



Grid Code Review Panel

Thursday 25 July 2024

Faraday House, Warwick

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

30 May 2024 and 27 June 2024



Action Log

Action No.	Status	Action	Date raised	Owner	Due	Comments and Updates
456	Open	Ofgem ECR team to be invited to a future Grid Code Review Panel to provide update around milestones	30/05/2024	GS/LT	August 2024	
458	Propose to Close	To create and circulate a process flow for Panel Recommendation Vote	30/05/2024	LT/ML	July 2024	To be circulated ahead of July Panel.
459	Open	Process flow for new sections in code created that may fall into EBR	30/05/2024	SW	August 2024	Terms of Reference templates updated to reflect Electricity Balancing Regulation consideration as standard for all modifications.
460	Open	Confirm when the modification looking into CP.A.3.2.1 will be raised. As this is no longer being picked up by GC0169/GC0173.	27/06/24	AJ/CN	August 2024	
461	Propose to Close	GC0169/GC0173 - Discuss Mike Kay involvement with Mark Dunk and raise remuneration.	27/06/24	AC	July 2024	The required arrangements have been put in place and Mike Kay has put himself forward as a workgroup member.



Chair's Update

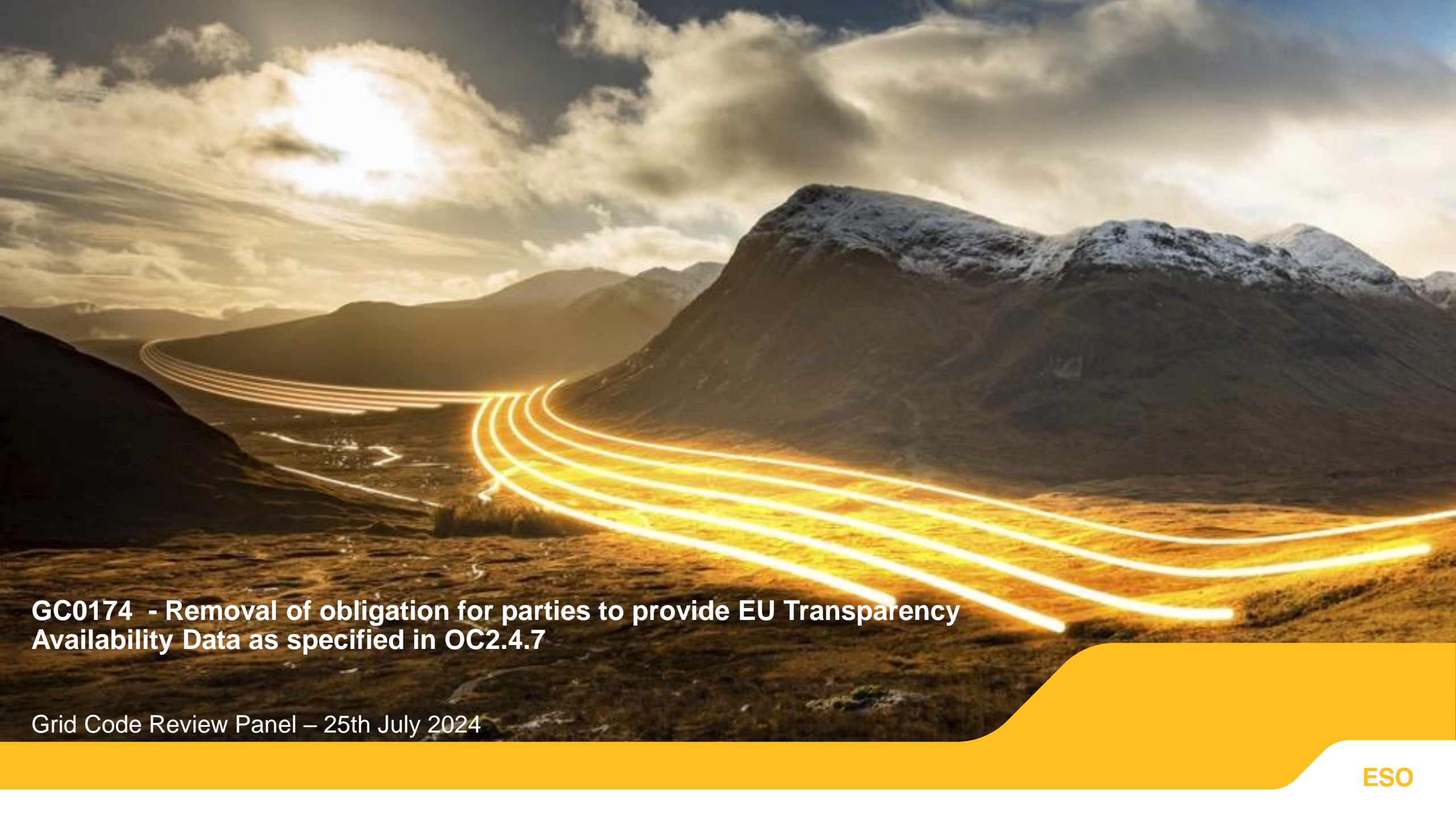
The Authority's publication on decisions can be found on their website below:

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

New modifications submitted

Self-Governance





**GC0174 - Removal of obligation for parties to provide EU Transparency
Availability Data as specified in OC2.4.7**

Grid Code Review Panel – 25th July 2024

What's the issue?

- CP1583 (Rationalising publication of European Transparency Regulation (ETR) data on Elexon Systems), is a Balancing and Settlement Code (BSC) modification raised by Elexon to review the ETR data provided by Market Participants and the ESO.
- Pre-January 2021, ETR data was submitted to ENTSO-E via Elexon's Balancing Mechanism Reporting Service (BMRS), with the requirement to submit this data to ENTSO-E falling away after January 2021 due to UK leaving the European Union (although the data continued to be published on BMRS).
- CP1583, identified a number of reports where the data was already been sent by the relevant parties to Elexon via Regulation (EU) No 1227/2011 on the wholesale energy market integrity and transparency (REMIT), or no longer has any data reported.
- As part of this review, and following approval of CP1583 on the 2nd November 2023, there is no longer any requirement for relevant parties to submit legacy ETR data to the ESO in respect of articles 7 and 15 of Retain EU Law (Commission Regulation (EU) 543/2013), to notify changes in unavailability of generation or consumption units which are sent via the Market Operation Data Interface System (MODIS) as specified in Operating Code (OC)2.4.7 of the Grid Code.

Why change?

- The approval of CP1583 now removes the obligations for relevant Users to submit the ETR data specified in OC2.4.7 in accordance with Schedule 6 of the Data Registration Code (DRC), to the ESO which is sent via MODIS to Elexon, as it is either no longer required or already submitted by Users to Elexon via REMIT.
- Elexon have now also moved from BMRS to a new data platform (Elexon Insights Solution), and as a result, any data submitted to BMRS will no longer be published.

Update following presentation at June GCRP

Concerns were raised by GCRP members that the removal of the obligations specified in Operating Code (OC)2.4.7 could result in Users not submitting data under the Regulation (EU) No 1227/2011 on the wholesale energy market integrity and transparency (REMIT).

