JESG Meeting: April 2014







Elexon, London 15 April 2014

2. Review of Action Log



Tom Selby – National Grid JESG | 15 April 2014

JESG Action Log: Standing Actions

Action No	Action	Lead Party
S1	Prepare a commentary / comparison document between the Network Code and the existing GB arrangements at appropriate stages in the Code development for each Network Code.	NGET
S2	Engage with DECC and Ofgem to ensure appropriate and timely input can be provided from GB Stakeholders in to the Comitology process.	JESG Chair
S3	Continue to review the membership of the JESG and engage additional industry parties where appropriate.	JESG Chair
S4	Provide update on future Network Codes and incentives being developed as and when appropriate.	NGET/Ofgem/DECC
S5	If required by the Commission, facilitate an industry-wide read-through of the Network Codes once they are released by the Commission . (formerly Open Action 135)	JESG Chair/Ofgem/DECC
S6	Stakeholders are requested to provide specific example of inconsistent or problematic definitions in the Network Codes to Ofgem (<u>reuben.aitken@ofgem.gov.uk</u>) and DECC (<u>will.francis@decc.gsi.gov.uk</u>). (formerly Open Action 140)	All

JESG Action Log: New and Open Actions

Action No	Action	Lead Party	Status	Update
138	Consider the need for how to best capture stakeholders' most recent priority issues before and during the Comitology process, in particular for the RFG, DCC and CACM Network Codes as the codes develop in the pre-comitology phase.	DECC	Open	Workshops have been scheduled for CACM (Dec), RfG (Jan) and DCC (Feb). Feedback from these sessions will support the enduring approach to capturing stakeholder issues in the Comitology stage.
147	Establish if the provision in the HVDC Network Code on distribution connected HVDC links will have any impact on GB, by ascertaining if there are any existing links or any are planned.	NGET	Open	
148	Stakeholders would like a further update on any progress on Project TERRE at the March JESG.	NGET	Open	



3. Summary Update of Network Codes



Tom Selby – National Grid JESG | 15 April 2014





* Areas developed by EC follow a different development process and there are no Framework Guidelines.

† Timescales for the stages of Comitology are not specified and under the Commission control

nationalgrid europeancodes.electricity@nationalgrid.com

4. HVDC Network Code



Darren Chan – National Grid JESG | 15 April 2014

Key Dates

- 1 May 2014 Code submission to ACER
- 19 May 2014 ACER Public Workshop (tbc)

NC changes – editorial, non-technical

- Greater alignment with RfG, DCC for example on:
 - Definitions
 - Regulatory aspects
 - Cost recovery
 - Confidentiality obligations
 - National scrutiny applicability Article 4(3)
- Greater clarity:
 - PPM requirements separate from remote-end converters
 - Harmonised definitions with other codes
 - Ambiguous wordings revised

Key Stakeholder comments

- Removal or postponement of Chapter 3 (PPM)
- Reduced requirements for PPM
- PPM requirements should align with RfG
- Greater flexibility for technical innovation
- Requirements can incur additional costs that deter offshore development

Responses to key aspects from SH comments



Need to keep offshore connections within the scope

Many developments in planning now covering 10 or more years ahead

Need to establish certainty ASAP

Large developments important to markets and security of supply in several countries

Cover for radial connection approach as well as a range of integrated approaches

Early ac connected projects have had mainly radial connections

Several projects in progress with an integrated approach

Different forms of integration – expected to continue to evolve

- Essential to allow for variety of connection arrangements to cover all European practices
- Technical Flexibility to facilitate innovation and cost reductions

