

Grid Code Review Panel

Thursday 24 September
2020

Online Meeting via WebEx



WebEx details

Meeting link (copy into web browser):

<https://uknationalgrid.webex.com/uknationalgrid/j.php?MTID=m67315dc3bb09ff4e37acfa83cd4d65ab>

Audio connection:

Telephone: 020 7108 6317

Access code: 130 443 1044

Password: RmmEjMfe328

WELCOME

As we continue to operate in these uncertain times and following best practice from other businesses, we want to adapt to be able to facilitate the governance process in the best possible way. Since moving to virtual Panel meetings, we have found it harder to accurately capture minutes and attribute comments correctly to attendees. We are also conscious of the impact of short periods of poor sound quality. With your consent, we wish to use WebEx to record all Panel meetings to help us accurately document minutes. We want to assure you that the recordings will be explicitly used to document minutes only and the same protocol for Panel meetings still applies in terms of strict confidentiality. As has always been the case, the draft minutes will be sent to Panel and the Chair for approval each month. Once the minutes are approved, the recording will be deleted. A reminder of this and consent will be sought at the beginning of each meeting, to be noted in the minutes.

As the independent Panel Chair, we have tested the appropriateness of recording Panel meetings with Trisha McAuley who is supportive of the approach. We welcome any comments or feedback on this.

Introductions & apologies for absence

- **Apologies**

- **Alternates**

- **Presenters**

Mike Oxenham - National Grid, ESO

- **Observers**

Bryan Rhodes - Alternate, Offshore Transmission Operator Representative

Approval of Panel Minutes

Approval of Panel Minutes from the Meeting
held 27 August 2020



Actions Log

Review of the actions log



Chair's Update

An update from the Chair about ongoing relevant work, discussions etc.



Authority Decisions

ofgem

☐ None pending

nationalgridESO



In Flight Modification Updates

**Review of all Grid Code modifications
with current status, next steps and any
Panel recommendations**

UPDATE: GC0103 - The introduction of harmonised Applicable Electrical Standards in GB to ensure compliance with the EU Connection Codes

Richard Woodward,
Onshore Transmission Operator Representative

Dashboard – Grid Code (as at 16 September 2020)

Category	Apr	May	Jun	Jul	Aug	Sept
New Modifications	2	3	0	2	0	0
In-flight Modifications	22	24	24	22	22	22
Modifications issued for workgroup consultation	1 <i>GC0131</i>	1 <i>GC0134</i>	0	1 <i>GC0131</i>	0	0
Modifications issued for Code Administrator Consultation	2 <i>GC0130</i> <i>GC0136</i>	1 <i>GC0143</i>	1 <i>GC0143</i>	2 <i>GC0142</i> <i>GC0131</i>	0	0
Workgroups held	1	4	2	4	4	5
Authority Decisions	0	1 <i>GC0143,</i> <i>GC0096</i> <i>GC0105</i>	0 <i>GC0132</i>	0	0	1 <i>GC0133</i>
Implementations	0	1 <i>GC0143</i>	4 <i>GC0096</i> <i>GC0105</i> <i>GC0129</i> <i>GC0132</i>	0	0	0
Modifications on Hold	1	1	1	1	1	1
Workgroups postponed due to quoracy issues	0	0	0	0	0	0

Grid Code Workgroups for next 3 months (as at 24 September 2020)

September (total = 6)

- GC0145 x 2 – 10 Sep and 29 Sep
- GC0147 x 2 – 8 Sep and 28 Sep
- GC0137 – 22 Sep
- GC0109 - TBC

November (total = 5)

- GC0145 – 10 Nov
- GC0147 x 2
- GC0109
- GC0139 – 17 Nov

October (total = 4)

