

Distribution Code Review Panel

Meeting 61 – Thursday 8 September 2016

Grid Code Update

Paper by Secretary

Summary

- This paper summarises the key Distribution Code related issues from the quarterly meeting of GCRP held 20 July 2016.
- Main area of interest relates to paper 49 attached which has a potential unfunded implementation cost per DNO in excess of £5m.
- Other items of note to interested parties are the progression reports for EU code implementation; paper 50 and 51 both attached.

Items of Note and Actions

- **Governance** – the next meeting will see an independent chair appointed as NG implement full open governance recommendations – chair TBC but it may be the NG administrator team if one is not appointed in time.
- **NG statement on EU referendum** – statement attached paper 44. Essentially NG see membership of the Integrated Energy Market as efficient for the UK and hence are continuing on the necessary code implementation work.
- **Relevant Electrical Standards (RES) update**
 - The proposal to extend RES to 132kV system in England and Wales was not approved at DCRP and this was fed back to GCRP with a recommendation to undertake this work post implementation of the EU codes.
 - Working group has received feedback from DNOs on interface issues (interlocking and protection grading) and will progress actions.
- **Paper 49 and presentation attached** – NG (Mark Krajniewski Wokingham team) have identified that at certain times loss of demand may cause a high frequency event which cannot be adequately controlled by the current commercial markets for high speed response. They are therefore seeking an OC6 equivalent for emergency disconnection of distributed generation (DG) by the DNO on instruction from NG. The paper is confused and also talks about emergency disconnection for local transmission constraints which could be caused for example by the failure of an Active Network Management (ANM) scheme. Whilst NG arguably have powers to issues emergency instructions now under the GC OC6 it is not clear these relate to DG and hence are potentially not sufficient to allow the DNO to disconnect DG.

It is important to separate three distinct drivers for DG disconnection:

 - Disconnection or curtailment under automatic means (including ANM) as part of a connection requirement to balance the local distribution or transmission network.
 - Disconnection or curtailment to balance the local network following failure of ANM or Intertripping
 - Disconnection or curtailment to stabilise system frequency

This whilst simple in principle is extremely technically complex and will require some detailed thinking through. DCRP may need a group to consider this alongside ENA ANM and DSO thinking. These issues would include for example:

- If ANM is active and holding off DG, then if DG were tripped under emergency, unless constrained the ANM would counteract the effect by lifting the constraint on the DG not tripped thus having a net sum zero effect.
- If the system were used frequently the same DG operators would be impacted frequently. Does it therefore need an ESEC equivalent?
- If a current market participant of BS is active in a DNO area how does the DNO know and this can be material if the DNO is relying on a component of DG contribution in its P2 compliance assessment.
- **GC 0079 Frequency Changes during large disturbances.**
 - This has two phases; the first (phase 1) has required DNOs to mandate DG customers operating sites over 5MW to change RoCoF relay settings. As per previous DCRP this is driving a deal of interaction with the Ofgem technical team. Phase 2 covers DG >5MW but < 1MW and therefore a very much larger population of DG customers.
 - The paper to commence roll out of phase 2 was not approved at DCRP as it was not clear how this second phase could be implemented. GC Working Group asked to consider this point and report back to next meeting.
- **Consultation / responses**
 - RfG Banding threshold consultation under EU code work group – this shows the high threshold was favoured by the majority of respondents and NG are now to publish a CBA for the three options offered.
 - Sub-synchronous resonance approved and will progress to the authority following a final panel review.
 - NISM (Notification of Inadequate System Margin) naming – DECC request to change the name to reduce media anxiety. Consultation out for response I don't recommend we respond to this.