- REMIT is a regulatory requirement enforced by Ofgem, not by the ESO. The REMIT obligations are contained here: [REMIT and wholesale market integrity | Ofgem](#).
- Ofgem strongly encourages the use of appropriate Inside Information Platforms (IIPs) for the effective publication of inside information relating to the GB wholesale energy market. They currently consider these to be the Balancing Mechanism Reporting Service (BMRS) operated by Elexon for electricity, and National Grid's GB REMIT Central Collection and Publication Service for gas.
- **The submission of REMIT data is not a Grid Code obligation**, with Users encouraged, but not mandated, to submit this data either directly to ELEXON or via MODIS through ELEXON modification [P291](#), whilst the obligations for submission for ETR data is an obligation under the Grid Code as it requires Users to submit the data via the ESO (MODIS).
- The BSC documents the submission of "Inside Information Data", but again, submission of REMIT data is not a BSC obligation, as parties *may* submit this data via Elexon (through the Insights platform).
- Operating Code (OC)2.4.7 and Schedule 6 of the Data Registration Code (DRC), was introduced as part of Grid Code Modification [GC0083](#), which specifically covered the implementation of the European Transparency Regulation (543/2013), with the REMIT obligations in existence prior to the requirements of ETR. **(OC)2.4.7 was never intended to cover REMIT obligations.**
- REMIT is broader than the specific obligations under OC2.4.7. and covers other assets as well as generation and consumption units, and other categories of inside information. It also does not specify any thresholds for reporting such as the 100MW threshold in the ETR Article 7 and 15 regulations.
- **ESO is therefore of the view that there is no impact on Users regarding REMIT obligations by removing (OC)2.4.7, as (1) REMIT obligations are enforced by Ofgem through relevant regulations, (2) the specific clause that ESO is proposing to remove from the Grid Code was never intended to cover REMIT obligations.**

The proposed solution

- The obligation for relevant Users to submit EU Transparency Availability Data currently specified in OC2.4.7 in accordance with Schedule 6 of the DRC will be removed.

Proposed Governance Route

- Some Users have already ceased sending this data due to the ESO (via MODIS), due to being made aware of the approval of CP1583 via the approval circulation from Elexon.
- The ESO have also made Industry participants aware of the removal of these obligations via the ESO Operational Transparency Forum (OTF) on the 12th June 2024.
- The proposal removes obligations from relevant Users and improve efficiencies, with no materiality as a result of these proposed changes.
- **On this basis, we believe that the modification should take the Self-Governance route and proceed directly to Code Administrator Consultation.**

Critical Friend Feedback – GC0174

Code Administrator comments	Amendments made by the Proposer
<p>Requested clarity and minor amendments throughout document</p> <p>Provided timeline</p>	<p>Proposer accepted all amendments made by the Code Administrator</p>

Timeline for GC0174 – Proposed Timeline – Code Administrator Consultation

Milestone	Date
Modification presented to Panel	25 July 2024
Code Administrator Consultation (1 calendar month)	01 August 2024 to 02 September 2024
Draft Self Governance Modification Report issued to Panel (5 business days)	18 September 2024
Panel undertake Draft Self Governance Modification Report determination vote	26 September 2024
Final Self Governance Modification Report issued to Panel to check votes recorded correctly	01 October 2024 to 08 October 2024
Appeals Window (15 business days)	09 October 2024 to 30 October 2024
Implementation Date	06 November 2024

GC0174 – the asks of Panel

- **AGREE** that this Modification has a clearly defined defect, scope and solution
- **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**

- A proposed **Modification** that, if implemented,
- (a) is unlikely to have a material effect on:
 - (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.



Inflight Modification Updates

Milly Lewis, Code Administrator



Draft Final Modification Report

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

Milly Lewis, ESO Code Administrator

Solution

- 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.
- By introducing several new definitions into the Grid Code and related changes to the Compliance Processes and European Compliance Processes.

Code Administrator Consultation Responses

Summary of Code Administrator Consultation Responses :

- Code Administrator Consultation was run from 05/06/2024 to 05/07/2024 and received 1 non-confidential response. Key points were:
 - The respondent believed that the proposal better facilitates Grid Code objectives (a), (b), (c) and (e).
 - The respondent felt that the proposal would improve the clarity, transparency and speed of the compliance process as well as removing any duplication.
 - The respondent supported the proposed implementation approach.
 - No legal text issues were identified.

