

Workgroup Terms of Reference and Membership

GC0155: Clarification of Fault Ride Through Technical Requirements Responsibilities

1. The Workgroup is responsible for assisting the Grid Code Modification Panel in the evaluation of Grid Code Modification Proposal **GC0155 Clarification of Fault Ride Through Technical Requirements** raised by Terry Baldwin of the **National Grid ESO** on **1 December 2021** and presented at the Grid Code Panel meeting on **16 December 2021**. The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable Grid Code Objectives.

Applicable Grid Code Objectives

- i) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;
- 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);
- 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; and
- 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. In conducting its business, the Workgroup will at all times endeavour to operate in a manner that is consistent with the Code Administration Code of Practice principles.
- v) To promote efficiency in the implementation and administration of the Grid Code arrangements.

Scope of work

2. The Workgroup must consider the issues raised by the Modification Proposal and consider if the proposal identified better facilitates achievement of Grid Code Objectives.
3. In addition, the Workgroup shall consider and report on the following specific issues:

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 EBGL implications	
e) Minor changes and clarifications to the existing Grid Code Fault Ride Through (FRT) requirements specifically but not limited to consideration of the following areas: 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)	

4. As per Grid Code GR20.8 (a) and (b) the Workgroup should seek clarification and guidance from the Grid Code Review Panel when appropriate and required.
5. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative Grid Code Modifications arising from Group discussions which would, as compared with the Modification Proposal or the current version of the Grid Code, better facilitate achieving the Grid Code Objectives in relation to the issue or defect identified.
6. The Workgroup should become conversant with the definition of Workgroup Alternative Grid Code Modification which appears in the Governance Rules of the Grid Code. The definition entitles the Group and/or an individual member of the

Workgroup to put forward a Workgroup Alternative Code Modification proposal if the member(s) genuinely believes the alternative proposal compared with the Modification Proposal better facilitates the Grid Code objectives. The extent of the support for the Modification Proposal or any Workgroup Alternative Modification (WAGCM) proposal arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the Grid Code Review Panel.

7. Workgroup members should be mindful of efficiency and propose the fewest number of WAGCM proposals as possible. All new alternative proposals need to be proposed using the Alternative Request Proposal form ensuring a reliable source of information for the Workgroup, Panel, Industry participants and the Authority.
8. All WAGCM proposals should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WAGCM proposals which are proposed by the entire Workgroup or subset of members.
9. There is an option for the Workgroup to undertake a period of Consultation in accordance with Grid Code GR. 20.11, if defined within the timetable agreed by the Grid Code Panel. Should the Workgroup determine that they see the benefit in a Workgroup Consultation being issued they can recommend this to the Grid Code Review Panel to consider.
10. Following the Consultation period the Workgroup is required to consider all responses including any Workgroup Consultation Alternative Requests. In undertaking an assessment of any Workgroup Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Grid Code Objectives than the current version of the Grid Code.
11. As appropriate, the Workgroup will be required to undertake any further analysis and update the appropriate sections of the original Modification Proposal and/or WAGCM proposals (Workgroup members cannot amend the original text submitted by the Proposer of the modification). All responses including any Workgroup Consultation Alternative Requests shall be included within the final report including a summary of the Workgroup's deliberations and conclusions. The report should make it clear where and why the Workgroup chairman has exercised their right under the Grid Code to progress a Workgroup Consultation Alternative Request or a WAGCM proposal against the majority views of Workgroup members. It should also be explicitly stated where, under these circumstances, the Workgroup chairman is employed by the same organisation who submitted the Workgroup Consultation Alternative Request.
12. The Workgroup is to submit its final report to the Modifications Panel Secretary on **XX Month XXXX** for circulation to Panel Members. The final report conclusions will be presented to the Grid Code Review Panel meeting on **XX Month XXXX**.

Membership

13. It is recommended that the Workgroup has the following members:

Role	Name	Representing
Chair	Banke John-Okwesa	Code Administrator (ESO)
Technical Secretary	Ruth Roberts	Code Administrator (ESO)
Proposer	Terry Baldwin	ESO
Workgroup Member	Alan Mason	Oceanwinds
Workgroup Member	Alan Creighton	Northern Powergrid
Workgroup Member	Alastair Frew	Drax Power Station
Workgroup Member	Andrew Larkins	Sygensys
Workgroup Member	Andrew Vaudin	EDF
Workgroup Member	Nicola Barberis Negra	Orsted
Workgroup Observer	David Griffiths	RWE Generation UK, RWE Renewables
Workgroup Member	Damian Jackman	SSE
Workgroup Member	Frank Martin	Siemens
Workgroup Member	Garth Graham	SSE
Workgroup Member	Isaac Gutierrez	Scottish Power
Workgroup Observer	Mike Kay	Electricity North West
Workgroup Member	Priyanka Mohapatra	Scottish Power
Workgroup Member	Ryan Tumilty	SSE
Workgroup Member	Sean Gauton	Uniper Energy
Workgroup Member	Tim Ellingham	RWE Generation UK, RWE Renewables
Workgroup Observer	Toktam Sharifian	KREC
Workgroup Member (Alternate)	Sridhar Sahukari	Orsted

Workgroup Member (Alternate)	Tobias Siepker	Siemens
Workgroup Member (Alternate)	Julie Richmond	Scottish Power
Workgroup Member (Alternate)	Martin Aten	Uniper
Authority Representative	Shilen Shah	Ofgem

14. A (*) Workgroup must comprise at least 3 members (who may be Panel Members). The roles identified with an asterisk (*) in the table above contribute toward the required quorum, determined in accordance with paragraph 15 below.
15. The Grid Code Review Panel must agree a number that will be quorum for each Workgroup meeting. The agreed figure for this modification is that at least 3 Workgroup members must participate in a meeting for quorum to be met.
14. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WAGCM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise. There may be up to three rounds of voting, as follows:
 - Vote 1:** whether each proposal better facilitates the Applicable Grid Code Objectives;
 - Vote 2:** where one or more WAGCMs exist, whether each WAGCM better facilitates the Applicable Grid Code Objectives than the original Modification Proposal;
 - Vote 3:** which option is considered to BEST facilitate achievement of the Applicable Grid Code Objectives. For the avoidance of doubt, this vote should include the existing Grid Code baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.
17. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should raise these with the Workgroup chairman at the earliest possible opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.
18. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.

19. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.
20. The Workgroup membership can be amended from time to time by the Grid Code Review Panel and the Chairman of the Workgroup.