

Joint European Stakeholder Group



Tuesday 11 September 2018
Meeting 33

London

Agenda

ID	Title	Lead	Time
1.	Welcome & Introductions	Chair	10:00 - 10:05
2.	National Grid Update:	Raveena Virk	10:05 – 12:30
	Lunch		12:30 -13:00
3.	ENTSOE European Stakeholder Committees Update:	Steve Wilkin and Garth Graham	13:00 - 13:30
4.	BREXIT	Matthew Ramsden (BEIS) / Eleanor Brogden (NGESO)	13:30 – 14:15
5.	Review of Actions log	Andrew Hemus (JESG Technical Secretary)	14:15 - 14:20
6.	Future Meeting Dates & Agenda Items	Andrew Hemus (JESG Technical Secretary)	14:20 – 14:25
7.	Stakeholder Representation	Chair	14:25 - 14:30
8.	Any Other Business	All	14:30 - 14:45

1. Welcome & Introductions

Barbara Vest

Independent Chair

2. National Grid Update

Raveena Virk
National Grid

CACM CAPACITY CALCULATION METHODOLOGY STATUS

Status of Methodologies

IU Region

- ❑ Methodology approved by IU NRAs in July 2018
- ❑ Implementation phase of the Capacity Calculation Methodology now under way

Channel Region

- ❑ Second Request for Amendment issued by Channel NRAs
- ❑ The second amendment request focuses on the updating of Annex 1 which highlights Critical Network Elements
(NRA Submission Expected : 27th September 2018)

ELEXON FORWARD WORK PLAN CHANGES

PREVIOUS VIEW OF ELEXON FORWARD WORK PLAN

Grid Code Potential Change 11 Regional Outage Coordination

- ❑ This mod was originally set to be raised during **Q3 2018** and is linked to the development of the Regional Outage Coordination methodology, requirements will become clearer as part of methodology development.

STC Potential Change 3 Regional Outage Coordination

- ❑ This mod was originally set to be raised during **Q3 2018** and is linked to the development of the Regional Outage Coordination methodology, requirements will become clearer as part of methodology development.

Grid Code Potential Change 16 Regional Outage Co-ordination and Security Analysis

- ❑ The methodology is currently being developed and requirements on this modification will become clearer as part of this development. This mod was originally set to be raised at the end of **Q3 2018**

METHODOLOGIES

Methodologies developed

- ❑ Methodology, at least per synchronous area, for assessing the relevance of assets for outage coordination in accordance with Article 84 SOGL
- ❑ Methodology for coordinating operational security analysis in accordance with Article 75 SOGL.

Methodologies in development

- ❑ Common provisions for each capacity calculation region for regional operational security coordination in accordance with Article 76;
(NRA Submission Expected : June 2019)

OTHER LEGAL OBLIGATIONS

Regional Proposals/Procedure (In development)

- Develop regional coordination operational procedure (Article 83 SOGL)
- Provide list of relevant assets to RSC (Article(s) 85, 87 SOGL)

Regional Proposals/Procedure (deadline)

- Does not require NRA approval and no defined deadline
- NRA notification expected by **June 2019**, No approval required.



CHANGES TO ELEXON FORWARD WORK PLAN

ENC	Change Reference	Expected Date	Revised Date or Action	Reason/Justification
SOGL	GC - SOGL: Regional Outage Coordination (Grid Code Potential Change 11)	07/09/2018	Remove	There is no requirement for TSOs to develop a regional outage coordination methodology requiring approval from National Regulator(Ofgem)
	STC - SOGL: Regional Outage Coordination (STC Potential Change 3)			Outage coordination methodology has now been developed at a Pan European level as required by Article 84 of SOGL and there will be no changes to existing GB legislation as a result of this methodology
SOGL	GC - SOGL: Regional Outage Coordination and Security Analysis Regional Operational Security Coordination (Grid Code Potential Change 16)	07/09/2018	01/04/2019	The regional security analysis methodology is currently being developed pursuant to Article 76 of SOGL. This is also unlikely to drive additional request for data due to its scope. However a lot of what that looks like in relation to GB stakeholders is unclear as the methodology is currently being developed by the channel region TSOs

NEXT STEPS...