GC0171 - the asks of Panel

- **NOTE** that this Modification does not impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code
- **VOTE** whether or not to implement.
- **NOTE** next steps.

GC0171 – Next Steps

Milestone	Date
Draft Self Governance Modification Report presented to Panel	25 July 2024
Final Self Governance Modification Report issued to Panel to check votes recorded correctly (5 business days)	30 July 2024 to 06 August 2024
Appeals Window (15 business days)	07 August 2024 to 29 August 2024
Implementation Date (5 business days after closure of Appeals Window)	05 September 2024



Draft Final Modification Report

**GC0172: Replacing References to Electricity Supply
Industry Arbitration Association**

Milly Lewis, ESO Code Administrator

Solution

- This modification looks to replace the Electricity Arbitration Association (EAA) with the London Court of International Arbitration (LCIA) within the Grid Code.

Code Administrator Consultation Responses

Summary of Code Administrator Consultation Responses :

- Code Administrator Consultation was run from 10/06/2024 to 10/07/2024 and received 1 non-confidential response. Key points were:
 - The respondent believed that the proposal better facilitated Grid Code objective (e) and would help enable an efficient arbitration process in the Grid Code, CUSC and SQSS.
 - The respondent supported the proposed implementation approach.
 - No legal text issues were identified.

GC0172 - the asks of Panel

- **NOTE** that this Modification does not impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code.
- **VOTE** whether or not to recommend implementation.
- **NOTE** next steps.

GC0172 – Next Steps

Milestone	Date
Draft Final Modification Report presented to Panel	25 July 2024
Final Modification Report issued to Panel to check votes recorded correctly (5 business days)	30 July 2024 to 06 August 2024
Submission of Final Modification Report to Ofgem	07 August 2024
Ofgem decision date	Requested by 15 August 2024
Implementation Date	30 August 2024



Panel Tracker

Milly Lewis, Code Administrator

Prioritisation Stack and Criteria

Mod Number	Previous Priority No:	Priority No	Title
GC0139	1	1	Enhanced Planning Data Exchange to Facilitate Whole System Planning
GC0155	2	2	Clarification of Fault Ride Through Technical Requirements
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 Conditions
GC0173	New Modification	5	Consistency of Technical and Compliance Requirements between GB and European Users
GC0159*	(5 before CAC)	(5 before CAC)	Introducing Competitively Appointed Transmission Owners
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

*GC0159 - Awaiting clarity from the Authority on the wording of CATO Licenses, before the Grid Code Review Panel can decide on next steps.

Section GR3.2 (b) Without prejudice, the Grid Code Review Panel shall endeavour at all times to operate. (i) in an efficient, economical and expeditious manner, taking account of the complexity, importance and urgency of particular Grid Code Modification Proposals. (ii) and with a view to ensuring that the Grid Code facilitates achievement of the Grid Code Objectives.

Complexity	The defect addressed by the proposed has implications for many different areas of the energy system which need to be taken into consideration throughout the process. The technical complexity and cross code impact of the modification will most likely require significant use of industry time and a higher than average number of workgroups to conclude the process.
Importance	The perceived value & risk associated with the proposed modification. The value / risk could be considered from a number of different perspectives i.e. financial / regulatory / licence obligations both directly for customer and end consumers more generally.
Urgency	A proposed modification which requires speedy consideration within the code governance process, as well as the timescales for implementation within the respective code.

Break



Implementation Update

[GC0163: GB Grid Forming \(GBGF\) - Removal of Virtual Impedance restriction](#)



Governance Update

Milly Lewis, Code Administrator



Grid Code Review Panel Elections Update - 2024

Election Process

This election takes place every two years. It will determine the Grid Code Review Panel members and Alternates for the period **01 January 2024 – 31 December 2025**.

The following seats are available to be Elected:		Panel Member Seats	Alternate Member Seats
Generator		4	2
Supplier		1	1
Onshore Transmission Owner		1	1
Offshore Transmission Owner (OFTO)		1	1

For the avoidance of doubt, this election does not apply to any other seats on the Grid Code Review Panel. The Network Operator seats including alternatives will be appointed by the DNOs via the Energy Network Association.

