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Grid Code Modification Proposal Form

GC0171:

Improving the clarity and transparency of the Compliance Process for Small Generators with a Bilateral Embedded Generator Agreement (BEGA)

Overview: This modification aims to clarify the compliance requirements for Generators in respect of Embedded Small Power Stations with a future Bilateral Embedded Generator Agreement (BEGA) with the ESO. This modification will help improve the clarity and transparency around the compliance responsibilities between the ESO and relevant Network Operator, therefore reducing duplication and improving stakeholder satisfaction during the compliance process.

Modification process & timetable

1. **Proposal Form**
   28 March 2024
2. **Code Administrator Consultation**
   05 June 2024 – 05 July 2024
3. **Draft SG Modification Report**
   17 July 2024
4. **Final SG Modification Report**
   25 July 2024
5. **Appeals Window**
   07 August 2024 – 29 August 2025
6. **Implementation**
   05 September 2024

Status summary: The Proposer has raised a modification and is seeking a decision from the Panel on the governance route to be taken.

This modification is expected to have a: Low impact

Generators in respect of Embedded Small Power Stations, Network Operators, ESO

Modification drivers: Efficiency, Harmonisation, Transparency

Proposer's recommendation of governance route	Self-Governance modification to proceed to Code Administrator Consultation	
Who can I talk to about the change?	**Proposer:** Tanmay Kadam Tanmay.kadam@nationalgrideso.com 07707172090	**Code Administrator Contact:** Lizzie Timmins Elizabeth.timmins@nationalgrideso.com

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What is the issue?

Sections ECP.6 and ECP.7 of the European Compliance Processes (ECP) refers to provisions in relation to the issue of an Interim Operational Notification (ION) and Final Operational Notification (FON) respectively for a Power Station consisting of Type C and Type D Power Generating Modules (PGM). This issue relates to the compliance process for Embedded Small Power Stations which have a Bilateral Embedded Generation Agreement (BEGA) irrespective of the type of Power Generating Module within that Power Station, although Type C and Type D Power Generating Modules are the most common types of Power Generating Module assessed by the ESO where there is a request for a BEGA.

- ECP.6 lists the items for submission which includes but is not limited to Planning Code data and simulation studies as per the European Connection Conditions (ECC)/European Compliance Processes (ECP), prior to issue of the Interim Operational Notification.
- ECP.7 lists the items for submission which includes but is not limited to Planning Code data, test results as per ECC/ECP and controller model validation (PC), prior to issue of the Final Operational Notification.
- When the requirements of ECP.6 and ECP.7 have been met to The Company's satisfaction, and the outstanding issues of the ION have been satisfied the FON can be issued.
- In the case of Generators who own and operate Embedded Small Power Stations who were not caught by the European Requirements for Generators (RfG) these Generators would be caught by the requirements of G59 which unlike G99 contains no compliance requirement. Should such a Generator in future wish to apply for a Bilateral Embedded Generation Agreement (BEGA), then the ESO would only wish to assess compliance against the requirements of CC6.5 / CC7.9 of the Grid Code (which relate to operation in the Balancing Mechanism) and CC7.10 and CC7.11 which relates to Restoration.

An RfG Compliant Embedded Small Power Station may comprise of Type C or Type D Power Generating Modules. However, Embedded Small Power Stations (even those which are pre RfG Compliant) are excluded from the scope of the Connection Conditions (CC.3.1), European Connection Conditions (ECC.3.1), Compliance Process (CP.3) and Planning Code (PC.3.2(d)).

- An RfG Compliant Embedded Small Power Station undergoes the Energy Networks Association (ENA) Engineering Recommendation G99 compliance as per the Requirements for Generators (RfG), which is within scope of the Distribution Network Operator (DNO). The technical requirements between ENA G99 and the Grid Code are very similar with only minor differences*. Embedded Small Power Stations may decide to have a Bilateral Embedded Generator Agreement (BEGA) with the ESO, in order to participate in the Balancing Market.
- In view of this, the above text in the Grid Code (ECP.6, ECP.7) would prompt Type C/D Power Generating Modules in respect of Embedded Small Power Stations to go through full Grid Code Compliance despite already proving compliance in respect of technical requirements as per Engineering Recommendation G99 to the

Network Operator. An Embedded Small Power Station is not required to fulfil the technical requirements in the Connection Conditions (CC), European Connections Conditions (ECC), Compliance Processes (CP) and Planning Code (PC), as they are exempted from these codes. Such a contradiction in the code forces ESO Compliance Engineers to assess the compliance of technical requirements for Embedded Small Power Stations against G99. Since ensuring technical compliance with respect to G99 is the responsibility of the Network Operator (as per RfG), this causes duplication of efforts for the ESO and Generator, leading to an inefficient compliance process and hence delays in issuing ESO Operational Notifications.