Grid Code Issue Paper

Paper Ref: pp16/49

Date Raised: 06/07/2016

[For circulation to the Grid Code Review Panel](#)

Raised by Mark Krajniewski on behalf of NGET

Emergency Disconnection of Embedded Generation

Before submitting this paper, did you present this issue to the
[Grid Code Development Forum?](#)

No ☐ Yes ☒ X [Please provide details of any outcomes below]

The June 2016 GCDF agreed the requirements for Emergency Disconnection of Embedded Generation should be codified in the Grid Code.

GCDF is a periodic meeting where stakeholders can discuss any Grid Code-related technical issues. It gives stakeholders the opportunity to fully understand their issues before raising them to the Panel.

Click the link above for more info, including dates.

[<<PANEL RECOMMENDATION>>](#)

What would you like the GCRP/DCRP to do? (Mark the appropriate box)

Note the issue for information only	
Consider the issue and provide guidance	
Further investigate this issue at a one-off workshop <i>[Please consider GCDF if answered 'no' for question above]</i>	
Approve this issue for a workgroup for further analysis and form solutions <i>[Please consider workgroup Terms of Reference and attendance at workgroup]</i>	X
Progress this issue straight to Industry Consultation <i>[Please contact the code administrator before proceeding (see details at the bottom)]</i>	

[<<DEFINE>>](#)

Please describe your issue...

The increase in volumes of distributed generation has increased the operational challenges of maintaining the security and stability of the Transmission System to the extent that under extreme conditions (high solar, high wind and low demand) there is a risk that NGET as System Operator will not be able to operate the NETS within SQSS standards. This issue can potentially lead to tripping off of assets and uncontrolled disconnections impacting generators, customers and end consumers.

These issues are normally managed by accepting Bids in the Balancing Mechanism, however in some areas of the network there are insufficient parties participating in the BM to allow sufficient actions. Not all wind generators participate in the BM and none of the solar generators participate and this also means that they are not able to provide voltage control, and renewable generation typically provides little system inertia. The majority of the larger conventional generators do participate in the BM but these also provide other services such as inertia and voltage control and it is not always possible to bid all of this generation off due to the need for these other services.

Grid Code Issue Paper

Paper Ref: pp16/49

Date Raised: 06/07/2016

NGET have endeavoured to make commercial arrangements with generators to avoid issuing Emergency Instructions, some have agreed bilateral trading agreements and some participate in the Power Responsive and Demand Turn Up services, but there is still a risk that insufficient commercial actions will be available under these extreme circumstances and Emergency Instructions will be the only option available.

NGET already has the ability under BC2.9 to issue emergency instructions '*in order to preserve the integrity of the **National Electricity Transmission System** and any synchronously connected **External System***' and BC2.9.1.2(b) specifically states '*the need to maintain adequate **System** and **Localised NRAPM***' as an example of the need for Emergency Instructions. NRAPM conditions have been notified 19 times since 2013 and Emergency Instructions issued on 9 of these occasions. The risk of NRAPM conditions are published on the National Grid website and all Emergency Instructions are notified via BMRS.

However, there are no details specified of the need for DNOs to have the ability to disconnect embedded generation or the time scales in which they must do this. OC6 provides detailed arrangements for reducing demand but no such detailed arrangements have been specified for reducing embedded generation.

Which Grid/Distribution Code clause/section is relevant for this issue?

BC2.9 EMERGENCY CIRCUMSTANCES
OC6

Please describe your proposed solution...

Provision needs to be added to the Grid Code to require 'Network Operators' to have the ability to disconnect embedded generation when requested by Emergency Instruction from NGET. It should also specify how, and in what timescales, the reduction should be achieved.

In the absence of Grid Code provisions NGET have agreed bilateral arrangements with DNOs to avoid delaying the connection of new embedded generation. Inclusion of these provisions in the Grid Code would prescribe standard arrangements to avoid the need to bilateral arrangements.