In order to be eligible to vote, or to nominate a candidate in the election, you must be a CUSC Schedule 1 party or have Materially Affected Party status on **31 August 2024**.

Voting will only commence if more nominations are received than seats available in the respective categories.

Election Timeline

Date	Milestone
Wednesday 31 July 2024	CUSC Schedule 1 Parties/Materially Affected Parties to check that they have been included on the CUSC Schedule 1 List for the purposes of the election.
Tuesday 3rd September 2024	Invitations will be sent out to CUSC Schedule 1 Users/Materially Affected Parties to nominate candidates to stand for election.
Friday 4th October 2024	Nomination Forms to be returned no later than 5.00pm.
Friday 11th October 2024	List of candidates and voting papers to be circulated, or we will announce the outcome of the Elections.
Tuesday 12th November 2024	Voting papers to be returned no later than 5.00pm.
Friday 29th November 2024	Election results will be announced.
1st January 2025 – 31st December 2026	Newly elected Panel Members and Panel Alternate Members will take up office.

Potential Grid Code Panel Dates 2025

Panel Dates	Papers Day	Modification Deadline	Bank Holidays
30 January	22 January	15 January	01 January
27 February	19 February	12 February	
27 March	19 March	12 March	
01 May (April)	23 April	14 April	18 April and 21 April
22 May	14 May	7 May	05 May and 26 May
26 June	18 June	11 June	
24 July	16 July	9 July	
21 August	13 August	6 August	25 August
25 September	17 September	10 September	
30 October	22 October	15 October	
27 November	19 November	12 November	
11 December	3 December	26 November	25 December and 26 December

GR.8.1 Meetings of the **Grid Code Review Panel** shall be held at regular intervals and at least every 2 months at such time and such place as the **Grid Code Review Panel** shall decide.



Digital Code Update

Teri Puddefoot, Code Administrator

Grid Code Development Forum – Previous and Next

Claire Newton, NGESO

3 July 2024

GCDF cancelled due to lack of agenda items

7 August 2024 (Deadline for Agenda items - 31 July)

Agenda items TBC but could include:

Overview of RfG2.0, DCC2.0 & HVDC2.0

The ESO will share an overview of RfG2.0 & DCC2.0 following the consultations issued in 2023 & HVDC2.0 following the publication of the current open consultation.

Development of a portal for submitting Grid Code data

The ESO are developing an online portal for users to submit Grid Code data that is currently submitted in the format specified as part of the Data Registration Code (DRC). A presentation will be shared giving an overview of the portal and current progress.



Standing Items

- Distribution Code Panel update (Alan Creighton)
- JESG Update (information only)
 - Previous meeting - 09 July 2024 (cancelled)
 - Next meeting – 13 August 2024



