STANDARD FORM OF EXPLANATORY MEMORANDUM FOR EUROPEAN UNION LEGISLATION AND DOCUMENTS

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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL: EU and the Paris Climate Agreement: Taking stock of progress at Katowice COP (required under Article 21 of 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)

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COMMISSION STAFF WORKING DOCUMENT – Technical information Accompanying the document Report from the European Commission to the European Parliament and the Council: EU and the Paris Climate Agreement: Taking stock of progress at Katowice COP

Submitted by the Department for Business, Energy and Industrial Strategy on 15 November 2018.

SUBJECT MATTER

1. This document constitutes the report set out in the title above, which is required by EU legal provisions. The main document (13696/18) is the Commission's annual report on progress towards the EU's climate commitments as required under Article 21 of the Monitoring Mechanism Regulation (Regulation 525/2013).

2. The report concerns the progress the EU has made towards meeting its climate commitments up to 2020 and to 2030 following the Paris Agreement. The areas covered are: the EU's international commitments for greenhouse gas (GHG) emission reductions; the EU emissions trading system (ETS); emissions covered by the EU's Effort-Sharing Decision (ESD) and Effort-Sharing Regulation (ESR); Land use, land-use change and forestry (LULUCF); and related developing EU legislation. The report also considers climate finance, climate change adaptation, and wider international climate cooperation.

3. The report is supported by five Staff Working Documents (ADD1-ADD5) which provide country fact sheets on each Member State's progress and a further Staff Working Document (ADD6) which contains additional technical information on the EU and Member States' progress.

Main Report (13696/18)

Meeting the EU's international commitments

4. The EU is on track to exceed its **2020 total EU GHG emission reduction target** of 20% compared with 1990 levels. EU emissions were down by 22% in 2017 (including international aviation emissions but excluding emissions and removals from land use, land-use change and forestry (LULUCF)). The European Environment Agency's *Trends and projections in Europe 2018* report on climate and energy targets (first release 26 October 2018) projects that the EU is expected to achieve a 27% reduction by 2020, using additional, planned national measures.

5. The EU continues to **decouple economic activity from emissions**. While GHG emissions in 2017 were 0.6% higher than in 2016, according to preliminary data and mainly due to increases in the transport sector and industry, growth in emissions was significantly lower than economic growth. Between 1990 and 2017, the EU's aggregate Gross Domestic Product (GDP) grew by 58% while GHG emissions decreased by 22%.

6. The EU has committed to a **2030 GHG emission reduction target** of at least 40% as compared with 1990. The European Commission estimates that the increase to the EU's renewable energy and energy efficiency targets agreed in in 2018 could result in the EU over-achieving, potentially attaining an 45% emission reduction by 2030. This is, however, reliant on Member States bringing forward national policies to enable the EU to meet this 2030 EU-wide target. Current projections from Member State measures suggest the EU is not on track; the EU is currently projected to reduce emissions by 30% in 2030 through currently implemented policies. The European Environment Agency's *Trends and projections in Europe 2018* report projects the EU could achieve a 32% reduction in total GHGs by 2030 compared with 2005 using additional, planned national measures. This means Member States will need to bring forward additional polices to meet or exceed the current 'at least 40%' reduction target by 2030.

EU ETS emissions

7. The EU ETS trading system limits overall emissions from power and manufacturing installations in the European Economic Area and allows companies to buy and sell emission allowances as part of a 'cap and trade' system.

8. **2017 saw the reversal of a downward trend in traded-sector emissions since 2013**, as EU ETS installation emissions rose by 0.18% in 2017. This increase is due to real GDP growth being higher than in any year of this current phase 3 trading period (2013-2020).

9. **Exchanges of international credits for EU allowances** have declined to a very low level compared to the previous trading period. From 2021, companies will no longer be allowed to use international credits to comply with EU ETS obligations.

10. An ETS Directive for **revising the regulatory framework of the EU ETS** was published in March 2018, following provisional agreement between the European Parliament and Council. The Directive would reduce the emissions caps to cut emissions further between 2021-2030 compared to 2013-2020, thereby keeping the EU ETS on track to meet its 43% reduction target by 2030. The Directive will also strengthen the Market Stability Reserve from January 2019 in order to address the surplus of allowances that has built up since 2009, which though declining steadily remains substantial.

