

Grid Code Review Panel
GC0048: Set-up of Joint Grid Code / Distribution Code Workgroup to
Progress National Application / Implementation of the Requirements for
Generators European Network Code

Date Raised: 20 Nov 2013

GCRP Ref: pp13/66

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Summary

The Requirements for Generators (RfG) European Network Code is targeted by the European Commission to complete comitology, the process by which it will be written into European law, in Q1 2014. It will then take precedence over GB law and associated Industry Codes.

The establishment of a joint GCRP/DCRP Workgroup is required to progress national application/implementation of RfG including necessary code changes. There are complex structural issues (see appendix A) to consider in incorporating RfG into the GB codes. It is therefore proposed to set-up this Workgroup without delay and in advance of the completion of comitology. This will provide as much leadtime as possible for compliance and modifications to specifications and equipment.

Users Affected

High

Generators: The proposed RfG requirements are broadly consistent with those in the existing GB codes for Large Generators but also apply to Smaller Generators than is currently the case. RfG applies to new generators but there is also the potential for limited retrospective application to existing parties where a positive cost benefit can be demonstrated.

Transmission System Operators, Distribution Network Operators: definition of Connection Conditions for Generators and Compliance requirements, management of code issues.

Medium

Other industry Stakeholders; but Generators will be the main parties to be affected

Description & Background

The European Network Codes are a requirement of the 3rd Energy Package which was adopted in July 2009 and has been in GB law since March 2011. Nine Network Codes are currently being developed with three of these in particular defining the technical requirements upon connectees to Transmission and Distribution systems and hence impacting the Grid and Distribution Codes:

- Requirements for Generators (RfG) – which sets functional requirements that new generators connecting to the network (both distribution and transmission) will need to meet, as well as responsibilities on TSOs and DNOs.
- Demand Connection (DCC) – which sets functional requirements for new demand Users and Distribution Network connections to the Transmission System and includes Demand Side Response capabilities, as well as responsibilities on TSOs and DNOs.
- HVDC – which sets functional requirements for HVDC connections including offshore HVDC networks which connect Offshore generation schemes.

As these codes become European law, national application/implementation will be

required to align existing national codes and legislation with the European Codes. There are also a large number of parameters within each of the codes that need to be defined on a national basis, and in addition a set of future compliance requirements.

The timescales for compliance are set out identically in each of the codes as three years from their entry into force. They will be applicable to all new equipment, defined as that which is not connected to the system two years after the European Network Code is enacted, or for projects in construction which have not let contracts for major plant items at this point.

Proposed Solution

Establish a joint Workgroup reporting to the GCRP and DCRP. This will allow the national application process to be progressed, including the structure of the code, determination of parameters and corresponding code changes. In advance of completion of the comitology phase, it will also facilitate the consideration of alternative code structures to decide how best to achieve a final aligned solution. This element is considered critical to maximise the time available for compliance bearing in mind the volume of work that needs to be undertaken between now and final implementation. It is also believed that the process adopted for implementation of RfG will prove valuable for implementing the Demand Connection and HVDC Codes.

There is precedent for setting up a joint Workgroup in this way for an issue that will affect both the Grid and Distribution Codes. It is considered that since European Law will apply to both codes equally, and some of the structural options will also apply across both codes, carrying this out jointly in the first instance will be more efficient.

Assessment against Grid Code Objectives

The objectives of the 3rd Energy Package are to develop a more harmonised European energy market and in doing this facilitate a move to more renewable energy sources while ensuring security of supply and enhancing competition.

Each of the points below is covered by this.

[Will the proposed changes to the Grid Code better facilitate any of the Grid Code Objectives:]

(i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;

As above

(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);

As above

(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; and

As above

(iv) 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.

As above

Impact & Assessment

Impact on the National Electricity Transmission System (NETS)

Impacted by the National choices selected under the RfG code.