In view of this, the above text in the Grid Code is misleading as it would prompt Type C/D PGMs in Embedded Small Power Stations to go through full Grid Code compliance. This has raised concerns as Small BEGA customers cannot fulfil the requirements of ECP.6 and ECP.7, which may hinder them from receiving ESO Operational Notifications, and hence not allow them to be part of the Balancing Mechanism. This prompts ESO Engineers to assess compliance of the Embedded Small Power Station which the DNOs are already assessing, causing duplication of efforts which leads to delays in issuing Operational Notifications.

*These minor differences are to be addressed through a separate Grid Code Modification which will be a joint Grid Code / Distribution Code Workgroup.

Why change?

The purpose of the ESO Interim/Final Operational Notification process is to provide a assurance to the ESO that a Generator can use the National Electricity Transmission System and operate their assets in accordance with the Grid Code obligations and requirements of the Bilateral Agreement. An Embedded Small Power Station, due to its small size (below 50MW in E&W, below 30MW in Southern Scotland and below 10MW in the north of Scotland) has very little impact on the National Electricity Transmission System and are monitored and operated by the relevant Network Operator. RfG Compliant Embedded Small Power Stations would fulfil the technical requirements in accordance with G99 which the Network Operator ensures by issuing their Operational Notifications. The main reason a Generator in respect of an Embedded Small Power Station signs a Bilateral Agreement (Small BEGAs) with ESO is to participate in the Balancing Mechanism.

Going forward, ESO will utilise the compliance confirmation from the Network Operator that a Generator in respect of an Embedded Small Power Station with a Bilateral Agreement with a Completion Date on or after DD-MM-YYYY [DD-MM-YYY, *this being the Implementation Date*] has undergone technical compliance as per G99. This would prevent duplication of compliance efforts for the ESO, as well as for Generators. However, ESO shall be responsible for assessing compliance with ECC.6.5, ECC.7.9, ECC.7.10 and ECC.7.11 of the Grid Code and Bilateral Agreement which generally relates to the facilities necessary to participate in the Balancing Mechanism and requirements relating to Restoration..

Changes will also be made to cover the scenario where a Generator in respect of a pre-RfG Embedded Small Power Station which has already met the requirements of Engineering Recommendation, G59, subsequently applies for a BEGA in the future. In these cases, Generators would have been required to satisfy the requirements of G59 which contains no compliance process. Going forward, if a Generator subsequently

applies for a Bilateral Embedded Generation Agreement, then the ESO would only assess that Generator against the requirements of CC.6.5 / CC.7.9 (issues relating to participation in the Balancing Mechanism), CC.7.10 / CC.7.11 (Restoration issues) and any requirements of the Bilateral Embedded Generation Agreement.

The proposed solution in this Grid Code Modification will improve the clarity and transparency around the Compliance Process for Small BEGA customers which would clearly outline the scope and responsibilities between relevant stakeholders in the compliance process.

What is the proposer's solution?

As part of this modification, it is proposed to introduce several new definitions into the Grid Code and related changes to the Compliance Processes and European Compliance Processes.

In respect of Generators who own and operate Embedded Small Power Stations who sign a BEGA and which are required to be compliant with the requirements of G99 (i.e. RfG compliant), it is proposed to introduce new definitions of Interim-Balancing Compliance Notification, Final-Balancing Compliance Notification and Limited-Balancing Compliance Notification. In addition, the European Compliance Processes (ECPs) will be updated to make it clear of what compliance obligations apply to such Generators.

In respect of Generators who own and operate Embedded Small Power Stations who sign a BEGA and which are required to be compliant with the requirements of G59 (ie pre RfG compliant), it is proposed to introduce new definitions of GB Generator Interim-Balancing Compliance Notification, GB Generator Final-Balancing Compliance Notification and ESO LON (Limited Operational Notification). In addition, the Compliance Processes (ECPs) will be updated to make it clear what compliance obligations apply to such Generators.

It is not proposed for this modification to apply retrospectively. These proposed requirements would only apply to Generators who own and operate Embedded Small Power Stations and subsequently apply for a BEGA once the modification has been implemented into the Grid Code.

