

Grid Code Alternative Form

GC0117 Alternative Request 2: Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of PGM requirements

Overview: This proposed alternative is the same as the original proposal but instead of proposing a Small – Large Power Station categorisation boundary of 10MW across all GB, this alternative proposes to set the threshold at 100MW which is the current level at which a generator becomes Large within England and Wales

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What is the proposed alternative solution?

The original proposal seeks to rationalise the exiting GB arrangements for the connection of new Power Stations, such that there is a common definition of Small, Medium (where appropriate) and Large Power Stations. The original proposal sets out six possible options, and whilst not explicit in the original proposal, it is understood that the original proposer's preferred solution is option one ie 'Applying the present 'North of Scotland' threshold of 10 MW in the 'South of Scotland' and England & Wales'.

This alternative is to put forward a solution, which is similar to the original proposal i.e. to remove Medium and to set the Small, Large Power Station categorisation threshold to 100MW.

This alternative solution would require changes to similar parts of the Grid Code as the original proposal.

What is the difference between this and the Original Proposal?

The original proposal is for a single Small – Large Power Station categorisation threshold of 10MW across all of GB. This alternative proposal is to apply the same methodology but to change the capacity to 100MW to align with the point at which a Power Station becomes Large in England and Wales under the current Grid Code.

This alternative proposal would address the defect identified in the original proposal which is that '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.'

What is the impact of this change?

This alternative proposal aims to address the defect addressed in the original proposal, to minimise the implications for the majority of existing and future new Power Stations, and to pave the way to implement the emerging and evolving thinking from the ENA Open Networks work on the role of Distribution System Operators.

Implications for a Power Station $\geq 10\text{MW}$, $< 50\text{ MW}$ in England & Wales

Original Proposal	Alternative Proposal 2
1 The Generator would need to become Party to the CUSC	No change from present arrangements
2 The Generator would need to provide Control Telephony system and/or System Telephony	No change from present arrangements. The defect relates to harmonisation requirements across GB; NGESO has not indicated that they require Control Telephony system and/or System Telephony for Small Power Stations in England and Wales.
3 The Generator would need to provide Electronic Data Communication Facilities which are necessary to communicate with the ESO for the purposes of participating in the Balancing Mechanism (these include facilities such as Electronic Data Transfer	No change from present arrangements. The emerging DSO thinking is that the DSO should collect, export data from generation connected to the distribution network so that it can utilise the data for its own needs and provide the data

(EDT), Electronic Despatch Logging (EDL) or (Application Protocol Interface (API) facilities	NGESO require to manage the system across ICCP links.
4 The Generator would need to provide data to NGESO for them to participate in the BM either as a BM Participant or as a Generating Unit which is referred to as scheduled data	No change from present arrangements. A Generator would retain the option to enter into a BEGA, and participate in the Balancing Mechanism, and hence be obligated to provide the required data.
5 The Generator would need to submit an annual data return (data relating to the electrical and fixed operational parameters of the Power Station) to NGESO as part of the Week 24 process.	No change from present arrangements. A Generator would not need to provide Week 24 data to NGESO.
6 The Generator would need to comply with some of the requirements in the Grid Code e.g. Connection Condition and compliance assessment. These could be implemented in the Distribution Code, or via reference from the Distribution Code. Following RfG implementation the technical requirements are connection conditions are generally harmonised, other than those related to control provision (2) and data provision (3, 4 & 5)	No change from present arrangements. Connection and compliance requirements would be set out in the Distribution Code.

