

GC 0117

Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of PGM requirements

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Background (1)

- ***Defect***

- The Grid Code does not currently apply a consistency of access arrangements across GB and, as such, does not assist the creation of a pan-GB market for power generating module (PGM) technology, by increasing the commonality of PGM requirements.
- There are, for example, three different sets of requirements applicable to a Type C generator depending on where in GB it is connected. Similarly, there are two different sets of requirements applicable to a Type D generator in England and Wales.

Background (2)

- ***What***

- The Grid Code will need to be amended to apply a single, harmonised, common minimum requirement, across GB for generators of Types (B?) C and D by removing the need for multiple Large (Medium) and Small category of power station across GB

Background (3)

- *Why*
- Guidance from BEIS and Ofgem was to apply the new EU requirements within the existing GB regulatory frameworks. This would provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.
- Recital (27) of the RfG also sets out that:
- *“The regulatory authorities, Member States and system operators should ensure that, in the process of developing and approving the requirements for network connection, they are harmonised to the extent possible, in order to ensure full market integration.”* [emphasis added]

Background (4)

- ***How***

- With the support of the industry, we will use this modification to finalise the solution to apply the EU Connection Codes requirements, before consulting with the wider industry and submitting to Ofgem for a decision.

Why Change (1)

- This Proposal is one of a number of Proposals which seek to implement relevant provisions of a number of new EU Network Codes/Guidelines which have been introduced in order to enable progress towards a competitive and efficient internal market in electricity.
- The RfG (EU) Network Code was drafted to facilitate greater connection of renewable generation; improve security of supply; and enhance competition to reduce costs for end consumers, across EU Member States.

Why Change (2)

- The RfG code specifically sets out, in Recitals (3) and (27), the need for *harmonised* technical standards for the connection of new generation.
- GC0100, GC0101 and GC0102 did not considered applying a consistency of access arrangements across the whole GB system which would assist the creation of a pan-GB market for power generating module (PGM) technology, by increasing the commonality of PGM requirements.

Why Change (3)

- Applying a consistency of access arrangements across GB should help improve competition between manufacturers and make it cheaper to build PGM technology, thus reducing costs for consumers as neither manufactures or generators will need to develop / specify different requirements for the same sized plant depending on whether they are connecting.
- Achieving harmonise systems across the GB energy market should help make it easier and more efficient to operate the electricity system, by introducing a common, clear set of requirements which every new connection to the electricity network will need to meet.

Why Change (4)

- Implementation of this change should also help facilitate competition in the generation of electricity by improving transparency and consistency of access arrangements across different electricity systems in GB. This removes a potential barrier to entry and allows market participants to trade between Member States more easily by ensuring that there is a level playing field in terms of connection requirements, thus improving competition in generation as generation plant of the same size will be treated in a non-discriminatory manner across the whole of the GB system.
- The European Regulations such as the RfG intend to deliver a harmonised set of rules for the operation of the electricity sector in Europe. The European Regulations aim to help ensure security of supply, facilitate the decarbonisation of the energy sector and create a competitive, pan-European market which benefits consumers.

Why Change (5)

- This Modification aims to introduce commonality and reduce complexity of arrangements across GB. This should improve the security and efficiency of the system as a whole and encourage further harmonisation thereby providing a clear and predictable framework from which to operate by.
- This, in turn, should encourage increased standardisation of equipment and specifications across the whole of GB and lead to improved economies of scale and increased interconnection driving improved security of supply. We therefore consider that the modifications will promote the security and efficiency of the electricity generation, transmission and distribution systems.

Solution (1)

- A single, common, harmonised solution would apply across the whole of GB.
- Currently, there are up to three different applications of ‘Large’, ‘Medium’ and ‘Small’ depending simply on to which of the three onshore TO systems a generator connects. Further details on what these are can found below by reference to the current (16th May 2018 version) of the Grid Code.
- There appears to be six broad options of what a **single**, common, harmonised solution could look like by replacing the existing Small / (Medium) / Large with a single threshold.