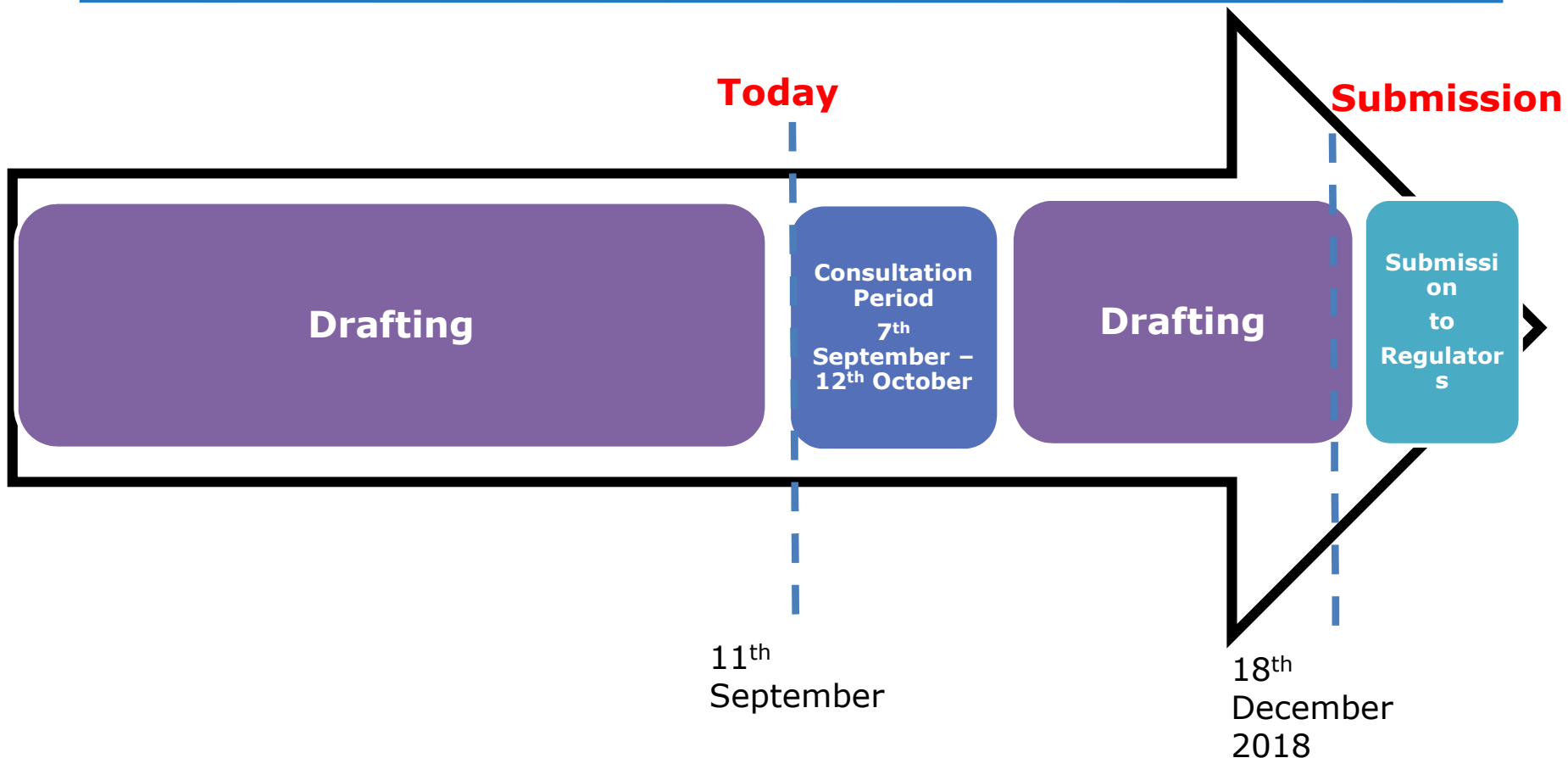
- ❑ All Pan European methodologies have been developed and broadly aligns with existing GB framework therefore we do not believe that changes to the current GB framework is necessary.
- ❑ Regional operational security coordination (ROSC) proposal is currently being developed by all TSOs in the IU & Channel Region in accordance with (Article 76, SOGL)
- ❑ All regional TSOs will also be required to establish a single list of “relevant assets for outage coordination in line with (Article 85, SOGL). NRA and relevant GB stakeholders will be notified but approval is not required for this list.
- ❑ (ROSC) proposal will become clearer in **March 2019** and changes to date of proposed modification to **the April 2019** reflects this outcome.
- ❑ There is no requirement in SOGL for the development of a **regional outage coordination methodology** therefore proposed GC and STC modification is no longer necessary.
- ❑ NGESO will continue to engage stakeholders through the JESG

