

Further to our *Current Thinking* note released on the 9th August 2016 with regards to DEFRA's planned consultation on emission limits, which followed our note of the 14th June concerning the proposed Capacity Market (CM) Reform and the link to the Medium Combustion Plant Directive. There have been two recent developments:

### **DEFRA proposals to control NOx emissions from small generators – MCPD**

On the 16th November 2016, DEFRA published a consultation on proposals to introduce tight limits on NOx emissions from small scale generation (i.e. with a capacity of 1-50MW<sub>th</sub>). The consultation closes on 8th February 2017. This will entail compliance with the Medium Combustion Power Directive (MCPD).

The Medium Combustion Plant Directive (MCPD) will help to reduce air pollution by bringing in emission controls for combustion plants in the 1 - 50MW<sub>th</sub> range. The MCPD was supported by the UK as it will deliver a cost-effective improvement to air quality. The Directive requires all plant in scope to be registered or permitted and sets limits on the levels of pollutants that these plants can emit per their type, size, age, fuel type and annual operating hours. It also requires operators to test emissions from their plants to demonstrate compliance with emission limits.

The MCPD must be transposed into UK law by 19th December 2017. The controls will apply to new plants from December 2018. Existing plants must comply with requirements from 2024 or 2029, depending largely on size. Full implementation will be achieved in 2030.

This consultation seeks views on broad principles for transposition of the MCPD and emissions controls for generators into UK law. Associated guidance will be subject to a separate consultation by early 2018.

Please note that these requirements do not only apply to generators involved in the Capacity Market (CM)

The consultations together with the documentation from DEFRA are complex, and should be read carefully, and in whole. We offer the following brief summary:

One of the key proposals is that any new build generator, in scope of the legislation and winning an agreement in this year's CM auction, will need to comply with a limit of 190 mg/Nm<sub>3</sub> from 1 January 2019. For existing generators, this limit will apply from 2025 or 2030, depending on its capacity.

Other key points:

- Please note that the proposed emission controls for generators (combustion plant used to generate electricity) differ from those under the MCPD (in stringency and timescale) and apply to sites on which generators aggregate to a thermal input over 1MW (~400 kW<sub>e</sub>), regardless of the size of the individual generators.

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- Subject to some limited exceptions, all MCPs (Medium Combustion Plants) which operate on average more than 500 hours per annum will be required to comply with the emission limit values. The term MCP includes water heaters and steam boilers, together with other combustion devices including engines and gas turbines.
- The MCPD contains an exemption for combustion plants covered by the Non-Road Mobile Machinery Directive (NRMM). The NRMM is being replaced with a new Regulation which will apply from January 2019 and will require all compression ignition engines installed in non-road mobile machinery (NRMM) within the MCP range to comply with 'placing on the market' emission standards. DEFRA consider that engines above 1 MWth (~400 kWe) installed on NRMM and not subject to placing on the market emission standards will be in scope of the MCPD, except where otherwise exempted by the MCPD.
- Regarding continuous emissions monitoring, DEFRA propose not to apply mandatory continuous monitoring, however:
  - DEFRA are working with industry and regulators to identify suitable methods of emissions monitoring. Under the MCPD the majority of MCPs (those using natural gas and gas oil) are required to monitor only NO<sub>x</sub> and CO emissions and DEFRA consider that MCERTS (UK Monitoring Certification Scheme) is likely to be disproportionate. They are therefore working with industry to identify cheaper and less stringent methods possibly utilising existing plant maintenance systems.
- Back-up generators (generators operating to supply power during an on-site emergency e.g. a power cut) which are operated for the purpose of testing for no more than 50 hours per year will be exempted from the requirements to hold a permit.
- Unless otherwise specified below, the regulator will be required to exercise their permitting functions so as to ensure that at least the four following standard requirements are applied to the generator though the permit:
  - a NO<sub>x</sub> ELV (Emission Limit Value) of 190 mg/Nm<sub>3</sub>
  - where secondary abatement is required to meet the limit of 190 mg/Nm<sub>3</sub>, it must be met within 5 minutes of the generator commencing operation. there must be no persistent visible emission.
  - Where the generator relies on secondary abatement to meet the 190 mg/Nm<sub>3</sub> NO<sub>x</sub> ELV, emissions must be monitored every 3 years.
- The term "Generators" will be defined. A possible definition is
  - any single stationary electricity generating combustion plant; or
  - any group of stationary electricity generating combustion plant located at the same site and providing electricity for the same purpose, with a rated thermal input of between 1 MWth and 50 MWth, including any MCP, but excluding any plant subject to the provisions of the Industrial Emissions Directive. This definition means that mobile generators would be

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excluded from the proposals and that the combined capacity of all stationary electricity generating combustion plant located at the same site will be aggregated to determine the total rated thermal input of the “Generator”, so plant <1MW<sub>th</sub> may be affected by the proposed regulation.

- The permit conditions may limit the operating hours and emissions limits of the generator and may require dispersion equipment (e.g. stacks) or abatement equipment to be installed to ensure compliance with Ambient Air Quality Limits.
- Aggregators produce bids to National Grid services by combining the power from numbers of smaller generators on separate sites. Failing to limit NO<sub>x</sub> emissions from these generators could open a loophole potentially undermining some of the benefits of the proposed regulation. DEFRA are therefore seeking views on whether the legislation should be extended to generators <1 MW<sub>th</sub> in size (~400 kW<sub>e</sub>).

The proposed legislation to limit NO<sub>x</sub> emissions is likely to affect diesel generators, as well as gas engines that are not lean burn and gas turbines with higher NO<sub>x</sub> emissions – DEFRA are advising that participants check whether the proposals restrict their ability to operate or increase operating and capital costs.

DEFRA propose to transpose the MCPD and introduce emission controls for generators through amendments to the Environmental Permitting (England and Wales) Regulations (2016).

If you would like to know more, please see the consultation document published on Defra’s website: <https://consult.defra.gov.uk/airquality/medium-combustion-plant-and-controls-ongenerators>

Government will, within 3 months of the close of the consultation, publish the consultation response.

Scotland and Northern Ireland Governments will propose their own legislation.

### Capacity Market

BEIS (Department for Business, Energy & Industrial Strategy) have advised that Government yesterday laid in Parliament an amendment to the Capacity Market Rules, following the recent consultation on selective over-compensation in the Capacity Market (“CM”). Documents are also published on their website:

<https://www.gov.uk/government/publications/selective-overcompensation-in-the-capacitymarket>

The Technical Committee will be responding to the consultation and any comments would be appreciated by 31<sup>st</sup> December.

Bernard Gospel – Technical Committee Secretary

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