

GC0103 – Workgroup Meeting 1

The introduction of harmonised Applicable Electrical Standards in GB to ensure compliance with the EU Connection Codes

27 June 2023

Online Meeting via Teams

WELCOME





Agenda

Elana Byrne – National Grid ESO Code Administrator

Agenda

- Introductions
- Code Modification Process Overview - Workgroup Responsibilities, Workgroup Alternatives and Workgroup Vote
- Objectives and Timeline - Walk-through of the timeline for the modification
- Review Draft Terms of Reference
- Proposer Presentation and Questions
- Cross Code Impacts
- Revisit Timeline and Terms of Reference - For agreement following the Proposer's presentation
- Any Other Business
- Next Steps



Modification Process

Elana Byrne— ESO Code Administrator

Code Modification Process Overview





Refine solution Workgroups



- If the proposed solution requires further input from industry in order to develop the solution, a Workgroup will be set up.
- The Workgroup will:
 - further refine the solution, in their discussions and by holding a **Workgroup Consultation**
 - Consider other solutions, and may raise **Alternative Modifications** to be considered alongside the Original Modification
 - Have a **Workgroup Vote** so views of the Workgroup members can be expressed in the Workgroup Report which is presented to Panel



Consult Code Administrator Consultation

- The Code Administrator runs a consultation on the **final solution(s)**, to gather final views from industry before a decision is made on the modification.
- After this, the modification report is voted on by Panel who also give their views on the solution.





Decision



- Dependent on the Governance Route that was decided by Panel when the modification was raised
- **Standard Governance:** Ofgem makes the decision on whether or not the modification is implemented
- **Self-Governance:** Panel makes the decision on whether or not the modification is implemented
 - an appeals window is opened for 15 days following the Final Self Governance Modification Report being published



Implement

- The Code Administrator implements the final change which was decided by the Panel / Ofgem on the agreed date.





Workgroup Responsibilities

Elana Byrne – ESO Code Administrator

Expectations of a Workgroup Member

Contribute to the discussion

Be respectful of each other's opinions

Language and Conduct to be consistent with the values of equality and diversity

Do not share commercially sensitive information

Be prepared - Review Papers and Reports ahead of meetings

Complete actions in a timely manner

Keep to agreed scope

Your Roles

Help refine/develop the solution(s)

Bring forward alternatives as early as possible

Vote on whether or not to proceed with requests for Alternatives

Vote on whether the solution(s) better facilitate the Code Objectives



Workgroup Alternatives and Workgroup Vote

Elana Byrne – ESO Code Administrator

Can I vote? and What is the Alternative Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings

Stage 1 – Alternative Vote

- Vote on whether Workgroup Alternative Requests should become Workgroup Alternative Grid Code Modifications.
- The Alternative vote is carried out to identify the level of Workgroup support there is for any potential alternative options that have been brought forward by either any member of the Workgroup OR an Industry Participant as part of the Workgroup Consultation.
- **Should the majority of the Workgroup OR the Chair believe that the potential alternative solution may better facilitate the Grid Code objectives than the Original then the potential alternative will be fully developed by the Workgroup with legal text to form a Workgroup Alternative Grid Code modification (WAGCM) and submitted to the Panel and Authority alongside the Original solution for the Panel Recommendation vote and the Authority decision.**

Can I vote? and What is the Workgroup Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings

Stage 2 – Workgroup Vote

- 2a) Assess the original and Workgroup Alternative (if there are any) against the relevant Applicable Objectives compared to the baseline (the current code)
- 2b) Vote on which of the options is best.



Objectives and Timeline

Elana Byrne – ESO Code Administrator

Timeline for GC0103 as of 20 June 2023

Stages	Date	Objectives & Notes
Workgroup 1	27/06/23	Agree timeline, Terms of Reference, understand outline of the Proposer's solution
Workgroup 2	19/07/23	Refine solution and draft Workgroup Consultation questions
Workgroup 3	10/08/23	Finalise Workgroup Consultation
Workgroup Consultation	23/08/23 – 15/09/23	
Workgroup 4	03/10/23	Review / assess Workgroup Consultation responses and Workgroup Report.
Workgroup 5	24/10/23	Finalise solution(s) and legal text, agree that Terms of Reference have been met, Review Workgroup Report and hold Workgroup Vote
Workgroup Report to Panel	13/11/23	Panel on 23/11/23
Code Administrator Consultation	27/11/23 – 05/01/24	1 month plus an allowance for the Christmas-NY break
Draft Final Modification Report to Panel	19/01/24	
Final Modification to Ofgem / Appeals Window opened	TBC	TBC once 2024 Panel dates confirmed
Implementation Date	TBC	



