

The Distribution Code Review Panel of Great
Britain

Meeting 10 March
2016

EU Network Codes Update

Paper by Secretary

This paper provides the Panel with an update on the development, progress and implementation of the European ENTSO-e Network Codes.

European Headlines

EC Guideline on System Operation (GL SO): expected to be voted in Comitology on 9 March but the voting is delayed due to lacking translations - some Member States refused to vote on the English version. European DSO associations sent their latest concerns to DG ENER, European Commission on 18 January 2016. An updated version of the Guideline was published on 22 January taking many of DSO concerns into consideration. However, there still are a few remaining issues (See appendix 1).

RfG NC Publication is expected for late March /April 2016

DCC NC - same as above

Emergency and Restoration (E&R) NC expected to enter into comitology in 2016

Balancing NC expected to enter in comitology into 2016. However, text parts of it will be removed, in particular those regarding flexibility as they will be part of the new energy market design in the upcoming legislation.

GB Update

Connection Codes

Requirements for Generators Code (RfG)

The RfG Code was adopted at the Cross Border Committee meeting on 26 June. Scrutiny by the European Parliament and the Council has now been completed and it is expected to finally become law by the end of Q1 2016. There then follows a 3 year implementation period. A joint panel coordination group GC 0048 has been established to progress the GB implementation of the Connection Codes. Further details and progress of this workgroup can be found [here](#). This workgroup will set those parameters left to national interpretation in the Requirements for Generators European Network Code and make sure that the GB codes align with it - so making necessary changes to the Grid Code, Distribution Code and supporting documents eg Engineering Recommendations G59 and G83.

Main issue for DNOs 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.
- Type C (proposed between 50 and 75MW – value to be set by consultation) need to have frequency control and more sophisticated voltage control.

- NGET presented an update on the RfG Generator Banding Setting which is a requirement under the RfG Network Code and an output of the GC0048 RfG Implementation workgroup. Three options were considered by the GC0048 workgroup for determining the GB thresholds, High, Medium and Low and the workgroup agreed to focus on the 'High' option. This is the banding as set out in the RfG for GB. The next steps are to engage further with the Scottish Transmission Owners to ensure the 'high' option will not cause any unforeseen issues. The GC0048 banding workgroup report will summarise the outcomes on this topic which will be finalised in March. This will then be sent onto GB Code Panels for approval and opened to the industry for comment (anticipated end of March 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.
- Type C (and D) are more onerous – more akin to LEEMPS.
- WG post Xmas to sort out detail for GB by summer '16 – would benefit from some DNO input.
- Implications of mass market compliance being considered by DECC.

Overfrequency

- WG to set frequency response parameters in 2016 (all bands).
- Need to remove stage 2 setting for new connections

Fault Ride Through

- Parameters to be set by WG during 2016.

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 clear.
- Reconnection after disturbances – this topic is to be discussed in WG in 2016.
- RoCoF withstand for new plant to be determined early 2016; RoCoF system operating limits to be developed later in 2016 – both via one or two WGs.

Demand Connection Code (DCC)

The revised DCC completed the comitology process on 15 October. The UK was able to secure some improvements to the text, but it is still unsatisfactory in places. Crucially the code will not be retrospective, so will only apply to new distribution networks. There is a Joint panel working group GC 0090 established to progress the GB implementation of the DCC European Network Code. Further details and progress of this workgroup can be found [here](#).

Main issue for DNOs in relation to DCC are -

- Thinking on GB application started (Joint Panel working group GC0091)
- Doesn't 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;
- Still uncertainty about the exact requirements for data transfer at GSPs – expect to be resolved in the Systems Operation Guidelines; and
- New LFDD facilities will need to have directional blocking.

HVDC Code

The HVDC was approved at the Cross Border Committee meeting on 10-11 September. The network code will set the functional requirements for HVDC connections including offshore HVDC networks. A GB working group (GC 0090) has been established for the HVDC Code. Currently there does not appear to be any direct implications for the Distribution Code from the HVDC Code. There is a Joint panel working group GC 0090 established to progress the GB implementation of the HVDC European Network Code. Further details and progress of this workgroup can be found [here](#).

Operational Codes

Operational Security Code, Operational Planning & Scheduling Code, Load Frequency Control & Reserves Code

The three operational codes, Operational Security (OS), Operational Planning & Scheduling (OPS) and Load Frequency Control and Reserves (LFCR) have been merged into a single EC Guideline entitled the *Transmission Systems Operations Guideline (TSOG)*. The revised Guideline sets consistent technical conditions aimed at safeguarding a satisfactory level of operational security, frequency quality and efficient use of interconnected system,

DECC/Ofgem held a stakeholder workshop on the 10 February to discuss the TSOG. Key issues to note;

- It is expected that another draft might be received towards the end of February, with comitology voting possible on 10 March.
- DECC reported that member states did not appear to have any show stoppers amongst them.
- The current draft under discussion is dated 26 January 2016.

