EXPLANATORY MEMORANDUM TO

THE EMISSIONS PERFORMANCE STANDARD REGULATIONS 2015

2015 No. [XXXX]

1. This explanatory memorandum has been prepared by the Department of Energy and Climate Change and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. Purpose of the instrument

2.1 The Emissions Performance Standard Regulations 2015 establish a monitoring and enforcement regime for the Emissions Performance Standard (EPS), which was introduced in the Energy Act 2013. The EPS acts as a regulatory backstop to the National Planning policy, which requires any new coal fired power station to be equipped with Carbon Capture and Storage, so ensures that not only are new coal plant built with CCS but operated in accordance with emissions requirements. The Regulations also apply the Emissions Limit Duty provided for by section 57 of the Energy Act 2013 to existing coal-fired generation plants which extend their operational life by replacing or adding a main boiler, and also modify the Emissions Limit in certain circumstances.

2.2 This instrument contains provisions about:

i. The application of the Emissions Limit Duty, i.e. duty not to exceed a pre-defined carbon emissions limit, that is placed on operators of fossil-fuel generation plant under the EPS, and its further interpretation in respect of (i) combined heat and power plants, (ii) fuel supplied by gasification plant, (iii) application of a 3-year exemption from the EPS for new fossil fuel generation plants that host carbon capture and storage (CCS) projects and (iv) where a plant commences or ceases operation during a reporting year.
ii. The circumstances under which the general application of the EPS is modified to take account of various specific circumstances, including for existing coal plants that undergo life extension by way of replacing or adding a main boiler, to be brought within the EPS regime.
iii. The approach and requirements placed on operators and the Environment Agency for monitoring compliance with the EPS by operators of fossil fuel plant. These arrangements follow closely and use the same information as those that are already in place under the EU Emissions Trading Scheme.
iv. The principles that will apply and mechanisms that will be available to the Environment Agency in respect of sanctions in the event of a breach of the EPS.
v. Appeals
vi. Publication of Information

3. Matters of special interest to the Joint Committee on Statutory Instruments

3.1 Regulation 12 provides for the Secretary of State to make a charging scheme to be used by the Environment Agency when carrying out their functions as conferred on it by these Regulations. The regulation does not specify the particular functions as, at this point, it is not possible with complete certainty to list all activities that the Environment Agency may have to undertake in order to enforce properly the application of the Emissions Limit Duty in Chapter 8 of Part 2 of the Energy Act 2013 and these Regulations. For instance it may, for example, be necessary to arrange site visits. It would not be possible, owing to restrictions on the Environment Agency located elsewhere, for them to charge more than cost-recovery.

4. Legislative Context

4.1 The Energy Act 2013 ("the 2013 Act") makes provision for Electricity Market Reform (EMR), legislating for measures to reform the electricity market to encourage low carbon electricity generation and ensure security of electricity supply.

4.2. The electricity market reforms will be implemented by a suite of secondary legislation and related documents. The suite includes the following:

- Contracts for Difference (Allocation) Regulations 2014
- Contracts for Difference (Definition of Eligible Generator) Regulations 2014
- Contracts for Difference (Standard Terms) Regulations 2014
- Contracts for Difference (Electricity Supplier Obligations) Regulations 2014
- Electricity Market Reform (General) Regulations 2014
- Electricity Capacity Regulations 2014
- Capacity Market Rules 2014
- Modifications to the Transmission Licence of National Grid Electricity Transmission plc. (NGET) which deal with preventing conflicts of interest; and
- Consequential code and licence modifications
- Emissions Performance Standard Regulations 2015

4.3. This instrument is being made under powers in sections 57(6), 60(2) and 62(3) of the Energy Act 2013 to introduce an Emissions Performance Standard as part of the EMR programme to reform the electricity market.