Effort sharing emissions

11. The effort-sharing legislation (**Effort-Sharing Decision (ESD) to 2020 and Effort-Sharing Regulation (ESR) to 2030**) covers sectors not included in the EU ETS, including transport, buildings, agriculture emissions (excluding CO_2 emissions), and waste. The ESD sets national annual emissions targets for the period 2013-2020 compared to 2005 levels. The ESR creates binding annual GHG emissions reductions for each Member State for the period 2021-2030 to deliver an overall reduction of emissions of 30% by 2030. The ESR retains the forms of flexibility available under the ESD (such as banking, borrowing, and trading emission allocations), with the exception that it will not be possible to use international credits to meet targets after 2020. The use of EU ETS allowances and emission removals in land-use sectors for meeting national targets will also be limited.

12. Under existing measures and according to national projections, the Commission estimates that emissions in 2020 in sectors covered by the effort sharing legislation should be 16% below the 2005 level, exceeding the 10% reduction target. All but eight Member States are projected to meet their 2020 Effort-Sharing Decision targets; the UK is projected to over-achieve our 2020 ESD target of a 16% reduction of GHG emissions on 2005 levels by 10 percentage points (ppts) based on existing measures.

13. In 2030, EU emissions within sectors covered by the effort sharing legislation are projected to be reduced by 21%; to achieve the 30% reduction target, additional measures will be needed. Within existing measures, fifteen Member States are projected to miss their 2030 Effort-Sharing Regulation (ESR) targets by 10ppts or more. Based on projections submitted in March 2017, the UK is projected to under-achieve our 2030 effort-sharing target of a 37% reduction of GHG emissions on 2005 levels by 7ppts within existing measures.

14. Emissions in all sectors have decreased since the ESD came into effect in 2013 excepted for those in transport and agriculture. **Transport emissions**, which make up 36% of ESD emissions, have increased since 2014 after a few years of decline, and only a marginal decrease is projected to 2030. The Commission has proposed a set of regulatory actions to decrease emissions reductions in this sector by 2030 (see paragraph 22).

15. New **waste legislation** adopted in May 2018 will further decrease methane emissions from waste management, while the **F-gas Regulation** will reduce emissions of fluorinated gases, which have risen by 69% between 1990 and 2016, mainly through the use of hydrofluorocarbons in sectors and applications as a refrigerant (in refrigeration and air-conditioning), blowing agent (in foams), and solvents (in fire extinguishers and aerosols).

16. All **Member States complied with the ESD** in 2013-15; only Malta exceeded its Annual Emissions Allowances (AEA) and had to cover the deficit by purchasing AEAs from another Member State, Bulgaria. For the compliance cycle for 2016, six Member States exceeded their AEA and will have to resort to flexibilities to comply with the ESD. It is estimated that in 2017, 10 Member States exceeded their AEAs and will have to use flexibilities.

17. Member States are required to outline their measures in National Energy and Climate Plans covering the period to 2030 (see paragraph 24). Only 8 Member

States are projected to over-achieve or be broadly on track with their **ESR 2030 targets**, and so the report recommends that most Member States will therefore need to step up their efforts to reach their 2030 targets.

Land use, land-use change and forestry

18. The EU adopted the **LULUCF Regulation** in May 2018 which aims to ensure that the accounted emissions from land use in the EU are overall at least net neutral. The Paris Agreement highlights the role of land use in reaching long-term climate mitigation objectives as, unlike other sectors, land use can be both a sink and source of emissions. The Regulation sets a new EU governance process for monitoring Member State performance and simplifies and upgrades the accounting methodology.

19. The Regulation commits the EU to achieve no net emissions from the accounted land use for 2021-2030, covering forest, cropland, grassland, and (by 2026) wetland. The 'no-debit rule' requires Member States to compensate any accounted emissions from land use through an equivalent removal of CO_2, for instance offsetting deforestation with planting forests or improving management of existing forests.

20. Because the LULUCF framework is newly introduced, it is not possible to provide an overview of historic trends in emission from land use.