Grid Code Issue Paper

Paper Ref: pp16/49

Date Raised: 06/07/2016

How has this issue originated?	
An affected party has identified a Grid Code defect	X
An affected party wishes to provide information to the Panel	
An affected party has identified a Grid Code procedural inefficiency	X
An affected party needs clarity	
As a consequence of Significant Code Review (initiated by the Regulatory Authority)	
As a consequence of a licence or legislative change (including European Law)	
Other:	

<<ASSESS>>

How are the Grid Code and Distribution Code objectives better achieved by resolving this issue?
Economic & Efficient Development: (i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity
Capability of the DNOs to disconnect generation upon NGET's emergency instruction would lead to a more efficient and co-ordinated operation of the transmission of electricity.
Competition: (ii) to facilitate competition in the generation and supply of electricity ... (on terms which neither prevent nor restrict competition in the supply or generation of electricity)
NA
System Security: (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;
Capability to disconnect distribution generation by the DNOs would help maintain the security and stability of the transmission as well as the distribution network.
Licence Obligations: (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
NA

<<IMPACT>>

To what extent are industry stakeholders affected by this issue?	
Developers/Operators of all generation units	Medium
National Electricity Transmission System Operator (NETSO)	High
Transmission Owners (incl OFTOs & Interconnectors)	Medium
Distribution Network Operators	High
Suppliers	Low

Grid Code Issue Paper

Paper Ref: Date Raised:

Aggregators	Low
Demand Customers (including Response providers)	Low
Manufacturers	NA
Regulator	NA
Other: None identified	

Is there a positive impact on greenhouse gas emissions by resolving this issue?

No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	[Please provide details below]
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Another primary objective of the Third Energy Package and the EU Network codes is to better facilitate the connection of renewable generation.

Is there any impact on industry codes or documents?

CUSC	<input checked="" type="checkbox"/>	STC	<input type="checkbox"/>	BSC	<input type="checkbox"/>
SQSS	<input type="checkbox"/>	Distribution Code	<input checked="" type="checkbox"/>	DCUSA	<input type="checkbox"/>
Other Industry Documents		<input type="checkbox"/>	[Please provide details below]		

Is there a time limitation for this issue?

No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	[Please provide details below]
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Have you attached any supporting documentation?

No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	[Please provide details/attach files below]
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Document Guidance

This template 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.

Grid Code Issue Papers for consideration at the next scheduled Grid Code Panel meeting (GCRP), must be submitted THREE weeks in advance [\[GCRP dates\]](#)

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

An overview of the Grid Code modification process can be found here:

Grid Code Issue Paper

Paper Ref:

pp16/49

Date Raised:

06/07/2016

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=28959>

Date	01/07/2016
Originator	FR
Version	1.0
Frequency	Monthly

Grid Code Progress Tracker

Code Modification	Summary	Proposer	Owner	Stages								
				Mod raised at GCRP	Workgroup	Draft Rep to GCRP	Industry Consultation	Report to Authority	Ofgem Decision	Implementation date	Implementation Plan	Duration of Open Mods (Months)
GC0048 ENC - RfG	The Requirements for Generators (RfG) European Network Code, once complete will become EU law and 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 to consider in incorporating RfG into the GB codes.	NG	Rob W	18/09/2013	28/01/2014		04/04/2016					30
GC0062 Fault Ride Through	The Grid Code sets out the requirements applicable to Generators and DC Convertors to remain connected to the Transmission System for long duration voltage dips (ie longer than 140ms) and resume the export of Active Power as system voltage recovers. The issue is currently being investigated at a series of workshops	NG	Graham S	16/01/2012	03/12/2013	20/01/2016	08/02/2016	27/04/2016				31
GC0079 Frequency Changes during large disturbances and their effect on the total system	As a result of the work carried out by the Frequency Response Technical Subgroup, report published in December 2011, the maximum rate of change of frequency (RoCoF) settings need consideration in the context of the loss of mains protection deployed on embedded generation. Phase 1 (GC0035) looked at generators of over 5MW in size; phase 2 is looking at sub 5MW generators.	NG	Graham S		22/06/2014	15/07/2016	15/08/2016	15/10/2016				25
GC0077 Suppression of Sub-Synchronous Resonance from Series Capacitive Compensation	It is proposed that the Grid Code is changed to provide clarity that Transmission Licensees installing Series Capacitive Compensation devices or HVDC Convertors will ensure that Sub-synchronous Resonance and Sub-synchronous Torsional Interaction risks are appropriately mitigated.	NG	Graham S	18/09/2013			11/04/2016	15/07/2016				NA
GC0086 Open Governance	At the July 2014 GCRP meeting, the panel agreed to establish a workgroup to consider the application of open governance principles to the Grid Code, similarly to those employed by the CUSC. This would include proposer ownership, an independent chair, workgroup timescales, self-governance/fast-track/urgency, GCRP panel membership and voting, election process and set-up of an advisory forum	Customer / NG	Alex T	18/07/2014	10/09/2014		28/09/2015	17/03/2016	14/04/2016			22
GC0087 Requirements for Generators Frequency Provisions	A number of additional issues relating to Grid Code requirements were highlighted in the Frequency Response workgroup which remain outstanding. These included the suppression of the inertial effect of synchronous generators, the provisions of frequency response by generators at low loads and the provisions of frequency response from on-site sources other than generators.	NG	Graham S	20/05/2015	02/07/2015		31/01/2017	01/04/2017				12

GC0036 Review of Harmonics Assessment Standards and Processes	The Review of Harmonics Assessment Standards and Processes Workgroup was established to examine and make recommendations to review the standards and processes employed by electricity transmission and distribution network owners to assess harmonics and, in particular, produce a report describing any changes that are considered necessary to Engineering Recommendation G5/4-1 (Planning Levels for harmonic Voltage Distortion and the Connection of Non-Linear Equipment to Transmission Systems and Distribution Networks in the UK).	NG	Mark P	17/09/2009	01/11/2015							8
GC0090 HVDC ENC	High Voltage Direct Current (HVDC) is the next of the three European Network Codes for grid connections after RfG expected to conclude drafting ('Comitology') and EU member state voting. Its focus is setting consistent functional requirements for HVDC connections, including offshore HVDC networks, which connect Offshore generation schemes.	NG	Richard W	15/07/2015	18/09/2015			31/06/2017				10
GC0091 DCC ENC	Demand Connection Code (DCC) is the last of the three European Network Codes for grid connections after RfG and HVDC. It is expected to conclude drafting process and EU Member State voting in October 2015. This code sets consistent technical conditions for new demand connections to transmission systems. Consumers need to also be aware that it sets out requirements for optional demand side response services. It applies to new transmission connected demand facilities or distribution networks and to new providers of demand side response.	NG	Franklin R	15/07/2015	20/11/2015		15/06/2017	31/07/2017				8
GC0092 Using National Grid Network Models for Long Term Planning	This proposal seeks to modify the Grid Code to allow Distribution Network Operators (DNOs) to use National Electricity Transmission Study Network Data Files shared under OC2 for planning as well as operational purposes.	NG	Franklin R				15/04/2016	30/06/2016				NA
GC0095 Transmission System Operation Guideline Implementation	The EU Transmission System Operation Guideline aims to promote system security by determining common principles for system operation and fostering increased operational collaboration on a regional and European basis.	NG	Honor H	18/05/2016	11/07/2016							
GC0075 Hybrid Static Compensators	Power Park Module developers have been installing Hybrid STATCOM / SVC's, which provide a portion (typically 50% to 75%) of their reactive capability from switched reactors and capacitors. Some of these devices have restrictions preventing repeated switching in a short period which can be seen as inconsistent with the concept of "continuously-acting" control which is required by the Grid Code. Interested parties believe clarification is required of the Grid Code requirements on these devices and that it would be beneficial to form a Workgroup to develop proposals for clearer and more appropriate requirements on Hybrid STATCOM / SVC performance.	NG	Graham S	20/11/2013	15/05/2014	15/07/2015	20/01/2016	05/04/2016	10/05/2016	24/05/2016		26
GC0076 Rapid Voltage Changes	The Grid Code sets out criteria relating to Voltage Fluctuations at a Point of Common Coupling within CC.6.1.7. These include references to step changes, voltage excursions and a cross reference to Engineering Recommendation P28 for the transmission system in Scotland. The current text can be misinterpreted and would ideally be modified for the sake of clarity.	NG	Graham S	19/05/2011		20/05/2015	17/02/2015	13/07/2015	13/08/2015	26/08/2015		NA
GC0023 Protection Fault Clearance Times and Back-up Protection	This modification addresses two protection issues which were first brought to the attention of the GCRP in 2008. The first issue refers to clarification of the wording associated with fault clearance times in CC.6.2.2.2(a) and CC.6.2.3.1.1(a). The second relates to provision of Generator Back-Up Protection defined within CC.6.2.2.2(b) and co-ordination with NG backup protection.	NG	Franklin R	19/03/2015			25/08/2015	01/12/2015	20/01/2016	03/02/2016		NA

