

# Joint European Stakeholder Group



Tuesday 9 January 2018  
Meeting 28

WebEx

# Agenda

ID	Title	Lead	Time
1.	<b>Welcome &amp; Introductions</b>	Chair	10:00 - 10:05
2.	<b>National Grid Update:</b> <ul style="list-style-type: none"><li>European Network Codes Implementation</li></ul>	Rob Selbie (National Grid)	10:05 - 10:25
3.	<b>Ofgem Update:</b> <ul style="list-style-type: none"><li>CACM / FCA proposals under regulatory assessment</li></ul>	Thomas Jones (Ofgem)	10:25 - 10:45
4.	<b>Review of Actions log</b>	Andrew Hemus (JESG Technical Secretary)	10:45 - 10:55
5.	<b>Future Meeting Dates &amp; Agenda Items</b>	Andrew Hemus (JESG Technical Secretary)	10:55 - 11:05
6.	<b>Stakeholder Representation</b>	Chair	11:05 - 11:15
7.	<b>Any Other Business</b>	All	11:15 - 11:30

# 1. Welcome & Introductions

Barbara Vest

Independent Chair

# 2. European Network Codes Implementation

Rob Selbie

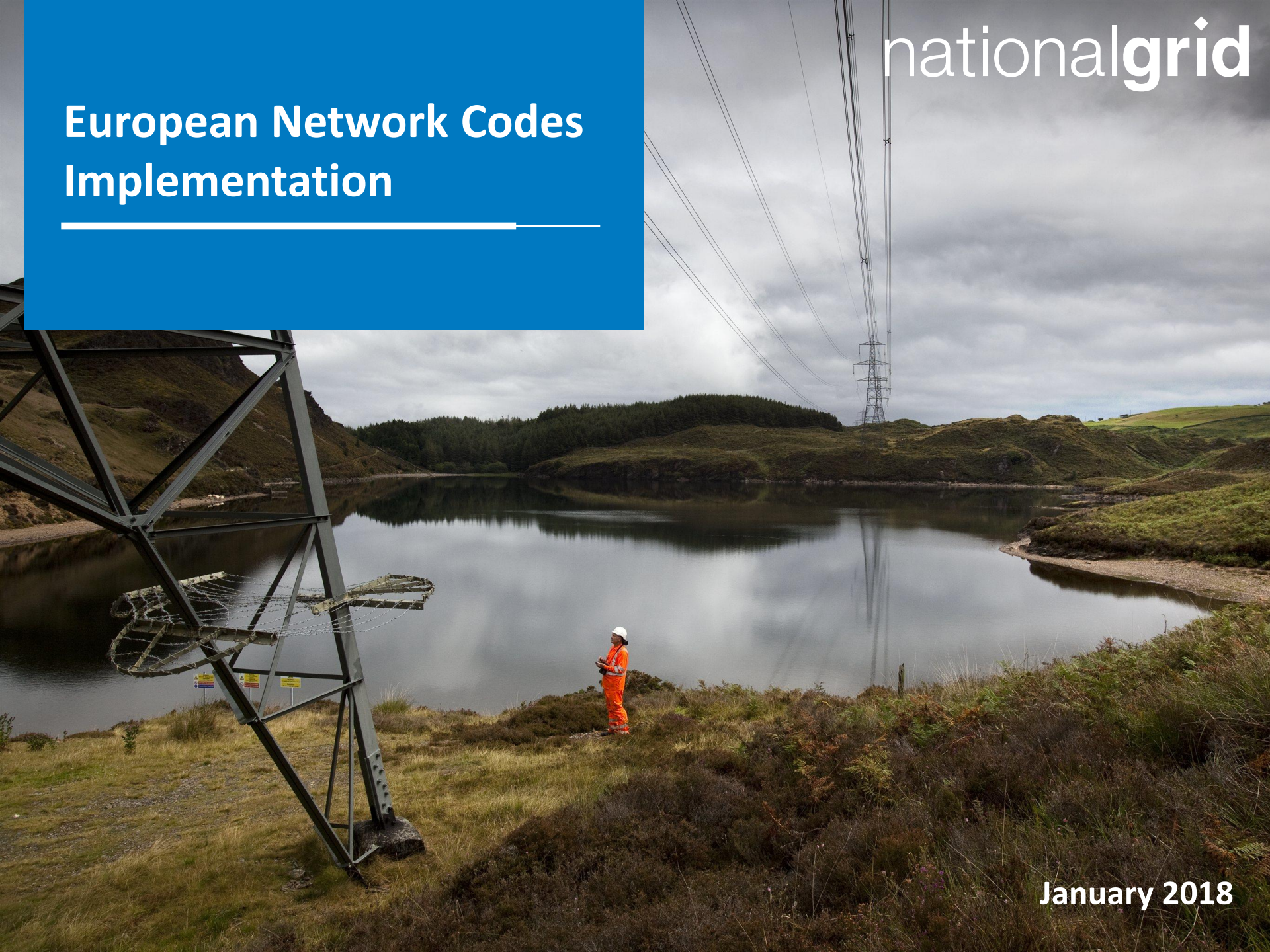
National Grid



# European Network Codes Implementation

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nationalgrid



January 2018

# European Network Codes Implementation

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## Agenda

1. EU network code overview
2. Draft EU network code stakeholder matrix
3. Individual EU network code status updates for;
  - ER,
  - EBGL,
  - SOGL,
  - CACM and
  - FCA

# European Network Codes

## Status

### Capacity Allocation & Congestion Management ADOPTED

The Regulation establishing a guideline on Capacity Allocation and Congestion Management (CACM) entered into force on 15 August 2015. The provisions of CACM govern the establishment of cross-border EU electricity markets in the day-ahead and intraday timeframes, as well as methods for the calculation of interconnection capacity.

### Forward Capacity Allocation ADOPTED

The Regulation establishing a guideline on forward capacity allocation (FCA) entered into force on 17 October 2016. The provisions of FCA establish a framework for the calculation and allocation of interconnection capacity, and for cross-border trading, in forward markets (i.e. timeframes longer than day-ahead).