These changes will reflect that the ESO is issuing the notification to confirm that only the compliance activities required for the Generator to demonstrate their ability to meet the requirements of the Grid Code and Bilateral Agreement (which in summary relates to their ability to participate in the Balancing Mechanism and have appropriate Restoration capabilities in place) have been performed with all other compliance activities being completed by the relevant Network Operator.

In summary the solution is anticipated to affect the following sections of legal text:

- Compliance Processes
- European Compliance Processes
- Glossary and Definitions

Draft legal text

Draft legal text for this change can be found in Annex 1.

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What is the impact of this change?

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** By clarifying the Grid Code as indicated in the proposal, it will improve clarity around the compliance process for Embedded Small Power Stations with a Bilateral Agreement. This will set the right expectations from relevant stakeholders which will reduce duplication and result in more efficient management of the compliance process.
(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** The proposal aims to bring more consistency in the Grid Code requirements and improve transparency around compliance process for Embedded Small Power Stations. It would promote Generators in respect of Embedded Small Power Stations to continue pursuing the BEGA route to contribute to the balancing market, thereby facilitating healthy competition amongst generators.
(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;	**Neutral**
(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	**Neutral** [Please provide your rationale]

(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	**Positive** The proposed solution aims to clearly define the obligations in the Compliance Process / European Compliance Processes and share responsibilities between the relevant network operator and ESO to avoid duplication. This will promote efficiency in managing the compliance process for Embedded Small Power Stations.

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	**Identified impact**
Improved safety and reliability of the system	**Neutral** This modification will improve clarity around the compliance process for Generators in respect of Embedded Small Power Stations. Whilst not having a direct impact on improved safety and reliability of the System, it will improve clarity and reduce duplication which we overall see as positive.
Lower bills than would otherwise be the case	**Neutral**
Benefits for society as a whole	**Neutral**
Reduced environmental damage	**Neutral**
Improved quality of service	**Positive** The Grid Code is a complex document running to many pages. Any change which improves clarity to Stakeholders and Users and hence the quality of service they receive is only seen as positive.

When will this change take place?

Implementation date
07 August 2024

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Date decision required by

Decision required from the Grid Code Review Panel on 27 June 2024

Implementation approach

There will be no system changes required as a result of this modification.

Proposer's justification for governance route

Governance route: Self-Governance modification to proceed to Code Administrator Consultation

The proposed modification was presented to Industry at the Grid Code Development Forum in November 2023 and March 2024 with feedback gathered to assist with refining the solution, along with a separate discussion with some Grid Code Panel members following the original presentation of this proposal at the Grid Code Panel on 25 April 2024. On the basis that the proposed changes present no material changes to Users, and the ESO Compliance Team have already adopted these changes when completing compliance activities with Users, we believe that the presented solution and Legal Text is fully formed and should take the Self-Governance route and proceed directly to Code Administrator Consultation.

Interactions

☐CUSC	☐BSC	☐STC	☐SQSS
☐European Network Codes	☐ EBR Article 18 T&Cs[1]	☐Other modifications	☐Other

There are some amends being proposed to G99 however there are no dependencies on the changes.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BEGA	Bilateral Embedded Generation Agreement
BSC	Balancing and Settlement Code
CC	Connection Conditions
CP	Compliance Processes
CUSC	Connection and Use of System Code
DNO	Distribution Network Operator
EBR	Electricity Balancing Regulation
ECC	European Connection Conditions
ECP	European Compliance Processes
ENA	Energy Network Association
FON	Final Operational Notification
FRT	Fault Ride Through
FSM	Frequency Sensitive Mode
GC	Grid Code
ION	Interim Operational Notification
LON	Limited Operational Notification

[1] If your modification amends any of the clauses mapped out in Annex GR.B of the Governance Rules section of the Grid Code, it will change the Terms & Conditions relating to Balancing Service Providers. The modification will need to follow the process set out in Article 18 of the Electricity Balancing Regulation (EBR – EU Regulation 2017/2195). All Grid Code modifications must be consulted on for 1 month in the Code Administrator Consultation phase, unless they are Urgent modifications which have no impact on EBR Article 18 T&Cs. N.B. This will also satisfy the requirements of the NCER process.

PC	Planning Code
PGM	Power Generating Module
RfG	Requirements for Generators
SQSS	Security and Quality of Supply Standards
STC	System Operator Transmission Owner Code
T&Cs	Terms and Conditions

Annexes

Annex	Information
Annex 1	Legal Text