



Grid Code Review Panel

Thursday 25 April 2024

Online Meeting via Teams

WELCOME



Purpose of Panel & Duties of Panel Members

The **Panel** shall be the standing body to carry out the **functions** referred to in the Governance Rules (**GR3.1.1**)

Functions (GR.3.2)

The **Panel** shall endeavour at all times to operate:

- in an **efficient, economical and expeditious manner**, taking account of the complexity, importance and urgency of particular Modification Proposals; and
- With a view to ensuring that the **Grid Code** facilitates **achievement of the Grid Code Objectives**.

Duties of Panel Members & Alternates (GR.3.3)

1. Shall act **impartially** and in accordance with the requirements of the **Grid Code**; and
2. Shall not have any **conflicts of interest**.
Shall not be representative of, and shall act without undue regard to the particular interests of the persons or body of persons by whom he/she was appointed as Panel Member and any Related Person from time to time.

Approval of Panel Minutes

Approval of Panel Minutes from the Meeting held

21 March 2024



Action Log





Chair's Update

The Authority's publication on decisions can be found on their website below:

<https://www.ofgem.gov.uk/publications/code-modificationmodification-proposals-ofgem-decision-expected-publication-dates-timetable>

New modification submitted

GC0171 - Improving the clarity and transparency of the Compliance Process for Small Generators with a Bilateral Embedded Generator Agreement (BEGA)

David Halford, ESO



Critical Friend Feedback – GC0171

Code Administrator comments	Amendments made by the Proposer
Requested clarity and further explanation throughout the document	Proposer accepted all amendments made by the Code Administrator
Requested full legal text on correct baseline	
Provided timeline	
Requested justification for Governance route	

GC0171 - Improving the clarity and transparency of the Compliance Process for Small Generators with a Bilateral Embedded Generator Agreement (BEGA)

What's the issue?

ECP.6 and ECP.7 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)

- ECP.6 lists the items for submission which includes but not limited to planning code data, simulation studies as per CC/CP/ECC/ECP etc. prior to issue of the Interim Operational Notification
- ECP.7 lists the items for submission which includes but not limited to planning code data, test results as per CC/CP/ECC/ECP, controller model validation (PC) etc. 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, ION and FON can be issued.

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

- An Embedded Small Power Station undergoes ENA G99 compliance as per RfG which is in scope of Distribution Network Operator (DNO). The technical requirements between ENA G99 and the Grid Code are almost similar with only minor differences*. Embedded Small Power Station may decide to have a Bilateral Embedded Generator Agreement (BEGA) with ESO, only to participate in Balancing Market
- **In view of this, above text in 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 be part of Balancing Market. This prompts ESO Engineers to assess the Small BEGA technical compliance which the DNOs are already assessing, causing duplication of efforts leading to delays in issuing Operational Notifications.**

*:These minor differences are to be addressed through Grid Code Modification GC0169

GC0171 - Improving the clarity and transparency of the Compliance Process for Small Generators with a Bilateral Embedded Generator Agreement (BEGA)

Why Change?

The purpose of the ESO Interim/Final Operational Notification is to allow a Generator to export/import to/from the National Electricity Transmission System and operate their assets in accordance with the Grid Code obligations.

An Embedded Small Power Station, due to its small size (below 50MW in E&W and 30MW in Scotland) has very little impact on the National Electricity Transmission System and are monitored and operated by relevant Network Operator. Embedded Small Power Stations would fulfil the technical requirements in accordance with G99 which the Network Operator ensures by issuing their Operational Notifications.

The only reason a Generator in respect of 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 Embedded Small Power Station has undergone technical compliance as per G99. This would prevent duplication of compliance efforts for ESO, as well as for Generator. However, ESO shall be responsible for assessing compliance with ECC.6.5 requirements that allows a Small Generator to participate in the Balancing Mechanism.

In addition to that, ESO shall assess compliance of all the additional requirements that are in the Bilateral Agreements but not in G99.

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 proposed solution?

It is proposed to change the definitions of ESO ION (Interim Operational Notification), ESO FON (Final Operational Notification) and ESO LON (Limited Operational Notification) for Generators in respect of Embedded Small Power Stations with a BEGA, where the requirements and purpose of these definitions will be clearly outlined.