### Electricity Balancing Guideline ADOPTED (EIF 18/12/17)

The Regulation establishing a guideline on electricity balancing (EB) and. The EB guideline will set down rules on the operation of balancing markets, i.e. those markets that Transmission System Operators (TSOs) use to procure energy and capacity to keep the system in balance in real time. The guideline's provisions include increasing the opportunities for cross-border trading close to real-time and improve the efficiency

### Emergency & Restoration ADOPTED (EIF 18/12/17)

The Regulation establishing a network code on emergency and restoration (ER) was adopted on 24 November 2017 and will enter into force on 18 December 2017. The ER network code will set down rules relating to the management of the electricity transmission system in emergency, blackout and restoration states. Its provisions are mainly related to bringing the system back to a normal state.

### Demand Connection ADOPTED

The Regulation establishing a network code on demand connection (DCC) entered into force on 7 September 2016. The provisions of DCC set out detailed rules relating to the connection of, principally, new demand facilities to national electricity networks.

### Requirements for Generators ADOPTED

The Regulation establishing a network code on requirement for grid connection of generators (RfG) entered into force on 17 May 2016. The provisions of RfG set out detailed rules relating to the connection of, principally, new power generating installations to national electricity networks..

### High Voltage Direct Current ADOPTED

The Regulation establishing a network code on requirements for grid connection of high-voltage direct current system and direct current-connected power park modules (HVDC) entered into force on 28 September 2016. The provisions of HVDC set out detailed rules relating to the connection of, principally, new high-voltage direct current systems to national electricity networks.

### System Operation ADOPTED

The Regulation establishing a guideline on electricity transmission system operation (SO) entered into force on 14 September 2017. The provisions of SO establish a framework for the maintenance of the secure operation of the interconnected transmission system in real time.



