

Public

GC0155

Workgroup 20, 26 February 2025

Online Meeting via Teams

WELCOME

Meeting Recording

Public

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

Email communications to/cc'ing the .box email

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

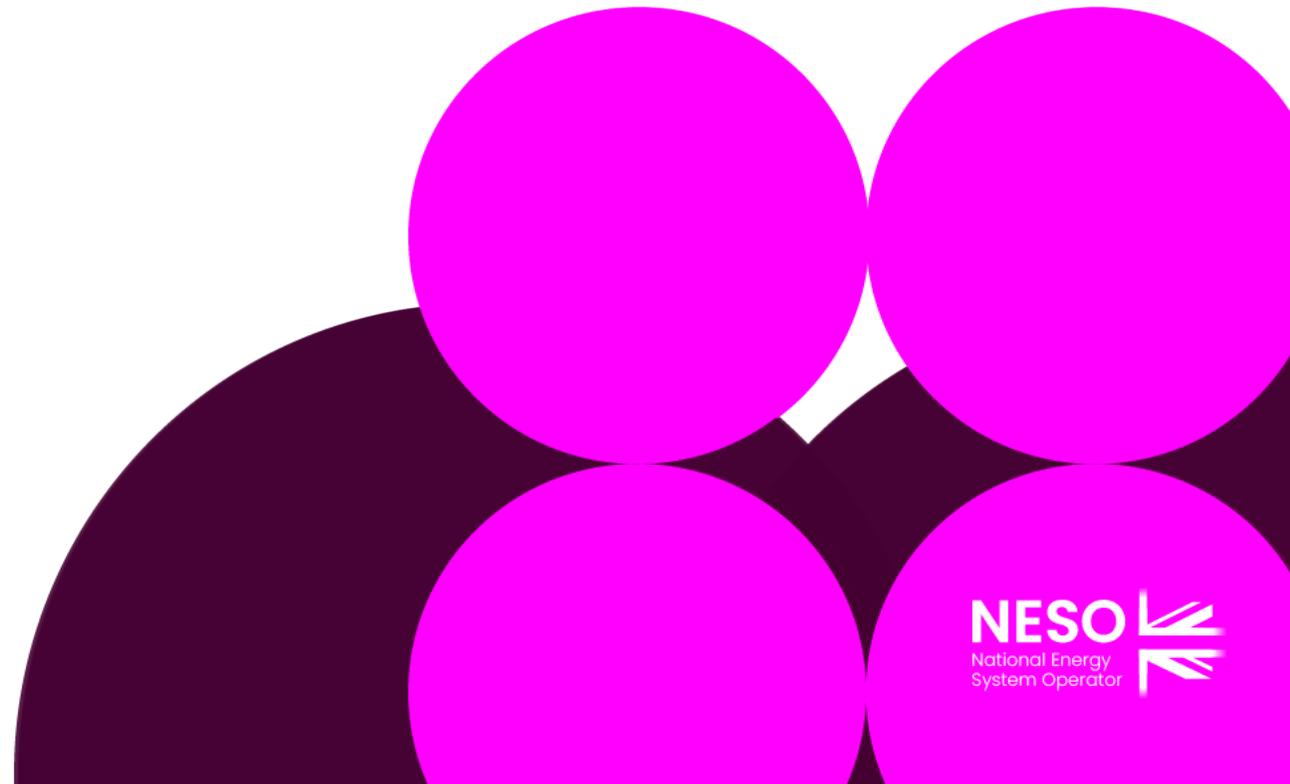
Vote on whether the solution(s) better facilitate the Code Objectives

Agenda

Topics to be discussed	Lead
Welcome	Chair
Objectives and Timeline <ul style="list-style-type: none">Action Log	Chair
Proposers update - Potential new modification	Proposer
Review Terms of Reference	All
Any Other Business	Chair
Next Steps	Chair

Objectives and Timeline

Teri Puddefoot – ESO Code
Administrator



Timeline for GC0155 as at 26 February 2025

Milestone	Date	Milestone	Date
Modification presented to Panel	01 December 2021	Code Administrator Consultation	TBC
Workgroup Nominations (15 business days)	20 December 2021 to 14 January 2022	Draft Final Modification Report (DFMR) issued to Panel (5 business days)	TBC
Workgroup 20	Review Workgroup Consultation	Panel undertake DFMR recommendation vote	TBC
Workgroup Consultation (15 business days)	TBC	Final Modification Report issued to Panel to check votes recorded correctly (5 business days to check)	TBC
Workgroup 21-22	Review Consultation Responses and potential Alternates	Final Modification Report issued to Ofgem This is clear 5 business days after Final Modification Report is issued to Panel to check votes recorded correctly	TBC
Workgroup report issued to Panel (5 business days)	TBC	Ofgem decision needed by	TBC
Panel sign off that Workgroup Report has met its Terms of Reference	TBC	Implementation Date	TBC