GC0088 Voltage Unbalance	The Grid Code sets limits for negative phase sequence (NPS) on the transmission networks of 2% in Scotland and 1% in England and Wales. NPS levels in E&W are now such that this is very close to driving major investment decisions. This issue is to examine the costs, risks and benefits of changing the Grid Code voltage unbalance limits to single GB values of 1.5% for 400kV and 275kV and 2% for 132kV.	NG	Graham S	19/11/2014			30/07/2015	18/11/2015	07/01/2016	03/02/2016		NA
GC0028 Constant Terminal Voltage	A number of generators seeking connection to and use of the NETS have expressed concern over National Grid's interpretation of "constant terminal voltage control" as referred to within CC.6.3.8 together with the requirements of CC.6.3.4.	NG	Franklin R	19/11/2009	29/01/2014	20/05/2015	13/07/2015	25/11/2015	15/01/2016	03/02/2016		30

Workgroups		Proposer	Owner	Stages								
				Mod raised at GCRP	Workgroup	Draft Rep to GCRP	Industry Consultation	Report to Authority	Ofgem Decision	Implementation date	Implementation Plan	Duration of Open Mods (Months)
GC0064 Revision of Engineering Recommendation P28	Electricity North West has proposed that a review of ER P28 'Planning Limits for Voltage Fluctuations Caused by Industrial, Commercial and Domestic Equipment in the United Kingdom' should be performed. ERP28 deals with the assessment of voltage fluctuations and associated light flicker produced by potentially disturbing equipment. ER P28 is referenced in both the Grid and Distribution Codes.	NG	Graham S	20/11/2012								NA