Implications for a Power Station $\geq 50\text{MW}$, $<100\text{ MW}$ in England & Wales

Original Proposal	Alternative Proposal 1
1 The Generator would need to become Party to the CUSC	No change from present arrangements
2 The Generator would need to provide Control Telephony system and/or System Telephony	No change from present arrangements. The defect relates to harmonisation requirements across GB; NGESO have not indicated that they require Control Telephony system and/or System Telephony for Medium Power Stations in England and Wales
3 The Generator would need to provide Electronic Data Communication Facilities which are necessary to communicate with the ESO for the purposes of participating in the Balancing Mechanism (these include facilities such as Electronic Data Transfer (EDT), Electronic Despatch Logging (EDL) or (Application Protocol Interface (API) facilities	No change from present arrangements. The emerging DSO thinking is that the DSO should collect, export data from generation connected to the distribution network so that it can utilise the data for its own needs and provide the data NGESO require to manage the system across ICCP links.
4 The Generator would need to provide data to NGESO for them to participate in the BM either as a BM Participant or as a Generating Unit which is referred to as scheduled data	No change from present arrangements. A Generator would retain the option to enter into a BEGA, and participate in the Balancing Mechanism, and hence be obligated to provide the required data.

5 The Generator would need to submit an annual data return (data relating to the electrical and fixed operational parameters of the Power Station) to NGESO as part of the Week 24 process.	No change from present arrangements. A Generator would not need to provide Week 24 data to NGESO.
6 The Generator would need to comply with some of the requirements in the Grid Code e.g. Connection Condition and compliance assessment. These could be implemented via the Distribution Code, or via reference from the Distribution Code as at present. Following RfG implementation the technical requirements are connection conditions are generally harmonised, other than those related to control provision (2) and data provision (3, 4 & 5)	No change from present arrangements. Connection and compliance requirements would be set out in the Distribution Code,

Implications for a Power Station \geq 10MW in SHE Transmission Area and for a Power Station \geq 30MW in SHE Transmission Area

The detailed implications will need to be developed further by the GC0117 workgroup, however, in a Generator with a Power Station within this range will have fewer code obligations e.g., there would be no need to:

- enter into BELLA (or BEGA) agreement with NGESO
- comply with the Grid Code (other than via the Distribution Code for LEEMPS)
- provide data directly to NGESO

It is recognised that NGESO may lose access to operational data from some Power Stations $<100\text{MW}$. There is a current debate¹ on the most efficient means of providing operational data to the parties that require it, including the DNOs and NGESO. The original proposal states that it only relates to new connections, however application to existing Power Stations needs to be considered in more detail as it seems very likely that revised definitions of Large, Medium and Small would have implications in relation to other Grid Code obligations e.g. Operation Code and Planning Code where, unlike the Connection Conditions / European Connection Conditions there is not distinction between 'new' and 'existing' Power Stations.

There are two key areas, collection of operational data and NGESO's ability to control Generating Units in Power Stations.

The existing data collection arrangements could be retained for existing connections until an enduring solution is implemented but an interim solution would be required (based on the assumption that NGESO continue to require operational data from such Power Stations) for new connections.

Large Power Stations $<100\text{MW}$ in Scotland are required to have a BELLA or BEGA agreement with NGESO. The proforma CUSC BELLA only binds a Generator to BC1 and BC2 where NGESO reasonably requires it. As part of the assessment of GC0117, there

¹ Ofgem Call for evidence: Visibility of distributed generation connected to the GB distribution networks. 04 August 2020.

may be a need for NGESO to review the need or otherwise for a Generator with a BELLA to comply with BC1 and BC2. BC1 relates to the provision of operational data. BC2 relates to issuing of instructions to Users to enable NGESO to maintain the integrity of the National Electricity Transmission. A BELLA doesn't give a Generator any transmission access rights whilst a BEGA does (and hence creates an exposure to TNUoS charges where their TEC is >100MW).

Proposer's Assessment against Grid Code Objectives	
Relevant Objective	Identified impact
(a) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	Positive: As per the original proposal
(b) Facilitating effective 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: As per the original proposal
(c) 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: As per the original proposal
(d) 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; and	Positive: As per the original proposal
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	Positive: As per the original proposal

When will this change take place?

Implementation date:

This modification should be implemented as soon as is practicable.

Implementation approach:

To be agreed via the workgroup

Acronyms, key terms and reference material

Acronym / key term	Meaning
BEGA	Bilateral Embedded Generation Agreement
BELLA	Bilateral Exemptible Large Licence Exempt Generator Agreement
DNO	Distribution Network Operator
DSO	Distribution System Operator
NGESO	National Grid Electricity System Operator

Reference material:

- 1. None