Impact on Greenhouse Gas Emissions

In helping to enable the 3rd package objective of a move to renewable energy sources this will have a positive impact.

Impact on core industry documents

The RfG code mainly impacts the Grid and Distribution Codes; changes to other core industry documents such as the BSC, CUSC or STC are possible and are certain across the broader range of ENC's.

Impact on other industry documents

Potential to impact the STC and Connection Agreements.

Supporting Documentation

Have you attached any supporting documentation YES

If Yes, please provide the title of the attachment: Draft Terms of Reference

Recommendation

The Grid Code Review Panel is invited to:

Progress this issue to a Workgroup for further analysis and discussion

Document Guidance

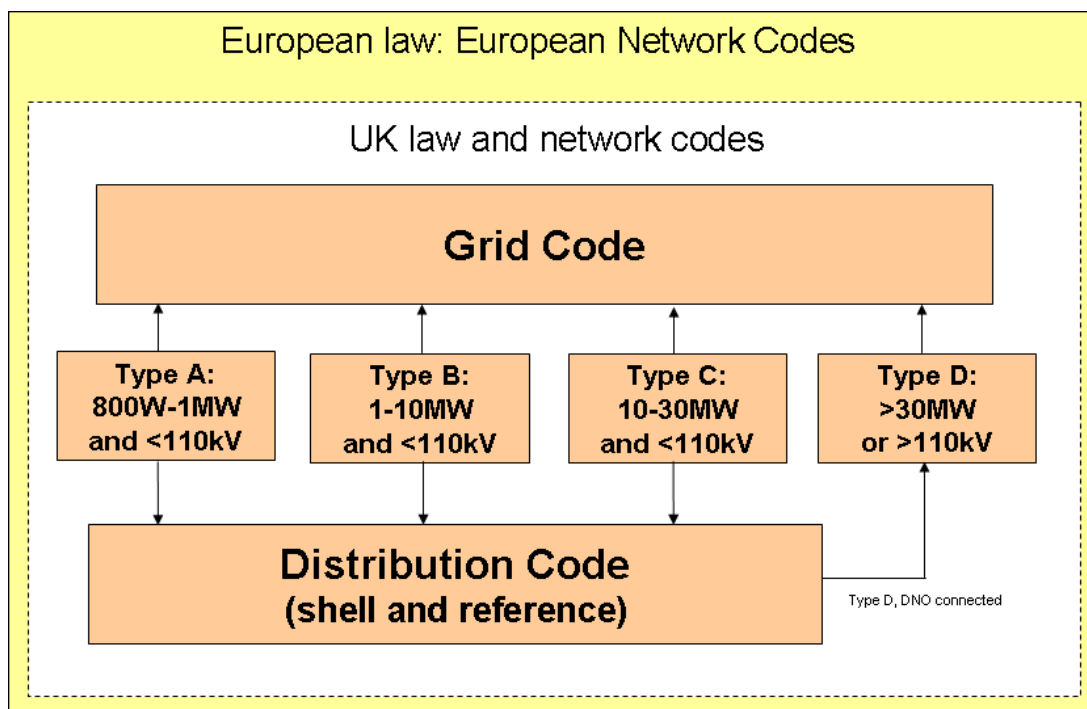
This proforma is used to raise an issue at the Grid Code Review Panel, as well as providing an initial assessment. An issue can be anything that a party would like to raise and does not have to result in a modification to the Grid Code or creation of a Working Group.

Guidance has been provided in square brackets within the document but please contact National Grid, The Code Administrator, with any questions or queries about the proforma at grid.code@nationalgrid.com.

