nationalgrid

Stage 02: Code Administrator Consultation

Grid Code

GC0098:

Using GB Grid Code data to construct the EU Common Grid Model in accordance with Regulation (EU) 2015/1222 (CACM), Regulation (EU) 2016/1719 (FCA) and Regulation (EU) 2017/XXXX (SOGL).

What stage is this document at?

01	Modification Proposal
02	Code Administrator Consultation
03	Draft Final Modification Report
04	Final Modification Report

Purpose of Modification: This modification seeks to give all parties visibility as to which data collected through the Grid Code is to be used to construct the GB Individual Grid Model in accordance with Regulation (EU) 2015/1222 (CACM), Regulation (EU) 2016/1719 (FCA) and Regulation (EU) 2017/XXXX (SOGL). A common grid model representing the European interconnected system is to be established so that TSOs can calculate cross-zonal capacity in a coordinated way.

Published on:	**21 August 2017**
Length of Consultation:	**15 Working days**
Responses by:	**12 September 2017**

High Impact: *None*

Medium Impact: None

Low Impact:
Transmission system owners and operators as it is linked to their compliance with the EU network guidelines.
Generators, Independent Distribution Network Operators, Distribution Network Operators, Generation, Interconnectors as data collected from these parties through the GB Grid Code will be used to construct a GB grid model and shared with other EU Transmission System Operators (TSOs).

Contents

Any Questions?

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Timetable

The Grid Code Panel approved the following table: (please note this consultation has been issued later than timetabled)	
Revised Proposal Report presented to Panel	19 July 2017
Code Administrator Consultation Report issued to the Industry (15 Working Days)	27 August 2017
Code Administrator Consultation closes	1 September 2017
Draft Modification Report presented to Panel	12 September 2017
Panel Determination Vote	20 September 2017
Final Modification Report published	29 September 2017
Appeal window opens (15 Working days)	19 September 2017
Implementation (10 Working Days after closure of appeal window)	3 November 2017

About this document

The purpose of this document is to consult on GC0098 with Grid Code Parties and other interested industry members. Representations received in response to this Consultation document will be included in the Code Administrator's Grid Code Modification Report that will be furnished to the Grid Code Panel for their decision. Parties are requested to respond by **5pm** on **12 September 2017** to

grid.code@nationalgrid.com using the Code Administrator Consultation Response Pro-forma which can be found via the following link: http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0098/

Document Control

Version	Date	Author	Change Reference
1.0	21 August 2017	Code Administrator	Code Administrator Consultation to Industry

1 Summary

1.1 This document describes the GC0098 Grid Code Modification Proposal and seeks views from Industry members relating to the Proposal.

1.2 GC0098 was proposed by National Grid Electricity Transmission and submitted to the Grid Code Modifications Panel for their consideration on 30 May 2017. The Panel recommended that the Proposer of this modification amended the legal text provided. The Proposer completed this work and the modification was resubmitted to the Grid Code Panel for discussion on the 19 July 2017. The Panel decided that this Modification should be classed as Self-Governance and should proceed directly to Code Administrator Consultation for 15 Working-Days.

1.3 This Code Administrator Consultation has been prepared in accordance with the terms of the Grid Code. An electronic copy can be found on the National Grid Website, http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0098/ along with the Grid Code Modification Proposal Form.

2 Modification Proposal

What

2.1 Existing data collected through the Grid Code will be used to construct a GB Individual Grid Model and shared with other EU TSOs. Without this modification it is unclear which data is being used to build the Individual Grid Model. CACM, FCA and SOGL specify confidentiality obligations on TSOs regarding *"information received, exchanged or transmitted pursuant to this Regulation"* in Articles 13, 7 and 12 respectively.

Why

2.2 The requirement for TSOs to construct and send an Individual Grid Model is set out in CACM, FCA and SOGL. Without this modification, TSOs will still be obliged to share Individual Grid Models; however GB parties would have little visibility on which data was used to construct these models.

How

2.3 The proposed solution is to include a general statement on why the data is to be shared referencing the EU regulations, and then to include an annex where the relevant sections of the Grid Code are listed.

2.4 The proposed modification was raised 12 April 2017 was presented by the Proposer to the Panel on 30 May 2017.

The panel requested;
- the legal text was amended to give greater clarity on the type of data items, rather than just the paragraph references.
- clarification on whether the modification included the SOGL Common Grid Model requirements, this has now been included.
- confirmation that merging the Common Grid Model is a SO (rather than TO) responsibility.

2.5 The amended modification was presented to panel 19 July 2017. The Proposer of GC0098 amended the legal text as suggested by the Grid Code Panel. In addition, following the July Panel meeting some more wording was added to ensure there is clarity of the modification.

