulation, particularly with regard to the establishment of the national plans and associated capacity building.
- (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.

¹⁹ 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).

- (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), set up a financing platform to which Member States can contribute in case the Union trajectory towards the 2030 Union renewable energy target is not collectively met, 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 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 182/2011²⁰.

²⁰ 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) The Commission should be assisted in its tasks under this Regulation by an Energy Union Committee to prepare implementing acts. It should replace and take on the assignments of the Climate Change Committee²¹ and other committees as appropriate.
- (44) The Commission should review the implementation of this Regulation in 2026 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, where necessary.
- (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 hydrocarbons²¹;
 - 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/EEC²²;
 - 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 1013/2006²³;

²¹ OJ L 164, 30.6.1994, p. 3.

²² OJ L 350, 28.12.1998, p. 58.

²³ 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 energy²⁴;
- 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 1775/2005²⁵;
- 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/EC²⁶;
- 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 products²⁷;
- Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings²⁸;
- 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/EC²⁹;
- 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/EC³⁰;

²⁴ OJ L 200, 31.7.2009, p. 31.

²⁵ OJ L 211, 14.8.2009, p. 36.

²⁶ OJ L 211, 14.8.2009, p. 94

²⁷ OJ L 265, 9.10.2009, p. 9.

²⁸ OJ L 153, 18.6.2010, p. 13.

²⁹ OJ L 315, 14.11.2012, p. 1.

³⁰ OJ L 178, 28.6.2013, p. 66.

- 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 fuels³¹.

- (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:

³¹ OJ L 107, 25.4.2015, p. 26.

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 for the first ten-year period from 2021 to 2030 in particular the EU's 2030 targets for energy and climate;
 - (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.

The governance mechanism shall be based on 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 define a structured, 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 following five dimensions of the Energy Union:
 - (a) energy security,
 - (b) 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], Directive 2010/31/EU and Directive 2012/27/EU shall apply.

The following definitions shall also 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 27% for the share of renewable energy consumed in the Union in 2030, the **[binding/indicative]** Union-level target of **[at least 27%/30%]** for improving energy efficiency in 2030, **[to be reviewed by 2020 having in mind an EU level of 30%]**, 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;
- (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;
- (18) 'SET-Plan' means the Strategic Energy Technology Plan as set out in Commission Communication (2015) 6317.

CHAPTER 2

INTEGRATED NATIONAL ENERGY AND CLIMATE PLANS

Article 3

Integrated national energy and climate plans

1. By 1 **April** 2019 and every ten years thereafter, 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. 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 consultation and involvement of stakeholders and their results, and of regional cooperation with other Member States in preparing the plan;
 - (b) a description of the national objectives, targets and contributions for each of the five dimensions of the Energy Union;
 - (c) a description of the policies and measures foreseen to meet the corresponding objectives, targets and contributions set out under point (b);
 - (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;

- (e) an assessment of the impacts of the planned policies and measures to meet the objectives referred to in point (b);
 - (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 to in paragraph 1, Member States shall take into account the interlinkages between the five dimensions of the Energy Union and they shall use consistent data and assumptions across the five dimensions where relevant.
4. The Commission is empowered to adopt delegated acts in accordance with Article 36 to amend Annex I in order to adapt it to amendments to the Union Energy and Climate policy framework, energy market developments and new UNFCCC and Paris Agreement requirements.

Article 4

National objectives, targets and contributions for each of 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];

- iii. where applicable, other national objectives and targets consistent with existing long-term low emission strategies;
- iv. where applicable, 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 27% 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 a linear trajectory ³² for that contribution from 2021 onwards;
- ii. **estimated** trajectories for the sectorial share of renewable energy in final energy consumption from 2021 to 2030 in the heating and cooling, electricity, and transport sectors;
- iii. **[trajectories] assessed contributions** by renewable energy technology that the Member State plans 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;

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

- (1) the indicative national energy efficiency contribution to achieving the Union's **[binding/indicative]** energy efficiency target of **[30%]** 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.

³²

Note: in view of many comments from delegations on the topic, the Presidency invites delegations to discuss a possible 'corridor approach'.

Member States shall express their contribution in terms of absolute level of primary energy consumption and final energy consumption in 2020 and 2030, with a linear 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 on energy saving obligations of Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761];
 - (3) the objectives **of [] the long-term strategy for the** renovation of the national stock of residential and ~~[commercial]~~ **non-residential** buildings, **[] both public and private[]**, **in accordance with Article 2a of Directive 2010/31/EU on the energy performance of buildings;**
 - (4) the total floor area to be renovated or equivalent annual energy savings to be achieved from 2020 to 2030 under Article 5 on the exemplary role of public bodies' buildings of Directive 2012/27/EU;
 - (5) other national energy efficiency objectives, **if any**, including long term targets or strategies and sectorial targets in areas such as transport, heating and cooling;
- (c) as regards the dimension "Energy Security"³³:
- (1) national objectives with regard to increasing the diversification of energy sources and supply from third countries;
 - (2) **if applicable**, national objectives with regard to reducing energy import dependency from third countries;

³³

Note: a number of Member States stated that Member States should be free to choose whether or not to set national objectives, in particular in areas that are not related to quantifiable EU targets. Therefore, the Presidency calls for further reflection on which objectives should be voluntary („if applicable“) and which objectives should be kept in the context of the core objectives. (In this context, it is recalled that article 7 deals with a description of measures related to the five dimensions.)