Action Log



Action log

Action number	WG raised	Owner	Action	Comment	Due by	Status
39	WG8	BA	Discuss CC.6.1.11 (CC.6.1.7 now) with TOs and manufactures and feedback to WG with strawman.	Amalgamated into Action 67.	WG19	Closed
45	WG10	Ofgem	Ofgem Check with Legal if CRM should be put in place if applying retrospectively.	Chair to chase email.	WG20	Open
49	WG12	All	Consider TOV graph, what palatable limits might be.	Requires further elaboration.	WG20	Open
56	WG14	BA	Proposer to trace discussions on issues with fault ride through requirements from GC0111 and GC0137.	No narrative found in previous reports.	WG19	Closed
61	WG15	All	Workgroup members to provide feedback on why BCA doesn't work and how they feel they can better comply.	To be provided during WG discussions and documented within the WG consultation document.	WG20	Open
64	WG16	BA	Review text for ECC.6.3.15.8 and consider non-compliance issues.	No updates needed.	WG19	Closed

Action log

Action number	WG raised	Owner	Action	Comment	Due by	Status
65	WG16	All	Provide challenge and provide feedback on risks re Operation During Temporary Overvoltages section.	To be provided during WG discussions and documented within the WG consultation document. Include how the system is currently managed. WG need more data and when TOV occur and how this and Frequency is managed.	WG20	Open
66	WG16	All	Provide feedback on the Issues with the current requirements and validate that these points are correct.	To be provided during WG discussions and documented within the WG consultation document.	WG20	Open
67	WG18	BA/AP	Consider the technical feasibility of different magnitudes and the overall impact this would have on the stability of the system.	Ongoing discussions and considerations for consultant review.	WG20	Open
68	WG18	All	Have further discussions with manufacturers with everyone present or obtain written documents from them to understand if TGN288/ RFG-2 figures can be met or if other levels need to be considered. Also carry out some case studies on specific plant to understand how the solution may be implemented in reality.	BA is currently conversing with a generator on conceptual ideas with further conversations to be arranged.	WG20	Open

Action log

Action number	WG raised	Owner	Action	Comment	Due by	Status
69	WG18	TP	Re-share information presented by Tony earlier in the Workgroup on Compliance studies for line-to-line fault.	Email sent to WG members	WG19	Closed
70	WG19	BA	Include worked examples in the consultation document.		WG20	Open

Potential new modification

Bieshoy Awad – Proposer

Proposal for a separate TOV modification

- The proposer's solution is largely complete and input within workgroup has been sought on specific elements to finalise ahead of workgroup consultation.
- The Temporary Over-Voltage (TOV) aspect of the proposed solution has proven to be contentious, making it difficult to finalise this.
- Ofgem have further requested a cost benefit analysis (CBA) be carried out to support this aspect of the solution.
- We are looking to engage external consultants to address the TOV aspect of the solution.
 - This work should consider both the technical solution and cost implications in terms of both the investment requirements on the transmission system and the costs of achieving compliance on User equipment for the CBA
 - The consultant's work may involve considerations beyond the current solution for GC0155 including compliance demonstration requirements
 - The time to carry this work out is to be confirmed, but we expect a programme of at least 6 months
- We are proposing to split TOV into a separate modification:
 - The workgroup is in general agreement on the remainder of the solution, which could progress through the code modification process at a faster pace
 - A separate modification for TOV could be raised at panel in March with much of the work to date being used as a basis while the external consultants carry out their work
- While we recognise the elapsed time taken on this modification is a cause of frustration to all parties involved, the perceived benefits of our proposal are:
 - To progress the non-contentious elements at a greater pace
 - To give the necessary time and resource to provide the right solution for TOV
 - To provide a view on realistic risks of the solution with respect to TOV ride through requirements
- We will be looking for Panel's view and approval of this approach
 - The timeline for the revised GC0155 solution can be confirmed at the next panel meeting
 - Updates can also be provided on the progress with respect to engagement of external consultants for TOV

GC0155 – Proposed timeline following split

Milestone	Date	Details
Workgroup	28/03/2025	Finalise workgroup consultation
Workgroup consultation	04/04/2025 – 02/05/2025	
Workgroup	23/05/2025	Review consultation responses
Workgroup	20/06/2025	Review draft workgroup report and legal text
Workgroup	11/07/2025	Finalise workgroup report and vote
Workgroup report to Panel	24/07/2025	
CAC	31/07/2025 – 11/09/2025	
DFMR to Panel	25/09/2025	
DFMR vote at Panel	02/10/2025	
FMR submission to Ofgem	16/10/2025	

