

**Grid Code Alternative Form**

## **GC0117 Alternative Request 5:**

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

**Overview:** This alternative proposes to apply the existing Power Station definitions in England and Wales into Scotland. In the case of Embedded Medium Power Stations the LEEMPS Plus approach would apply (50 – 100MW) as provided for in Alternative Request 3 and for Embedded Small Power Stations with a Registered Capacity of 1MW or greater but less than 50MW the Regional Development Programme would apply as provided for in Alternative Request 4.

**Proposer:** Antony Johnson – National Grid ESO

### **Guidance for Alternative Proposers**

**Who can raise an Alternative?** Any CUSC or BSC Party, or Citizens Advice can raise an Alternative Request in response to the Workgroup Consultation.

**How do Alternative Requests become formal Workgroup Alternative Modifications?**

The Workgroup will carry out a Vote on Alternatives Requests. If the majority of the Workgroup members or the Workgroup Chair believe the Alternative Request will better facilitate the Applicable Objectives than the current version of the Code, the Workgroup will develop it as a Workgroup Alternative Modification.

**Who develops the legal text for Alternatives?** ESO will develop the Legal text for all Workgroup Alternative Modifications and will liaise with the Alternative Proposer to do so.

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## What is the proposed alternative solution?

The original proposal seeks to rationalise the existing 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 promotes removing any regional differences across GB and having one consistent value of Large Power Station which would for Power Stations with a Registered Capacity of 10MW and above and Small Power Stations with a Registered Capacity of less than 10MW. All Large Power Stations are required to provide the necessary structural, scheduled and real time data the capability to be instructed in the Balancing Mechanism.

Under the current Grid Code arrangements in England and Wales, Embedded Medium Power Stations can be treated in one of two ways, namely the Generator i) applies for a Generation Licence Exemption and they are classed as a Licence Exempt Embedded Medium Power Station (LEEMPS) or ii) they sign CUSC and BSC, apply for Transmission Entry Capacity (TEC) and would come under the Balancing Mechanism (BM) arrangements of the wholesale market.

For Embedded Medium Power Stations which apply for TEC, they are in the BM and therefore the ESO has full visibility and control over them. For Generators in respect of Licence Exempt Embedded Medium Power Stations, they do not sign CUSC though there are obligations on Network Operators to ensure that Generator supplies (via the Network Operator) static electrical data. There is also a requirement to ensure the Network Operator satisfies appropriate technical requirements required in the Grid Code Connection Conditions and European Connections. Requirements for Operational Metering are specified in the Bilateral Agreement between the ESO and Network Operator. Generators in respect of Licence Exempt Embedded Medium Power Stations do not sign the CUSC and are not party to the BM.

This proposal is hybrid of Alternative Request 2 (LEEMPS Plus) and Alternative Request 3 (Regional Development Programme). Going forward it aims to apply the LEEMPS Plus solution to Medium Power Stations across the whole of GB (although Generators in respect of Medium Power Stations can apply for a Bilateral Embedded Generation Agreement (BEGA) should they wish to do so and for Small Embedded Power Stations with a Registered Capacity of 1MW or greater but less than 50MW, the Regional Development Programme (RDP) would apply as detailed in Alternative Request 3. Likewise, Generators in respect of Small Embedded Power Stations could opt to apply for a BEGA if they wished to do so.

## What is the difference between this and the Original Proposal?

Unlike the original proposal where there are direct arrangements between the ESO and Large Power Stations, this proposal achieves the same type of functionality but the concept would now rely on the Embedded Medium Power Station submitting the necessary data only once to the relevant Network Operator and the Network Operator would then submit that data to the ESO as detailed in Alternative Request 2. For Small Embedded Power Stations with a Registered Capacity of 1MW or greater but less than 50MW there would be a requirement for them to sign up to a Regional Development Programme as provided for in Alternative Request 3.

The benefit of this solution is that it gives the ESO full visibility and control of Embedded Generation right down to 1MW which the other options do not provide. It also builds on the Open Networks Work and allows the Generator to provide the required data only once

with visibility also available to the Network Operator which is an issue with the Original proposal.

## What is the impact of this change?

The impact of this change is the following:-

- 1) Medium Power Stations would be introduced across the whole of GB. The Registered Capacity would be 50MW or greater and less than 100MW. For future Medium Power Stations in Scotland (which historically would have been Large) the appropriate technical requirements would still apply in addition to full visibility and control which is currently already available. It would also give the DNO greater visibility in addition to being aware of the instructions issued by the ESO.
- 2) Small Power Stations would have the increased Registered Capacity in Scotland which would rise to 50MW. However in applying the Regional Development Programme solution, the ESO would have visibility and control of Embedded Power Stations of 1MW and above which they currently do not have. The net benefit of this is greater market access and a potential reduction in overall System operating cost.
- 3) This combines the benefits of Alternative Request 2 and Alternative Request 3.
- 4) The DNO would have greater visibility of the instructions issued to Generators rather than the current arrangements and those proposed in the Original.
- 5) In the North of Scotland Power Stations who traditionally would have been Small (ie less than 10MW) would now be required to sign up to a Regional Development Plan. Likewise in the South of Scotland, Power Stations less than 30MW will also have to sign up to a Regional Development Plan. Agreements would already be required between these Power Stations and the DNOI so the addition of a small volume of additional text in the Connection Agreement between the Generator and DNO is not seen as significant. Likewise, connection agreements between the ESO and DNO at each Grid Supply point would remain unchanged in terms of the numbers involved, although future agreements would require additional clauses requiring the inclusion of a Regional Development Programme.
- 6) This option also provides a little more robustness in terms of the data we obtain from Medium Power Stations but would not erode the data, capability and control requirements we already expect from Embedded Large Power Stations in Scotland.
- 7) For future Small Power Stations in Scotland, who would have traditionally been treated as Large Power Stations, it reduces the need to supply data directly to the ESO as well as the DNO and hence streamline the process going forwards as well as building on the Open Networks work.
- 8) In England and Wales the Power Stations thresholds remain unchanged. Under this option the impact is small other than future Embedded Medium Power Stations would need to have a BM functionality as provided for in Alternative Request 2 and for Small Power Stations of 1MW and above would be required to sign up to an RDP.

Relevant Objective	Identified impact
(a) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	As 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);	As 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;	As 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	As original proposal
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	As original proposal

### When will this change take place?

#### Implementation date:

This modification should be implemented as soon as is practicable as agreed within the Workgroup

#### Implementation approach:

To be agreed within 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
ESO	National Grid Electricity System Operator
RDP	Regional Development Programme

**Reference material:**

Full legal text has been provided to support this solution.