# European Network Codes

	Generator	Distribution Network Operator (DNO)	Transmission System Owner (TSO)	Onshore & Offshore Transmission Owner	Interconnector Owner	Power Exchange	Energy Trader	Supplier	Aggregator	Demand Side Response provider (DSR)	Directly Connected Demand	Equipment manufacturer
CACM	✓*	✓*	✓	✓*	✓	✓	✓					
FCA	✓*	✓*	✓	✓*	✓		✓					
EBGL	✓	✓	✓		✓			✓	✓	✓	✓	
SOGL	✓	✓	✓	✓	✓*				✓*	✓*	✓*	✓*
E&R	✓	✓	✓	✓	✓ <sub>BSU</sub>							
RfG	✓		✓	✓								✓
HVDC	✓ <sub>PPM</sub>		✓	✓	✓							✓
DCC		✓	✓	✓					✓	✓	✓	✓

\* Indicates minor impact

PPM: DC-connected Power Park Modules only

BSU: Black Start Unit



# European Network Codes Development

OVERALL RAG █

PREVIOUS RAG █

## Electricity Balancing Guideline (EBGL)



### HEADLINES

#### Implementation

- EBGL was published in the official journal on the 28 November 2017, entry into force will occur on 18 December 2017
- In October EBGL Obligations were mapped against current industry frameworks with Ofgem and Stakeholders
- Central RR platform (TERRE) approval package submitted to regulators, awaiting feedback.
- The first public consultation on the design of the mFRR platform (MARI) is open to 20 Dec
- ELEXON assignment – consultation from BEIS



### PLANNED

#### Derogations and Exemptions

- An exemption for the requirement to apply a 15min Imbalance Settlement Period will be requested to provide certainty to GB Market Participants
- Derogations will be requested by June 2018 for Imbalance adjustment (Article 49) and Jan 2018 for Imbalance Price (Article 55)



### Risks & Issues

Description	Mitigation/Actions	Ctrl Opinion
Exemption required for EBGL Article 53, Imbalance Settlement Period, to prevent a move from 30mins to 15mins.	Cost Benefit Analysis carried out in 2016 showed a negative overall benefit to GB, benefit of approx. £100 million against an expected £1.8 billion spend.	
P354 / C16 ABSVD is required for EBGL Article 49 Compliance. The Implementation date of 2019 is post EBGL Obligation requirement (Dec 2018).	A derogation from the EBGL requirements will be sought to align the dates	
P360 (Article 55) and an Expected Modification for Article 52 will require 2 changes to the same subject area within 2 years.	A derogation from the Article 55 EBGL requirements will be sought to align the dates	



### Key Milestones

Stage	Date
EBGL Entry into Force	18/12/17

# European Network Codes Development

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## Emergency and Restoration (ER)



### HEADLINES

#### Implementation

- Emergency and Restoration will enter into force on 18 December 2017.
- Only additional requirement for Entry into Force was in relation to Article 35: the SO are required to inform all 'balancing responsible parties' and 'balancing service providers' of market suspension. Contact details added to our distribution list and completed by 18 December and will be maintained thereafter.

#### System Defence and Restoration Plans

- Currently being drafted, first draft due to be discussed with wider industry Q1 2018 via a consultation. Plans need to be fully developed by December 2018 and implemented by December 2019. Currently on track.



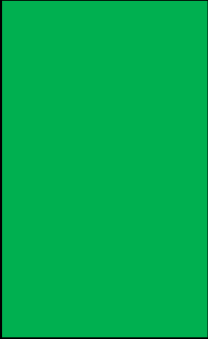
### PLANNED

**Grid Code and STC modifications (tbc)** may be raised for the Compliance Testing articles. Minor changes required with regards to frequency of testing. Planned to be raised January 2018 (TBC).