E&R - EMERGENCY AND RESTORATION

Context

- The E&R required that a system operator produce a system defence plan, to be enacted in the event of significant issues affecting the system. It also required a restoration plan detailing the actions to be taken to restore supply in event that the system enters a Blackout state as defined by SOGL. Finally, it also details how the defence and restoration capabilities should be tested for compliance
- E&R entered into force in December 2017

Emergency and Restoration – Market Suspension



- E&R requires a proposals for Market Suspension, System Restoration, System Defence and the Terms and Conditions for restoration providers to be submitted to regulators on the 18th December 2018. NGET are currently developing their proposal and will be running a transparent consultation
- Consultation is now **open** and **closes** 12th October 2018. The consultation can be found [here](#).

Today's Approach

- Following on from the industry code mapping review in January 2017 we have reviewed documents the requirements under E&R
- We propose giving you a short overview of the following documents:
 - Rules for Market Suspension
 - Terms and Conditions for Providers
 - System Defence Plan
 - System Restoration Plan
- Your input and guidance is valuable during this process

Market Suspension

- Market Suspension Rules, comprising of:
 - a) the rules for suspension and restoration of market activities, in accordance with E&R Article 36(1);
 - b) specific rules for imbalance settlement and settlement of balancing energy in case of suspension of market activities, in accordance with E&R Article 39(1);
 - c) a proposal specifying the level of demand loss at which the transmission system shall be in the blackout state, in accordance with SOGL Article 18(4).

Market Suspension Key Features

- The definition of a “Blackout State” for GB should be aligned with the current definition of “Total Shutdown” and remain defined within the Grid Code. Both have aligned definitions within the BSC and Grid Code.
- It is the view of National Grid that there are two situations involving Partial shutdown that would require the GBSO to declare an Emergency State.
 - ❖ 1. The transmission company declares a partial shutdown as detailed in GC OC9.4.1, however the Market Suspension threshold as detailed in BSC G-3.1.5 has not been met. NGSO will have met article 18 point 3 (c) by declaring a partial shutdown. A possible issue could arise as in some situations the GBSO could declare that we have met the requirements under E&R article 35 to suspend the markets without meeting the 5% demand loss threshold.
 - ❖ 2. The transmission company declares a partial shutdown as detailed in GC OC9.4.1 and a Market Suspension as detailed in BSC G-3.1.5. NGSO will have met point 3 (c) by declaring a partial shutdown and suspending the market.

Terms and Conditions for Providers

- The terms and conditions for both defence service providers and restoration service providers are established within a contractual basis between NGET and the relevant providers. All contractual obligations and conditions are currently displayed on our website
- The rules that are being consulted upon are our business as usual procedures and conditions for providers. We have not proposed any changes to the terms and conditions of pre-existing contracts.

System Defence Plan

- Art 11 of the Emergency and Restoration code states that a System Defence Plan will be designed in consultation with relevant impacted parties.
- The intention of the plan is not to replace any provisions currently in place in the GB codes nor to amend the Operational Security Limits, but to collate the provisions and show compliance with the Emergency and Restoration Code.
- This System Defence Plan has been developed taking the following into account;
 - the operational security limits set out in accordance with Article 25 of Regulation (EU) 2017/1485 {SOGL};
 - the behavior and capabilities of load and generation within the synchronous area;
 - the specific needs of the high priority Significant Grid Users listed in Appendix C;
 - the characteristics of the National Electricity Transmission System and of the underlying DSO systems.