Proposed TOV modification timeline

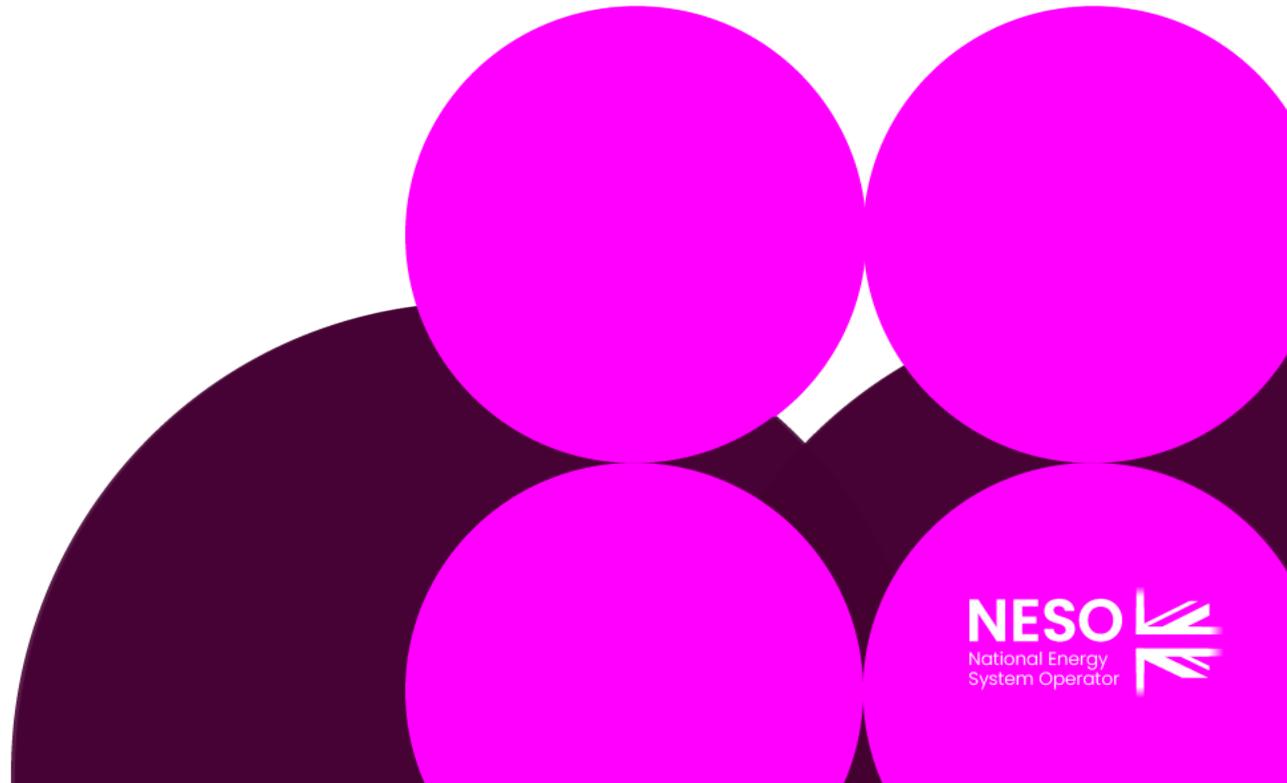
Milestone	Date	Details
Modification proposal submitted	12/03/2025	
Modification proposal raised at Panel	27/03/2025	
Workgroup	24/04/2025	Initial engagement on proposed solution and consultant work
Workgroup	19/06/2025	Continued engagement on solution and consultant work
Workgroup	14/08/2025	Continued engagement on solution and consultant work
Workgroup	25/09/2025	Finalise workgroup consultation
Workgroup consultation	02/10/2025 – 30/10/2025	
Workgroup	20/11/2025	Review consultation responses

Proposed TOV modification timeline

Milestone	Date	Details
Workgroup	11/12/2025	Review draft workgroup report and legal text
Workgroup	08/01/2026	Review draft workgroup report and legal text
Workgroup	05/02/2026	Finalise workgroup report and vote
Workgroup Report to Panel	12/02/2026	
CAC	19/02/2026 – 02/04/2026	
DFMR to Panel	16/04/2026	
DFMR vote at Panel	23/04/2026	
FMR submission to Ofgem	07/05/2026	

Review Terms of Reference

Teri Puddefoot – ESO Code Administrator



Terms of Reference

Workgroup Term of Reference	Location in Workgroup Report (to be completed at Workgroup Report stage)
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; and	
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	
d) Consider EBR implications	
<p>e) Changes and clarifications to the existing Grid Code Fault Ride Through (FRT) requirements specifically but not limited to consideration of the following areas:</p> <ul style="list-style-type: none"> i. Clarify instances where User plant is required to trip in order to clear transmission system faults ii. Amending requirements for generating maximum reactive current during faults where these may be unachievable for some generators iii. Amending post-fault active power requirements to consider whether generators at low load may have greater levels of oscillation than permitted iv. To consider clarifying and or defining requirements for over-voltage during a fault 	
f) Consider and address any cross code impacts on other codes especially Distribution Code (e.g. G99 requirements)	

Any Other Business

Teri Puddefoot – NESO Code
Administrator

Next Steps

Teri Puddefoot – NESO Code Administrator