**Stakeholder engagement** will continue to occur via JESG, Electricity Task Group and Black Start Task Group.



### Risks & Issues

Description	Mitigation/Actions	Ctrl Opinion
<b>Demand loss percentage for Black Out.</b>	<p>SOGL states that GB and Ireland can each set their own percentage of demand loss at which a system state of Black is declared)</p> <p><b>To be discussed at the Black Start Forum to keep stakeholders informed and ensure we are being transparent.</b></p>	



### Project Key Milestones

Stage	Date
System Defence and Restoration Plans - consultation	Q1 2018
Grid Code and (STC mods) raised	Jan 2018 (TBC)

## Overview of E&R

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- The European Network Code for Emergency and Restoration (henceforth 'E&R') and the System Operator Guidelines (henceforth 'SOGL') lay out the rules around various actions to be taken in the event of adverse situations relating to the electricity transmission system. The GB framework must comply with these rules.
- The E&R code requires that a system operator produce a system defence plan, to be enacted in the event of significant issues affecting the system. It also requires a restoration plan, detailing the actions to be taken to restore supply in the event that the system enters the Blackout state as defined by SOGL

## Key Points

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- Our current rules for suspending the market are consistent with the E&R code as-is and therefore it is not necessary to amend the Grid Code or the BSC to achieve compliance
- In order to achieve compliance, NG must notify all parties providing a market service of a suspension. To notify non-BSC signatories, an email distribution list will be maintained used with the existing communication of a market suspension to notify all parties. Please note: this has been set up for Entry into Force.
- Various system events (violation of operational limits, loss of control systems, and activation of any measure of the System Defence Plan) result in the declaration of an emergency state. This does not oblige NG to suspend the market – E&R only states that the market “may” be suspended, and NG does not intend to pursue any modifications to allow market suspension in conditions where it is not currently permitted.
- The E&R code permits GB to define its own level of demand loss at which to declare that the system is in the blackout state. National Grid intends to set this level at 100%, in order to align with our current definition of a Total Shutdown
- Loss of an area of the network will result in the declaration that the system is in an emergency state, as it will lead to the activation of the System Defence Plan. This can coexist with NG’s current definition of a Partial Shutdown

## Next Steps

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- NGET will develop a high level implementation plan ahead of the February JESG for stakeholders to review and comment on
- Would stakeholders like to NGET to provide any further information at the February JESG?
  
- NGET Contact: Raveena Virk [raveena.virk@nationalgrid.com](mailto:raveena.virk@nationalgrid.com)



# European Network Codes Development

## System Operation Guideline (SOGL)

OVERALL RAG 

PREVIOUS RAG 



### HEADLINES

#### Methodology development

- All TSO proposal on Key Organisation Roles, Requirements, Responsibilities (KORRR) public consultation complete.
- National LFC Block determination proposal consultation launched. in December alongside other EU synchronous areas on ENTSO-E website.
- All TSO proposal for Common Grid Model v3 public consultation complete

#### Implementation

- Grid Code mod (GC0106) on data exchange raised.



### PLANNED

#### Methodology development


- Feb 2018 – National TSO proposal on LFC Block determination submission to Ofgem
- Mar 2018 - All TSO proposal on Key Organisation Roles, Requirements, Responsibilities (KORRR) submission to NRAs.

#### Implementation

- Further GB mods on Regional Outage Coordination to be developed early next year in parallel with methodology development.



### Risks & Issues

Description	Mitigation/Actions	Ctrl Opinion
Risk that common Grid Model version 3 requires onerous intraday modelling for GB synchronous area with no value for GB consumers.	<ul style="list-style-type: none"><li>• Issue escalated through ENTSO-E. EirGrid have similar concerns.</li></ul>	



### Key Milestones

Stage	Date
TSO proposal for Synchronous area agreement	September 2018

# European Network Codes Development

## SO Guideline Methodology overview

OVERALL RAG ■

PREVIOUS RAG ■



### HEADLINES

#### Methodology development

##### Wave 1

- Key organisational requirements, roles and responsibilities in relation to data exchange
- CGMM version 3
- Determination of LFC control blocks