Updates on other industry codes

29 May 2024 STC [Panel Papers and Headline Report](#)

03 June 2024 SQSS [Panel Papers and Headline Report](#)

28 June 2024 CUSC [Panel Papers and Headline Report](#)



Any Other Business

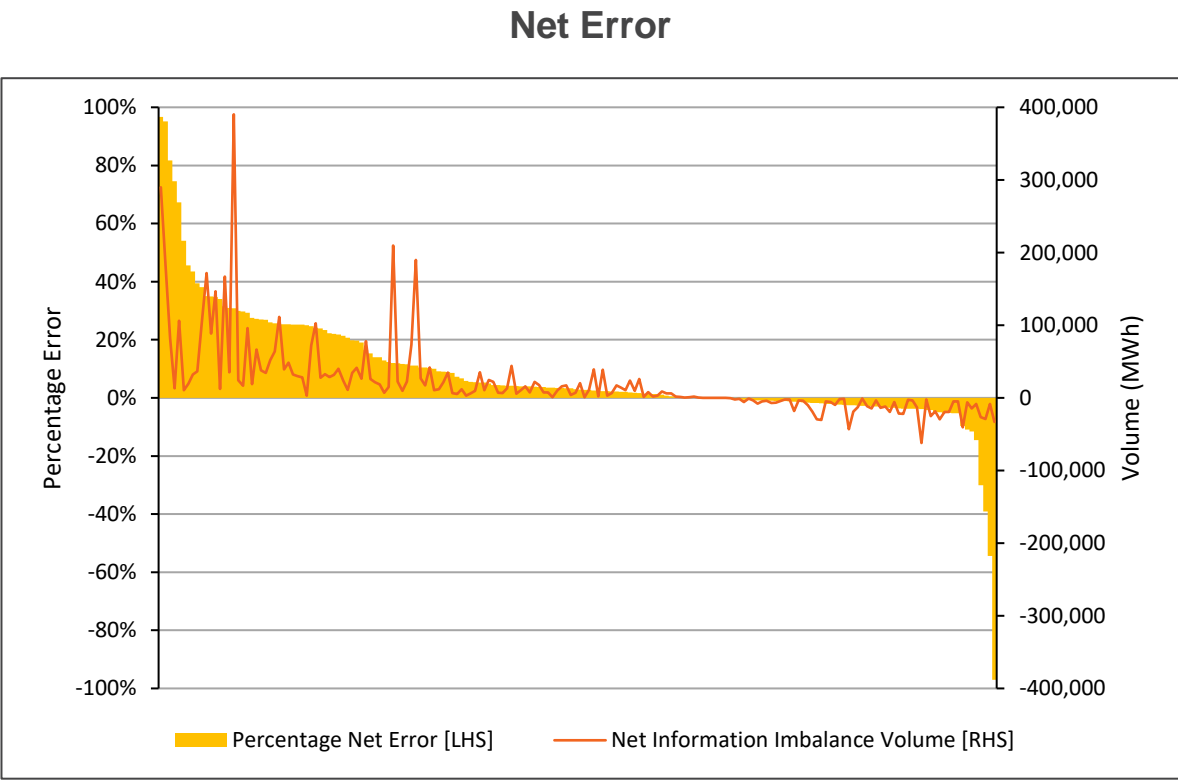


Grid Code Panel – PN Accuracy

Christopher Salter and David Dixon

The Issue

- Good industry practice does not appear to be followed by many market participants in the submission of Physical Notification Data that is the best expectation of a units output
- This is most prevalent across wind where there is a significant systematic skew positive error and extremely high absolute error values
- A level of error would be expected given Grid Code intermittency clauses but there is concern that the appropriate skill and diligence of an experienced operator is not being used in many cases
- Wind represents a very significant proportion of the generation supply and is becoming commercially sensitive meaning ESO can no longer expect maximum output at all times. Disregarding its schedule and relying solely on Power Available or a Forecast leads to unacceptable operational risk.



Absolute Error

FUEL TYPE	2021	2022	2023
CCGT	2.18%	2.21%	2.44%
NUCLEAR	4.10%	2.84%	2.70%
WIND	26.43%	24.83%	23.89%

Relevant Codes

ESO Roles Guidance

C28 4(j) monitoring balancing services markets for potential breaches of the grid code, investigating where necessary and raising concerns to Ofgem where appropriate;

General Requirements - Grid Code (BC1.4.2 a) 2)

Physical Notifications (which must comply with the limits on maximum rates of change listed in BC1 Appendix 1) must, subject to the following operating limits, represent the **User's** best estimate of expected input or output of **Active Power**, except where a **BM Unit** is affected by a Stage 2 or higher **Network Gas Supply Emergency** load shedding event. **Physical Notifications** shall be prepared in accordance with **Good Industry Practice**. **Physical Notifications** for any **BM Unit**, and any **Generating Units**, should normally be consistent with the **Dynamic Parameters** and **Export and Import Limits** and must not reflect any **BM Unit** or any **Generating Units**, proposing to operate outside the limits of its **Demand Capacity** and (and in the case of **BM Units**) **Generation Capacity** and, in the case of a **BM Unit** comprising a **Generating Unit** (as defined in the Glossary and Definitions and not limited by BC1.2) and/or **Power Generating Module** and/or **CCGT Module** and/or **Power Park Module**, its **Registered Capacity**.