Terms of Reference

Elana Byrne – ESO Code Administrator

Terms of Reference

Workgroup Term of Reference
a) Implementation and costs;
b) Review draft legal text should it have been provided. If legal text is not submitted within the Grid Code Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text;
c) Consider whether any further Industry experts or stakeholders should be invited to participate within the Workgroup to ensure that all potentially affected stakeholders have the opportunity to be represented in the Workgroup. Demonstrate what has been done to cover this clearly in the report; and
d) Consider EBR implications
e) Consider any unintended consequences of the modification
f) Consider the interaction between GC0103 and ongoing RES work
g) Consider any cross code impacts, including any relating to CATOs and GC0159 in particular

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Proposer presentation

Garth Graham - SSE

What is the ask?

- GC0103 raised in 2017 but paused due to higher priority work
- Now looking to re-energise progression
- Aim is to work with industry to set out compliance obligations within the Grid Code, as they relate to harmonised Electrical Standards
- Applied to new connections to the GB electrical systems
- Agnostic as to which regional standard is adopted GB-wide
- Reconvene GC0103 Workgroup to develop a single harmonised set of standards (*“Applicable Electrical Standards”*)
- We need your time and expertise to participate in the Workgroup

Why change?

- Electrical standards contain the technical specifications, policies and procedures that must be complied with by Users connected to or seeking to connect to the electrical system.
- Currently, there are multiple versions of electrical standards within GB and this is set to grow in the future with the introduction of CATOs
- Differences and inconsistencies in current standards within GB causes issues for Users, in turn leading to additional costs and inefficiency that may impact investment confidence

Cross Code Impacts

Elana Byrne – ESO Code Administrator



ESO



Timeline & Terms of Reference Check

Elana Byrne – ESO Code Administrator

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Any Other Business

Elana Byrne – ESO Code Administrator



ESO

Next Steps

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ESO



Appendix

GC0103 2017 Original Proposal



ESO

GC 0103

The introduction of harmonised Applicable Electrical Standards in GB to ensure compliance with the EU Connection Codes

Garth Graham, for SSE Generation Ltd.
GCRP 27th July 2017

Background (1)

- ***What***

- The Grid Code will need to be amended to set out the new EU standards to which impacted Users will need to comply with.
- This will be a combination of completely new requirements inserted into the Grid Code, or adjustments / continuation / removal of corresponding existing GB requirements to line up with, and not be more stringent than, the requirements in the new EU Network Codes/ Guidelines.

Background (2)

- ***Why***

- Guidance from BEIS and Ofgem was to apply the new EU requirements within the existing GB regulatory frameworks. This would provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.
- This modification needs to be undertaken in timely manner to ensure impacted Users are aware of their compliance obligations - particularly in relation to procurement of equipment, testing and operational requirements. This modification is also therefore, critical to facilitate/demonstrate Member State compliance to these three EU Connection Network Codes (RfG, DCC and HVDC).

Background (3)

- ***How***

- With the support of the industry, we will use this modification to finalise the solution to apply the EU Connection Codes requirements, before consulting with the wider industry and submitting to Ofgem for a decision.

Why Change (1)

- This Proposal is one of a number of Proposals which seek to implement relevant provisions of a number of new EU Network Codes/Guidelines which have been introduced in order to enable progress towards a competitive and efficient internal market in electricity.
- The RfG, DCC and HVDC EU Network Codes were drafted to facilitate greater connection of renewable generation; improve security of supply; and enhance competition to reduce costs for end consumers, across EU Member States.
- These three codes specifically set harmonised technical standards for the connection of new equipment for generators, demand, and HVDC systems (including DC-Connected Power Park Modules respectively).