##### Wave 2

- Coordinated operational security analysis
- Relevance of assets for outage coordination
- Synchronous area agreements

##### Wave 3

- Regional operational security coordination



### Timelines



# European Network Codes Development

## System Operation Guideline (SOGL) Methodologies

OVERALL RAG ■

PREVIOUS RAG ■

Article	Deadline	SO Guideline: key implementation activities	2017												2018												2019												2020											
			S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D								
<b>Pan-European activities</b>																																																		
14.2	12 months	Implementation monitoring: development of list of relevant information to be communicated by ENTSO-E to ACER																																																
14.2	12 months	Implementation monitoring: comprehensive standardised format, digital data archive of the information required by ACER																																																
40.6	6 months	Key organisational requirements, roles and responsibilities in relation to data exchange																																																
65.1		Process for developing a common list of year-ahead scenarios																																																
67.1	6 months	Methodology for building the year-ahead common grid models from the individual models and for saving them																																																
70.1	6 months	Methodology for building the day-ahead and intraday common grid models from the individual models and for saving them																																																
75.1	12 months	Methodology for coordinating operational security analysis																																																
84.1	12 months	Methodology for assessing the relevance of assets for outage coordination																																																
114.1	24 months	Implementation and operation of OPDE																																																
114.2	6 months	Harmonised data format for data exchange which shall be integral part of OPDE																																																
116.1		Development of OPDE module for outage coordination																																																
117.1		Development of OPDE module for adequacy assessment																																																
183.4		Preparation for publishing the data on operational agreements, frequency quality, load-frequency control structure and reserves on Transparency Platform																																																
<b>Regional activities on synchronous area level</b>																																																		
13	18 months	Agreement with non-EU TSOs setting the basis for their cooperation concerning secure system operation and setting the arrangements for the compliance of the non-EU TSOs with the obligations in SOGL																																																
38.2	12 months	Coordination of dynamic stability assessments																																																
39.3.a	2 years	Study for identifying whether minimum required inertia needs to be established																																																
39.3.b	2y. 6 months	Methodology for the definition of minimum inertia required to maintain operational security and prevent violation of stability limits																																																
118.1	12 months	Methodologies, conditions and values included in synchronous area operational agreements																																																
141.2	4 months	Determination of LFC blocks																																																
156.11	6 months	Assumptions and methodology for a CBA to be conducted to assess the minimum activation time of FCR - in CE and Nordic synchronous areas																																																
156.11	12 months after approval of CBA methodology	Cost-benefit analysis suggesting the minimum FCR activation period																																																
<b>Regional activities on CCR level</b>																																																		
76.1	3 months after approval of CSA methodology	Common provisions for regional operational security coordination																																																

■ Scoping  
 ■ Drafting  
 ■ Development  
 ■ Consultation + WS  
 ■ W Separate workshop  
 ■ Approval  
 ■ Project start  
 ■ Call launch  
 ■ Publication  
 ■ NRA approval/ACER opinion

# European Network Codes Development

## Capacity Allocation and Congestion Management (CACM)

OVERALL RAG 

PREVIOUS RAG 



### HEADLINES

#### Methodology development

- September 2017 – All TSO proposal on intraday capacity pricing submitted to all NRAs
- October 2017 – All NRA approval of the amended determination of Capacity Calculation Regions
- October 2017 - request ACER to adopt a decision on the Intraday Cross Zonal Gate Timings
- November 2017 - ACER Decision on NEMOs HMMCP for single intraday coupling



### PLANNED

#### Methodology development

- Dec17 - All NRA decision on NEMO proposals on algorithm, products, back-up
- Dec– Jan Coordinated Re-dispatching & Countertrading methodology consultation
- Dec 2018 – ACER decision on Congestion Income Distribution Arrangements
- Mar 2018 – Regional NRA approval of the Capacity Calculation Methodology
- Mar 2018 - All NRA decision on Intraday Capacity Pricing
- Apr 2018 – ACER decision on intraday gate times