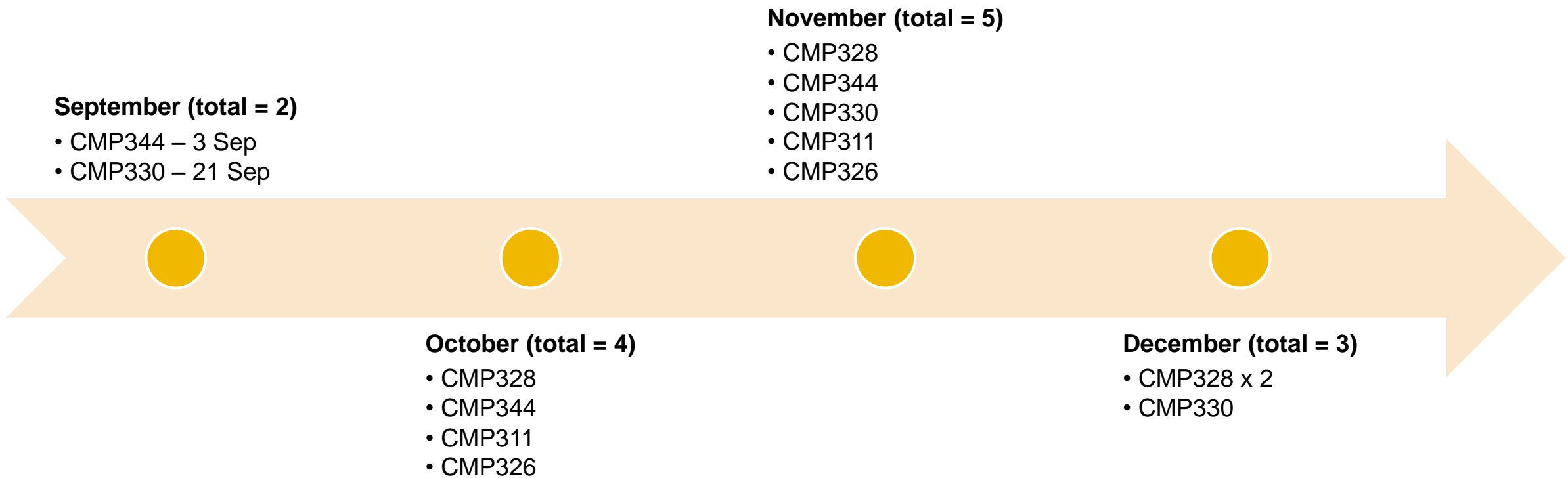
- GC0138/141 = w/c 12 Oct
- GC0139 – 14 Oct
- GC0147
- GC0134

December (total = TBC)

- GC0145 – 1 Dec
- GC0147

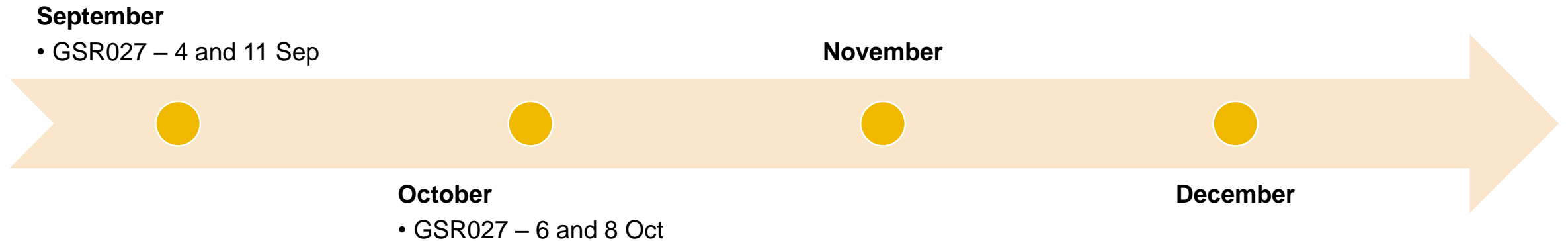
See Notes explaining what each Modification is seeking to achieve

CUSC Workgroups for next 3 months (as at 24 September 2020)



See Notes explaining what each Modification is seeking to achieve

STC and SQSS Workgroups for next 3 months (as at 24 September 2020)



GSR027 - To address the specific actions from the Energy Emergency Executive Committee (E3C) and Ofgem final reports into the power outage of 9th August 2019 for the ESO to review, in consultation with industry, the NETS SQSS requirements that drive reserve, response and inertia holding on the GB electricity system.