Stage Complete



On Track

At Risk
No mitigation plan

Electricity European Network Codes & Guidelines Summary

1 July 2016

Grid Connection Codes

	Requirements for Generators (RfG) Regulation (EU) 2016/631	Demand Connection Code (DCC)	High-voltage Direct Current (HVDC)
What does it cover?	The regulation will set, or lays down a process for setting, the requirements that new generators must meet to connect to the network. It also sets some requirements for existing generators in very limited cases.	The regulation will define requirements for new demand users and distribution network connections to the network.	The regulation will provide requirements for HVDC connections and offshore DC connected generation.
Who may be impacted by it?	All new generators from 800W and above connected at Transmission and Distribution voltages. A generator is considered new if it connects after 2 years after entry in to force of this regulation, unless it has let contracts for major plant before that 2 year deadline. By exception, the European Network Code can be applied retrospectively to existing generators, subject to successful cost benefit analysis and Regulatory approval.	All new 'significant demand' at Transmission and Distribution voltages. Demand is considered new if it connects after 2 years after entry in to force of this regulation, unless it let contract for major plant before that 2 year deadline. Significant demand is that providing a Demand Side Response Service, or connected to the Transmission Network. The European Network Code can be applied retrospectively to existing equipment, subject to successful cost benefit analysis and Regulatory approval.	Operators of new HVDC links, and new offshore Power Park Modules connected to the onshore Network via HVDC. The European Network Code can be applied retrospectively to existing equipment, subject to successful cost benefit analysis and Regulatory approval.
Potential GB Framework Impact¹	Changes to the Grid Code and Distribution Code were confirmed by code mapping and an implementation plan has been produced.	Code changes will be detailed through code mapping when this is completed.	Code changes will be detailed through code mapping when this is completed.
Latest Text	Final - OJEU Publication (Official Journal of the European Union)	September 2015 Commission draft. See JESG website	September 2015 Member States voted on draft. See JESG website
Network Code or Guideline	Network Code	Network Code	Network Code
Phase of development	Member States Implementation	Comitology - Awaiting European Parliament & Council Approval	Comitology - Awaiting European Parliament & Council Approval
Status Update	RfG entered into force (became law) on 17 May 2016 GB Implementation is being considered by GCRP/DCRP RfG Joint Workgroup GC0048 . For more information please contact grid.code@nationalgrid.com	DCC was adopted by Member States in Comitology on 16 October 2015 and now sits with the European Parliament and Council for approval (expected Q2 2016). GB implementation is being considered by GCRP/DCRP DCC Joint Workgroup GC0091 . For more information please contact grid.code@nationalgrid.com	HVDC was adopted by Member States in Comitology on 11 September 2015 and now sits with the European Parliament and Council for approval (expected Q2 2016). GB implementation is being considered by GCRP HVDC Workgroup GC0090 . For more information please contact grid.code@nationalgrid.com
Next Milestone	Member States Implementation / Compliance	Subject to approval by the European Parliament and Council, publication in the Official Journal of the European Union (OJEU). Entry into Force being 20 days following this publication.	Subject to approval by the European Parliament and Council, publication in the Official Journal of the European Union (OJEU). Entry into Force being 20 days following this publication.
GB Stakeholder Issues	DECC and Ofgem Stakeholder workshop Issues raised can be viewed on the JESG Website	DECC and Ofgem Stakeholder workshop Issues raised can be viewed on the JESG Website	DECC and Ofgem Stakeholder workshop Issues raised can be viewed on the JESG Website
Contacts	DECC	Ian Lomas Ian.Lomas@decc.gsi.gov.uk	Ian Lomas Ian.Lomas@decc.gsi.gov.uk
	Ofgem	Stephen Perry Stephen.Perry@ofgem.gov.uk	Stephen Perry Stephen.Perry@ofgem.gov.uk
	NGET	Robert Wilson Robert.Wilson2@nationalgrid.com	Richard Woodward Richard.Woodward@nationalgrid.com
Next Stakeholder Engagement Opportunity	Stakeholders can engage in GB implementation through GCRP/DCRP RfG Joint Workgroup GC0048	Stakeholders can engage in GB implementation through GCRP/DCRP DCC Joint Workgroup GC0091	Stakeholders can engage in GB implementation through GCRP HVDC Workgroup GC0090

¹ To implement every Regulation there will need to be an initial exercise to determine which elements apply directly, which need additional action to put in place and, where this is the case, which parts of the GB framework will need to change to achieve this. Implementation will see changes being made to interconnector access rules, charging methodologies, industry codes and licences and is likely to require legislation in a limited number of cases.