These new definitions will reflect that the ESO is issuing the notification to confirm that only the compliance activities required for the Generator to participate in the Balancing Mechanism have been performed with all other compliance activities being completed by the relevant Network Operator.

Proposed Grid Code Amendments

Type C

- ❑ ECP.6.2.6 : Add additional text: For **Embedded Small Power Stations** with a **Bilateral Embedded Generation Agreement**, the requirements of ECP.6.2.10 shall apply.
- ❑ ECP.6.2.10 : In relation to a **Generator** in respect of an **Embedded Small Power Station** with a **Bilateral Embedded Generation Agreement**, **The Company**, shall issue an **Interim-Balancing Compliance Notification** where following requirements apply: Prior to issuing an '**Interim-Balancing Compliance Notification**', the **Generator** shall submit to **The Company** the following documents to **The Company's** satisfaction,
 - i. A **FON** from relevant **Network Operator** (as applicable)
 - ii. A copy of **Power-Generating Module Document** signed off from the relevant **Network Operator** confirming compliance with **Engineering Recommendation G99**
 - iii. Document(s) certifying fulfilment of ECC.6.5 requirements

Type D

- ❑ ECP.6.3.6: Add additional text: For **Embedded Small Power Stations**, with a **Bilateral Embedded Generation Agreement**, the requirements of ECP.6.3.10 shall apply.
- ❑ ECP.6.3.10 : In relation to a **Generator** in respect of an **Embedded Small Power Station** with a **Bilateral Embedded Generation Agreement**. **The Company** shall issue an **Interim-Balancing Compliance Notification**, where the following requirements shall apply: Prior to issuing an '**Interim-Balancing Compliance Notification**', the **Generator** shall submit to **The Company** following documents to **The Company's** satisfaction,
 - i. A **FON/ION** from relevant **Network Operator** (as applicable)
 - ii. A copy of **Power-Generating Module Document** signed off from the relevant **Network Operator** confirming compliance with **Engineering Recommendation G99**
 - iii. Document(s) certifying fulfilment of ECC.6.5 requirements

- ❑ ECP.7.6 : In relation to a **Generator** in respect of an **Embedded Small Power Station** with a **Bilateral Embedded Generation Agreement**, **The Company** shall issue a **Final-Balancing Compliance Notification** provided the following requirements are fulfilled
 - i. The relevant **Network Operator** has issued a **Final Operational Notification** to a **Generator** in respect of an **Embedded Small Power Station**; and
 - ii. All the unresolved items (if any) on the **Interim-Balancing Compliance Notification** are fulfilled to **The Company's** satisfaction
- ❑ ECP.9.1: Add following text:
 - (v) In relation to a **Generator** in respect of an **Embedded Small Power Station** with a **Bilateral Embedded Generation Agreement**, **The Company** shall issue a **Limited-Balancing Compliance Notification**.

The "Glossary and Definitions" section will also be updated to include '**Interim-Balancing Compliance Notification**' (I-BCN), '**Final - Balancing Compliance Notification**' (F-BCN), and '**Limited - Balancing Compliance Notification**' (L-BCN),

New Definitions proposed in the GC Modification

Interim – Balancing Compliance Notification (replacing ION for Small BEGAs) :

A notification from **The Company** to a **Generator** in respect of an **Embedded Small Power Station** with a **Bilateral Embedded Generation Agreement** with **The Company**, acknowledging that the **Generator** has demonstrated compliance, except for the **Unresolved Issues**, with

- (a) **Engineering Recommendation** G99 as required by the relevant **Network Operator**
- (b) The **Bilateral Agreement**

Final - Balancing Compliance Notification (replacing FON for Small BEGAs) :

A notification from **The Company** to a **Generator** in respect of an **Embedded Small Power Station** with an **Bilateral Embedded Generation Agreement** with **The Company**, confirming that the **Generator** has demonstrated compliance:

- (a) with **Engineering Recommendation** G99 supported by the **Final Operational Notification** from the relevant **Network Operator**
 - (b) with the relevant sections of the Grid Code as applicable, and
 - (c) with the **Bilateral Agreement**,
- And completion of all the items in the schedule of **Unresolved Issues** to **The Company's** satisfaction.