System Defence Plan Key Features

- Procedures in this System Defence Plan will be activated when the System is in Emergency state or operational security analysis requires the activation of a measure. All procedures will be activated by the NETSO in coordination with DSOs, SGUs and Defence Service Providers.
- E&R requires that the Automatic Low Frequency Demand Disconnection disconnects at least 50% of Total Load. The Grid Code OC6 obliges DSOs to provide progressive Automatic Low Frequency Demand Disconnection of up to 60% of their total demand.

System Defence Plan Procedures

- Under Normal State, the frequency across the National Electricity Transmission System is maintained within the Standard Frequency range of 50 +/-0.2 Hz to ensure operation within the Maximum Steady State Frequency Deviation of +/-0.5 Hz.
- System Frequency across the GB Synchronous Area is controlled by response from contracted generation, demand side and energy storage providers.
- Sufficient response (FCR) is held to ensure that frequency:
 - remains within the Standard Frequency range (50 +/- 0.2 Hz) for infeed losses of < 300 MW;
 - remains within the Maximum Steady State Frequency Deviation (+/- 0.5 Hz) for infeed losses of < 1000 MW;
 - deviation does not exceed the Maximum Instantaneous Frequency Deviation of 0.8 Hz for the maximum credible infeed loss on the system at any time.
- Where insufficient Replacement Reserve provision by the market is forecast, then BM Start-Up contracts with long notice BM Units are enacted to ensure that sufficient reserves will be available.

System Restoration Plan

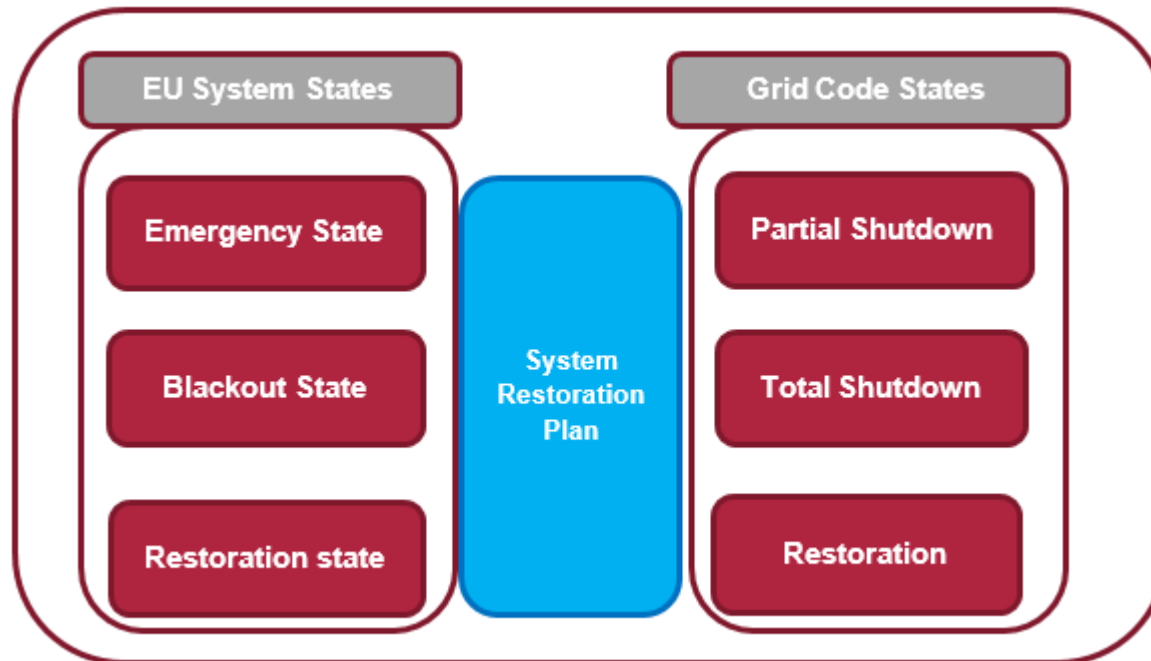
- The Restoration Plan consists of the technical and organisational measures necessary for the restoration of the system from a Partial or Total Shutdown to the defined normal state, taking into account Significant Grid Users (SGU) capabilities (including Embedded SGUs), External Interconnections and the operational constraints of the Total System.
- System Restoration Plan will be reviewed with the other Transmission System Operators (TSOs). This Plan is not intended to replace any provisions currently in place in the GB Codes nor to amend the Operational Security Limits, but to collate the current provisions and show compliance with the NCER. Where there is a discrepancy or requirement for additional contract / terms / code amendments these will be identified.
- Restoration Plan will impact all TSOs, Distribution System Operators (DSOs) in Great Britain, Restoration Service Providers (RSPs) and those classed as Significant Grid Users (SGUs)