- (3) national objectives with regard to the readiness to cope with constrained or interrupted supply of an energy source, in coherence with the plans to be established 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 under Regulation [as proposed by COM(2016) 862 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC] including a timeframe for when the objectives should be met;
 - (4) national objectives with regard to deployment of **national** domestic energy sources ~~[(notably renewable energy)]~~;
- (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 %; Member States shall explain the underlying methodology ³⁴;
 - (2) key national objectives for electricity and gas transmission infrastructure that are necessary for the achievement of objectives and targets under any of the five dimensions of the Energy Union Strategy;
 - (3) **if applicable**, national objectives related to other aspects of the internal energy market such as market integration and coupling, including a timeframe for when the objectives should be met;
 - (4) **if applicable**, national objectives with regard to ensuring electricity system adequacy as well as flexibility of the energy system with regard to renewable energy production, including a timeframe for when the objectives should be met;
- (e) as regards the dimension "Research, Innovation and Competitiveness":

³⁴

Explanatory footnote: a methodology on how the 15% interconnection target should be calculated will be proposed by the Commission, based on the advice to be provided by the electricity interconnection target expert group.

- (1) national objectives and funding targets for public **and, where available, []** private research and innovation relating to the Energy Union; if applicable, including a timeframe for when the objectives should be met. Such targets and objectives should be coherent with those set out in the Energy Union Strategy and the SET-Plan;
- (2) **if applicable, []** national 2050 objectives for the deployment of low carbon technologies;
- (3) **if applicable,** national objectives with regard to competitiveness.

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) other measures to promote renewable energy within Member States and at Union level; and
 - (d) **any relevant** circumstances affecting renewable energy deployment, such as **inter alia**:
 - (i) equitable distribution of deployment across the European Union;
 - (ii) economic potential;
 - (iii) geographical and natural constraints, including those of non-interconnected areas and regions; and

- (iv) the level of power interconnection between Member States.

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.

2. Member States shall collectively ensure that the sum of their contributions adds up to at least 27% of energy produced from renewable 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 ensure that **[]** the Union's 2020 energy consumption is no more than 1 483 Mtoe of primary energy and **/or** no more than 1 086 Mtoe of final energy, the Union's 2030 energy consumption is no more than 1 321 Mtoe of primary energy and **/or** no more than 987 Mtoe of final energy for the first ten-year period **[]** ('the Union's [binding / **indicative**] 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 circumstances affecting primary and final energy consumption, such as, ***inter alia***:
- (a) remaining cost-effective energy-saving potential;
- (b) evolution and forecast of gross domestic product;

- (c) changes of energy imports and exports;
- (d) development of all sources of renewable energies, nuclear energy, carbon capture and storage; and
- (e) early actions.

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 measures to ensure regional cooperation and appropriate financing at national and regional level.

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 the **[] duration of the plan and for a period of ten years following the last year covered by the plan**, expected to result from existing (implemented and adopted) policies and measures.
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 **[1 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 including a comparison with the projections based on existing (implemented and adopted) policies and measures referred to in paragraph 1;
- (b) the macroeconomic, environmental, skills and social impact of the planned policies and 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 based on existing (implemented and adopted) policies and measures referred to in paragraph 1;
- (c) interactions between existing (implemented and adopted) and planned policies and measures within a policy dimension and between existing (implemented and adopted) and planned policies and 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.

Article 9

Draft integrated national energy and climate plans

1. By **[1 April 2018]**³⁵ 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).

³⁵

Explanatory note: the sequencing of the draft and final national plans and the timelines for their submission have been aligned with the Paris Agreement in order to allow for an informed participation of the EU and its Member States in its review mechanism. Hence, the Commission proposal requires the draft plans by January 2018 in view of the Facilitative Dialogue of November 2018. This will allow the EU and its Member States to be prepared and explain how the EU and its Member States are taking steps to implement the EU 2030 commitment under the Paris Agreement.

2. The Commission may issue recommendations ³⁶ on the draft plans to Member States in accordance with Article 28. **Based on the submitted draft plans, the Commission will issue recommendations.** Those recommendations **[] may address:**
- (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;
 - (b) policies and measures relating to Member States' and Union level objectives and other policies and measures of potential cross-border relevance;
 - (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 ~~utmost~~ **due** account of any recommendations from the Commission when finalising their integrated national energy and climate plan.

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 draft plans referred to in Article 9 and attach to the submission of their draft integrated national energy and climate plan to the Commission a summary of the public's views. In so far as the provisions of Directive 2001/42/EC are applicable ³⁷, consultations undertaken in accordance with that Directive shall be deemed to satisfy also the obligations to consult the public under this Regulation.

³⁶ **Note: cf. Art. 288 TFEU "(...) Recommendations and opinions shall have no binding force."**

³⁷ **Explanatory note: Art. 6 (1) of Directive 2001/42/EC 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.**

Article 11

Regional cooperation

1. Member States shall cooperate with each other at regional level 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), identify opportunities for regional cooperation and consult neighbouring Member States and the other Member States expressing an interest. Member States shall set out in their draft integrated national energy and climate plans the results of such regional consultation, including where applicable how comments have been taken into account.
3. The Commission shall facilitate cooperation and consultation among the Member States on the draft plans submitted to it under Article 9 in view of their finalisation.
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 taken into account **or the reasons for not addressing them.**
5. For the purposes specified in paragraph 1, Member States shall continue to cooperate at regional level when implementing the policies and measures of their plans.

Article 12

Assessment of the integrated national energy and climate plans

The Commission shall assess the integrated national energy and climate plans and their updates as notified pursuant to Articles 3 and 13. It 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 [utmost] due account of** the Commission recommendations issued pursuant to Article 28.