3 Governance

3.1 The Proposer of GC0098 put forward that this modification should be considered for ***Self-Governance*** procedures as the modification is unlikely to have a material effect on any party, but rather gives greater visibility to interested parties on the data used within EU processes. The criteria can be found outlined below:

Self-Governance - *The modification is unlikely to discriminate between different classes of Grid Code Parties and is unlikely to have a material effect on:*

i) Existing or future electricity customers;

ii) Competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution or supply of electricity,

iii) The operation of the National Electricity Transmission System

iv) Matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies

v) The Grid Code's governance procedures or the Grid Code's modification procedures

3.2 At The Grid Code Panel on the 19 July 2017 the Panel decided that the modification will be treated as Self-Governance. The Code Administrator furnished a Self-Governance Statement to the Authority.

4 Why Change?

4.1 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. Some EU Network Guidelines are still in development and these may in due course require a review of solutions developed for Codes that come into force beforehand. The full set of EU network guidelines are;

- Regulation 2015/1222 – Capacity Allocation and Congestion Management (CACM) which entered into force 14 August 2015
- Regulation 2016/1719 – Forward Capacity Allocation (FCA) which entered into force 17 October 2016
- Regulation 2016/631 - Requirements for Generators (RfG) which entered into force 17 May 2016
- Regulation 2016/1388 - Demand Connection Code (DCC) which entered into force 7 September 2016

- Regulation 2016/1447 - High Voltage Direct Current (HVDC) which entered into force 28 September 2016
- Transmission System Operation Guideline (SOGL) - entry into force anticipated Summer 2017
- Emergency and Restoration (E&R) Guideline - entry into force anticipated Autumn 2017
- Electricity Balancing Guideline (EBGL) - entry into force anticipated Autumn 2017

4.2 This modification relates to the CACM, FCA and SOGL guidelines which together aim to; promote effective competition in the generation, trading and supply of electricity, promote effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants, and determining common operational security requirements and principles.

4.3 The guidelines require National Grid Electricity Transmission plc (NGET) to contribute data towards a pan-EU Common Grid Model (CGM) which will underpin the new European processes. NGET has carried out a mapping exercise with GB industry parties and is confident that we already collect the required data through the GB Grid Code. The legal right for NGET to share the data with EU TSOs arises from the CACM guideline; however several stakeholders have requested a Grid Code Modification be raised so that it is transparent to all parties which data will be shared.

4.4 With reference to the Ofgem decision[1] on the assignment of Transmission System Operator obligations under the Capacity Allocation and Congestion Management Regulation within GB, NGET understands the obligation to merge inputs to form the Common Grid Model (CGM) is an SO obligation. Extract from Annex 2 of the Ofgem decision; “We consider this Sub Paragraph [CACM Article 28.5] applicable to SOs only as it will be the SO's individual grid models (which they are responsible for the operation of) which are merged to form the common grid model.”

4.5 For the avoidance of doubt, the scope of GC0098 is limited to describe the sharing of data between the SO and other EU TSOs. GC0098 does not actually describe the *gathering* of that data from generators. It is noted that other Grid Code modifications (GC0100-GC0103) are currently being developed which may change the data which is currently collected.

[1] Decision for our consultations on the assignment of Transmission System Operator obligations under the Capacity Allocation and Congestion Management Regulation within GB
https://www.ofgem.gov.uk/publications-and-updates/decision-our-consultations-assignment-transmission-system-operator-obligations-under-capacity-allocation-and-congestion-management-regulation-within-gb

5 Code Specific Matters

Technical Skillsets

5.1 The Proposer considers that the technical skillset required to assess this modification includes; an understanding of data currently collected by NGET under the Grid Code and an understanding of the common grid processes proposed under CACM, FCA and SOGL.

Reference Documents

Ofgem Decisions on the Generation and Load Data Provision Methodology and Common Grid Model Methodology:
https://www.ofgem.gov.uk/publications-and-updates/decisions-generation-and-load-data-provision-methodology-and-common-grid-model-methodology

COMMISSION REGULATION (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management:
http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.197.01.0024.01.ENG&toc=OJ:L:2015:197:TOC

Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation Generation and Load Data Provision Methodology (GLPDM) code mapping:
http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589938097

The draft Regulation establishing a guideline on system operation received a positive vote in comitology on 4 May 2016
http://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes

6 Solution

6.1 Inclusion of a reference within the Planning Code section of the Grid Code that data collected by NGET through the Grid Code, as specified in a separate Appendix to Planning Code shall be used to build an individual grid model, so that NGET can fulfil its obligations under CACM, FCA and SOGL.