BREAK



Draft Final Modification Reports

**GC0131 - Quick Win Improvements to Grid Code Open
Governance Arrangements**

Nisar Ahmed, Code Administrator Representative

GC0131 Background

GC0131 was proposed by National Grid ESO (Rob Wilson) on 11 September 2019.

Since the implementation of open governance arrangements into the Grid Code in modification [GC0086 'open governance'](#), the experience of working with the new open governance processes has helped to identify a number of areas where specific improvements could be made to the existing arrangements.

These currently impact the smooth and efficient running of workgroups, and the swift progression of changes to the code making the best use of industry time.

While Ofgem consulted on potential changes to arrangements over summer 2019, the minor changes set out in this modification proposal are felt to be “quick wins” and no regrets in nature and could be achieved ahead of any more comprehensive changes.

GC0131 Background

The areas that were considered in the proposal are as follows:

- Initial assessment of proposals
- Quoracy
- Assessment of alternatives
- Titles and summaries of proposals
- Role of the Code Administrator Consultation
- Production of draft legal text

GC0131 Code Administrator Consultation

The Code Administrator Consultation was issued on the 24 July 2020 for one calendar month and closed on 24 August 2020.

2 responses were received from the following industry parties:

- NGESO (Rob Wilson)
- Northern Power Grid (Alan Creighton)

On whether or not the Original better facilitates the Grid Code Objectives than the Baseline.

One respondent believed that the Original and WAGCM1 would both improve the efficient development of modifications by clarifying the process and providing additional governance flexibility but they had the view that WAGCM1 better facilitates the Grid Code objectives as a whole.

One respondent believed that both the Original and WAGCM1 better facilitate objective (v) in improving the administration and efficiency of the Grid Code arrangements. In facilitating a more efficient code modification process and removing blockers they will also help in the development of the system so improving objective (i).

GC0131 Code Administrator Consultation

On supporting the proposed implementation approach.

Both respondents supported the proposed implementation approach in terms of:-

- The changes made in this modification should apply to any new modifications and any existing modification in progress.
- No significant costs are expected in implementation. In applying this modification to any work in progress efficiencies will begin to be achieved immediately.

Legal text changes

1 respondent cited 9 minor issues with the legal text. These have been assessed by the Proposer.

- GR 22.4 Do Panel consider the amendments “typographical”?

Yes → Instruct Code Administrator to make changes to legal text and proceed with vote

No → Direct to a workgroup, or;

→ Instruct Code Administrator to make changes to legal text and re-issue Code Administrator Consultation

GR.22.4 A draft of the **Grid Code Modification Report** shall be tabled at the **Panel Meeting** prior to submission of that **Grid Code Modification Report** to the **Authority** as set in accordance with the timetable established pursuant to GR.19.1 at which the Panel may consider any minor changes to the legal drafting and:

i (i) if the change required is a typographical error the **Grid Code Review**

Panel may instruct the **Code Administrator** to make the appropriate change and the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**; or

i (ii) if the change required is not considered to be a typographical error then

the Grid Code Review **Panel** may direct the **Workgroup** to review the change. If the **Workgroup** unanimously agree that the change is minor the **Grid Code Review Panel** may instruct the **Code Administrator** to make the appropriate change and the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote** otherwise the **Code Administrator** shall issue the **Grid Code Modification Proposal** for further **Code Administrator** consultation after which the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**.

i (iii) if a change is not required after consideration, the **Panel Chairman** will undertake the **Grid Code Review Panel Recommendation Vote**.