#### Implementation

- ISEM go-live May 2018



### Risks & Issues

Description	Mitigation/Actions	
Risk that intraday gate time will be set less than 1 hour with knock on impacts to project TERRE and GB balancing processes.	<ul style="list-style-type: none"><li>• Evidence on impact on GB area, and in particular project TERRE provided.</li><li>• ACER workshop 7<sup>th</sup> December</li></ul>	
Second Bidding Zone Technical Report launched	<ul style="list-style-type: none"><li>• NGET engagement with ENTSO- working group</li></ul>	



### Key Milestones

Stage	Date
ISEM go-live	May 2018
Common Grid Model go-live	June 2018
MCO plan go-live	June 2018

# European Network Codes Development

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## Forward Capacity Allocation (FCA)



### HEADLINES

#### Methodology development

- Oct 2017 - ACER decision on HAR
- Oct 2017 – All NRA decision on SAP
- Oct 2017 - IU regional design of LTTRs decision approval
- Oct 2017 - Channel regional design of LTTRs request for amendment
- Nov 2017 – TSO proposal for nomination procedures for PTRs submitted to NRAs



### PLANNED

#### Methodology development

- Jan 2018 – All TSO proposal for Congestion Income Distribution Arrangements
- Feb 2018 – All NRA decision on Common Grid Model and Generation and Load Data provision
- Feb 2018 – Regional NRA decision on amended Channel regional design of LTTRs
- June 2018 – Regional TSO consultation on FCA Capacity Calculation Methodology