Allow different choices of offshore system frequency, e.g. 16 2/3Hz

Movement of converters to onshore locations

Allow variable system frequency – simpler WTGs

Allow use of dc collection networks

No block on any of these from NC HVDC point of view

some implications in terms of freedom for sharing capacity with neighbours

Frequency Ranges

	\rightarrow			
DC connected	Remote End HVDC Converter	Frequency Range	Time period for operation	
PPMs		47.0 Hz – 47.5 Hz	60 seconds	
\checkmark		47.5 Hz – 48.5	To be defined by each Relevant TSO while respecting the provisions of Article 4(3), but longer than defined times for generation and	
Frequency Range	Time period for operation	Hz	demand according to [NC RfG] and [DCC] respectively, and longer than for DC-Connected PPMs according to Article 37	
47.0 Hz – 47.5 Hz	20 seconds	48.5 Hz – 49.0 Hz	To be defined by each Relevant TSO while respecting the provisions of Article 4(3), but	
47.5Hz – 49.0 Hz	90 minutes		longer than defined times for generation and	
49.0 Hz – 51.0 Hz	Unlimited		respectively, and longer than for DC-Connected	
51.0 Hz – 51.5 Hz	90 minutes		PPMs according to Article 37	
		49.0 Hz – 51.0 Hz	Unlimited	
51.5 Hz – 52.0 Hz	15 minutes		To be defined by each Relevant TSO while respecting the provisions of Article 4(3), but longer than defined times for generation and	

51.0 Hz – 51.5 Hz

Where a nominal Frequency other than 50Hz, or a Frequency variable by design is used, subject to Relevant TSO agreement and Article 4(3), the applicable Frequency ranges and time periods shall be specified by the Relevant TSO taking into account specificities of the system and the principles laid down in this table and respecting the provisions of Article 4(3).

51.5 Hz – 52.0 Hz	To be defined by each Relevant TSO while respecting the provisions of Article 4(3), and and longer than for DC-Connected PPMs according to Article 37
-------------------	--

demand according to [NC RfG] and [DCC]

respectively, and longer than for DC-Connected

PPMs according to Article 37

PPM - Reactive Power – Single Connection Point

bilateral agreement with the owners of the HVDC System(s) connecting the DC-Connected Power Park Module to a single Connection Point on a AC Network:

- have the Reactive Power capabilities prescribed by the Relevant TSO ... already installed as part of the connection of the DC-Connected Power Park Module to the AC Network at the time of initial connection and commissioning OR
- demonstrate to, and then reach agreement with, the Relevant TSO on how the Reactive Power capability prescribed by the TSO will be provided in future

maximum and minimum range of both Q/Pmax and steady-state Voltage level range for a DCconnected PPM

Range of width	Range of steady-
of Q/Pmax	state Voltage level
profile	in pu
0 0.95	0.1 - 0.225



PPM - Reactive Power – Integrated Connection

The Relevant TSO shall consider the long term development in determining reactive ranges, as well as the potential costs for PPMs

- If the PPM becomes AC connected, it shall have the capability in Article 20(3) of the [NC RfG] prescribed by the Relevant TSO ... already installed at the time of initial connection and commissioning of the PPM, or
- demonstrate to, and then reach agreement with, the Relevant TSO on how the capability in Article 20(3) of the [NC RfG] prescribed by the TSO will be provided in future when it becomes AC connected

maximum and minimum range of both Q/Pmax and steady-state Voltage level range for a DCconnected PPM

Range of width	Range of steady-
of Q/Pmax	state Voltage level
profile	in pu
0 0.95	0.1 - 0.225



5. Forward Capacity Allocation Network Code Update



Will Kirk-Wilson – National Grid JESG | 15 April 2014

Introduction

- Current status
- ENTSO code changes:
 - Firmness
 - Implementation timescales
 - Cross-Zonal Risk Hedging opportunities
 - Other issues
- CACM update

Target model

- Create pan-European electricity market by removing barriers for cross border trading subject to network constraints
- Code high level, detail to come later



Current status

- 18th December 2013, ACER issued its opinion
- 3rd April, ENTSO resubmitted amended code
- ACER likely to forward to Commission recommending adoption with suggested modifications
- Commission view is FCA will start comitology process mid 2015 as operational codes are the priority.

Firmness



- ACER and ENTSO have different positions
- New process between nomination and DA firmness deadline where NRAs can remove/modify caps

Implementation timescales

- ACER/ENTSO different positions, ENTSO consider ACER requests unfeasible.
 - Single allocation platform ACER 15 months, ENTSO 2.5 years.
 - Harmonised auction rules ACER 6 months, ENTSO 12 months.
 - Type of transmission right ACER 6 months, ENTSO 6/8 months.