4.4 Alongside this instrument, the Secretary of State will also be issuing a 'Statement of Policy' intended to guide any future exercise of the Secretary of State's power to modify or suspend the EPS under section 59 of the Energy Act 2013; exercisable in limited circumstances where there is an electricity shortfall or a risk of one.

5. Territorial Extent and Application

5.1 Parts 1 and 2 of this instrument apply to the United Kingdom and made with the consent of the Department of Enterprise, Trade and Investment for Northern Ireland as they relate to devolved matters. Part 3 of this instrument relating to monitoring and enforcement applies to England only.

6. European Convention on Human Rights

6.1 Matthew Hancock, Minister of State at the Department of Energy and Climate Change has made the following statement regarding Human Rights:

In my view the provisions of the Emissions Performance Standard Regulations 2015 are compatible with the Convention rights.

7. Policy background

7.1 The Emissions Performance Standard Regulations 2015 form part of the implementing legislation for the Government's EMR programme which is intended to incentivise investment in secure and low-carbon electricity generation, while improving affordability for consumers.

7.2. EMR is the Government's response to the challenges facing the electricity sector, which include:

- The UK faces very rapid closure of existing capacity as older, more polluting plant go offline;
- The need to transform our generation mix to respond to the challenge of climate change and meet our legally-binding carbon and renewable targets; and
- The expectation that electricity demand will continue to increase over the coming decades.

7.3. These challenges amount to a significant investment challenge, with an estimated £100 billion of further investment needed in the sector up to 2020. Without this intervention the market is unlikely to deliver this investment at the scale or pace required, or achieve the diverse generation mix needed to meet the carbon and renewables targets and ensure security of electricity supply.

7.4 As a result, EMR has been designed to deliver two new mechanisms to incentivise the required investment and address market failure; Contracts for Difference (CFDs) and the Capacity Market.

7.5 The Emissions Performance Standard is being established to work alongside these other market based instruments. The objective of the EPS is to ensure that while fossil fuel-fired electricity generation continues to make an important contribution to security of supply, it does so in a manner consistent with the UK's decarbonisation objectives. The EPS will act as a regulatory backstop to limit how much carbon new fossil fuel plants can emit, and sit alongside the other decarbonisation policies implemented under the Government's Electricity Market Reforms.

7.6 The EPS provides further clarity on the regulatory environment for fossil fuel power stations, building on the Government's planning policy that requires any new coal-fired power stations to be constructed with a full CCS chain fitted on at least 300MW (net) of their generating capacity and be carbon capture ready on the rest, while all new combustion plant at or over 300MW must be carbon capture ready (CCR) on the whole plant, i.e. they must demonstrate that there are no economic or

technical barriers to retrofitting CCS. In England and Wales these requirements are contained in the National Policy Statements. These requirements do not, however provide clarity in respect to the operating regime of these plant, nor do they provide any emission limits. An EPS goes a stage further, and ensures that not only are new coal plant built with CCS but that it is operated in accordance with emissions requirements. Further, the requirement for 300MW CCS applies irrespective of the size of the plant, i.e. the larger the plant the smaller the proportion required to have CCS. The EPS will therefore ensure that total annual emissions from new plant are consistent with the EPS requirements, regardless of their total size.

7.7 Further, the EPS will complement the economic signals provided by the carbon price floor and low carbon support mechanism in the form of Contracts for Difference. The EPS supports the requirements set out in the National Policy Statements, but in the longer term could be used to give a clear regulatory signal on emission reductions to back up the economic signals provided for through the rest of EMR. In the future it may be appropriate to use the EPS in a different way, for example to require CCS on new plant once the commercial and technical viability of CCS is better understood. Introduction of an EPS at this stage provides for this opportunity, and the Government will review the EPS as part of the statutory review of the other EMR policies under section 66 of the Energy Act 2013.

7.8 Given the typical timelines for the construction of new commercial scale fossil fuel generation plants, we expect it will be at least 4-5 years before the first plant subject to the EPS will become operational. The Government nonetheless believes it is helpful to set out its proposed approach for the detailed aspects of the EPS now in order to provide greater regulatory certainty for potential investors.