Solution (2)

- Applying the present 'North of Scotland' threshold of 10 MW in the 'South of Scotland' and England & Wales;
- Applying the present 'South of Scotland' level threshold of 30 MW in the 'North of Scotland' and England & Wales;
- Applying the present England & Wales level threshold of 50 MW in the 'South of Scotland' and the 'North of Scotland'; or
- Applying the level based on the RfG Types (B?) C and D thresholds; or
- Applying the level based on other figures than those associated with the four options above.
- A further option variation could be centred around removing all references to 'Small', 'Medium' and 'Large'.

Solution (3)

- For the avoidance of doubt, this proposal would only relate to '*New*' generation connections and not to '*Existing*' generation connections (based on the definitional approach of '*New*' and '*Existing*' contained in the RfG).
- However, where, in accordance with Article 4(1) of the RfG, an *Existing* Type C or Type D has been modified to such an extent that its connection agreement must be substantially revised then it shall, at the same time its connection agreement is so revised / amended (if applicable), be re-classified according to the proposed solution from its *Existing* 'Small', ('Medium') or 'Large' level to the *New* 'Small', ('Medium') or 'Large' level.

Solution (4)

- Thus, for example, if hypothetically Option 1 were implemented then an existing 40MW plant in England & Wales which would currently be classified as 'Small' would, if their plant were 'substantially modified' (as per Article 4(1)), be reclassified as 'Large' once their connection agreement was revised / amended.
- Conversely, if, in similar circumstances, Option 3 were adopted, then an equivalent 40MW plant in the North of Scotland would become 'Small' (from their current 'Large' classification).

Justification against Applicable Objectives (i)

- **To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;**
 - **Positive**
 - The proposed solution will harmonise systems across the internal and, in particular the GB, energy market which should help make it easier and more efficient to operate the electricity system, by introducing a common, clear set of requirements which every new connection to the electricity network will need to meet.

Justification against Applicable Objectives (ii)

- **To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);**
 - **Positive**

- Implementation of the proposed solution should help facilitate competition in the generation of electricity by improving transparency and consistency of access arrangements across different electricity systems in GB. This removes a potential barrier to entry and allows market participants to trade between Member States more easily by ensuring that there is a level playing field in terms of connection requirements, thus improving competition in generation.
- The proposed solution should assist the creation of a pan-European and pan-GB market for power generating module (PGM) technology, by increasing the commonality of PGM requirements. This should help improve competition between manufacturers and make it cheaper to build PGM technology, thus reducing costs for consumers.

Justification against Applicable Objectives (iii)

- **Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;**
 - **Positive**

- The proposed solution aims to introduce commonality and reduce complexity of arrangements across Member States, and within GB in particular. This should improve the security and efficiency of the system as a whole. This should materialise through increased standardisation of equipment and specifications across the whole of the EU and GB in particular. In turn this should lead to improved economies of scale and increased interconnection driving improved security.
- We therefore consider that this modification will promote the security and efficiency of the electricity generation, transmission and distribution systems.

Justification against Applicable Objectives (iv)

- **To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency;**
 - Positive
- These European Regulations are directly applicable to GB without having to be transposed into our national laws or regulatory frameworks. European Regulations also take precedence in the legal “hierarchy of laws” over domestic law (i.e. if a domestic law is incompatible with a European Regulation, it is the European law which takes precedence).
- The proposed solution seeks to ensure that the Grid Code is consistent with these European Regulations.

Justification against Applicable Objectives (v)

- **To promote efficiency in the implementation and administration of the Grid Code arrangements.**
 - Positive
- The application of a single, harmonised, common minimum requirement across the whole GB system will produce efficiency in the implementation and administration of the Grid Code arrangements as it avoid the costs, risks and inefficiencies associated with operating to three separate arrangements today.

Governance

- Given materiality, complexity and wide-ranging impact of the changes proposed in this Modification, we believe that self-governance or fast track governance arrangements are not appropriate in this case.

Code Administrator



Chrissie Brown
28 June 2018

- Panel is asked to:
 - Agree that this modification will have a material impact and therefore should not be treated as Self-Governance
 - Agree that this modification should be developed by a Workgroup with Workgroup Consultation
 - Discuss and agree when Workgroup Report should be issued to GCRP/Prioritise GC0117
 - Agree the Terms of Reference for the modification