Cross Zonal Risk Hedging

- Nordic opt out from issuing PTRs or FTRs, unlikely to be relevant for GB market.
- ENTSO have aligned with ACER requests:
 - Max age of assessment moved from 3 to 4 years.
 - Reassessment moved from 3 to 5 years.
 - NRA decision after assessment shorted to 6 months.

Other

- Concept of revenue adequacy has been removed. Although losses can still be targeted at transmission right holders.
- ENTSO have not harmonised nomination rules, but have obligation to progressively harmonise.
- FCA aligned to CACM comitology changes
- Text now caters for parallel DC links on the same border.

CACM

- CACM still with Commission and in the Cross Border Committee.
- CACM code undergoing internal Commission review, so no text is available.
- Commission aiming to produce a text by end of April, with a voting meeting end May. Will this slip?
- Entry into force estimated at start 2015.

Further Information

Target model

- Overview doc: <u>https://www.entsoe.eu/major-projects/network-code-development/</u>
- Framework Guidelines for both CACM and Forward Capacity Allocation:
 http://www.acer.europa.eu/portal/page/portal/ACER_HOME/Public_Docs/Acts%20of%20the%20Agency/Framework%20Guideline/Framework_Guidelines_on
 Capacity Allocation and Congestion M

Forwards

- ENTSO-E's Network Code website: https://www.entsoe.eu/major-projects/network-code-development/forward-capacity-allocation/
- ENTSO-E Consultation Portal: <u>https://www.entsoe.eu/consultations/</u>

- ENTSO-E's Network Code website: <u>https://www.entsoe.eu/major-projects/network-code-development/capacity-allocation-and-congestion-management/</u>
- ACER Recommendation:
 http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Recommendations/ACER%20Recommendation%2001-2013.pdf
- (Annex): <u>https://www.entsoe.eu/fileadmin/user_upload/_library/resources/CACM/ACER_Annex_to_Recommendation_01-2013_on_the_Network_Code_on_CACM.pdf</u>

Any questions?



Will Kirk-Wilson 01926 655424 07554 225984 William.kirkwilson@nationalgrid.com



6. DCC & RfG Stakeholder Workshop Update



Lesley Ferrando – Ofgem JESG | 15 April 2014



Update on Requirement for Generators and Demand Connection Codes JESG

Lesley Ferrando Senior Manager, Ofgem 15 April 2014



- 1. The last Cross Border Committee meeting was on 28 Jan 2014 on the text which was issued by the Commission in January 2014.
- 2. Since then Commission has been seeking comments from the Member States.
- 3. The document is now in the inter service consultation.
- 4. A formal draft expected in May 2014, with Comitology before Summer 2014.
- 5. Comments from GB have been submitted by DECC and by Ofgem as well, through ACER.



- 1. The revised text to the Member States was issued on 5 March 2014.
- 2. Cross Border Committee meeting on 18 March 2014.
- 3. Commission talked through changes to the DCC since the last version issued over a year ago.
- 4. The main changes highlighted by the Commission were:
 - a. Deletion of Demand Side Response System Frequency Requirement.
 - b. Article 16 on reactive power requirements revised.
 - c. In line with RfG this code will also include:
 - regulatory oversight article 9 (there is error in drafting in the revised text).
 - Derogations title
 - Obligation on Entso-e to produce non-binding guidance
 - monitoring on implementation to be undertaken by ACER and Entso-e, monitoring in some codes can be more specific in some case and more general in others.
 - stakeholder committee provision (having one committee for all codes in practice is not rules out)
 - definitions will be aligned with RfG.



1. Main comments from Member States were in the following areas:

- Scope of application of DCC not clear- Commission to circulate IA and member states requested to read material on Entso-e website.
- Reactive Power requirements (Article 16)- Commission has requested ACER to redraft this article.
- Possibility for Member States to introduce more stringent/more detailed requirements- similar response from the Commission as before on RfG i.e. original Article 12 in DCC was a repetition of regulations.

2. ACER has also been tasked to redraft the Derogations section of the code (as was the

case with the RfG) and clarify the role of the aggregators in the current text.



Next steps on DCC for the Commission

- Member States were requested to provide comments to the Commission on DCC code
- Inter service consultation expected in coming weeks.
- Comitology on the DCC likely to be before summer 2014.