Electricity European Network Codes & Guidelines Summary

1 July 2016

Market Codes

		Capacity Allocation & Congestion Management (CACM) Regulation (EU) 2015/1222	Forward Capacity Allocation (FCA)	Electricity Balancing (EB)
What does it cover?		The regulation will lay down the rules for operating pan-European day ahead and intraday markets, and will set out the processes for determining how capacity is calculated, congestion is managed and the criteria and process for reviewing bidding zones.	The regulation will set the rules for calculating and buying capacity in forward markets (before day ahead). It also sets rules for hedging price risk between bidding zones in these markets.	The regulation will define the roles and responsibilities of TSOs and market participants in cross-border balancing. It will provide the rules for procurement and exchange of balancing energy, reservation of capacity for balancing purposes and greater harmonisation of settlement arrangements
Who may be impacted by it?		Anyone trading or wishing to trade Interconnector capacity and cross-border energy in the day ahead or intra-day timeframes. TSOs (including Interconnectors) and power exchanges. Generators and demand to provide information on which capacity allocation decisions are made on a regional basis.	Anyone trading Interconnector capacity in the forwards markets. TSOs (Interconnectors)	TSOs, DSOs, Elexon, and providers of balancing services.
Potential GB Framework Impact ¹		Stakeholders have been engaged through individual workshops and through the JESG in relation to framework impacts,	Stakeholders have been engaged through individual workshops and through the JESG in relation to framework impacts.	TBC
Latest Text		OJEU Publication (Final). See JESG website	October 2015 Adopted Version. See JESG website .	ENTSO-E final text. See JESG website ACER Recommendation (24 July 2015): link
Network Code or Guideline		Guideline	Guideline	Guideline
Phase of development		Member State Implementation	Comitology - Awaiting European Parliament & Council Approval	Comitology Preparations
Status Update		CACM entered into force (became law) on 21 August 2015. GB Implementation is considered under JESG Subgroup for CACM & FCA implementation .	FCA was adopted by Member States in Comitology on 30 October 2015 and now sits with the European Parliament and Council for approval (expected Q2 2016). GB Implementation is considered under JESG Subgroup for CACM & FCA implementation .	Subject to discussions at the cross border committee ahead of entering Comitology. Imbalance Settlement Period (ISP) article/s temporary removal from latest draft, expected to be reinstated into the next draft guideline ahead of the September 2016 cross border committee meeting.
Next Milestone		Member States Implementation / Compliance	Subject to approval by the European Parliament and Council, publication in the Official Journal of the European Union (OJEU). Entry into Force being 20 days following this publication.	Comitology
GB Stakeholder Issues		Captured in August 2014: <ul style="list-style-type: none"> Governance – decision-making, consultation, approval and review processes around methodologies, amendments (across all market codes). Clarity of drafting, roles and responsibilities, etc. (across all market codes). NEMO designation and competition. Bidding Zone reviews. Capacity calculation methodology. Cost-sharing arrangements (across all market codes). 	Captured in October 2015 <ul style="list-style-type: none"> Firmness regime. Operation of Physical Transmission Rights (PTRs) and Financial Transmission Rights. Implementation timescales. Harmonised Allocation Rules (in development as a pilot project). Single Allocation Platform (in development as a pilot project). Nomination rules Splitting of capacity between different timeframes 	Captured in January 2015 <ul style="list-style-type: none"> Proposed change to existing settlement period Nature of GB implementation Role of TSO as facilitator in TSO-TSO model Captured in January 2014 <ul style="list-style-type: none"> Delegation of balancing functions. Fit with the BSC panel function. Cost neutrality. Impact within GB and particularly on DSOs. Arrangement of CoBAs – particularly with regard to ICs. Relationship with DSR. Emergency arrangements. Development of standard products and other changes to GB practice.
Contacts	DECC	Joe Parsons (Code Implementation) joseph.parsons@decc.gsi.gov.uk	Joe Parsons (Code Implementation) joseph.parsons@decc.gsi.gov.uk	Joe Parsons (Code Implementation) joseph.parsons@decc.gsi.gov.uk
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	NGET	Rob Selbie Robert.Selbie@nationalgrid.com	Rob Selbie Robert.Selbie@nationalgrid.com	Chris Fox Christopher.Fox@nationalgrid.com
Next Stakeholder Engagement Opportunity		Monthly JESG Subgroup for CACM & FCA implementation	Monthly JESG Subgroup for CACM & FCA implementation	GB Balancing Stakeholder Focus Group (BSFG) which meets quarterly. Please email europencodes.electricity@nationalgrid.com for further information.