Good Industry Practice: *The exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances.*

Specific Requirements – Grid Code BC2.5.1

Accuracy Of Physical Notifications

As described in BC1.4.2(a), **Physical Notifications** must represent the **BM Participant's** best estimate of expected input or output of **Active Power**, except where a **BM Unit** is affected by a Stage 2 or higher **Network Gas Supply Emergency** load shedding event. **Physical Notifications** shall be prepared in accordance with **Good Industry Practice**.

In the case where a **BM Unit** is affected by a **Network Gas Supply Emergency** load shedding event, once Stage 2 or higher has been declared, then their **Physical Notifications** shall represent the **User's** best estimate of the contracted power position of the affected **BM Unit** at the time of the event, taking into account any mitigating actions to reduce the difference between the contracted power position and the volume to be shed.

Each **BM Participant** must, applying **Good Industry Practice**, ensure that each of its **BM**

Except where variations from the **Physical Notification** arise from matters referred to at (a), (b) or (c) above, in respect only of **BM Units** (or **Generating Units**) powered by an **Intermittent Power Source**, where there is a change in the level of the **Intermittent Power Source** from that forecast and used to derive the **Physical Notification**, variations from the **Physical Notification** prevailing at **Gate Closure** may, subject to remaining within the **Registered Capacity**, occur providing that the **Physical Notification** prevailing at **Gate Closure** was prepared in accordance with **Good Industry Practice**.