Developing EU legislation

21. Aside from revisions to the EU ETS and the new Effort-Sharing and LULUCF Regulations (paragraphs 10,17, and 18-19 respectively), the EU has taken several legislative initiatives to cut GHG emissions.

22. The Commission has **adopted three mobility packages** in the last two years to reduce road transport emissions. Firstly, the Commission has **proposed new CO_2 emission standards for cars and vans** for the period 2020-2030, with proposed reduction targets of 15% by 2025 and 30% by 2030 compared to 2021. At the Environment Council on 9th October, the Council adopted a General Approach that increased the ambition of the 2030 target for cars to 35%, which the UK supported. Secondly, the Commission is also working on **CO_2 standards for lorries**, with a proposal for a 2025 reduction target of 15% compared to 2019, with an indicative reduction target of at least 30% for 2030. This complements the recent Regulation on monitoring and reporting CO_2 emissions and fuel consumption from new heavy-duty vehicles, and in addition, the Commission has put forward an action plan for competitive and sustainable batteries and for deployment of alternative fuels infrastructure across Europe. Thirdly, the Commission has proposed the revision of three directives for promoting **smarter road-infrastructure charging** (Eurovignette Directive), **public procurement tender clean mobility** (Clean Vehicles Directive), and the **combined use of different modes of freight transport** (Combined Transport Directive).

23. The Commission, Council, and European Parliament reached provisional agreement in June 2018 on **energy efficiency and renewable energy directives**, which increase the EU's 2030 targets to a 32.5% for energy efficiency and a 32% target for renewable energy, each with a clause allowing upwards revisions of the targets by 2023 and accompanied by other provisions. Additionally, the revised Directive on Energy Performance in Buildings adopted in May 2018 will improve the energy performance of new buildings and accelerate building renovation.

24. The new **Regulation on the governance of the Energy Union**, as agreed in June 2018, will help ensure that the 2030 GHG emissions, renewables, and energy efficiency goals will be met. Member States are required to draw up National Energy and Climate Plans for 2021-2030 and report on their progress every two years. The EU and Member States will also be required to prepare long-term strategies at a minimum timeframe of at least 30 years (i.e. from 2020-2050).

25. The **F-gas Regulation** provides measures with the aim of cutting emissions from fluorinated gases by 80% by 2030, compared with 2014. In 2017, the Commission adopted reports assessing a 2022 requirement to avoid potent hydrofluorocarbons (HFCs) in some commercial refrigeration systems and assessing the quota allocation method for the phase-down of HFCs.

26. A focus of the **EU Circular Economy Action Plan** is to reduce GHG emissions from waste, for instance in plastics production and incineration of plastic waste, through a recent strategy on plastics and waste legislation (see paragraph 15).

Climate finance

27. In 2017, the **auctioning of EU ETS allowances** yielded €5.6 billion, €1.8 billion more than in 2016 (approximately £4.9 billion and £1.6 respectively). Around 80% of the revenues from 2013-2017 were used or will be used for climate and energy purposes, with the majority being spent on renewable energy and energy efficiency.

28. The total budgets for funding projects in 2014-2017 for the **LIFE programme** amounts to €1.1 billion for environment and €0.36 billion for climate change (approximately £1.0 billion and £0.32 billion respectively). The LIFE programme supports mitigation and adaptation projects and climate governance and information, from which 23 Member States have benefited.

29. The **NER 300** funding programme for innovative low-carbon energy demonstration projects as awarded €2.1 billion (approximately £1.9 billion) in 20 Member States for renewable energy and carbon capture and storage projects. The funding comes from the auction of EU ETS allowances, and six projects have gone into operation. Following the revision of the EU ETS directive, an Innovation Fund will be created and operational from 2020, building on the experience of the NER 300 programme but with a broader scope.

30. The EU has set out to spend an average of at least 20% of its **budget on climate-relevant expenditure** in the current multiannual financial framework (MFF) period, 2014-2020. The budget trend projects that 19.3% of this MFF budget will be spent on climate-relevant expenditure, with 20.1% being spent of the 2017 budget. The Commission has proposed in May 2018 a more ambitious target of 25% for the next MFF, 2021-2027.