System Restoration Plan Key Features

- The main objectives of these plans include
 1. To achieve the Re-Synchronisation of parts of the Total System which have become Out of Synchronism with each other
 2. To ensure that communication routes and arrangements are available to enable representatives of the TSOs, DSOs and SGUs, who are authorised to make binding decisions on behalf of the TSO, DSO or the relevant SGU, as the case may be, to communicate with each other in the situation described in the conditions below
 3. To describe the role that in respect of TSOs, DSOs, RSPs and/or SGUs may have in the restoration processes as detailed in the relevant De-Synchronised Island Procedures (DIP's) and Local Joint Restoration Plans (LJRPs).
 4. To identify and address as far as possible the events and processes necessary to enable the restoration of the Total System to a normal state, after a Total Shutdown or Partial Shutdown.

Activation of the Restoration Plan

- The SRP can be activated, and remain active, through the Emergency, Blackout and Restoration states as shown below.



- Activation of the SRP will occur once the NETSO determines and informs the BSCCo that either a Total Shutdown or a Partial Shutdown exists and subsequent Black Start instructions are required for restoration.

List of SGUs

The relevant list of Significant Grid Users (SGUs) applies to both the System Defence Plan and Restoration Plan.

The list shall apply to the following Significant Grid Users (SGUs):

- (a) existing and new power generating modules classified as type C and D in accordance with the criteria set out in Article 5 of Commission Regulation (EU) 2016/631 [NC RfG];
- (b) existing and new transmission-connected demand facilities;
- (c) existing and new transmission-connected closed distribution systems;
- (d) providers of redispatching of power generating modules or demand facilities by means of aggregation and providers of active power reserve in accordance with Title 8 of Part IV of Commission Regulation (EU) 2017/1485 {SOGL}; and
- (e) existing and new high voltage direct current ('HVDC') systems and direct current-connected power park modules in accordance with the criteria in Article 4(1) of Commission Regulation (EU) 2016/1447 [NC HVDC].

List of responsible SGUs to be produced by 18th December 2018.

3. ENTSOE European Stakeholder Committees Update

Market Stakeholder Committee: Steve Wilkin

Grid Connection Stakeholder Committee: Garth Graham

Public

MESC meeting September 2018

(Market European Stakeholder
Committee)

JESG, 11 September 2018
Steve Wilkin

ELEXON

Agenda of MESC 4 September 2018 (1)

- Source slides here: https://electricity.network-codes.eu/network_codes/esc/
- Recent Developments
 - ACER market monitoring report in October
 - ACER webpages on Network Codes 'greatly improved'
 - Market suspension & restoration (to be discussed on 13 September 2018)
- Balancing Issues
 - Pricing & Activation List consultations until 5 November 2018
 - Timing issue
 - Responses to MARI consultation
- CACM Issues
 - CORE region Capacity Calculation Methodology (CCM)
 - ACER assessment of CCMs; Redispatching and Countertrading methodologies including IU and Channel
 - XBID (intraday coupling) performance

Agenda of MESC 4 September 2018 (2)

- Source slides here: https://electricity.network-codes.eu/network_codes/esc/
- CACM issues (continued):
 - All day-ahead coupling performance greatly impacted by German-Austrian bidding zone split
- Transparency Issues:
 - EFET criticism of TSOs' transparency in CWE Region (as an example)
 - ENTSO-E on transparency of capacity calculations - going further than the legal obligations
- Coming up:
 - Harmonisation of Imbalance Settlement Webinar (ENSTO-E) end September
 - Pricing and Activation List Workshop mid October
 - EBSG moved to 19 November
 - MESC 5 December – Network Code amendment process



•11th Grid Connection European Stakeholder Committee Meeting

Friday, 14 September 2018, 09:00-15:30

Meeting address: Avenue de Cortenbergh 100, 1000 Brussels, Belgium, Meeting Room FARADAY and WATT on the ground floor, ENTSO-E