Questions? Thank you

7. Emergency & Restoration Code Update



Peter Chandler – National Grid JESG | 15 April 2014

Summary of Presentation

- ACER's Framework Guideline
- Scope of Network Code
- Current Practices In Europe
- Key Policy Issues
- Stakeholder Engagement
- Indicative Timelines
- Drafting Team Next Steps

ACER's Framework Guideline

"Emergency and Restoration includes awareness of the system operating states, Defence Plans and restoration of the system after a major disturbance or a blackout, but also the analyses of events afterwards. Applicability of NC ER is from well in advance to real time and it applies also after any major event."
Scope of Network Code

The NC ER will define requirements related to the following System States

- Emergency
- Blackout
- Restoration

Scope of Network Code

Regarding timeframes, the code will apply according to following principles

Long & mid term

- System Defence Plan preparation & testing
- System Restoration Plan preparation & testing
- Operators training
- Close to real-time & real-time
 - At least 1 TSO is currently in 1 of the System States: Emergency, Blackout, Restoration
 - At least 1 TSO faces a situation that leads to the activation of Defence Plan actions (e.g. power shortage situation)

After the incident

- Ex-post analysis
- Reports & recommendations

Current Practices in Europe

- The Preparatory Team prepared a Current Practices in Europe document for NC ER, which was approved by SOC
- This document:
 - Gives an overview of existing Emergency & Restoration practices, focusing on information at regional/synchronous area level
 - Identifies common/similar practices
 - Identifies significantly different practices & areas with a major lack of harmonisation
- Emergency & Restoration is presented according to 4 axes
 - Awareness of System States & information exchange
 - System Defence Plans
 - System Restoration & Re-synchronisation
 - Economic efficiency & regulatory aspect

Key Policy Issues

- The Preparatory Team prepared a Key Policy Issues document for NC ER, which was acknowledged by SOC
- This document:
 - Identifies Key Policy Issues (KPI), i.e. issues:
 - with high TSO impact
 - where more harmonisation is expected/needed
 - with high stakeholder impact
 - Proposes ENTSO-E position for these issues in order to facilitate NC ER drafting
 - For some topics SOC guidance has been sought

Key Policy Issues

- The KPI document states the Context & Sensitivity for each of the following issues and Proposals for progressing
 - Emergency assistance
 - Interaction with market activities
 - Cost recovery
 - Performance Indicators
 - Defence & Restoration Plan testing
 - Low Frequency Demand Disconnection Plans: load shedding ratios
 - Low Frequency Demand Disconnection Plans: new technologies
 - Economic efficiency of Defence & Restoration Plans
 - EU-master plan

Stakeholder Engagement

- Stakeholder working meeting being held on 17th April 2014
- Stakeholder workshops being held in July & October 2014 and January 2015
- Public consultation from end of September November 2014

Indicative Timelines

- Preparatory Team created & work started: October 2013
- Mandate given by Assembly for drafting: 1st April 2014
- Drafting Team meetings: Monthly April December 2014 (2 days each)
- SOC approval of KPI document: 10th April 2014
- ACER approval of NC scope: 29th April 2014
- Stakeholder meetings/workshops: 17th April, 9th July, 22nd October 2014, January 2015
- SOC approval of Initial draft: 5th June 2014
- SOC approval of 2nd draft for consultation: 18th September 2014
- Public consultation: September November 2014
- SOC meeting to consider results from consultation: 27th November 2014
- SOC approval of Final draft: March 2015
- Submission to ACER: 1st April 2015

Indicative Timelines

- Preparatory Team created & work started: October 2013
- Mandate given by Assembly for drafting: 1st April 2014
- Drafting Team meetings: Monthly April December 2014 (2 days each)
- SOC approval of KPI document: 10th April 2014
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- SOC approval of Final draft: March 2015
- Submission to ACER: 1st April 2015

Drafting Team Next Steps



8. ACER Opinion on the Balancing Code



Lesley Ferrando – Ofgem JESG | 15 April 2014



ACER's Reasoned Opinion on the Electricity Balancing Network Code

Ofgem update for JESG

Lesley Ferrando 15/04/14



Overview

• "Positively negative"