### Risks & Issues

Description	Mitigation/Actions	Ctrl Opinion



### Key Milestones

Stage	Date
SAP go-live (HVDC) - Interconnectors	Nov 2019

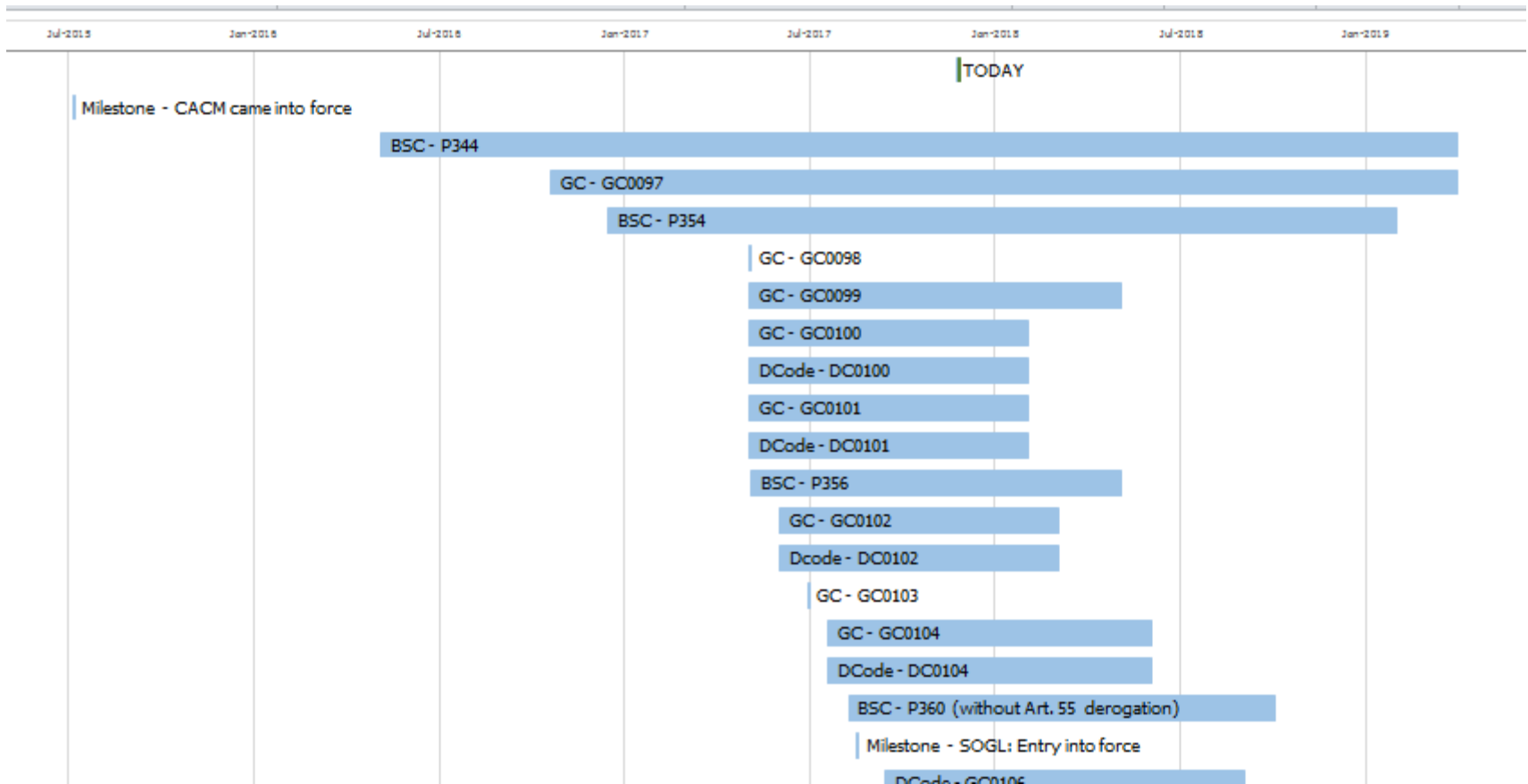


# GB Network Codes Implementation

## Forward Work Plan

Anticipated changes to the GB codes resulting from the EU network codes can be found here;

<https://www.elexon.co.uk/wp-content/uploads/2017/04/ENC-Implementation-Plan-Nov-17-v1.0-FINAL.xlsx>



# GB Network Codes Implementation

## European & GB Stakeholder Engagement

### Summary of engagement since last update

Meeting	Date	Attendees	Key Discussions / Outcomes
National Grid Customer Seminar	31/10/17	Electricity Generation Developers	Drop-in session to allow mainly new generation project developers to ask questions about potential impacts of the European Network Codes on their projects or to get a general understanding of the Codes.
BSC Modification P344 Workgroup	01/11/17	P344 Workgroup members	
Grid Code Modification workgroups	02/11/17	Workgroup members	
Grid Code 0102 modification workgroup	14/11/17 & 16/11/17	Workgroup members	Review of Workgroup consultation responses and legal text walkthrough.
Grid Code modifications 0100 – 0102	20/11/17	Workgroup members	Code Mapping of the Requirements for Generators and HVDC European Network Codes against Grid Code modifications GC0100, GC0101 & GC0102.

### Upcoming events / meetings / briefings / publications - 3 months forward view

Meeting	Date	Attendees	Description
Energy UK Markets and Trading Sub-Committee	30/11/17	Subcommittee members (traders and senior policy/regulation experts); Energy UK; National Grid	Invitation for National Grid to present on how TERRE and MARI will work with the GB markets and how power will be traded between SOs.
TERRE Seminar	16/01/18	Interested parties; Elexon; National Grid	National Grid and Elexon will co-host a seminar to help interested parties understand GB implementation of TERRE and the associated code modifications

# 3. CACM / FCA proposals under regulatory assessment

Thomas Jones  
Ofgem

## CACM Guideline Update

Presentation to JESG

**Thomas Jones**  
January 2017

[Thomas.Jones@ofgem.gov.uk](mailto:Thomas.Jones@ofgem.gov.uk)

ofgem

## ACER decision on congestion income distribution methodology (CID M)

On the 18<sup>th</sup> December the Agency for Cooperation of Energy Regulators (**ACER**) made a decision in accordance with the EU regulation on Capacity Allocation & Congestion Management (**CACM**).

