nationalgrid

Stage 01: Modification Proposal (v4)

Grid Code

GC0098:

Modification Title: 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 (TSOG).

What stage is this document at?

01	Modification Proposal
02	Code Admin Consultation
03	Report to the Authority

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 (TSOG). 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.

The Proposer recommends that this modification should be:

- Subject to Self-Governance
- Proceed straight to Code Administrator consultation

This modification was raised 12 April 2017 and will be presented by the Proposer to the Panel on 30 May 2017. The Panel will consider the Proposer's recommendation and determine the appropriate route.

High Impact: Transmission system owners and operators as it is linked to their compliance with the EU network guidelines.

Medium Impact: None

Low Impact: 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?

Contact:

Christine Brown

Code Administrator

Christine.Brown1@nationalgrid.com

01926 65 3328

Proposer:

Robert Selbie

National Grid

Timetable

The Code Administrator recommends the following timetable:

Workgroup Report presented to Panel	19 July 2017
Code Administrator Consultation Report issued to the Industry (15 Working Days)	27 July 2017
Code Administrator Consultation closes	17 August 2017
Draft Modification Report presented to Panel	12 September 2017
Panel Determination Vote	20 September 2017
Final Modification Report published	29 September 2017
Implementation (10 Working Days)	3 November 2017

1 Summary

What

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. Both CACM, FCA and TSOG specify confidentiality obligations on TSOs regarding *"information received, exchanged or transmitted pursuant to this Regulation"* in Articles 13, 7 and 12 respectively.

Why

The requirement for TSOs to construct and send an Individual Grid Model is set out in CACM, FCA and TSOG. 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

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 Governance

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.

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

Requested Next Steps

This modification should:

- be subject to Self-Governance
- proceed straight to Code Administrator Consultation

3 Why Change?

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 (TSOG) - 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

This modification relates to the CACM, FCA and TSOG 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.

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.

With reference to the Ofgem decision[1] on the assignment of Transmission System Operator obligations under the Capacity Allocation and Congestion Management

[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

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 Code Specific Matters

Technical Skillsets

An understanding of data currently collected by NGET under the Grid Code and an understanding of the common grid processes proposed under CACM and FCA.

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

5 Solution

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 annex to Planning Code shall be used to build an individual grid model, so that NGET can fulfil its obligations under CACM,FCA and TSOG.

6 Impacts and Other Considerations

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

7 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**

8 Implementation

Not applicable, no implementation tasks associated with this modification.

9 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 [TSOG]. Details of the information to 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 [TSOG;

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.

10 Recommendations

Panel is asked to:

- Agree that Self Governance procedures should apply
- Send this Modification straight out for Consultation