Limited - Balancing Compliance Notification (replacing LON for Small BEGAs) :

A notification from **The Company** to a **Generator** in respect of an **Embedded Small Power Station** with a **Bilateral Embedded Generation Agreement** with **The Company**, stating that the **Generator's Plant** and/or **Apparatus** specified in such notification may be, or is, unable to comply:

- (a) the relevant provisions of ECC.6.5 of the Grid Code; and/or
- (b) in accordance with ECP.9.1 (ii) of the Grid Code, upon receipt of notification from the **Network Operator** concerning a **Generator** failing to meet the requirements of **Engineering Recommendation** G99 or any provisions of the Grid Code, or where applicable **Bilateral Agreement**

Proposed Governance Route

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. 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

Timeline for GC0171 – Proposed Timeline – Code Administrator Consultation

Milestone	Date
Modification presented to Panel	25 April 2024
Code Administrator Consultation	30 April 2024 to 30 May 2024
Draft Self Governance Modification Report issued to Panel (5 working days)	19 June 2024
Panel undertake Draft Self Governance Modification Report determination vote	27 June 2024
Final Self Governance Modification Report issued to Panel to check votes recorded correctly	01 July 2024 to 08 July 2024
Appeals Window (15 working days)	09 July 2024 to 31 July 2024
Implementation Date	07 August 2024

GC0171 – the asks of Panel

- **AGREE** that this Modification has a clear defect and scope
- **AGREE** that this Modification meets the Self-Governance Criteria (Panel decision) rather than Standard Governance (Ofgem decision)
- **AGREE** that this Modification should proceed to Code Administrator Consultation
- **NOTE** that there appear not to be any impacts on the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code
- **NOTE** the proposed timeline

Grid Code Self-Governance Criteria

Self-Governance Criteria	<p>A proposed Modification that, if implemented,</p> <ul style="list-style-type: none">(a) is unlikely to have a material effect on:<ul style="list-style-type: none">(i) existing or future electricity consumers; and(ii) competition in the generation, storage, distribution, or supply of electricity or any commercial activities connected with the generation, storage, distribution or supply of electricity; and(iii) the operation of the National Electricity Transmission System; and(iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and(v) the Grid Code's governance procedures or the Grid Code's modification procedures, and(b) is unlikely to discriminate between different classes of Users.(c) other than where the modification meets the Fast Track Criteria, will not constitute an amendment to the Regulated Sections of the Grid Code.
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Inflight Modification Updates

Milly Lewis, Code Administrator

GC0139: Enhanced Planning-Data Exchange to Facilitate Whole System Planning Timeline Update

	Workgroup Report issued to Panel	DFMR issued to Panel	FMR issued to Ofgem	Implementation Date
Previous timeline	16 September 2024	02 December 2024	17 January 2025	TBC
New timeline	16 October 2024	22 January 2025	12 February 2025	10 working days after decision

Rationale: Further analysis has taken place. A further month was required to complete analysis and present to the Workgroup.

Workgroups Remaining: 2

Ask of Panel: Agree revised timeline

GC0166: Introducing new Balancing Programme Parameters for Limited Duration Assets Timeline Update

	Workgroup Report issued to Panel	DFMR issued to Panel	FMR issued to Ofgem	Implementation Date
Previous timeline	19 June 2024	14 August 2024	02 September 2024	19 November 2024
New timeline	18 September 2024	20 November 2024	10 December 2024	28 February 2025

Rationale: The Proposer’s solution requires further clarity ahead of going to Workgroup Consultation. The timeline is still very ambitious.

Workgroups Remaining: 5

Ask of Panel: Agree revised timeline

GC0168: Submission of Electro Magnetic Transient (EMT) Models

Request to change Terms of Reference

Amended Workgroup Terms of Reference

- i) Consider the scenario where a User is unable to provide an EMT model
- j) Consider whether there is a need for any consequential changes to the DCode and / or DCUSA.
- k) Consider whether there is a need to obtain EMT models from medium power stations embedded in distribution networks and, if so, the mechanism for engaging with the host DNO and the Generator and the process to be followed in the event that the Generator is unable to provide the EMT models or would incur significant costs in doing so.