In discussing this draft the following points were made:

- There is still no derogation drafting in the Code. The point was advanced by Energy UK and ENA that the flexibility in member state application was welcome, but that still left room for some unusual individual installations that were sufficient different from the norm such that derogation might be appropriate. DECC indicated that the Commission might well move on this.
- Still some uncertainty about coming into force, and harmonization with timing with other codes, particularly the connexion codes.
- There is a clause that allows a TSO to simply deem that a circuit or generator is “available” even if the owner of that asset says it is not. This is contrary to GB practice, natural justice and common sense. It seemed as though DECC want to support arguing for a change to this - at least not making it the default approach across Europe. It also applies to DNO circuits – so DNOs will be supporting DECC on this.
- This draft, albeit in notes from the Commission rather than drafting on the face of the Code, adds clarity to the national implementation and agreement of the extent of real time and other reporting. There are one or two places where the drafting is either not clear on this aspect or

appears to conflict. These were all accepted by DECC, pending any further supporting information DNOs can supply.

- DECC reluctantly agreed with the meeting that the drafting is not clear whether it applies to all customers providing DSR, or whether just to those providing DSR to the TSO. Although we had been assuming the latter, in discussion we had to agree that the scope and drafting were not clear. DECC and NG colleagues could not answer this fundamental question – so DECC/NG will investigate further.
- Along the same lines we are assuming that DNOs have to provide, potentially subject to detailed discussions and agreements, aggregated real time data for all generation connected to DNOs' systems. DNOs are pushing for "estimated data" to be included in the drafting and for it to be limited to Significant Grid Units – which means Type B and above (ie >1MW).
- DECC were asked to give some guidance on the impact, if any, on GB parties of EU Codes and the Isle of Man. The IoM is not bound by EU Codes (we think), but it is part of the GB synchronous system.

Next steps are a possible review of the next draft on 1st or 3rd of March, with a possible code mapping session on 11 March.

ACER has called for the adoption of this Guideline as soon as possible to support ongoing balancing market integration and related pilot projects.

Main issue for DNOs in relation to TSOG are -

- The scope in applying to small generators and customers is still unclear.
- There is still some confusion in scope in applying to existing plant where capabilities are only introduced by RfG or DCC for new.
- Unclear requirements on data provision and communications – potentially requiring a redundant data communications down to all 1MW generators.

Emergency & Restoration Code

In July, ACER confirmed that the ER code was in line with the Framework Guidelines on Electricity System Operation, and its objectives, and has recommended its adoption by the Commission. It has moved into the comitology process, formed part of the Commission's discussions with the DSO Associations on the system operation codes on 18 January 2016.

ACER has nevertheless identified a few areas in which the ER code could benefit from improvements, namely in the level of harmonisation of market interactions provisions, the roles for regional security coordination bodies, treatment of Energy Storage, consistency and coherency with the interrelated network codes, process of national scrutiny and clarity in certain provisions in the code and its supporting document. But ACER is content for these issues to be addressed in comitology.

Main issue for DNOs in relation to ER NC are –

- Still some confusion about the need for redundant communications; and
- Reconnection of generation (and demand) post faults or widespread outages likely to be resolved as part of RfG implementation.

Market Codes

Electricity Balancing Code

In July, ACER recommended the Commission adopt the Balancing Code, but proposed that before the adoption the code needed to be significantly amended to meet challenges related to the harmonisation and integration of electricity balancing market, but also to improve the clarity and enforceability. So the Code is effectively on hold until early 2016.

An area of potentially significant concern for ENA DNO members is the recommendation from ACER that the code “explicitly defines the length of a harmonised imbalance settlement period” and states that “a harmonised duration equal to 15 minutes is a natural choice for the imbalance settlement period, since 30 minutes is currently used by 3 Member States, whereas 15 minutes is used by 8 Member States”.

.ENTSO-E, with Frontier Economics, has undertaken a consultation to support a cost benefit analysis of a range of possible settlement time options. The deadline for comments was the 14 January 2016. A CBA report is expected to be published in March.

If GB has to move to 15 minutes, this could have a significant impact on DNOs settlement data and metering. There is no proposal for a GB wide submission, but COG members have been invited to submit individually.

Elecon hosted a GB information Day on 16 November and has provided data assumptions. NGET, Elecon and Ofgem have agreed to pull together the ‘counter factual’ ie status quo information for the GB market.

ENA is also actively monitoring developments on the ISP via GEODE and EURELECTRIC, who are represented on the Balancing Stakeholder Group. It must be clearly demonstrated that the benefits of harmonisation will outweigh the costs.

Capacity Allocation and Congestion Management Code

Now law.

Primarily concerned with identifying cross border and inter system capacity.

Forward Capacity Allocation Code

Pending comitology.

Primarily concerned with identifying cross border and inter system capacity