- Integration of balancing markets is a challenging task (limited experience or early implementation to date)
- Recognition of ENTSO-E's effort to align large parts of the NC with the FG

• Three themes for further improvements:

- 1. Requirements on TSOs & other parties (eg, SOs, Market Participants) to create pan European balancing markets
- 2. Market design elements that satisfy the three key objectives of integrating balancing markets (economic efficiency with enhanced liquidity and competition; penetration of RES; and Security of Supply)
- 3. Adequate levels of harmonisation to the foster market integration in the most efficient manner

• Amendments not a re-write

- The Agency requests improvements before it can recommend the NC for adoption. However, these concerns do not require extensive changes in the structure.
- Expect that the amendments can be addressed within a period of a few months



Specific requests/ concerns

Requirements on TSOs & other parties to create pan European balancing markets

- Timelines for implementation must be explicit
- Implementation framework must be legally enforceable
- Cooperation framework with DSOs must be nondiscriminatory and further specify DSO roles
- Some functions may be assigned, along with the related responsibilities, to a third party through a decision by the NRA or through relevant national legislation
- All proposals subject to NRA approval should also be subject to public consultation

Market design elements that satisfy the key objectives of integrating balancing markets

- Concern that the NC provides scope for overlapping intradaybalancing periods (eg, balancing gate closure time before the closure of intraday market)
- Concern that the NC allows TSOs to include other, nonidentified costs in the imbalance settlement
- The NC should specify that RES shall be financially responsible for their imbalances
- Insufficient focus given to the avoidance of market fragmentation when defining standard balancing products
- Specific products should be available for exchanges with other TSOs and only made unavailable for cross-border exchange if they are defined as part of the TSOs' unshared bids

Market design elements that satisfy the key objectives of integrating balancing markets

- Further details ('principles') should be included in the methodologies/ T&Cs, rather than simply a list of contents
- Concerns that the NC provides too much flexibility with regards to harmonisation of settlement periods (following a CBA)
- Too much flexibility for central dispatch systems (eg, variable balancing gate closure times) may limit cross-border interactions/ market integration with other systems



Next steps

• ENTSO-E's suggested plan:

- initial reaction to ACER (April)
- redrafting phase (April-June)
- decision in ENTSO-E Market Committee (July)
- resubmission to ACER (September)
- ACER and NRAs to support and feed in to ENTSO-E redrafting phase, as appropriate
- Ofgem contact for any further queries:
 - <u>Grendon.Thompson@Ofgem.gov.uk</u>



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We work effectively with, but independently of, government, the energy industry and other stakeholders. We do so within a legal framework determined by the UK government and the European Union.

www.ofgem.gov.uk

9. Transparency Guidelines Update



Jackeline Crespo-Sandoval – National Grid JESG | 15 April 2014

Key areas

- Background
- Previous Industry events
- Industry data submissions
- Proposed changes to Grid Code
- Proposed submission method and test strategy
- Progress/Next Steps

Background

- The European Commission Regulation No 543/2013¹ came into force on 4th July 2013 requires publication of a common set of data related to generation, transmission and electricity consumption.
- Places obligations on primary data owners to submit information to their TSO for publication on a central European reporting platform managed by ENTSO-E.
- Mandatory go-live date of 4th January 2015

ETR Data flow



Previous events

- 06-Nov-2013: IS workshop held to discuss ETR implementation with industry participants.
- 05-Dec-2013: Industry consultation issued
- O7-Mar-2014: Post consultation report published setting out the proposed IS solution and the impact on industry parties in respect of additional data. Report can be found at:

http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=31941

O2-Apr-2014: Industry workshop held to discuss approach to deliver, specific requirements and proposed test strategy.