7.9 The main characteristics of the Emissions Performance Standard:

i. **Scope.** The EPS applies to all new fossil fuel electricity generation plants that are above 50MWe and receive development consent after 18 February 2014 - the date at which the EPS came into force. The EPS has been set at a level equivalent to emissions of 450gCO_2/kWh if the plant is operating at 'baseload'[1]. This is around half the level of emissions of unabated coal generation and is fixed until end 2044.

ii. **Interpretation of the Emission Limit Duty.** Operators of fossil-fuel generation plant will be required to calculate the emissions limit for their plant and declare it to the environmental regulator prior to commencing operation. The emissions limit for a fossil fuel plant will be adjusted on a pro-rata basis where operation begins or ends part-way through a year, or where there is a change to a plant's installed generating capacity (for example, where generation capacity is retired) or where only part of a plant's capacity is subject to a CCS exemption. The EPS will apply to any coal plant constructed before the EPS came into force if it is upgraded to supercritical technology or an existing main boiler is replaced i.e. this would effectively constitute the building of a new generating unit on the existing site.

[1] 'Baseload' is a term commonly used to define the operational characteristics of a generating station that is operated almost continuously, bar any maintenance periods, over the course of a year at between 80%-90% of its rated electrical output.

iii. Carbon emissions produced in the production of combustible gases by and 'associated' gasification plant[2] (including underground coal gasification) and used by a fossil fuel plant will count towards the fossil fuel plant's emissions limit under the EPS. This covers circumstances where a gasification plant is not part of a consented fossil fuel plant but supplies combustible gas subsequently used to generate electricity. Emissions produced by a fossil fuel plant where these are attributable to ancillary plant operated for safety purposes or in an emergency are not counted toward a plant's limit. Emissions attributable to fossil fuel used to generate useful heat are also discounted to ensure that the EPS does not act as a disincentive to the take up of Combined Heat and Power (CHP).

iv. **Monitoring and Enforcement in England.** In respect of monitoring and enforcement of the EPS these regulations apply in England only. The Government will appoint the Environment Agency as the enforcing authority in England. The approach to monitoring is intended to minimise regulatory burden of compliance by utilising the monitoring and reporting of emissions already required of operators under the EU ETS. Before commencing operation of a fossil-fuel plant (and thereafter in the event of a material change) the operator will be required to calculate and declare the plant's 'Emissions Limit' to the Environment Agency; the operator will then monitor carbon emissions in accordance with the Monitoring and Reporting methodology used for the EU ETS.

v. The Environment Agency will take an operator's annual verified EU ETS Return and reconcile the reported emissions figure against the notified emissions limits for the fossil-fuel plant. In the event that the verified annual carbon emissions reported under the EU ETS is greater than the emissions limit for a plant, the operator will provide a further EPS specific return which identifies only those emissions attributable to the generation of electricity. The Environment Agency will then use the EPS return to carry out a further reconciliation to confirm whether a breach of the EPS has occurred.

vi. The Environment Agency will have available a suite of measures for ensuring compliance. This includes the ability to take enforcement action, including the imposition of financial penalties, in the event of a breach of the Emissions Limit Duty. In accordance with better regulation principles, any civil penalty imposed in the event of a breach of the Emissions Limit Duty should be sufficient to disincentivise a breach of the EPS and be proportionate.

vii. **Suspension or modification of the Emissions Limit Duty.** The EPS may be suspended by the appropriate authority[3] where there is a risk to security of electricity supply. In relation to the suspension of the EPS in Great Britain, the Secretary of State will only exercise this power if satisfied that a shortfall of electricity, or risk of a shortfall, remains after other mitigating measures have

