ESO

Draft Final Self-Governance Modification Report

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**
   05 June 2024 – 05 July 2024
3. **Draft SG Modification Report**
   17 July 2024
4. **Final SG Modification Report**
   30 July 2024
5. **Appeals Window**
   07 August 2024 – 29 August 2025
6. **Implementation**
   05 September 2024

Have 5 minutes? Read our Executive summary

Have 20 minutes? Read the full Draft Final SG Modification Report

Have 40 minutes? Read the full Draft Final SG Modification Report and Annexes.

Status summary: The Draft Final SG Modification Report has been prepared for the determination vote at Panel.

Panel determination: The Panel will meet on 25 July 2024 to carry out their determination vote.

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

Governance route	Self-Governance modification to proceed to Code Administrator Consultation	
Who can I talk to about the change?	**Proposer:** Tanmay Kadam, National Grid ESO Tanmay.kadam@nationalgrideso.com 07707172090	**Code Administrator Contact**: Lizzie Timmins Elizabeth.timmins@nationalgrideso.com

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Executive summary

What is the issue?

Currently, the Grid Code obligates ESO engineers to assess full Grid Code compliance of Embedded Small Power Stations which have applied for a Bilateral Embedded Generation Agreement (BEGA), where the required compliance activities have already been completed by the relevant DNO. Embedded Small Power Stations cannot fulfil the requirements of ECP.6 and ECP.7, which may hinder them from receiving ESO Operational Notifications, and hence cause delay in the customer participating in the Balancing Market.

What is the solution and when will it come into effect?

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. The modification aims to clarify the compliance requirements for Generators in respect of Embedded Small Power Stations that apply for a Bilateral Embedded Generator Agreement (BEGA) with the ESO.

Implementation date: 05 September 2024

Panel determination: The Panel will meet on 25 July 2024 to carry out their determination vote.

What is the impact if this change is made?

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.

Interactions

There are amendments being proposed to ERRC G99, however there are no dependencies on the implementation of the changes, with the ESO Compliance Team already adopting these proposed Grid Code changes when completing compliance activities.

What is the issue?

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, hence this proposal focuses on Embedded Small Power Stations that comprise Type C and/or Type D Power Generating modules, although the proposal applies equally if the Embedded Small Power Station comprises Type A and/or Type B Power Generating Modules.

- 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 that 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, although the proposal applies equally if the Embedded Small Power Station comprises Type A and/or Type B 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 assessment as per the Requirements for Generators (RfG), which is carried out by the Distribution Network Operator (DNO). The technical requirements in EREC 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 existing text in the Grid Code (ECP.6, ECP.7) would prompt Type A/B/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) or the Planning Code (PC), as they are exempted from these codes. Such a lack of clarity 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 Embedded Generators with a BEGA who own or operate Small Power Stations 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.

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 their 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 by the relevant Network Operator. RfG Compliant Embedded Small Power Stations would fulfil the technical requirements in accordance with EREC G99 which the Network Operator ensures via the assessment process and confirmed by the issuing of 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.

This proposal is to clarify that the 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 EREC 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, (issues relating to participation in the Balancing Mechanism), ECC.7.10 and ECC.7.11 (Restoration issues),of the Grid Code and with the 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. It is proposed that, 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 solution?

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

Legal Text

Legal text for this change can be found in Annex 3.

What is the impact of this change?

Proposer's assessment against the Applicable Objectives

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**
(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.

Code Administrator Consultation Summary

The Code Administrator Consultation was issued on the 05 June 2024 closed on 05 July 2024 and received one response. No late responses were received. A summary of the response can be found in the table below, and the full response can be found in Annex 4.

Code Administrator Consultation Summary	
Question	
Do you believe that the GC0171 Original Proposal better facilitates the Grid Code Objectives?	The respondent stated that the proposal better facilitates objectives (a), (b), (c) and (e). They also believed it would: - Improve the clarity, transparency, and speed of the compliance process. - Reduce duplication of compliance activities.
Do you support the proposed implementation approach?	The respondent supported the implementation approach.
Do you have any other comments?	- Improvements to the compliance processes will ensure Embedded Small Power Stations with a Bilateral Agreement

	can access the Balancing Market in an efficient manner, which will improve overall stakeholder satisfaction and remove unnecessary duplication.
Legal text issues raised in the consultation	
None raised.	
EBR issues raised in the consultation	
None raised.	

Panel Determination Vote

The Panel will meet on the 25 July 2024 to carry out their determination vote.
They will assess whether a change should be made to the Grid Code by assessing the proposed change against the Applicable Objectives.

Vote 1: Does the Original, facilitate the Applicable Objectives better than the Baseline?

Panel Member: **Alan Creighton, Network Operator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **Alastair Frew, Generator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **Antony Johnson, Alternate ESO Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **Darshak Shah, Generator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **David Monkhouse, Offshore Transmission Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **Graeme Vincent, Alternate Network Operator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **John Harrower, Generator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **Robert Longden, Supplier Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Panel Member: **Ross Kirkwood, Onshore Transmission Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original						
Voting Statement						

Vote 2 – Which option is the best?

Panel Member	BEST Option?	Which objectives does this option better facilitate? (If baseline not applicable).
Alan Creighton		
Alastair Frew		
Antony Johnson		
Darshak Shah		
David Monkhouse		
Graeme Vincent		
John Harrower		
Robert Longden		
Ross Kirkwood		

Panel conclusion
Panel will meet on 25 July 2024 to carry out their determination vote.

When will this change take place?

Implementation date
05 September 2024

Date decision required by
Decision required from the Grid Code Review Panel on 25 July 2024

Implementation approach

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

Interactions

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

There are amendments being proposed to ERRC G99, however there are no dependencies on the implementation of the changes, with the ESO Compliance Team already adopting these proposed Grid Code changes when completing compliance activities.

[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.

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
EREC	Engineering Recommendation
FON	Final Operational Notification
GC	Grid Code
ION	Interim Operational Notification
LON	Limited Operational Notification
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	Proposal form
Annex 2	Self-Governance statement
Annex 3	Legal Text
Annex 4	Code Administrator Consultation response