Adapting to climate change

31. Good progress has been achieved in the context of the **EU Adaptation Strategy** to prepare Member States for current and future climate impacts. Twenty-five Member States now have a national adaptation strategy, while climate action has been integrated into EU funding instruments.

32. The Strategy has undergone thorough evaluation, which concludes that it remains highly relevant and is quite coherent with policies at other levels of governance, although less so with regards international policies.

International climate cooperation

33. **Global Action**: The current Paris Agreement's 2030 mitigation pledges (nationally-determined contributions (NDCs)) would result in global emissions causing a temperature rise of around 3°C. The EU has set its 2030 targets in line with a 2°C pathway, and so other countries will need to accelerate their decarbonisation efforts to limit the temperature rise to well below 2°C or indeed 1.5°C. The UNEP's *Emissions gap report 2017* shows that G20 countries are on track collectively to reach the mid-range of their 2020 'Cancún pledges'. The EU is on track to meet its 2020 pledge without any international offsets (market-based mechanisms).

34. **Aviation**: In June 2018, International Civil Aviation Organisation (ICAO) Council adopted standards and recommended practices as part of its carbon offsetting and reduction scheme for international aviation (CORSIA). CORSIA aims to stabilise international aviation emissions at 2020 levels. The EU tackles aviation emissions from flights with the European Economic Area through the ETS and will continue to do so until at least 2023, and to prepare to implement a global market-based measure from 2021.

35. Total emissions from aviation represented approximately 4% of all EU GHG emissions in 2017 and have almost doubled since 1990, mostly from international aviation.

36. **Maritime policy**: In April 2018, the International Maritime Organisation (IMO) agreed an initial strategy to reduce GHG emissions from international shipping including a reduction objective of at least 50% by 2050, compared with 2008 levels. The EU began monitoring and reporting emissions on the basis of the decarbonisation plans started in January 2018. The Commission is currently working on an amendment to align the MRV Shipping Regulation (on the monitoring, reporting, and verification of CO_2 emissions from maritime transport) with the data collection system agreed by the IMO in 2017.

37. **ETS Swiss Linking**: In November 2017, the EU and Switzerland signed an agreement to link their emissions trading systems. The parties will exchange their instruments of ratification once all the conditions for linking are met and the agreement will enter into force on 1 January of the following year.

38. **International Carbon Markets**: The EU is actively participating in UN Framework Convention on Climate Change (UNFCCC) negotiations relating to international cooperation on carbon markets. It seeks to secure the implementation of a robust set of accounting rules and an ambitious market mechanism to prevent current efforts being undermined. The Commission is also stepping up its cooperation with the Chinese authorities on emission trading and carbon markets and a memorandum of understanding was signed at the EU-China Summit in July 2018.

39. **Non-state actors**: In response to the Paris Agreement's call to mobilise non-state actors, the EU is supporting a number of flagship initiatives and will measure their impact on emissions reductions and resilience. Globally these efforts are organised under the Marrakesh Partnership on Global Climate Action. This Partnership

recognises the importance of Party and Non-Party Actors to the UNFCCC in meeting the goals of the Paris Agreement. Within the UK, the Scottish Government, the Welsh Government, and Northern Ireland have ambitious plans to tackle climate change.

40. **Supporting Developing Countries**: The EU and its Member States are the world's biggest providers of official development assistance to developing countries. In particular, the support provided by the EU, the European Investment Bank and the Member States to help developing countries tackle climate change has almost doubled in nominal terms since 2013. The EU and its Members States are also the largest contributors to the Green Climate Fund.

41. **Some recent initiatives** supporting developing countries include the launch of:
    a. The African Union-European Union Research and Innovation Partnership on Climate Change and Sustainable Energy for cooperation on climate services, renewable energy, and energy efficiency;
    b. The launch of the EU External Investment Plan, which encourages investment in developing countries in Africa and the EU Neighbourhood region;
    c. The EU Electrification Financing Initiative which aims to support investments that increase and improve access to modern, affordable and sustainable energy services;
    d. The Global Climate Change Alliance Plus is an EU climate flagship initiative, one key priority of which is to support sectoral climate change adaptation and mitigation strategies;
    e. A new €20 million (approximately £18 million) programme to support its strategic partnerships for the implementation of the Paris Agreement in major economies.