Article 13

Update of the integrated national energy and climate plan

1. By 1 January [2023]³⁸, 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 confirm to the Commission that the plan remains valid.
2. By 1 January [2024], 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 confirmed that the plan remains valid pursuant to paragraph 1 of this Article.
3. Member States shall only modify **a [] target[], objective[] or contribution[] in relation to the quantified EU targets** set out in the update referred to in paragraph 2 to reflect an 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.

³⁸

Explanatory note: the sequencing of the draft and final updated national plans and the timelines for their submission have been aligned with the Paris Agreement in order to allow for an informed participation of the EU and its Member States in its review mechanism. Hence, the Commission proposal requires the draft updated plans by January 2023 in view of the Global Stocktake of November 2023. This will allow the EU and its Member States to participate in this process fully prepared and to show leadership by explaining how the EU and its Member States are implementing the EU 2030 commitment under the Paris Agreement.

5. Member States shall take into consideration the latest country-specific recommendations issued in the context of the European Semester when preparing the update referred to in paragraph 2.
6. The procedures laid down in Article 9(2) and Article 11 shall apply to the preparation and assessment of the updated integrated national energy and climate plans.

CHAPTER 3

LONG-TERM LOW EMISSION STRATEGIES

Article 14 ³⁹

Long-term low emission strategies

1. Member States shall prepare and report to the Commission by 1 January 2020 and every 10 years thereafter their long-term low emission strategies with a **30** years perspective, to 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;
 - (b) fulfilling the objective 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 by developed countries as a group, to reduce emissions by 80 to 95 % by 2050 compared to 1990 levels in a cost-effective manner.
2. The long-term low emission 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 electricity, industry, transport, the buildings sector (residential and tertiary), agriculture and land use, land-use change and forestry (LULUCF);

³⁹ **Explanatory note: corresponds to Article 4 MMR**

- (c) expected progress on transition to a low greenhouse gas emission economy including greenhouse gas intensity, CO₂ intensity of gross domestic product and strategies for related research, development and innovation;
 - (d) links to other national long-term planning.
3. The long-term low emission strategies and the integrated national energy and climate plans referred to in Article 3 should be consistent with each other.
 4. The Member States shall make available to the public forthwith their respective long-term low emission strategies and any updates thereof.

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][2021], 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 implementing the policies and measures necessary to meet them;
- (b) the information referred to in Articles 18 to 22 and, where appropriate, updates on policies and measures, in accordance with those articles;
- (c) policies and measures and projections of anthropogenic greenhouse gas emissions by sources and removals by sinks in accordance with Article 16;
- (d) information on national climate change adaptation planning and strategies in accordance with Article 17(1);
- (e) copies of biennial reports and, in the applicable years, national communications submitted to the UNFCCC Secretariat;⁴⁰
- (f) estimates as appropriate of improved air quality and emission reductions of air pollutants, and other benefits of specific energy efficiency measures;
- (g) the annual reports referred to in Article 17(2) and Article 23.

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.

- 3. The Commission 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.

⁴⁰ **Explanatory note: corresponds to Article 18(2) MMR.**

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. Such information shall include a detailed timetable for implementation.

Article 16

Integrated reporting on GHG policies and measures and on projections ⁴¹

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 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.

⁴¹ **Explanatory note: corresponds to Article 13 and 14 MMR.**

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 ⁴²

1. By 15 March 2021, and every two years thereafter ⁴³, Member States shall report to the Commission information on their national climate change adaptation planning and strategies, outlining their implemented or planned actions to facilitate adaptation to climate change, including the information specified in Part 1 of Annex VI.
2. By **[15 March]** 2021 and every year thereafter (year X), Member States shall report to the Commission information on:
 - (a) support to developing countries, including the information specified in Part 2 of Annex VI;
 - (b) 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.
3. Member States shall make available to the public the reports submitted to the Commission pursuant to this Article.

⁴² **Explanatory note: corresponds to Articles 15, 16 and 17(b) and (c) of the MMR.**

⁴³ **Explanatory note: "every 2 years" follows from Paris Agreement cf. paragraph 90 Decision 1/CP.21.**

4. The Commission 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 ⁴⁴

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) national trajectory for the overall share of renewable energy in gross final energy consumption from 2021 to 2030;
 - (2) national 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) 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;

⁴⁴ **Note: For Articles 18-22, (progress reports) consequential changes that follow from the discussion on Article 4 will be made based on the discussion on the objectives.**

- (5) if applicable, other national trajectories and objectives including long-term and sectorial ones (such as share of biofuels, share of advanced biofuels, share of biofuel produced from main crops produced on agricultural land, 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);
- (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];
 - (2) 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;
 - (4) specific measures to fulfil the requirements of Articles 15, 16, 17, 18, 21 and 22 of [recast of Directive 2009/28/EC as proposed by COM(2016) 767];
 - (5) measures promoting the use of energy from biomass, especially for new biomass mobilisation taking into account biomass availability (both the domestic potential and the imports from third countries) and other biomass uses (agriculture and forest-based sectors), as well as measures for the sustainability of biomass produced and used;
- (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 trajectory for primary and/or final **annual** energy consumption from 2020 to 2030 as the national energy savings contribution to achieving the Union-level 2030 target including underlying methodology;
 - (2) objectives **[] of** the long-term **strategy for the** renovation of the national stock of **[both public and private]** residential and **[commercial] non-residential** buildings, **both public and private**;
 - (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 strategy for the renovation of the national stock of ~~both public and private~~ residential and ~~commercial~~ **non-residential** buildings, **both public and private**, including policies and measures to stimulate cost-effective deep ~~and staged~~ **renovations of buildings, including staged deep renovations**;
 - (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 countries, storage, demand response;
- (b) 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 for the deployment of domestic energy sources ~~notably renewable energy~~;