This followed Ofgem's [decision](#) in June 2017 to refer the final decisions to ACER following an assessment by all Regulatory Authorities.

This document sets out the arrangements for the distribution of income following single day-ahead market coupling. The ACER decision is in line with the request from NRAs.

You can view the decision on the ACER website:

[http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Pages/Individual-decision.aspx](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Pages/Individual-decision.aspx)



# Methodologies under regulatory assessment overview

Proposal	Received by Regulatory Authorities	Regulatory Decision	Deadline for ACER decision	Comments
All TSO: Intraday capacity pricing methodology ( <b>CZIDCP</b> )	14/08/2017	<b>14/02/2018 (Deadline)</b>	N/A	Currently under regulatory assessment.
All TSO: Amended Intraday cross zonal gate times ( <b>IDCZGT</b> )	27/08/2017	27/10/2017	<b>27/04/2018</b>	ACER expected to publish public consultation in January 2018.
Regional: Channel Region Long Term Transmission Rights nomination rules ( <b>Nomination Rules</b> )	13/10/2017	<b>13/04/2018 (Deadline)</b>	N/A	Currently under regulatory assessment.
All NEMO: Amended NEMO proposals ( <b>Algorithms, Products, Backup</b> )	13/11/2017	<b>01/02/2018 (Deadline)</b>	N/A	Currently under regulatory assessment.
Regional: Channel Region Long Term Transmission Rights proposal ( <b>Channel LTRs</b> )	18/12/2017	<b>18/02/2018 (Deadline)</b>	N/A	Currently under regulatory assessment.
All TSO: Scheduled Exchanges Calculator proposal ( <b>Scheduled Exchanges</b> )	N/A	N/A	N/A	Proposal expected to be received in January/February.

# 3. Actions log

Andrew Hemus

JESG Technical Secretary

# JESG Standing items

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ID	Topic	Lead Party
S1	Continue to review the membership of the JESG and engage additional industry parties where appropriate.	JESG Chair
S2	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 / Ofgem / BEIS
S3	Share any intelligence about how other member states are approaching demonstrating compliance through information gained from other government departments, regulators or parent companies	BEIS / Ofgem / Industry parties with European parent companies
S4	Stakeholders are requested to provide specific examples of inconsistent or problematic definitions in the Network Codes to Ofgem ( <a href="mailto:Thomas.Jones@ofgem.gov.uk">Thomas.Jones@ofgem.gov.uk</a> ).	All Stakeholders

# JESG Open Actions

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ID	Topic	Lead Party	Status	Update
68	Andrew Hemus (AH) to facilitate with EirGrid to attend a future meeting to provide an update on ISEM impact on interconnectors.	EirGrid	Open	No correspondence from EirGrid received as to when they can bring the update on ISEM to JESG.
80	(AH) to add Fergus Healy to the JESG newsletter item LFC Block Determination Methodology.	(AH) JESG Technical Secretary	Closed	Complete

# 4. Future Meeting Dates & Agenda Items

Andrew Hemus

JESG Technical Secretary

# Future JESG Meetings (London)

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- As always registration is required and will be opened through the JESG Weekly updates.
- Stakeholders are invited to put forward agenda items for the forthcoming JESG meetings:

Date	Proposed Agenda Items
<b>Tuesday 9 January 2018 (tbc)</b>	
<b>Monday 12 February 2018</b>	I-SEM (Eirgrid), CACM NEMO Proposals and Methodologies (NEMO'S)
<b>Tuesday 13 March 2018</b>	
<b>Tuesday 10 April 2018</b>	
<b>Tuesday 8 May 2018</b>	
<b>Tuesday 12 June 2018</b>	
<b>Tuesday 10 July 2018</b>	
<b>Tuesday 14 August 2018</b>	
<b>Tuesday 11 September 2018</b>	
<b>Tuesday 9 October 2018</b>	
<b>Tuesday 13 November 2018</b>	
<b>Tuesday 11 December 2018</b>	

# 5. Stakeholder Representation

All

# 6. AOB