[2] 'Gasification Plant' is plant that process fossil fuels to produce combustible gases which when burnt do not produce carbon dioxide.
[3] The 'appropriate authority' is the Secretary of State in Great Britain and The Department of Enterprise, Trade & Investment in Northern Ireland.

been taken. The approach seeks to ensure that the EPS will not become a contributory factor in any risk to security of electricity supply. Any decision to suspend the EPS has to take account of a published 'Statement of Policy' which sets out the conditions that should be met before any direction to suspend. The statement does not form part of these regulations.

viii. **Exemption for Carbon Capture and Storage Projects.** Carbon Capture and Storage projects will be exempt from the EPS for a period of three years from the point at which a complete CCS chain with which an electricity generating station is equipped is ready to use. The exemption will only apply to that part of an electricity generating station equipped with the complete CCS chain. The regulator will have responsibility for ensuring that an operator has met the conditions necessary for the exemption to apply. Regulators may, in the future, publish guidance to assist operators in understanding whether the conditions for attracting the CCS exemption have been met.

8. Consultation outcome

8.1 The Emissions Performance Standard policy set out in this instrument was subject to a 6-week consultation in September 2014 "Implementing the Emissions Performance Standard: Further Interpretation and Monitoring and Enforcement Arrangements in England". Alongside the consultation document, a draft version of this instrument and the Statement of Policy in respect of suspension of the EPS was also published for stakeholders to provide feedback. A total of 12 responses were received to the EPS consultation. These were largely supportive of the proposed approach to regulations; in particular, the intention to minimise additional monitoring and reporting burden by utilising existing arrangements relating to the EU Emissions Trading Scheme was welcomed.

8.2 Responses to the consultation revealed that a minor change to the draft regulations (relating to the definition of installed generation capacity) was required in order to achieve the stated policy intention. Otherwise, consultation responses did not suggest grounds for any substantive amendment in policy approach.

8.3 A more detailed analysis of the consultation responses and outcome can be found in the Government Response to the consultation published alongside this instrument.

9. Guidance

9.1 The Government Response to the consultation informing this instrument has been published to coincide with the laying of regulations in Parliament. The Government Response sets out the views of stakeholders in response to the previously proposed policy positions, and an explanation of the final policy decisions taken.

10. Impact

10.1 The costs of compliance with the EPS have been estimated to be £50,000 per year. These costs are administrative only and will be met by operators of fossil-fuel plants.

10.2 Since the costs are sufficiently small compared to the number of domestic and industry consumers, the Government expects the Emissions Performance Standard to have a negligible impact on average bills.

10.3 There are no impacts on small business, charities or voluntary bodies.

10.4 The impact on the public sector is estimated to be nil as it is expected that businesses will be subject to a charge from the Regulator to enable it to recover the administrative costs incurred in administering the EPS.

10.5 The key monetised impacts include one-off and on-going costs incurred to establish and manage a process of monitoring, reporting and verifying plants' emissions in relation to the EPS regime. There are no monetised benefits associated with the Emissions Performance Standard regulations. The key un-monetised benefit of the EPS regime is that it will act as a backstop to ensure the construction of new coal and gas generation plants are consistent with the UK's emissions reduction objectives.

10.6 An Impact Assessment for the Emissions Performance Standard is attached to this memorandum and will be published alongside this Explanatory Memorandum on the legislation.gov.uk website.

11. Regulating small business

11.1 The legislation applies to operators of new fossil fuel generation plants, so it will impact on electricity generators with power plants above 50MWe which are mostly classed as large businesses.

12. Monitoring and review

12.1 The Government had committed to review the EPS on a regular basis (once every three years, with the first review in 2015) and as part of the statutory review of EMR policies to be carried out in 2019 – as required under section 66 of Energy Act 2013.

13. Contact

Anna Strudwick at the Department of Energy and Climate Change Tel: 0300 068 6130 or email: anna.strudwick@decc.gsi.gov.uk can answer any queries regarding the instrument.