- (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 relation to the 15% target on electricity interconnection;
 - (b) key national objectives for electricity and gas transmission infrastructure that are necessary for the achievement of objectives and targets under any of the five key dimensions of the Energy Union;
 - (c) if applicable, main infrastructure projects envisaged other than Projects of Common Interest;
 - (d) national objectives related to other aspects of the internal energy market such as market integration and coupling, if applicable;
 - (e) national objectives with regards to energy poverty, including the number of households in energy poverty;
 - (f) national objectives with regard to ensuring electricity system adequacy, if applicable;
 - (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, including Union support and the use of Union funds, in the area of the internal energy market at national level, 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 22

Integrated reporting on research, innovation and competitiveness

Member States shall include in the integrated national energy and climate progress reports ~~referred to in Article 15~~ the information on the implementation of the following objectives and measures:

- (a) 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;

- (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 through 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 ⁴⁵

1. By **[15 March]** 2021, and every year thereafter (year X), Member States shall report to the Commission:
 - (a) their approximated greenhouse gas inventories for the year X-1;
 - (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.

For the purposes of point (a), 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.

⁴⁵ **Explanatory note: corresponds to Articles 7 and 8 MMR.**

2. As of 2023, Member States shall determine and report to the Commission final greenhouse gas inventory data by 15 March each 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.
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 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;
 - (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 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 12 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 3

REPORTING PLATFORM

Article 24

E-reporting platform

1. The Commission shall establish an online reporting platform to facilitate communication between the Commission and Member States and promote cooperation among Member States.
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.

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 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.
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 a linear trajectory starting from 20% in 2020 and reaching at least 27% in 2030 as referred to in Article 4(a)(2)(i).

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 1 321 Mtoe of primary energy consumption and 987 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.
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: ⁴⁶
- (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.

⁴⁶ **Explanatory note: corresponds to Article 21 MMR.**

5. By 31 October 2019 and every four years thereafter, the Commission shall assess the implementation of Directive 2009/31/EC.
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

1. 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.
2. The Commission may issue opinions on the action plans submitted by Member States according to Article 8(1) of Regulation [] [ESR].

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 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 take measures 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 the targets, objectives and contributions or 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 such recommendations, the Commission shall take into consideration ambitious early efforts by Member States to contribute to the Union's 2030 target for renewable energy.
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. The Commission shall, as appropriate, take measures at Union level in addition to the recommendations in order to ensure, in particular, the achievement of the Union's 2030 targets for renewable energy and energy efficiency. With regard to renewable energy, such measures shall take into consideration ambitious early efforts by Member States to contribute to the Union's 2030 target.

4. If, in the area of renewable energy, without prejudice to the measures at Union level set out in paragraph 3, the Commission concludes, based on its assessment pursuant to Article 25(1) and (2) in the year 2023, that the linear Union trajectory referred to in Article 25(2) is not collectively met, Member States shall ensure by the year 2024 that any emerging gap is covered by additional measures, such as:
- (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 financial contribution to a financing platform set up at Union level, contributing to renewable energy projects and managed directly or indirectly by the Commission;
 - (d) other measures to increase deployment of renewable energy.

Such measures shall take into account the level of ambition of early contributions to the Union's 2030 target for renewable energy by the Member State concerned.

If a Member State does not maintain the baseline share of energy from renewable sources in its gross final consumption of energy set out in Article 3(3) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767] from 2021 onwards, the Member State concerned shall ensure that any gap to the baseline share is covered by making a financial contribution to the financing platform referred to in point (c) of the first subparagraph. For the purposes of this subparagraph and point (c) of the first subparagraph, Member States may use their revenues from annual emission allowances under Directive 2003/87/EC.

The Commission is empowered to adopt delegated acts in accordance with Article 36 to set out any necessary provisions for the establishment and functioning of the financing platform referred to in point (c).

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 assessment pursuant to Article 25(1) and (3), in the year 2023 that progress towards collectively achieving the Union's energy efficiency target mentioned in the first subparagraph of Article 25(3) is insufficient, it shall take measures by the year 2024 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 binding 2030 energy efficiency targets are met. Such additional measures may in particular improve the energy efficiency of:
- (a) products, pursuant to Directive 2010/30/EU and Directive 2009/125/EC;
 - (b) buildings, pursuant to Directive 2010/31/EU [version as amended in accordance with COM(2016) 765] and Directive 2012/27/EU [version as amended in accordance with COM(2016) 761];
 - (c) transport.

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.
2. Where reference in this Regulation is made to this Article the following principles shall apply:
 - (a) the Member State concerned shall take ~~utmost~~ **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 ~~utmost~~ **due** account of the recommendation and how it has implemented or intends to implement it. It shall provide **reasons** ~~justifications~~ where it deviates from it;

- (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 as referred to in Article 7a of Directive 2012/27/EU [version as amended in accordance with COM(2016) 761];

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

CHAPTER 6

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

Article 30

National and Union inventory systems ⁴⁷

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.