<u>Staff Working Documents (ADD1-ADD5)</u>
Member State Fact Sheets
42. These addenda comprise dashboards of information for each Member State on: total greenhouse gas emissions and by sector; ETS emissions; emissions in Effort Sharing sectors; and LULUCF. The final sections cite the sources of data for the country fact sheets and provide explanatory text on LULUCF reported and accounted emissions under the Kyoto Protocol.

<u>Staff Working Documents (ADD6)</u>
Other technical information
43. The Technical Information staff working document contains an overview of the following data, supplementary to the main report: an overview of EU international and domestic climate targets; Greenhouse gas emissions covered by Kyoto Protocol and the EU Climate and Energy Package; EU GHG emissions by sector; GHG intensity in the EU and its Member States; GHG emissions per capita in the EU and its Member States; EU ETS emissions; Effort Sharing legislation emissions; and the use of revenues from auctioning ETS allowances.

SCRUTINY HISTORY

44. 14113/17 COM(17) 646 SWD(17) 357: REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL: Two years after Paris – Progress towards meeting the EU's climate commitments (required under Article 21 of 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), published 7th November 2011.

45. Cleared by the Lords European Union Committee in Chairman's sift 1673 in session 17/19 on 28th November 2017. Considered not raising questions of sufficient legal or political importance to warrant a substantive report by the Commons European Scrutiny Committee and cleared on 10th January 2018.

MINISTERIAL RESPONSIBILITY

46. The Secretary of State for Business, Energy and Industrial Strategy is responsible for the policy on climate change.

INTEREST OF THE DEVOLVED ADMINISTRATIONS

47. In recognition of their potential interest in this area, the Devolved Administrations have been notified about the content of the EM and copies of this EM have been shared with the Devolved Administrations.

LEGAL AND PROCEDURAL ISSUES

48. None; this is not a legislative proposal.

APPLICATION TO THE EUROPEAN ECONOMIC AREA

49. The EU ETS also covers the European Economic Area.

SUBSIDIARITY

50. This is not a legislative act and as such the principle of subsidiarity does not apply. The Government will be examining carefully the subsidiarity implications of any more detailed proposals which may arise from the Communication.

POLICY IMPLICATIONS (including Exit implications where appropriate)

51. The report provides a useful summary of latest information on the targets, projections, and actuals of the EU and Member States' emissions, as well as providing an overview of relevant EU regulations and policies and legislation in development. However, the report itself does not contain any new proposals and so does not give rise to new policy implications.

52. The Government has committed through our fifth carbon budget to making an average reduction in GHG emissions of 57% over 2028-2032, as compared with 1990 levels, which is more ambitious than the target we have been set by the EU. In October 2017, the Government published the UK's *Clean Growth Strategy* which sets out proposals for decarbonising all sectors of the UK economy through the 2020s. It explains how the whole country can benefit from low carbon opportunities, while meeting national and international commitments to tackle climate change.

53. This builds on the UK's impressive historic performance. Between 1990 and 2016, the UK reduced its emissions by over 40% while growing the economy by more

than two thirds, according to data from the Department for Business, Energy and Industrial Strategy and the Office for National Statistics. Since 1990, the UK has reduced total emissions at the fastest rate among G7 countries (the Group of Seven comprising Canada, France, Germany, Italy, Japan, the UK, and the United States), according to data from the UNFCCC's National Inventory submissions.

54. On 23 June 2016, the people of the United Kingdom voted in the EU referendum to leave the EU. Until exit negotiations are concluded, the UK remains a full member of the EU and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation.

CONSULTATION

55. There has been no formal consultation with outside bodies specifically in relation to this communication as it is not a proposal for legislation.

IMPACT ASSESSMENT

56. There are no cost implications on UK businesses arising from this report, and as it is not a legislative proposal, so no impact assessment has been made.

FINANCIAL IMPLICATIONS

57. There are no financial implications for the UK.

TIMETABLE

58. There is no action required as a result of this report.

RT HON CLAIRE PERRY MP
Minister of State