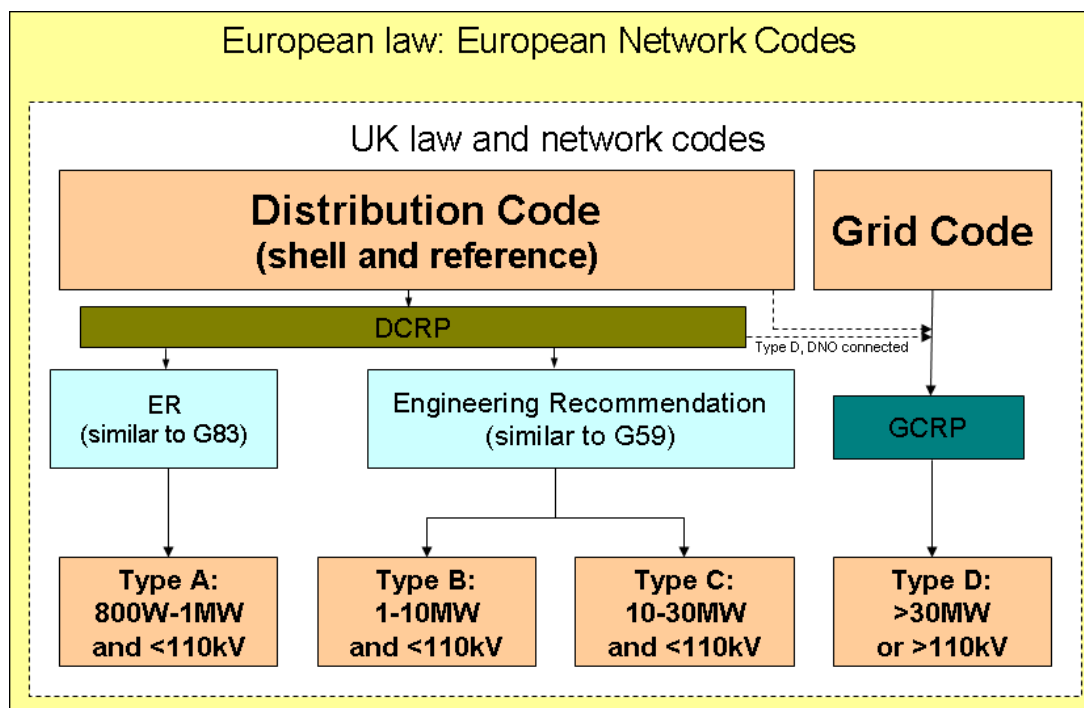
Appendix A:

Code Structure Options; these options are very much just those that have been considered to date. There are other possibilities either entirely or as a combination of those given. This appendix is included to inform only and does not in any way pre-judge the findings of the Workgroup.

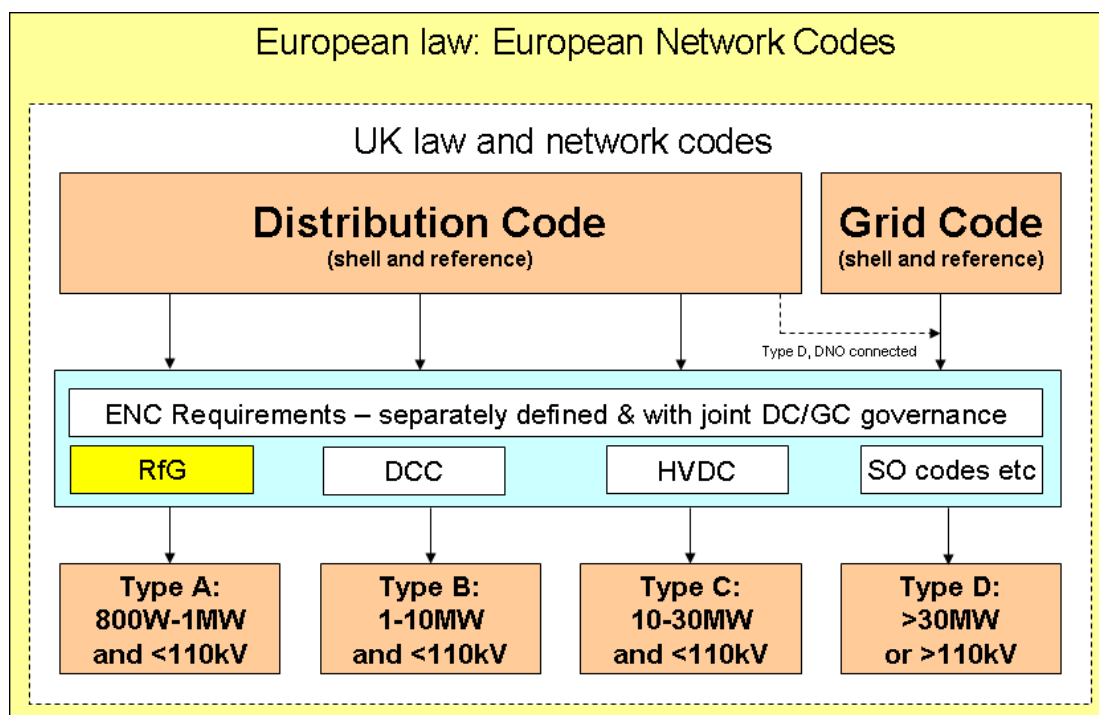
Option 1 – Place all requirements in Grid Code