⁴⁷ **Explanatory note: corresponds to Articles 5, 6 and 9 MMR.**

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 is empowered to adopt delegated acts in accordance with Article 36 in order to set out rules on the content, structure, format and submission process of the information relating to national inventory systems and requirements on the establishment, operation and functioning of national and Union inventory systems. 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 ⁴⁸

1. In 2027 and 2032, the Commission shall carry out a comprehensive review of the national inventory data submitted by Member States pursuant to Article 23(3) of this Regulation 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 of Regulation [] [LULUCF] and any other greenhouse gas emission reduction or limitation targets set out in Union legislation. Member States shall participate fully in that process.

⁴⁸ **Explanatory note: corresponds to Article 19 MMR.**

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 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 13 of Regulation [] [LULUCF] one month 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 11 of Regulation [] [ESR] one month 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 ⁴⁹

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.

⁴⁹ **Explanatory note: corresponds to Article 12 MMR.**

3. The Commission 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 ⁵⁰

Establishment and operation of registries

1. The Union and the Member States shall set up and maintain registries to accurately account for nationally determined contribution 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 is empowered to 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.

⁵⁰

Explanatory note: corresponds to Article 10 MMR.

CHAPTER 7

COOPERATION AND SUPPORT

Article 34

Cooperation between the Member States and the Union ⁵¹

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;

⁵¹ **Explanatory note: corresponds to Article 23 MMR.**

- (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 ⁵²

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;

⁵²

Explanatory note: corresponds to Article 24 MMR.

- (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), 23(5), 27(4), 30(6) 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), 23(5), 27(4), 30(6) 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), 23(5), 27(4), 30(6) 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

Energy Union Committee ⁵³

1. The Commission shall be assisted by an Energy Union Committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011 and work in the respective sectorial formations relevant for this Regulation.
2. This Committee 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 committee established by this Regulation.
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 by 28 February 2026 and every five years thereafter on the operation of this Regulation, its contribution to the Governance of the Energy Union 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.

⁵³

Explanatory note: the proposed Energy Union Committee and its Working Groups play an important role for the integrated governance. They will work in the respective sectorial formations relevant for this Regulation, meaning that e.g. when climate issues are discussed the expectation is that Member States send their climate representatives and experts to these meetings, as will the Commission. Analogically, when issues are primarily of an energy dimension, the same is true for the expected participation and representation from Member States and the Commission. The current practice of issue-specific Working Groups discussing different topics is expected to continue under the umbrella of the Energy Union Committee.

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 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

Directive 2010/31/EU is amended as follows:

- (1) In Article 2a of Directive 2010/31/EU [version as amended in accordance with proposal COM(2016) 765], the following paragraph 4 is inserted:

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

- (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 two 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 develop an action plan and, if necessary, propose recommendations and measures pursuant to Articles 27 and 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.

Article 47

Amendments to Directive 2012/27/EU

Directive 2012/27/EU is amended as follows:

- (1) in Article 4, the last paragraph is deleted;
- (2) in Article 18(1), point (e) is deleted;
- (3) in Article 24, paragraphs 1 to 4 and 11 are 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 2, 3, 4 and 7 are deleted.
- (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. 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 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.

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 **1** and 46(2) to (4) ~~[and 47(3) and (4)]~~ shall apply from 1 January 2021.

Articles 47(3) and (4) shall apply from 1 January 2020.

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	
1.1. Executive Summary	i. Political, economic, environmental, and social context of the plan ii. Overarching strategy covering 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 across 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 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 (for the plan covering the period from 2021 to 2030, the 2030 Framework target of at least 40% domestic reduction in economy-wide greenhouse gas emissions as compared to 1990)⁵⁴

- i. The Member State's binding national 2030 target for greenhouse gas emissions in the non-ETS-sectors, the annual binding national limits⁵⁵ and the commitments under the LULUCF Regulation⁵⁶
- ii. If applicable, other national objectives and targets consistent with existing long-term low emission strategies. If applicable, other objectives and targets, including sector targets and adaptation goals

2.1.2. Renewable energy (2030 Framework target)

- i. The Member State's planned share of energy from renewable sources in gross final consumption of energy in 2030 as its national contribution to achieve the binding EU-level target of at least 27% in 2030
- ii. A linear trajectory for the overall share of renewable energy in gross final energy consumption from 2021 to 2030
- iii. 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. 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. 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 advanced biofuels, share of renewable energy in district heating, renewable energy use in buildings, renewable energy produced by cities, energy communities and self-consumers)

⁵⁴ Consistency to be ensured with long-term low emission strategies pursuant to Article 14.

⁵⁵ For the plan covering the period from 2021 to 2030: Member State's binding national 2030 target for greenhouse gas emissions in the non-ETS sectors and the annual binding limits as set under Regulation [] [ESR].

⁵⁶ Regulation [] [LULUCF].

2.2. Dimension Energy efficiency (2030 Framework target)

- i. The indicative national energy efficiency contribution to achieving the Union's **[binding/indicative]** energy efficiency target of **[30%]** 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; expressed in terms of absolute level of primary energy consumption and/or final energy consumption in 2020 and 2030, with a linear trajectory for that contribution from 2021 onwards; including the underlying methodology and the conversion factors used
- ii. Cumulative amount of energy savings to be achieved over the period 2021-2030 under Article 7 on energy saving obligations of Directive 2012/27/EU [version as amended in accordance with proposal COM(2016)761],
- iii. Objectives **of []** the long-term **strategy for the** renovation of the national stock of residential and **[commercial] non-residential** buildings, **[]** both public and private **[]**
- iv. 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,
- v. If applicable, other national objectives, including long-term targets or strategies and sectorial targets. 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. National objectives with regard to increasing the diversification of energy sources and supply from third countries, storage and demand response
- ii. National objectives with regard to reducing energy import dependency from third countries
- iii. National objectives with regard to readiness to cope with constrained or interrupted supply of an energy source (including gas and electricity) and, where appropriate, a timeframe for when the objectives shall be met⁵⁷
- iv. National objectives with regard to deployment of domestic energy sources (notably renewable energy)

⁵⁷

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.

