

Distribution Code Review Panel

Meeting 61 – Thursday 8 September 2016

EU Network Codes Update

Paper by Secretary

This paper provides the Panel with a general update on the development, progress and implementation of the European Network Codes.

Headlines

- **ENC Requirements for Generators (RfG)** was published in the Official Journal of the European Union (OJEU) on the 27 April 2016. The Code will therefore enter into Force on 17 May 2016. Generators that will need to comply with the code will be those under construction and which have not let contracts for main plant items by 17 May 2018.
- The RfG has a significant number of parameters to resolve in GB in next 8 months or so. Other issues include the new requirements for DG compliance regime.
- The first tranche of RfG GB requirements now progressing formally towards Panels and consultation.
- **RfG Generator banding proposals** seeks to modify the Grid Code and Distribution Code by setting generator ‘banding thresholds’ as required in the RfG. The industry consultation closed 16 May. There were 21 responses to the consultation. Following a review of the submissions it was agreed that there is still some crucial evidence missing to justify the proposed ‘High’ and/or ‘Medium’ levels (‘Low’ will not be taken forward). It is vital GC 0048 have this so National Grid can proceed with a Report to the Authority, so a Q&A has been compiled to obtain this information. All parties are welcome to submit a response, though this exercise is particularly aimed at Generator equipment manufacturers and Generator Developer reps. All submissions should be returned to grid.code@nationalgrid.com by COP on Friday 19 August.
- **Demand Connection Network Code** – some early work by GC 0091 has commenced
- **Transmission System Operator Guidelines (TSOG)** – now agreed by Cross Border Committee. Underlying approach consistent with GB approach. It seems to have flexibility of implementation in relation to data requirements, but could force strict compliance with existing D Code outage planning rubric for some DNO assets and generators, with resource implications. Implementation timeline for TSOG and Generation and Load Data Provision Methodology (GLDPM) data requirements probably now the most pressing DNO issue.
- **ENC Demand Connection: DCC** – new WG GC 0091 established and early implementation work has commenced.
- **ENC Emergency and Restoration (E&R)** – Latest version of the NC discussed at the last cross Border Committee meeting on 4 May 2016.
- **Balancing Guideline:** expected to enter into comitology in autumn 2016 and adopted before the end of the year. The Commission is deciding which issues should be included in legislation – the Market Design Initiative – and which ones should remain in the Guideline.

A workshop on the CBA on the Imbalance Settlement Period took place on 15th April. Finland, GB and Spain have concerns about the way the consultant Frontiers is treating the information provided that was discussed at the meeting.

- **Market Codes** – do not seem relevant to DNO connected parties or DNOs, but need to watch out for issues in the Balancing Code that will or could read across to the distribution networks..

EU Network Code Working Groups

National Grid cancelled all formal EU Connection Code workgroup meetings (GC0048/90/91 GC0087 etc.) that were planned for August. They have acknowledged the increased workload related to EU Connection Codes implementation at recent meetings. They have also had feedback that constant travel to workgroup meetings is difficult and costly. In order to maximise the efficiency and progress of the EU Connection Code workgroups, NG have proposed the following changes for September meetings onwards:

It is proposed to use workgroup meetings to manage issues by exception and for decision making. To do this, NG will circulate workgroup materials, particularly items requiring review/decision, to workgroup members two weeks in advance, to allow ample time for review and comment

The aim is to reduce the number of days of meetings from three to two or one where possible. Utilise remote meetings for interim briefings between scheduled face-to-face sessions to ensure work is progressing. As a result, the September EU Connection Codes meetings at National Grid House, Warwick are being structured as follows: The next work group meetings will be held 13 & 14 September and are as follows-

Tuesday 13 September

- 10:00 - 11:00 GC0048-T RfG Fault Ride Through; Meeting objective: approve/reject draft industry consultation (to be circulated 30/08)
- 11:00 – 12:30 GC0048-T RfG; GC0090 HVDC Voltage & Reactive; Meeting objective: agree final proposals for legal text/industry consultation drafting
- 13:00 – 14:30 GC0087 RfG Frequency Response Provisions; Meeting objective: Progress RoCoF withstand proposals
- 14:30 – 15:30 GC0048 RfG; Generator Banding; Meeting objective: approve/reject draft report to authority (to be circulated 30/08)