Option 2 - Place Type A - C requirements in D Code / ER and Type D in Grid Code



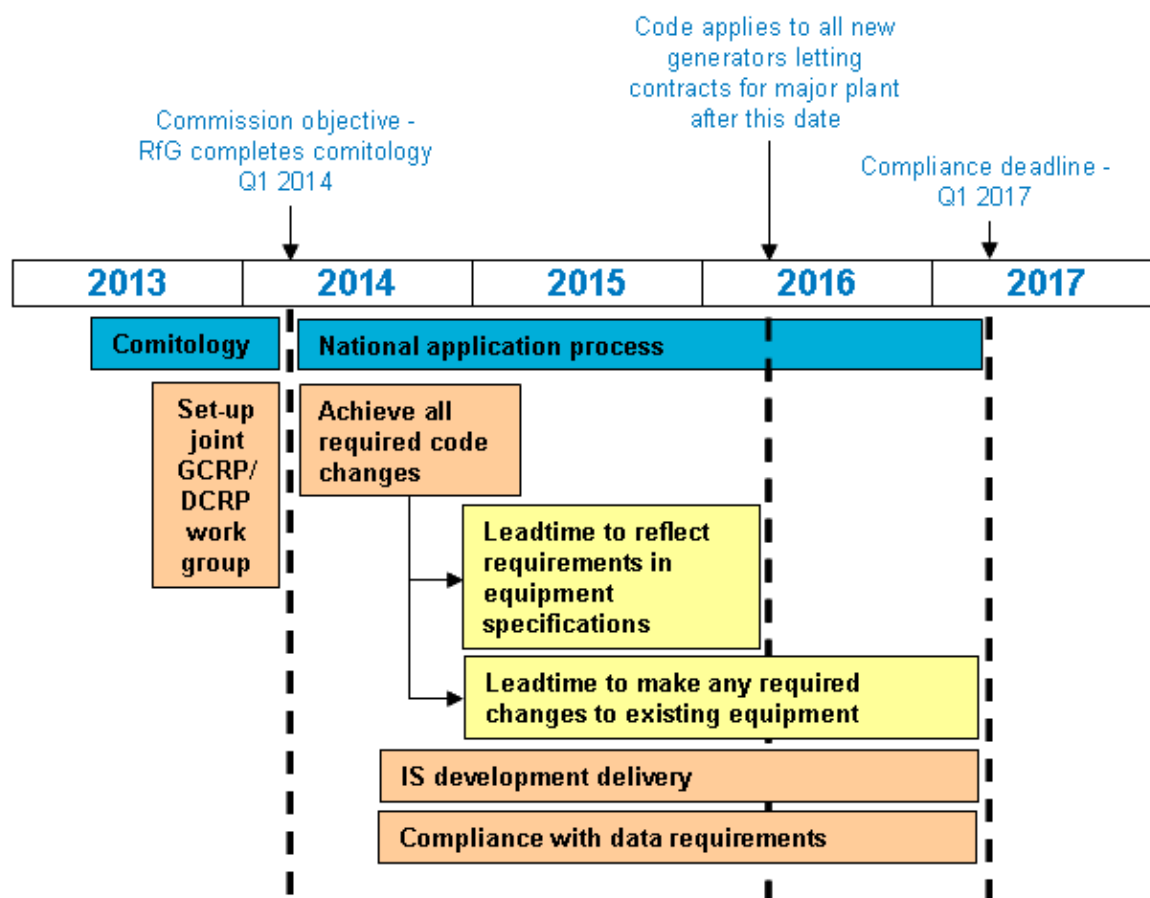
Option 3 - Place Type A - D requirements in ER; GC / DC operate as a Shell / Reference