2.4. Dimension Internal energy market

2.4.1. Electricity interconnectivity (2030 Framework target)

- i. The level of electricity interconnectivity that the Member State aims for in 2030 in relation to the October 2014 European Council objective

2.4.2. Energy transmission infrastructure

- i. Key national objectives for electricity and gas transmission infrastructure that are necessary for the achievement of objectives and targets under any of the dimensions of the Energy Union strategy
- ii. If applicable, main infrastructure projects envisaged other than Projects of Common Interest (PCIs)⁵⁸

2.4.3. Market integration

- i. National objectives related to other aspects of the internal energy market such as market integration and coupling, including a timeframe for when the objectives shall be met
- 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. National objectives to protect energy consumers and improve the competitiveness of the retail energy sector

2.4.4. Energy poverty

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 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 the SET-Plan
- ii. If appropriate, national objectives including long-term targets (2050) 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. National objectives with regard to competitiveness

⁵⁸

In accordance with Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 (OJ L 115, 25.4.2013, p. 39).

3. POLICIES AND MEASURES

3.1. Dimension Decarbonisation

3.1.1. GHG emissions and removals (for the plan covering the period from 2021 to 2030, the 2030 Framework target)

- 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-carbon economy with a 50 years perspective and achieving a balance between emissions and removals in accordance with the Paris Agreement
- ii. 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 (2030 Framework target)

- i. Policies and measures to achieve the national contribution to the binding EU-level 2030 target for renewable energy and trajectories as presented in 2.1.2 including sector- and technology-specific measures⁵⁹
- ii. Specific measures for regional cooperation, as well as 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, 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
- iv. Specific measures to introduce a one-stop-shop, streamline administrative procedures, provide information and training, and empower renewable self-consumers and energy communities
- v. Assessment of the necessity to build new infrastructure for district heating and cooling produced from renewable energy sources
- vi. Specific measures on the promotion of the use of energy from biomass, especially for new biomass mobilisation taking into account:
 - biomass availability: 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

⁵⁹

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

- ii. Strategies, plans and measures on adaptation to climate change
- iii. Policies and measures to achieve other national targets, if applicable
- iv. Policies and measures to achieve low-emission mobility (including electrification of transport)

3.2. Dimension Energy efficiency (2030 Framework target)

Planned policies, measures and programmes to achieve the indicative national energy efficiency target 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 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 strategy for the renovation of the national stock of residential and ~~[commercial]~~ **non-residential** buildings, ~~[(both public and private)]~~ ⁶⁰ including policies and measures to stimulate cost-effective deep ~~[and staged deep]~~ **renovations of buildings, including staged deep renovations**
- 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 models⁶¹
- iv. Other planned policies, measures and programmes to achieve the indicative national energy efficiency target 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 systems⁶², consumer information and training measures⁶³, and other measures to promote energy efficiency⁶⁴)
- v. Description of measures to utilise energy efficiency potentials of gas and electricity infrastructure⁶⁵
- 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

⁶⁰ In accordance with Article 2a of Directive 2010/31/EU [version as amended in accordance with proposal COM(2016)765].

⁶¹ In accordance with Article 18 of Directive 2012/27/EU.

⁶² In accordance with Article 8 of Directive 2012/27/EU.

⁶³ In accordance with Articles 12 and 17 of Directive 2012/27/EU

⁶⁴ In accordance with Article 19 of Directive 2012/27/EU.

⁶⁵ In accordance with Article 15(2) of Directive 2012/27/EU.

3.3. Dimension Energy security⁶⁶ i. Policies and measures to achieve the objectives set out in 2.3⁶⁷ 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 market⁶⁸ 3.4.1. Electricity infrastructure i. Policies and measures to achieve the targeted level of interconnectivity presented in 2.4.1 ii. Regional cooperation in this area⁶⁹ 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 to achieve the key infrastructure objectives presented in 2.4.2, including, if applicable, specific measures to enable the delivery of Projects of Common Interest (PCIs) and other key infrastructure projects ii. Regional cooperation in this area⁷⁰ 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 to achieve the objectives set out in 2.4.3 ii. 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 iii. Measures to ensure priority access and dispatch of electricity produced from renewable energy sources or high-efficiency cogeneration and prevent the curtailment or re-dispatch of this electricity⁷¹ iv. Policies and measures to protect consumers, especially vulnerable and 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

⁶⁶ Policies and measures shall reflect the energy efficiency first principle.

⁶⁷ 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.

⁶⁸ Policies and measures shall reflect the energy efficiency first principle.

⁶⁹ Other than the PCI Regional Groups established under Regulation (EU) No 347/2013.

⁷⁰ Other than the PCI Regional Groups established under Regulation (EU) No 347/2013.