Ref: GCESC 09-01

Joint topics for GC ESC and SO ESC 09:00 – 11:00			
Time	Agenda Topics	Accompanying documents	Lead
09:00 – 09:30	1. Opening - Welcoming address + Agenda - Review and approval of minutes from previous meeting - Follow-up actions from previous meeting	<i>Agenda</i> <i>Slides</i>	ACER (Uros Gabrijel) ENTSO-E / (Kristel Romeo, Ioannis Theologitis)
09:30 – 09:50	1. Notice about the new EGs under GC ESC		ENTSO-E (Ioannis Theologitis)
09:50 – 10:00	1. NC High-Level Implementation Group	<i>Slides</i>	ENTSO-E (Sonya Twohig)
10:00 – 10:15	1. Update on ENTSO-E consultation processes and tools	<i>Slides</i>	ENTSO-E (Stela Nenova)
10:15 – 10:45	1. Stakeholder topics	<i>Slides</i>	Stakeholders
10:45 - 11:00	<i>Coffee break</i>		

•11th Grid Connection European Stakeholder Committee Meeting

Time	Agenda Topics	Accompanying documents	Lead
11:00 – 11:30	1. Opening - Draft Agenda - Review and approval of minutes from previous meeting - Follow-up actions from previous meeting	<i>Agenda, Minutes Slides</i>	ACER (Uros Gabrijel) ENTSO-E (Ioannis Theologitis)
11:30 – 11:45	1. Connection Network Codes implementation - Update from the ongoing Expert Groups <ul style="list-style-type: none"> o Expert Group on High Penetration o Expert Group on Compliance Monitoring - Forward planning for activities in 2018	<i>Slides</i>	ENTSO-E (Ioannis Theologitis)
11:45 – 12:45	3. Creation of new EGs	<i>Slides</i>	ACER (Uros

Time	Agenda Topics	Accompanying documents	Lead
	3.1. Report on the process of nomination of experts and drafting the ToR and Annexes 3.2. Approval of the EG ToR (Boilerplate)	<i>Boilerplate</i>	Gabrijel) / ENTSO-E (Ralph Pfeiffer, Emilie Milin, Robert Wilson, Ioannis Theologitis)
12:45 – 13:30 Lunch			
13:30 – 14:30	Creation of new EGs (<i>continue...</i>) 3.3. Approval of the Annex on the Definition of storage devices 3.4. Approval of the Annex on the Requirements for hydro pump-storage modules 3.5. Approval of the Annex on the Clarifications about mixed customer sites with generation, demand and storage and definition of system users	<i>Individual Annexes for EGs</i>	ENTSO-E (Ralph Pfeiffer, Emilie Milin, Robert Wilson, Ioannis Theologitis)
14:30 – 15:00	List of additional topics for EGs that have been received during the respective survey	<i>Slides</i>	ENTSO-E (Ralph Pfeiffer)
15:00 – 15:15	HVDC system interaction studies – confidentiality aspects	<i>Slides</i>	EC (Elaine O’Connell) ACER (Uros Gabrijel)
15:15 – 15:35	Processes for equipment certificates and accreditation.	<i>Slides</i>	EFAC (Bernhard Schowe-von der Brelie)

•Next Meeting dates 2018:

GC ESC	SO ESC
13 December, ENTSO-E	14 December, ENTSO-E

4. Brexit

Matthew Ramsden (BEIS), Culwick, Elizabeth (BEIS)
and Eleanor Brogden (NGESO)

5. Actions log

Andrew Hemus

JESG Technical Secretary

JESG Standing items

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

JESG Open Actions

ID	Topic	Lead Party	Status	Update
97	Slide 12 Slidepack – Article 49 has derogation been published. Link to be added onto slide updating presentation.	RS	Open	
98	“DRSC” Ofgem approval to come back to future JESG meeting.	MT	Open	

6. Future Meeting Dates & Agenda Items

Andrew Hemus

JESG Technical Secretary

Future JESG Meetings

- 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
Tuesday 9 October 2018	
Tuesday 13 November 2018	
Tuesday 11 December 2018	

7. Stakeholder Representation

All

8. AOB