Summary of Pros/Cons for Implementation Options

Issue	Approach		
	Option I: Place all Requirements in GC	Option II: Place Type A - C requirements in DC / ERs, Type D stays in GC	Option III: Place all Type A - D requirements in ERs; GC / DC operate as Shells / Reference
Ease of use - users	Small generators have to refer to GC with high costs and admin	Clarity of which doc applies to which party will be OK	Probably easier for users
Ease of use - TSO/DNOs	DNOs need to refer to GC	Little change to current	Harder - as multiple docs to maintain and coordinate
Number of documents	Single document - and removes need for DC references	Small number of users (type D, DNO connected) would need to refer to both DC/GC	Multiple documents but does keep all users in either DC or GC
Retains existing codes structure	Yes, but GC becomes more cumbersome through extension to more users	Yes	No. Fundamental changes and multiple documents
Retains contractual structure	Increases complexity for D-connected gens	Yes	Makes it simpler in principle
Applicable to other ENCs	Yes, straightforward although multiple changes will be reqd	Yes, really as is	Yes, and can build in more annexes to DC/GC 'shells' fairly simply
DNO/SO/TO interactions require examination	Yes - to cover D-connected users	Yes - but requirements should cascade fairly neatly	Interactions probably straightforward and covered in DC/GC 'shells'
Removes regional differences with Scotland	Yes	Yes	Yes

Timeline of Code Implementation and Compliance Requirements



Terms of Reference:

GC0048: Application / Implementation of the Requirements for Generators European Network Code - Joint Grid Code / Distribution Code Workgroup

DRAFT

For consideration by the Grid Code and Distribution Code Review Panels

Background

1. European Network Codes (ENCs) include network codes and similar instruments prepared under Article 6 of Regulation (EC) No 714/2009, and are expected to be implemented as a supplementing regulation in Annex I of Regulation (EC) No 714/2009.
2. The Requirements for Generators (RfG) European Network Code sets functional requirements for new generators connecting to the network (both Distribution and Transmission), as well as responsibilities on TSOs and DNOs.

Scope

3. The role of this Workgroup is to progress the GB application / implementation of RfG. This will include:
 - (i) Consideration of alternative code structures to achieve the best aligned solution for incorporation of RfG into the GB code structure, bearing in mind the need for the code structures to facilitate the incorporation of other European Network Codes, and make recommendations to the GCRP and DCRP.
 - (ii) Develop an activity plan and timeline for drafting and obtaining approval for the changes to the existing codes.
 - (i) Draft changes to the GB Grid and Distribution Codes (including any Engineering Recommendations) resulting from the need to align these with the ENC RfG.
 - (ii) Determining of national parameters within the ENC RfG and application of these where required to the GB Grid and Distribution Codes.
 - (iii) Obtain approval for the changes to the existing GB codes and the national parameters from GCRP, DCRP and, where appropriate, the Authority.
 - (iv) Consider how to extend the work undertaken on RfG to the Demand Connection and HVDC European Network Codes which deal similarly with the technical requirements placed upon two further categories of equipment connected to the system.