⁷¹ In accordance with [recast of Directive 2009/72/EC as proposed by COM(2016) 864 and recast of Regulation (EC) No 714/2009 as proposed by COM(2016) 861]

those addressing tariffs to support dynamic pricing⁷²

3.4.4. Energy Poverty

- i. Policies and measures to achieve the objectives set out in 2.4.4

3.5. Dimension Research, innovation and competitiveness

- i. Policies and measures including those to achieve the objectives set out in 2.5
- ii. 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
- iii. If applicable, financing measures in this area at national level, including EU support and the use of EU funds

⁷²

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

SECTION B: ANALYTICAL BASIS ⁷³	
4. CURRENT SITUATION AND PROJECTIONS WITH EXISTING POLICIES AND MEASURES ^{74,75}	
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 ii. Projections of development with existing policies and measures at least until 2040 (including for the year 2030)	

⁷³ See Part 2 for a detailed list of parameters and variables to be reported in Section B of the Plan.

⁷⁴ 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.

⁷⁵ 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 cooling⁷⁶ 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)⁷⁷ 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 interconnectors⁷⁸ ii. Projections of interconnector expansion requirements at least until 2040 (including for the year 2030)⁷⁹ 4.5.2. Energy transmission infrastructure i. Key characteristics of the existing transmission infrastructure for electricity and gas⁸⁰ ii. Projections of network expansion requirements at least until 2040 (including for the year 2030)⁸¹ 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)

⁷⁶ In accordance with Article 14(1) of Directive 2012/27/EU.

⁷⁷ 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.

⁷⁸ With reference to overviews of existing transmission infrastructure by Transmission System Operators (TSOs).

⁷⁹ With reference to national network development plans and regional investment plans of TSOs.

⁸⁰ With reference to overviews of existing transmission infrastructure by TSOs.

⁸¹ 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 its position on the global market ii. Current level of public and private research and innovation spending on low-carbon-technologies, current number of patents, and current number of researchers iii. Current level of energy costs including in the international context iv. Projections of developments in i. to iii. with existing policies and measures at least until 2040 (including for the year 2030)
5. IMPACT ASSESSMENT OF PLANNED POLICIES AND MEASURES⁸²
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 of emissions of air pollutants in accordance with Directive [as proposed by COM/2013/0920]⁸³ 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
5.2. Macroeconomic, environmental, skills and social impacts (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
5.3. 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. Impacts on regional cooperation

⁸² 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.

⁸³ Directive [as proposed by COM/2013/0920] on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC.

Part 2

List of parameters and variables to be reported in Section B of National Plans^{84 85 86 87}

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

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]

⁸⁴ 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.

⁸⁵ 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.

⁸⁶ Note: all projections are to be performed on the basis of constant prices (2016 prices used as base year)

⁸⁷ 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.

- (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] – aligned with Commission's recommendations
- (10) EU-ETS carbon price [euro/EUA] - aligned with 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)
- (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: coal, crude oil, natural gas, nuclear energy, renewable energy sources) [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

Energy-related investment costs compared to GDP (and compared to gross value added for the industry sector)

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 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) Carbon intensity of electricity and steam production [tCO₂eq/MWh]
 - (b) Carbon intensity of final energy demand by sector (including industry, residential, tertiary, passenger transport, freight transport) [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 [%]

**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]⁸⁸**

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 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) annual energy sales, by, volume to final customers of all energy distributors or all retail energy companies averaged over the three years (2016, 2017, 2018) prior 1 January 2019 [in ktoe];
 - (b) volume of sales of energy used in transport excluded from the calculation [in ktoe];
 - (c) quantity of energy generated for own use excluded from the calculation [in ktoe];
 - (d) sources used in the calculation of energy sales data including justification for the use of alternative statistical sources and any differences of the resulting quantities (if other sources than Eurostat are used);
 - (e) cumulative amount of energy savings to be achieved over the whole period from 1 January 2021 to 31 December 2030 (before the exemptions under paragraph 2) [in ktoe];
 - (f) application of exemptions (b), (c) **and** (d) **and** referred to Article 7(2) and (3) of Directive 2012/27/EU:
 - (i) volume of sales of energy used in industrial activities [in ktoe] listed in Annex I to Directive 2003/87/EC excluded from the calculation in line with point (b),

⁸⁸ **Note: Annex II will be updated to reflect Annex V of the Energy Efficiency Directive.**

(ii) amount of energy savings [in ktoe] achieved in the energy transformation, distribution and transmission sectors in line with point (c),

(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 and in line with point (d);

~~[(iv) amount of energy generated on or in buildings for own use as a result of policy measures promoting new installation of renewable energy technologies in line with point (e) [in ktoe];]~~

(g) total cumulative amount of energy savings (after the exemptions under paragraph 2 applied) [in ktoe].

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 provisions under Article 7a (5) of Directive 2012/27/EU:
 - (i) specific actions, share of savings to be achieved in households affected by energy poverty and in social housing in line with point (a) of Article 7a (5);

(ii) savings achieved by energy service providers or other third parties in line with point (b) of Article 7a (5);

(iii) banking and borrowing in line with point (c) of Article 7a (5).

(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, participating, entrusted parties and their responsibilities for implementing the policy measure(s);

(e) target sectors;

(f) eligible actions foreseen under the measure;

(g) specific policy measures or individual actions targeting energy poverty **in line with point (2) of Article 7b**.

2.3. Information on taxation measures:

(a) brief description of taxation measure;

(b) duration of taxation measure;

(c) expected cumulative and annual amount of savings per measure;

(d) target sectors;

(e) additionality of energy savings by describing the approach to calculating savings, including price elasticities used in line with annex V(4).