7 Impacts and Other Considerations

7.1 No impacts to other codes or processes, modification purely provides greater visibility of processes set out under EU regulations.

Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No

Consumer Impacts

None

8 Relevant Objectives

Impact of the modification on the Relevant Objectives:	
Relevant Objective	**Identified impact**
To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	**None**
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)	**None**
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	**None**
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; and	**Positive**
To promote efficiency in the implementation and administration of the Grid Code arrangements	**Neutral**

9 Implementation

9.1 This is a Self-Governance modification. It will be implemented ten working days following the closure of the 15 day appeal window that will open following the Panel Determination vote.

9.2 There will be no system changes required to implement GC0098.

10 Responses

10.1 If you wish to respond to this Code Administrator Consultation, please use the response pro-forma which can be found under the 'Industry Consultation' under the following link;

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0098/

10.2 Responses are invited to the following questions;

Q1: Do you believe that GC0098 better facilitates the Grid Code Objectives? Please include your reasoning

Q2: Do you support the proposed implementation approach?

Q3: Do you have any other comments?

10.3 Views are invited upon the proposal outlined within this report. Please submit your formal response to grid.code@nationalgrid.com by **5pm** on **12 September 2017.**

10.4 If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Grid Code Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response. Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential.

11 Legal Text

PC2 .1(f)

(f) to provide for the supply of information required by NGET from Users in respect of the pan-EU Common Grid Model (CGM) and to enable NGET to carry out its duties under Regulation (EU) 2015/1222, Regulation (EU) 2016/1719 and

Regulation (EU) 2017/xxxx [SOGL]. Details of the information which may be transferred is given in Appendix G.
…

APPENDIX G
All data items collected under the following sections of the Grid Code may be used by NGET to fulfil the obligations under Regulation (EU) 2015/1222, Regulation (EU) 2016/1719 and Regulation (EU) 2017/xxxx [SOGL];

Physical Notifications, Export and Import Limits, Bid-Offer Data, Dynamic Parameters,
BC1.4.2
BC1.A.1.1
BC2.5.1

Grid Voltage Variations, Plant Performance Requirements, Control Arrangements, System Ancillary Services, Commercial Ancillary Services
CC.6.1.4
CC.6.3.2
CC.6.3.7
CC.8

Generation Planning Parameters, Generator Performance Chart, Final Generation Outage Programme, Genset inflexibility, Outages Adjustments, EU Transparency Availability Data, Test And Monitoring
OC2
OC2.4.1.2.1
OC2.4.1.2.2
OC2.4.1.3.2
OC2.4.1.3.3
OC2.4.2.1
OC2.4.7
OC5
OC6.6

Standard Planning Data, Detailed Planning Data, Power Park Unit model, Single Line Diagram, Lumped System Susceptance, Reactive Compensation Equipment, Power Factor of the Power Park Module, production type, Busbar Arrangements, Registered Capacity, Output Usable, Minimum Generation, Rated Parameters Data, General Generating Unit Power Park Module and DC Converter Data, primary source of power, demand and active energy data, User's User System Demand (Active Power) and Active Energy Data, Connection Point Demand (Active and Reactive Power), Post Fault User System Layout, General Demand Data, Synchronous Generating Unit Parameters, Non-Synchronous Generating Unit and Associated Control System Data, Transient Overvoltage Assessment Data, User's Protection Data, Harmonic Studies, Voltage Assessment Studies, Short Circuit Analysis
PC.4.3.1
PC.A.5.4.2
PC.A.2.2

PC.A.2.2.2
PC.A.2.2.4
PC.A.2.2.5
PC.A.2.2.6
PC.A.2.3
PC.A.2.4
PC.A.2.5.6
PC.A.3.1.4
PC.A.3.1.5
PC.A.3.2.2
PC.A.3.3.1
PC.A.3.4.1
PC.A.3.4.3
PC.A.4.1
PC.A.4.1.4.2
PC.A.4.2
PC.A.4.3
PC.A.4.3.1
PC.A.4.3.2
PC.A.4.3.3
PC.A.4.3.5
PC.A.4.5
PC.A.4.7
PC.A.5.2
PC.A.5.2.1
PC.A.5.3.2
PC.A.5.4.2
PC.A.5.4.3.1
PC.A.5.4.3.2
PC.A.5.4.3.3
PC.A.6.2
PC.A.6.3
PC.A.6.4
PC.A.6.5
PC.A.6.6

Text Commentary

A reference in the Planning Conditions of the Grid Code and a list in a separate annex of all sections in the Grid Code where the relevant data is collected through.