Timescales

4. The RfG code is targeted by the European Commission to complete comitology in Q1 2014. The code will apply to 'new' generators, defined as those not currently connected to the system and which have not let contracts for major plant items by two years after RfG's entry into force. Compliance of 'new' generators will be required by the later of connection or three years from the code's entry into force.
5. It is timely for this Workgroup to be set-up. Particularly for smaller generators, their limited design and order leadtimes will mean that 'new' generators to whom the code will apply will connect from 2017 onwards. The need to make timely investment and design decisions means that the outcome of the national application process is required as soon as possible. There are also complex structural questions of how to accommodate the requirements of RfG within the GB codes to address which must be started ahead of the completion of comitology to avoid diminishing the time available for compliance.
6. It is aimed to establish this Workgroup by early 2014 in order to maximise the time available to achieve compliance. Under the remit set out in these ToRs, the Workgroup will not continue beyond the end of the RfG compliance period.

Governance

7. The Workgroup is to be set up jointly under the governance of the Grid Code and Distribution Code Review Panels (GCRP and DCRP).
8. Reporting lines for the Workgroup are to the GCRP and DCRP. For the purposes of information exchange only a reporting line will also be established to the European Code

Coordination Application Forum (ECCAF) which is a joint standing group of the GB Code Panels with an advisory role to coordinate work on ENC's.

Deliverables

9. Deliverables will include:

- (i) A recommendation for approval by the GCRP and DCRP on the future structure of the GB codes as applicable to RfG.
- (ii) Recommendations for approval by the GCRP and DCRP re the necessary modification proposals to the GB Grid and Distribution Codes and associated Engineering Recommendations resulting from the need to align these with the ENC RfG.
- (iii) Recommendations for approval by the GCRP and DCRP of the national parameters within the ENC RfG and application of these where required to the GB Grid and Distribution Codes.
- (iv) A high level plan to progress those issues where retrospective application is proposed.
- (v) A high level plan to achieve these objectives leading to compliance with the code by the end of the period set out.

Membership

10. The Workgroup shall comprise a suitable and appropriate cross-section of experience and expertise from across the industry taking in representatives from the GCRP and DCRP. The membership shall include:

Name	Position	Representing
R Wilson	Chair	National Grid
	Representative	GCRP
	Representative	DCRP
	Technical Secretary	National Grid
A Johnson	National Grid Representative	National Grid
	Industry Representative	Interested Industry Representatives
	Authority Representative	Ofgem

11. Since the work will affect all sizes of generators connected to both the Transmission and Distribution System it is expected that the group will include members to represent the interests of all of these generators.

Administration

- 12. The frequency of Workgroup meetings shall be defined as necessary by the Workgroup chair to meet the scope and objectives of the work being undertaken at that time.
- 13. National Grid will provide technical secretary resource to the Workgroup and handle administrative arrangements such as venue, agenda and minutes.
- 14. The Workgroup will have a dedicated section on the National Grid website, GCRP and DCRP websites as appropriate to make information such as minutes, papers and presentations available to a wider audience.
- 15. The Workgroup will meet in person, but may decide to hold meetings by teleconference with agreement of the Chair and a majority of the membership. Meetings will be held as required but are likely to be at least monthly in the first instance subject to review.

16. As the work progresses it may be necessary for the Workgroup to establish subgroups to consider specific issues in further detail. These subgroups will report to the Workgroup directly and membership will be sought from relevant technical experts.
17. It is anticipated that this Workgroup will provide updates to the GCRP and DCRP as appropriate and on conclusion will present a Workgroup Report and / or Interim Workgroup Reports as appropriate to the GCRP and DCRP.