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22 January 2016

European Network Codes Requirements

Open Letter to Key Stakeholders Connecting Equipment to the GB Electricity Transmission and Distribution Systems

Dear Industry Colleagues

As many of you will be aware, the European Third Energy Package which became European law in March 2011 is a key step forward in developing a more harmonised European energy market for gas and electricity. While achieving this, it will also seek to facilitate the integration of renewable energy sources, to maintain system security and to enhance competition.

As part of delivering these objectives, the European Commission are currently in the process of developing a number of European network codes for electricity. If you are proposing to connect new equipment to either the GB electricity transmission or distribution system from 2018 onwards it is likely that you will be required to comply with the new connection network codes which place technical requirements upon equipment being connected to the system. These are the Requirements for Generators, Demand Connection and HVDC codes; each is predicted to enter into force as European Law during Q1 2016.

The Industry is working hard to update the Grid Code and Distribution Codes to make it easier to understand all of the technical requirements that you will need to comply with, however this letter is intended to draw your attention to the likely timescales, scope and sources of further information.

Applicability

The requirements under the connection codes apply generally to all 'new' electrical equipment (such as generators, HVDC installations, lines, cables, demand sites etc) connecting to the transmission or distribution systems. 'New', rather than 'existing' equipment, is defined identically in each of the connection codes as not being connected to the system at the time that the code enters into force and not having concluded a final and binding contract for the purchase of main plant items by two years after entry into force.

For example, in the case of a generator the 'main plant' would be defined as one or more of the principle items of equipment required to convert the primary source of energy into electricity such as the alternator or the generator transformer, and which once ordered will determine the ability of plant to meet technical requirements.

Where a generator or developer wishes equipment connecting after the codes enter into force in Q1 2016 to be designated as 'existing', the owner must notify National Grid or the DNO to whose system they are connected of such a contract within 30 months of the entry into force of the code. This notification shall indicate at least the contract title, its date of signature and date of entry into force and the specifications of the main plant to be constructed, assembled or purchased. If necessary, Ofgem as the GB regulator may determine whether equipment is to be considered existing or new, so in effect whether such a contract satisfies the requirements.

National Implementation

National implementation of the connection codes is mandatory within 2 years of their entry into force. This is required to set those parameters required within the codes on a national basis and also to ensure alignment with the existing national codes (for example in GB the Grid Code, Distribution Code, Connection and Use of System Code (CUSC) and Balancing and Settlement Code (BSC)) over which, as European Law, they will take precedence in areas of conflicting requirements. The process of alignment is required to ensure consistency and, for Users, to optimise the ease of compliance with all legislation.

In GB, a number of industry workgroups are carrying out these tasks under the governance of the Grid Code Review Panel and the Distribution Code Review Panel using the established code modification process.

Compliance

For equipment that is designated as 'new' as described above, compliance with the connection codes is required by 3 years after their entry into force or at the time that such equipment is connected to the system, whichever is later.

Summary of Timescales

Network Code	Date of Commission Cross Border Committee Approval	Expected Entry Into Force Date	Date of National Implementation	Date of Compliance
Requirements for Generators	26 June 2015	Q1 2016	Q1 2018	Q1 2019
HVDC	11 September 2015	Q1-2 2016	Q1-2 2018	Q1-2 2019
Demand Connection	16 October 2015	Q1-2 2016	Q1-2 2018	Q1-2 2019

Should you have any questions regarding any of the issues noted in this letter please do not hesitate to contact my team that are dealing with implementation of the codes through europeancodes.electricity@nationalgrid.com.

Yours sincerely

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Appendix - Additional Information

ENTSO-E, the European Network of Transmission System Operators, was also set-up as a result of the 3rd Energy Package. Their website includes links to each of the network codes and extensive supporting material:

https://www.entsoe.eu/major-projects/Pages/default.aspx

National Grid have set-up an industry forum, the Joint European Stakeholder Group (JESG), to provide a means for stakeholders to find out more about the network codes and associated European matters. This meets every month, generally in London:

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/European-network-code/Joint-European-Stakeholder-Group/

In addition, GB implementation of the connection codes is being progressed by the following industry workgroups:

Requirements for Generators (GC0048)

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Gridcode/Modifications/GC0048/

Requirements for Grid Connection of High Voltage direct current systems and direct current-connected Power Park Modules (GC0090)

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Gridcode/Modifications/GC0090/

<u>Demand Connection Code (GC0091)</u>

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0091/