Proposing a Threshold

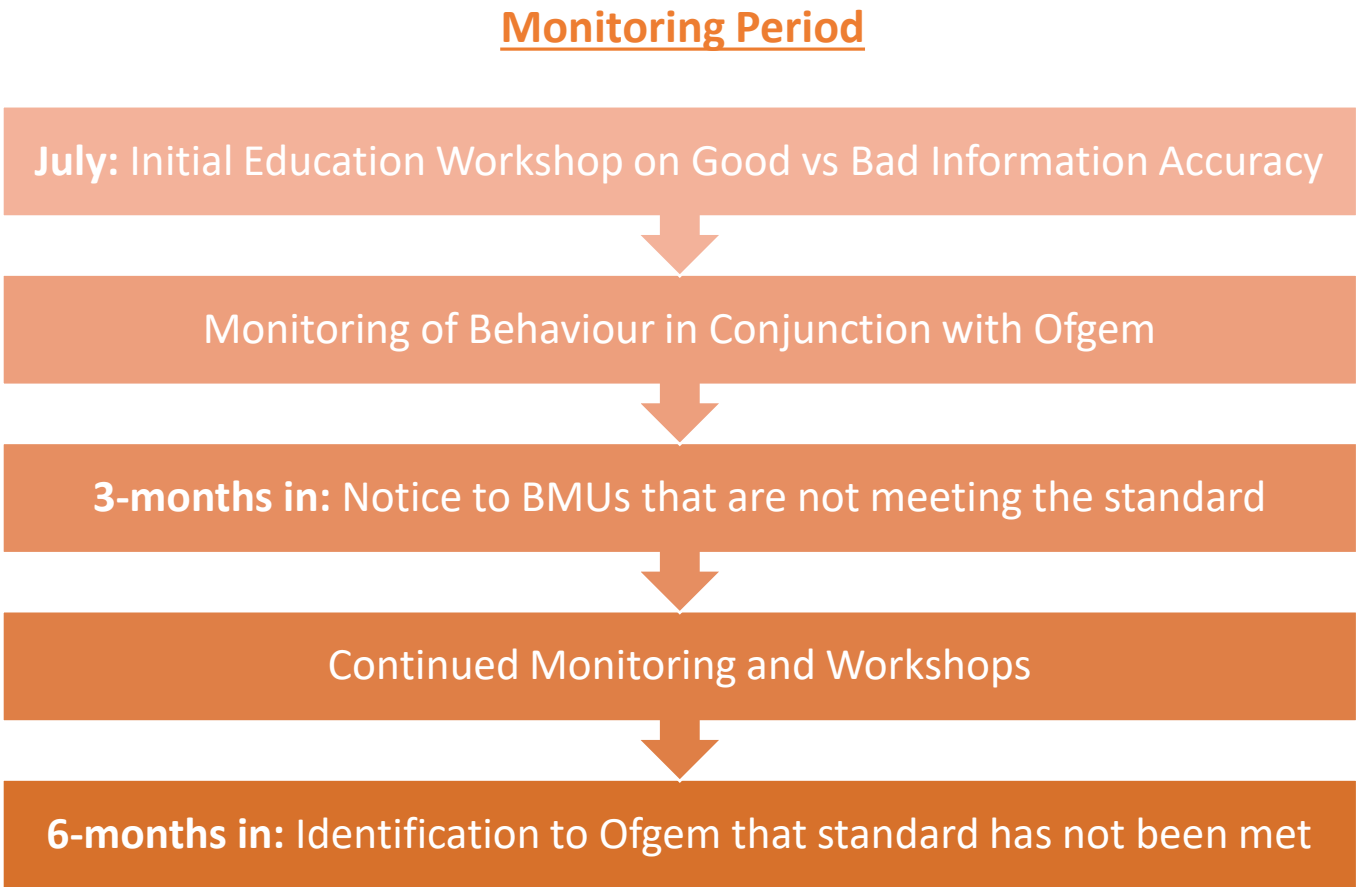
The following parameters have been considered in developing a PN Accuracy threshold.

Performance of the Top %	Net % Threshold	Absolute % Threshold
25%	2.81%	22.68%
20%	2.11%	20.47%
10%	0.94%	15.37%

1. What would be most beneficial for the control room?
2. What would the units be capable of achieving?
3. Can it be measured and monitored?
4. Does it demonstrate Good Industry Practice: The exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances.
5. Would most generators be able to fit within this level of accuracy?
6. Should other generators follow-suit?

Proposed Process

Key Dates	
ESO Open Letter Publication:	29/05/2024
Draft Guidance Note Publication:	05/06/2024
Consultation Closes:	26/06/2024
Intended Date for Final Guidance Note Publication:	July 2024



Guidance Note

- ESO want to provide **clarity on how we are interpreting our existing licence obligations**
- We are **not introducing new powers or requirements**
- The guidance note **clarifies how we interpret existing obligations** and outlining a collaborative process to support operators in achieving good industry practice
- Education is a clear issue, **multiple operators** of windfarms (even those over 100MW) **have no knowledge of what a PN is** and/or have no ability to submit a change even when extremely inaccurate
- Timelines – this is an issue **now** allowing for the grid code change process will incur significant costs and operational risk
- Flexibility – a grid code guidance note can be revised quickly, if accuracy standards were codified they would be enforceable directly and would be less able to account for the extremely varied operations or reasons for non-compliance
- Optionality to consider Grid Code change or BSC change if this approach proves insufficient
- **Over a year of prior engagement** with wind operators on the need for accurate data **preceded this guidance note**

Activities ahead of the next Panel Meeting

Grid Code Development Forum

07 August 2024

**Modification Proposal Deadline for August
Panel**

07 August 2024

Papers Day

14 August 2024

Panel Meeting

22 August 2024
Teams

Close



Trisha McAuley

Independent Chair, Grid Code Review Panel