Modification proposal:	**Grid Code (GC) GC0138: Compliance process technical improvements (EU and GB User) (GC0138)**		
Decision:	The Authority[1] directs[2] that the proposed modification to the Grid Code be made		
Target audience:	National Grid Electricity System Operator Limited (NGESO), the Grid Code Review Panel, Grid Code users and other interested parties		
Date of publication:	10 June 2022	Implementation date:	24 June 2022

Background

The Compliance Processes for GB Users were added to the Grid Code in August 2012 to provide a framework for Users to demonstrate compliance with the Grid Code and Bilateral Connection Agreement. The Compliance Processes for EU Users were introduced into the Grid Code in 2018 following the introduction of the EU Connection Network Codes[3]. Prior to this, the processes existed solely in Guidance Notes being updated periodically by National Grid based upon experience.

Technological developments have increased the capability of Factory Acceptance Testing (FATs) and simulation studies which could allow for a more streamlined compliance process. Further, growth in the size of Power Park Modules (PPMs), particularly offshore, means that traditional methods of field testing are becoming impractical.

[1] References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work. This decision is made by or on behalf of GEMA.
[2] This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.
[3] The EU Connection Network codes are; (1) Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators, (2) Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection, and (3) Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules.

The modification proposal

Modification GC0138 was proposed by NGESO the Electricity System Operator (ESO), and seeks to allow Users more flexibility in scheduling final site testing, ensuring that tests to sufficiently demonstrate compliance are completed first time and that the recorded results, when submitted, facilitate a quick turnaround of assessment.

GC0138 proposes to modify the Grid Code Compliance Process, Operating Code 5 (Testing and Monitoring), and the European Compliance Process. Currently the Compliance Process does not include all the tests which the ESO has found necessary through experience of attendance at site during compliance testing. In order to enable users to demonstrate compliance without on-site attendance by the ESO, GC0138 proposes to include these additional tests in the Compliance Process requirements. GC0138 also proposes to amend and clarify the simulation studies and on-site testing required, specify the use of standard templates for submission of test results, and clarify that the ESO may decide to not witness the testing.

The ESO's initial proposal was assessed by a workgroup who convened six times[4]. Amendments to the ESOs proposal suggested by the Workgroup, clarifying the testing requirements, have been adopted in the GC0138 proposal. The workgroup met on 9 September 2021 to carry out the workgroup vote, and concluded unanimously that the GC0138 proposal better facilitated the applicable Grid Code Objectives. Some workgroup members noted that ESO site representation is valued when undertaking compliance testing due to immediate feedback provided. They also noted concern that the additional flexibility afforded under GC0138 may be offset by additional costs and delays should test results be queried or further testing be required. This is discussed further under the heading *'Our decision'*, below.

A Code Administrator Consultation was first issued from 3 November to 3 December 2021, receiving two responses, both in support of the proposal. One respondent considered the modification implementation should be agreed such that projects under development are not affected, and be after the Contract for Difference (CfD) auction deadline due to the impact on project costs. This is considered under the heading '*Implementation'*, below. We note that the Code Administrator re-issued the consultation due to an omission of typographical legal text changes suggested by some panel

[4] We note that the initial workgroup meeting related to GC0138 only, whilst subsequent meetings combined GC0138 and GC0141 (Compliance Processes and Modelling amendments following 9th August Power Disruption) due to subject overlap.

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members. The second Code Administrator Consultation was issued from 10 January 2022 to 10 February 2022. No new responses were received.

Grid Code Review Panel recommendation

The Grid Code Review Panel (the Panel) convened on 24 February 2022 to carry out their recommendation vote. The Panel unanimously recommended that the GC0138 be implemented. One Panel member noted that they consider that for particularly significant sites, the ESO should still be present to witness site testing. We agree that there will be many occurrences where the ESO should attend sites to witness compliance testing, and indeed in certain circumstances this will likely be required to satisfy compliance with its licence conditions.

Our decision

We have considered the issues raised by the modification proposal and in the Final Modification Report (FMR) dated 7 March 2022. We have considered and taken into account the responses to the industry consultation on the modification proposal which are included in the FMR[5]. We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the objectives of the Grid Code;[6] and
- approving the modification is consistent with our principal objective and statutory duties.[7]

Reasons for our decision

(i) to permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the transmission of electricity

Under GC0138, due to changes in the industry and developing technologies, the ESO is seeking to allow users more flexibility in scheduling final site testing, ensuring that tests to sufficiently demonstrate compliance are completed first time and that the recorded

[5] Grid Code proposals, final reports and representations can be viewed on NGESO's website at: https://www.nationalgrideso.com/industry-information/codes/grid-code/modifications
[6] As set out in Standard Condition C14(1)(b) of the Electricity Transmission Licence, available at: https://epr.ofgem.gov.uk/
[7] The Authority's statutory duties are wider than matters which the Grid Code Panel Review must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

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results, when submitted, facilitate a quick turnaround of assessment. We therefore consider that GC0138 will better facilitate this Grid Code objective.

(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)

We consider the changes proposed by GC0138 will facilitate competition in generation, most notably with respect to larger offshore wind turbines where traditional methods of field testing are becoming impractical, due to size and location. Furthermore, currently representatives from multiple organisations (offshore developer, turbine manufacturer, consultants, and the ESO) are required to facilitate on-site testing which is also weather dependant. The flexibility afforded by GC0138 will prevent large offshore wind farms from being disproportionally impacted by field testing requirements.

We note that some workgroup members were concerned that under the GC0138 proposal, testing conducted without an ESO representative on site may be questioned and require additional testing, with generators incurring additional costs and delays. We note that GC0138 clarifies the testing requirements, and expect this risk to be minimised via continued joint project planning and communication with the ESO. We also note that generators may also take advantage of the flexibility afforded by GC0138 and may realise cost savings.

We therefore consider that this modification proposal will better facilitate this Grid Code objective.

(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

We consider the changes proposed by GC0138 are an improvement on the current Compliance Process as they allow for a better understanding of the plant connected to the National Electricity Transmission Network (NETS). We consider this will have a positive impact on system stability, and therefore consider that GC0138 will better facilitate this Grid Code objective.

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Decision notice

In accordance with Standard Condition C14 of the Transmission Licence, the Authority hereby directs that Grid Code modification proposal Grid Code GC0138: *'Compliance process technical improvements (EU and GB User)'* be made.

Implementation

We note that the FMR recommends implementation after the fourth CfD allocation round sealed bid window, for which the longest timeline closes on 15 June 2022. As noted earlier one Code Administrator Consultation respondent considered the modification implementation should be agreed such that projects under development are not affected, and be after the CfD auction deadline due to the impact on project costs. As outlined above, we consider GC0138 allows for a better understanding of the plant connected to the NETS, and facilitates flexibility in the Grid Code compliance process. We consider that these benefits outweigh any marginal impacts on costs associated with the Compliance Process. We therefore consider implementation should not be delayed.

We direct that GC0138 be implemented on 24 June 2022, 10 working days from this decision.

Martin Queen
Head of Engineering Systems and Policy (Principal Engineer)
Signed on behalf of the Authority and authorised for that purpose

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