Data submissions

Additional data required for:

- Article 7 Information relating to the unavailability of consumption units
- Article 14 Forecast generation
- Article 15 Information relating to the unavailability of generation and production units
- Grid Code changes
 - GC0042 'Information on Small Embedded Power Stations and Impact on Demand'
 - GC0083 'European Transparency Regulation Implementation'

Grid Code proposed changes

- New paragraphs in Planning and Operating Code to specify regulation purpose and requirements
- New table in Data Registration (Code Schedule 5 Users System Data) containing:
 - Article number
 - Data description
 - Data provider
 - Frequency of submission
- For clarity, table will contain all articles where 3rd party data is required (existing and new)
- No changes to submission frequency of existing data

Proposed submission method

- Additional data (Articles 7 and 15)
 - New NG's Market Operation Data Interface System (MODIS) will be developed
 - Development of options are being done in conjunction with industry parties
 - Sample data is currently being prepared for ELEXON
- Existing data (other articles)
 - Market Data Providers to continue providing data to other NG system as currently

Proposed test strategy

- Self test: Market Participants (MP) to carry out tests independently on the creation of the new data to send to NGET
- Integration testing: MP and NGET to carry out system-tosystem testing using test files
- End-to-end testing: Same as Integration testing with automatic data feed and realistic data.
- Big end-to-end testing: As end-to-end above, but with all MPs. Data will also be processed by Elexon and ENTSO-E.

Note: NGET will choose to conduct 2 weeks of soak testing during this stage.

Progress/Next Steps

- Data XML schema definitions are to be published around the end of May at the end of the design phase.
- This will show the precise file formats required for each category of new information
- ENTSO-E test platform bookings for test slots from 18-Aug-14 for TSOs requiring ENTSO-E support
- NG ETR website for updates on development, implementation and testing of the MODIS (address tbc)
- GC0042 –Industry consultation closed on 25th March
- GC0083 industry consultation to be published shortly

Next IS Industry workshop

- Date : Monday 12 May 2014
- Venue : National Grid House Warwick, CV34 6DA
- Contact: Melanie Jackson
 - Tel. 01926 654666 Mob. 07795 507275 Email: melanie.jackson@nationalgrid.com

Questions?



Please contact:

Jackeline Crespo-Sandoval Warwick, 01926 653019 Email: <u>Jackeline.Crespo-Sandoval@NationalGrid.com</u>

10. ECCAF Update – from 27 March 2014

Garth Graham on behalf of ECCAF Chair JESG | 15 April 2014

ECCAF Work Process



2. In an open forum including Stakeholders

Key Findings from RfG CMWG

RfG

- Part 1 took place on 12 March
- Part 2 was taking place following the ECCAF meeting
- Majority of technical requirements map to either Grid Code or D-Code
- Some consequential changes to CUSC if requirements are specified in Bilateral Contracts
- Three categories of outstanding issues:
 - To be considered by DCRP/GCRP Workgroup
 - To be considered by ECCAF
 - To be flagged to DECC/Ofgem

Discussion on: the role of existing GB Codes

- Question: Do existing national requirements in Grid Code, DCode etc apply as well as the new ENC requirements?
- Regulation 714/2009 (Article 8,7)
 - The network codes shall be developed for cross-border network issues and market integration issues and shall be without prejudice to the Member States' right to establish national network codes which do not affect cross-border trade

Possible views

- 1. To ensure a level playing field for GB parties in Europe existing GB requirements should not apply by default
 - National measures must be proven not to affect cross-border trade
- 2. ENCs deal with cross-border network issues. Requirements not covered by the ENCs, therefore, are considered not to impact on cross-border trade
- 3. ENCs are not intended to cover all requirements which may be needed on a national basis
 - National requirements which do not affect cross-border trade have always been envisaged to co-exist alongside ENCs
 - Changes by exception could be made where a case were proven that there is a cross-border trade impact
- > Ofgem/DECC considering...

Next ECCAF Meeting

- 29 April
- Code Mapping Working Group on CACM also on 29 April
- Details will be circulated in JESG weekly update
- Any queries, please contact
 - europeancodes.electricity@nationalgrid.com

11. Forthcoming Events







Tom Selby JESG | 15 April 2014

Forthcoming Events

ECCAF Subgroup – Code Mapping Working Group for CACM.

Tuesday 29 April, 10:00 – 14:00, Elexon, London

ECCAF Meeting

Tuesday 29 April, 14:00 – 16:00, Elexon, London

ACER public workshop on the Network Code on HVDC Connections and DC-connected Power Park Modules

Monday 19 May, Ljubljana, Slovenia

12. Review of stakeholder representation



Barbara Vest – Energy UK JESG | 15 April 2014
nationalgrid

13. A.O.B and Close