GC0168 - the asks of Panel

- **AGREE** the additional points within Terms of Reference

GC0169: Material changes identified from Grid Code Modification GC0136 and Consistency of requirements between the Connection Conditions and European Connection Conditions Request to change Terms of Reference

Amended Workgroup Terms of Reference

- e) Evaluate the outstanding actions from GC0136 which the Workgroup can reasonably address without specialist knowledge
- f) Demonstrate consistency between Connection Conditions and European Connection Conditions where appropriate to do so
- g) Demonstrate consistency between the Grid Code and G99 where appropriate to do so

GC0169 - the asks of Panel

- **AGREE** the additional points within Terms of Reference



Panel Tracker

Milly Lewis, Code Administrator



Draft Final Modification Report

GC0117: Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of Power Station requirements

Milly Lewis

Solutions

Summary of solutions:

- The Proposer's solution for future Power Stations across GB is to define Large Power Stations as 10MW and above and Small Power Stations as less than 10MW. This proposal is non-retrospective and would be expected to apply from June 2027 when the appropriate ESO Balancing IT systems have been upgraded. The proposal would not apply to any Generator who has submitted a Connection Application to the DNO prior to the implementation of the modification.
- Under WAGCM1, the Power Station thresholds of Small (less than 50MW), Medium (50 – <100MW) and Large (100MW or greater) that currently apply in England and Wales would also be applied in Scotland. For new connections, from the date of implementation, the Large, Medium, and Small Power Station classification criteria would be the same across GB. A Generator who has already submitted a Connection Application to the DNO prior to the implementation would not be impacted by this solution.
- The legal text would be implemented in the Grid Code 10 Business Days after The Authority's decision, but the Original solution would not come into effect until June 2027.

Code Administrator Consultation Responses

Summary of Code Administrator Consultation Responses :

- Code Administrator Consultation was run from 19 February 2024 to 26 March 2024 and received 13 non-confidential responses and 0 confidential responses. Key points were:
 - Several DNO respondents highlighted that they did not feel the materiality of the defect had been demonstrated and felt that the proposed Original solution exceeds the scope of the defect without sufficiently investigating the impacts on stakeholders. These concerns were also echoed by one Generator respondent, and several other respondents highlighted a potential for increased costs to industry.
 - The lack of retrospectivity of the proposal was noted by several respondents, with one noting that this could introduce greater complexity due to the differing rules for Users connecting before and after implementation.
 - Several respondents highlighted the potential for GC0117 to interact with other potential changes within the industry, however one respondent noted that they thought these initiatives could coexist with GC0117.
 - No legal text issues identified as part of the Code Administrator Consultation, however the Code Administrator have highlighted some typographical amends as part of the rebaselining.

Code Administrator Consultation – Legal Text Changes. What do the Grid Code Governance Rules say?

GR.22.4

A draft of the **Grid Code Modification Report** shall be tabled at a meeting of the **Grid Code Review Panel** prior to submission of that **Grid Code Modification Report** to the **Authority** as set in accordance with the timetable established pursuant to GR.19.1, and at which the **Panel** may consider any minor changes to the legal drafting, which may include

any issues identified through the **Code Administrator** consultation, and:

- (i) if the change required is a typographical error the **Grid Code Review Panel** may instruct the **Code Administrator** to make the appropriate change and the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**; or
- (ii) if the change required is not considered to be a typographical error then the **Grid Code Review Panel** may direct the **Workgroup** to review the change. If the **Workgroup** unanimously agree that the change is minor the **Grid Code Review Panel** may instruct the **Code Administrator** to make the appropriate change and the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**, otherwise for changes that are not considered to be minor the **Code Administrator** shall issue the **Grid Code Modification Proposal** for further **Code Administrator** consultation, after which the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**; or
- (iv) if a change is not required after consideration, the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**.

Code Admin must present the proposed legal text changes

Panel have 3 choices:

- **Agree the changes are typographical and instruct Code Admin to make the change under GR.22.4(i). Then we carry out Recommendation Vote; or**
 - **Agree the changes are not needed under GR.22.4(iv). Then we carry out Recommendation Vote; or**
- **Under GR.22.4(ii) Direct the Workgroup to review the changes or ask for a further Code Administrator Consultation to be issued**

GC0117 - the asks of Panel

- **AGREE** whether or not the proposed changes to the legal text are typographical
- **NOTE** that this Modification does impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code
- Do you have any comments as to whether or not the proposed changes concur with the EBR Article 3 Objectives?
- **VOTE** whether or not to recommend implementation
- **NOTE** next steps