Electricity European Network Codes & Guidelines Summary

1 July 2016

System Operation Codes

Transmission System Operation Guideline (TSOG) (Previously Operational Security-OS, Operational Planning and Scheduling-OPS and Load Frequency Control & Reserves-LFCR)		Emergency & Restoration (ER)
What does it cover?	The purpose of the regulation will be to; <ul style="list-style-type: none"> Retain (or return to) a normal grid state. Set common rules for ensuring the operational security of the pan-European power system. Focus on the planning phase ahead of real time. Set requirements for assessing the adequacy and operational security of the interconnected power system and for planning outages required by TSO's and grid users when they have cross borders impacts on power flows. Force on frequency quality criteria. Provide for the coordination and technical specification of load frequency control processes and specifies the levels of reserves (backup) which TSOs need to hold and specifies where they need to be held. 	The regulation will deal with the procedures and remedial actions to be applied in the Emergency, Blackout and Restoration states.
Who may be impact by it?	<ul style="list-style-type: none"> All generators > 1MW Transmission Connected Demand Facilitates Significant Demand Facilities, Closed Distribution Networks and Aggregators if they provide Demand Side Response Services to the TSO according to the DCC Redispatching Aggregators and Providers of Active Power Reserves according to LFCR TSOs, Reserve Connecting DSOs and Reserve Providers 	All generators > 1MW <ul style="list-style-type: none"> Transmission Connected Demand Facilitates Significant Demand Facilities, Closed Distribution Networks and Aggregators if they provide Demand Side Response Services to the TSO according to the DCC Redispatching Aggregators and Providers of Active Power Reserves according to LFCR HVDC Systems and DC-connected Power Park Modules Type A (800W-1MW) Power Generating Modules if they qualify as a Defence Provider and/or Restoration Provider
Potential GB Framework Impact¹	Potential impact on the Grid Code and SQSS	Potential impact on the Grid Code
Latest Text	Latest version of the Transmission System Operator Guideline was released to Member States on 22 April 2016. See JESG website	Latest version of the network code was released to Member States on 22 April 2016. See JESG website
Network Code or Guideline	Guideline	Being drafted as a European Network Code, but potential to become a Guideline
Phase of development	European Parliament and Council	Comitology
Status Update	Adopted by Member States awaiting final approval of the European Parliament and Council	Discussions at the Cross Border Committee Meeting have commenced
Next Milestone	Subject to approval by the European Parliament and Council, publication in the Official Journal of the European Union (OJEU). Entry into Force being 20 days following this publication.	Subject to Member States Voting for approval.
GB Stakeholder Issues	Captured in July 2012: <ul style="list-style-type: none"> National Regulatory Authority oversight. Retrospective application. Imbalance netting. Frequency containment reserve sharing. Captured in April 2013: <ul style="list-style-type: none"> Consistency and clarity of definitions. Resynchronisation. Data provision. National Regulatory Authority oversight. Performance indicators. Outage plans and consistency of reporting requirements with REMIT and Transparency Regulation. Definition, roles and responsibilities of TSOs. Definition of 'relevant user.' (NB – latest draft no longer uses term). 	Captured in April 2015: <ul style="list-style-type: none"> NRA Role Comms Resilience Lack of time obligations Scope – EU Dimension A full list of the issues captured can be found on the JESG website
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Next Stakeholder Engagement Opportunity	Stakeholder sessions are ongoing and will be released through the JESG Weekly updates	Stakeholder sessions are ongoing and will be released through the JESG Weekly updates

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1 July 2016

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