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 individual actions 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;
- (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 parties and participating, entrusted parties;
- (d) statistically significant proportion of energy efficiency improvement measures and proportion and criteria used to define and select a representative sample;
- (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 penalties applied in case of non-compliance;
 - (h) Information on measures foreseen if progress is not satisfactory.
-

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 7 of Directive 2001/81/EC 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 12 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 Article 11 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) 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) 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 2001/81/EC;
 - (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;
- (l) a description of changes to the national registry;
- (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) 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 CH_3CHF_2
- HFC-161 $\text{CH}_3\text{CH}_2\text{F}$
- HFC-227ea $\text{CF}_3\text{CHF}_2\text{CF}_3$
- HFC-236cb $\text{CF}_3\text{CF}_2\text{CH}_2\text{F}$
- HFC-236ea $\text{CF}_3\text{CHFCH}_2\text{F}$
- HFC-236fa $\text{CF}_3\text{CH}_2\text{CF}_3$
- HFC-245fa $\text{CHF}_2\text{CH}_2\text{CF}_3$
- HFC-245ca $\text{CH}_2\text{FCF}_2\text{CHF}_2$
- HFC-365mfc $\text{CH}_3\text{CF}_2\text{CH}_2\text{CF}_3$
- HFC-43-10mee $\text{CF}_3\text{CHFCH}_2\text{CF}_2\text{CF}_3$ or $(\text{C}_5\text{H}_2\text{F}_{10})$

Perfluorocarbons (PFCs):

- PFC-14, Perfluoromethane, CF_4
- PFC-116, Perfluoroethane, C_2F_6
- PFC-218, Perfluoropropane, C_3F_8
- PFC-318, Perfluorocyclobutane, $\text{c-C}_4\text{F}_8$
- Perfluorocyclopropane $\text{c-C}_3\text{F}_6$
- PFC-3-1-10, Perfluorobutane, C_4F_{10}
- PFC-4-1-12, Perfluoropentane, C_5F_{12}
- PFC-5-1-14, Perfluorohexane, C_6F_{14}
- PFC-9-1-18, $\text{C}_{10}\text{F}_{18}$

Part 3 - Methodologies for monitoring and reporting in LULUCF sector

Spatially-explicit land-use conversion data for the identification and tracking of land-use categories and conversions between land-use categories.

Tier 1 methodology using globally calibrated standard emission factors and parameter values 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 using nationally determined emission factors and parameter values calibrated to national circumstances in accordance with the 2006 IPCC guidelines for National Greenhouse Gas Inventories.

Member States are encouraged to apply Tier 3 methodology using non-parametric modelling calibrated to national circumstances, describing the physical interaction of the bio-physical system, 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 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 to monitor and evaluate progress over time;
 - (v) 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) 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 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 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 reported pursuant to point c and the way such policies and measures contribute to different projection scenarios.

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

- (a) projections without measures where available, projections with measures, and 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).

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) institutional settings including vertical and horizontal governance and coordination, monitoring and evaluation systems;
- (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, and type of technology transferred or capacity-building project;
- (b) 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, 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) aggregated information from the national databases referred to in Article 25(4) of [recast of Directive 2009/28/EC as proposed by COM(2016) 767] on biofuels, biogas produced from feedstock listed in Annex IX to [recast of Directive 2009/28/EC as proposed by COM(2016) 767], renewable transport fuels of non-biological origin, waste-based fossil fuels and electricity placed on the market by fuel suppliers, including information on the type of fuels, their energy content and, if applicable, their feedstock base and, if relevant, their greenhouse saving performance; where the national database do not contain actual values, Member States may use typical values or, where appropriate, default values given in part A and part B of Annex V and part A of Annex VI to [recast of Directive 2009/28/EC as proposed by COM(2016) 767];
- (c) developments in the availability, origin and use of biomass resources for energy purposes;
- (d) changes in commodity prices and land use within the Member State associated with its increased use of biomass and other forms of energy from renewable sources;

- (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) 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 development and share of biofuels made from feedstocks listed in Annex IX to [recast of Directive 2009/28/EC as proposed by COM(2016) 767] including a resource assessment focusing on the sustainability aspects relating to the effect of the replacement of food and feed products for biofuel production, taking due account of the principles of the waste hierarchy established in Directive 2008/98/EC and the biomass cascading principle, taking into consideration the regional and local economic and technological circumstances, the maintenance of the necessary carbon stock in the soil and the quality of the soil and the ecosystems;
- (h) 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) risks or 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 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];
- (m) Primary supply of solid biomass (in 1000 m³, except 1)b)iii) in tons)
 - (1) Forest biomass used for energy production (domestic production, import and export)
 - (a) Primary biomass from forest used directly for energy production
 - i) Branches and tree tops (reporting is voluntary)
 - ii) Stumps (reporting is voluntary)
 - iii) Round wood (split into industrial roundwood and fuelwood)
 - (b) Forest-based industry co-products used directly for energy
 - i) Bark (reporting is voluntary)
 - ii) Chips, sawdust and other wood particles
 - iii) Black liquor and crude tall oil
 - (c) 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) Wood charcoal
 - ii) Wood pellets and wood briquettes
 - (2) 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) 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) 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;
- (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 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;
 - (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;
 - (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.
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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, availability and sustainability of biofuels made from feedstocks listed in Annex IX to [recast of Directive 2009/28/EC as proposed by COM(2016) 767], including an assessment of the effect of the replacement of food and feed products for biofuel production, taking due account of the principles of the waste hierarchy established in Directive 2008/98/EC and the biomass cascading principle, taking into consideration the regional and local economic and technological circumstances, the maintenance of the necessary carbon stock in the soil and the quality of soil and ecosystems;
- (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.

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) 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.
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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 various sectors, set up 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	—