GC0117 – Next Steps

Milestone	Date
Draft Final Modification Report presented to Panel	25 April 2024
Final Modification Report issued to Panel to check votes recorded correctly (5 working days)	30 April 2024 to 07 May 2024
Submission of Final Modification Report to Ofgem	08 May 2024
Ofgem decision date	TBC
Implementation Date	10 Business Days after decision

EBR Article 3 Objectives

For reference, the Electricity Balancing Regulation (EBR) Article 3 (Objectives and regulatory aspects) are:

1. This Regulation aims at:
 - (a) Fostering effective competition, non-discrimination and transparency in balancing markets;
 - (b) enhancing efficiency of balancing as well as efficiency of national balancing markets;
 - (c) integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security;
 - (d) contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets;
 - (e) ensuring that the procurement of balancing services is fair, objective, transparent and market-based, avoids undue barriers to entry for new entrants, fosters the liquidity of balancing markets while preventing undue market distortions;
 - (f) facilitating the participation of demand response including aggregation facilities and energy storage while ensuring they compete with other balancing services at a level playing field and, where necessary, act independently when serving a single demand facility;
 - (g) facilitating the participation of renewable energy sources and supporting the achievement of any target specified in an enactment for the share of energy from renewable sources.

Prioritisation Stack

Mod Number	Previous Priority No:	Priority No	Title
GC0139	1	1	Enhanced Planning Data Exchange to Facilitate Whole System Planning
GC0117	(2 before CAC)		Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of PGM requirements
GC0155	2	2	Clarification of Fault Ride Through Technical Requirements
GC0163	(4 before CAC)		GB Grid Forming (GBGF) - Removal of Virtual Impedance restriction
GC0159	(5 before CAC)		Introducing Competitively Appointed Transmission Owners
GC0166	3	3	Introducing new Balancing Programme Parameters for Limited Duration Assets
GC0168	4	4	Submission of Electro Magnetic Transient (EMT) Models
GC0169	5	5	Material changes identified from Grid Code Modification GC0136 and Consistency of requirements between the Connection Conditions and European Connection
GC0164	6	6	Simplification of Operating Code No.2
GC0103	7	7	The introduction of harmonised Applicable Electrical Standards in GB to ensure compliance with the EU Connection Codes
GC0140	8	8	Grid Code Sandbox: enabling derogation from certain obligations to support small-scale trials of innovative propositions



Implementation Update

[GC0154: Incorporation of interconnector ramping requirements into the Grid Code as per SOGL Article 119](#)

[GC0170: Typographical and formatting updates following the implementation of GC0156: Facilitating the Implementation of the Electricity System Restoration Standard](#)

Electrical Standards - Distribution Restoration Zone Control System

The Distribution Restoration Zone Control System (DRZCS) is a new Electrical Standard which supports the implementation of the Electricity System Restoration Standard.

Milestone	Date
Distribution Restoration Zone Control System presented to Panel	25 April 2024
Panel Review (20 Business Days)	25 April 2024 to 24 May 2024
Implementation Date (if no comments received)	04 June 2024

DRZCS - the asks of Panel

- **FEEDBACK** any comments before 5pm 24 May 2024

Grid Code Development Forum – Previous and Next

Jamie Webb, ESO

03 April 2024

GCDF cancelled due to lack of agenda items.

01 May 2024

Data collection from Dynamic System Monitoring (DSM) Systems – Industry Questionnaire Update



Standing Items

- Distribution Code Panel update (Alan Creighton)
- JESG Update (information only)
 - Previous meeting – 09 April 2024 (cancelled)
 - Next meeting – 14 May 2024



Updates on other industry codes

22 March 2024 CUSC [Panel Papers and Headline Report](#)

27 March 2024 STC [Panel Papers and Headline Report](#)

09 April 2024 SQSS [Panel Papers and Headline Report](#)



Any Other Business

Activities ahead of the next Panel Meeting

Grid Code Development Forum	01 May 2024
Modification Proposal Deadline for May Panel	15 May 2024
Papers Day	22 May 2024
Panel Meeting	30 May 2024 Faraday House

Close



Trisha McAuley OBE

Independent Chair, Grid Code Review Panel