Wednesday 14 September

- 10:00 – 12:30 GC0091 Demand Connection Code; Meeting objective: Discuss technical parameters for Demand Side Response
- 13:00 – 16:00 Placeholder for potential GC0095 TSOG implementation group (to be confirmed)

Connection Codes

Requirements for Generators - Main issue for DNO connected parties in relation to RfG are:

Banding

- Lower limit of Type B is 1MW, so all generators above 1MW have to have fault ride through capability. Work ongoing and consultation being prepared.
- Type C (looking to be set at 50MW – but value to be set by consultation) need to have frequency control and more sophisticated voltage control.
- Formal GCRP/DCRP consultation on thresholds (by GC0048) will close 17 May 2016.

Formal compliance regime needed for Type B and above

- Type B limited to frequency and reactive capability – might be possible in most cases to rely on a certificate from machine manufacturer for frequency response and fault ride through.
- Type C (and D) more onerous – more akin to LEEMPS.
- WG currently sorting out detail for GB by end of 2016 – as it progresses need to ensure all DNOs brought up to speed.
- Implications of mass market compliance still being considered by DECC.

Overfrequency

- WG to set frequency response parameters in 2016 (all bands) – proposed 50.4Hz, 10% droop.
- need to remove G59 stage 2 setting for new connexions.
- Fault Ride Through
- Parameters now set – to be consulted upon. Need to change U/V stage 2 settings and assess risk of doing so.

Voltage Control

- Parameters and requirements to be fine-tuned by WG in 2016.

Other Issues

- Real time and/or other data – probably set by the System Operation Guideline – requirements not currently completely clear, but seems that it will be left to GB governance to decide extent of real time data.
- Reconnection after disturbances - to be discussed in WG in 2016.
- RoCoF withstand for new plant to be determined in 2016; RoCoF system operating limits to be developed later in 2016 – both via GC0086 WG.

Demand Connection Code (DCC) Main issue for DNO connected parties in relation to DCC are:

- Thinking on GB application only just started with new WG (GC0091).
- Doesn't (formally) apply to existing distribution systems.
- Not clear when a new or modified GSP will count as new for compliance purposes, nor how extensive the compliance challenge will be.
- New GSPs will have need capability to run at 0.9pf in all four quadrants, and not export VAR when running at less than 25% of maximum import MW.
- Applies compliance requirements to DSR that is supplied to network operators. Does not apply to other DSR.

Operational Codes

Transmission System Operation Guidelines (TSOG)

- Combination of three codes Operational Security, Operational Planning and Scheduling and Load Frequency Control and Reserves but legal status is unchanged (as a guideline).

Main issue for DNOs in relation to TSOG are:

- Agreed by Cross Border Committee 5 May 2016.
- Basic approach fairly close to existing GB G Code rubric.
- Although approach is close to GB drafting, it could require activity and compliance at a level not exercised in GB – resource etc implications for some DNO assets and generators. 12 month TSO development of this from coming into force.
- Still possible disconnect between requirements and pre-RfG plant capabilities – but flexibility of implementation might avoid this being an issue.
- Unclear requirements on data provision and communications – potentially requiring redundant data comms down to all 1MW generators. However this has 12 month implementation period with detailed specification to be proposed by TSO.

Emergency & Restoration Code

Main issue for DNOs in relation to E&R Code are:

- New draft released by the Commission in April 2016
- Seems to be clearer on the need for redundant communication channels, but will only apply to those who elect to provide defence or restoration services, as opposed to all customers.
- Reconnection of generation (and demand) post faults or widespread outages likely to be resolved as part of RfG implementation.

Market Codes

Capacity Allocation and Congestion Management

- Now law.
- Primarily concerned with identifying cross border and inter system capacity.

Forward Capacity Allocation

- Pending comitology.
- Primarily concerned with identifying cross border and inter system capacity.

Balancing Code

- On hold until next year.
- Seems to be high level rules within which national balancing rules must be framed.