Why Change (2)

- The electrical standards contain the technical specifications, policies and procedures that must be complied with by all Users connected to or seeking connection to the electrical system.
- Currently there are multiple versions of the electrical standards within GB and this is set to grow in the future with the introduction of CATOs.
- These differences and inconsistencies in the current electrical standards within GB cause difficulty for Users as it takes time and effort to check connection designs against each (different) set. In addition, costs may vary based on these differences which can hinder investment decisions. Users also feel that there is a lack of transparency in the justification for the regional variations and the governance of the change process is inefficient and unclear.

Why Change (3)

- These items, when combined with the implementation of the three EU Network Codes means that there is now a need for a single harmonised GB electrical standards to ensure that the obligations within those EU Network Codes are met.
- Given that the obligations in these EU Network Codes apply to ‘New’ Users only (and not to ‘Exiting’ Users) it is proposed that the single harmonised GB electrical standards introduced by this proposal would be known as the ‘*Applicable Electrical Standards*’ and would not be more stringent than the requirements in the EU Network Codes/ Guidelines.

Solution (1)

- It is proposed with this Proposal that a joint GCRP/DCRP Workgroup be set-up to review the current electrical standards and the potential solutions with a view to creating a single harmonised set of electrical standards, to be known as the '*Applicable Electrical Standards*', to be applied to all 'New' connections to the GB electrical system depending on whether they are generation, demand or HVDC.
- '*Applicable Electrical Standards*' would be incorporated into the Grid Code and any subsequent changes to them would, for the avoidance of doubt, be subject to public consultation and NRA (Ofgem) approval.
- Following the creation of the '*Applicable Electrical Standards*' the Grid Code and the Distribution Code would need to be amended appropriately to achieve consistent application across the Transmission and the Distribution systems.

Solution (2)

- The technical requirements in the RfG, for example, are incremental; building up from Type A to Type B then Type C and finally Type D.
- Similarly, depending on further Workgroup deliberation, it is possible (probable?) that the '*Applicable Electrical Standards*' will likewise be incremental in the context of generation. For example, it would seem that there would be no need for the Type A related '*Applicable Electrical Standards*'; although this would be required for a Type B (plus C and D) generator.

Justification against Applicable Objectives (i)

- **To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;**
 - **Positive**
 - The proposed solution will allow the System Operator / Distribution Network Operators to efficiently apply the EU Network Code/ Guidelines requirements to the Users of the system through the National Industry Codes.

Justification against Applicable Objectives (ii)

- **To facilitate 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 proposed solution will assist the Users of the Transmission and the Distribution system during the connection process.
 - A single harmonised set of electrical standards will also help enable competition in the construction of connection assets as, at the moment, it is not clear what standard CATO's should use.
 - A common set of standards will also provide a level playing field between generators in different parts of GB compared to the current situation in which a generator in, say, Carlisle has different connection requirements and standards to one in, say, Glasgow and yet another set for one located in, say, Inverness.

Justification against Applicable Objectives (iii)

- **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;**
 - **Positive**
 - The creation of a harmonised set of standards would ensure that changes to standards are managed in a controlled, open and transparent manner and ensure that where a clear action to improve a standard is discovered, it can be applied across the country at the same time.

Justification against Applicable Objectives (iv)

- **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;**
 - **Positive**
 - The EU Connection Codes derive from the Third Energy Package legislation which is focused on delivering security of supply; supporting the connection of new renewable plant; and increasing competition to lower end consumer costs.
 - This proposal ensures that harmonised rules for grid connection for power-generating modules, demand and HVDC assets are set out in order to provide a clear legal framework for grid connections, facilitate Union-wide trade in electricity, ensure system security, facilitate the integration of renewable electricity sources, increase competition and allow more efficient use of the network and resources, for the benefit of consumers.
 - Furthermore, this modification ensures GB compliance with EU legislation in a timely manner and does so in a way that is not more stringent than EU law permits.

Justification against Applicable Objectives (v)

- **To promote efficiency in the implementation and administration of the Grid Code arrangements.**
 - **Positive**
 - Applying harmonised rules for grid connection for power-generating modules, demand and HVDC assets reduces the administrative costs and burden for Users (in being able to seek connection on the basis of a uniform approach) and the System Operator (when assessing compliance) in the administration of the Grid Code arrangements.