GC0131 - Code Administrator Consultation – Legal Text

Title of Issue	Details of proposed change by respondent	NGESO response from Proposer
Issue 1: Glossary & Definitions Section: Limited Membership Workgroup	A Workgroup having less than five (5) but more than two (2) persons that have nominated themselves for membership in addition to the Code Administrator representative and the chair of the Workgroup . Unbold the “.”	Agreed
Issue 2: Glossary & Definitions Section: Proposer	In relation to a particular Grid Code Modification Proposal , the person who makes such Grid Code Modification Proposal ; Replace “;” with “.”	Agreed
Issue 3: Contents Page	Replace “Page i of 40” to “Page 1 of 40”	Agreed

GC0131 - Code Administrator Consultation – Legal Text

Title of Issue	Details of proposed change by respondent	NGESO response from Proposer
Issue 4: GR.15.11	<p>(d) Assisting the Proposer and Workgroup by producing draft legal text once a clear solution has been developed to support the discussion and understanding of a Grid Code Modification Proposal; and</p> <p>1) The use of Assisting here isn't quite correct as the sentence reads</p> <p>...limited to, assistance with Assisting the Proposer.....</p> <p>Helping might be more appropriate word?</p> <p>2) Also unbold the “;”</p>	Agreed
Issue 5: GR.20.7	Need consistent punctuation at the end of each bullet	All clauses should be semi-colon and second last clause has semi-colon and “and” then last clause should have full stop.
Issue 6: GR.20.18	Unbold “;”	Agreed

GC0131 - Code Administrator Consultation – Legal Text

Title of Issue	Details of proposed change by respondent	NGESO response from Proposer
Issue 7: GR.22.4	<p>A draft of the Grid Code Modification Report shall be tabled at a meeting of the Grid Code Review Panel the Panel Meeting prior to submission of that Grid Code Modification Report to the Authority as set in accordance with the timetable established pursuant to GR.19.1, and at which the panel may consider any minor changes to the legal drafting, which may include issues identified through the Code Administrator consultation, and:</p> <p>Is the word “and” required here?</p>	<p>Yes I think the word “and” is helpful here and should remain.</p> <p>Grid Code Review Panel and Panel are terms that are used interchangeably and are both defined.</p>
Issue 8: All document	<p>Just need to review the text once the change tracking has been accepted to make sure that there are spaces between all the words - looks like some examples where the space is change tracked has being deleted.</p>	<p>Code Administrator to take care when implementing and remove additional spaces where required.</p>
Issue 9: GR.25.7	<p>Unbold three “.” (full stops)</p>	<p>Agreed</p>



Ask of the Panel

**The Panel is invited by the
Independent Chair to:**

- Undertake the Recommendation
Vote for GC0131 (GR.22.4)

- Recommendation Vote
- Final Modification Report to be issued
- Timetable below:

Stage gate	Date
Circulation of Final Modification Report for Panel review ahead of submission to Authority (5 working days)	28 Sept 2020
Final Modification Report submitted to Authority for decision	05 Oct 2020
Anticipated Decision from Authority (25 working days)	06 Nov 2020
Implementation date	10 working days after Ofgem decision

Reports to Authority

GC0142: Adding Non-Standard Voltages to the Grid Code (21 September 2020) with equivalent SQSS modification (GSR026)

Early Competition Plan

Phase 2 Consultation Overview –
Mike Oxenham, NGENSO



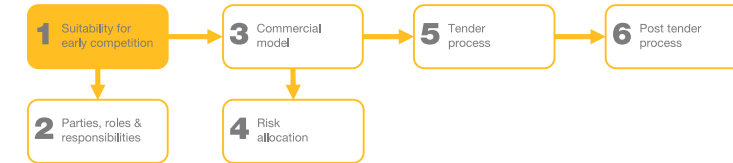
Early Competition Plan

- Ofgem asked the ESO to deliver an Early Competition Plan by end of February 2021
- The Early Competition Plan will:
 - describe an end-to-end process of how early competition may work
 - set out how models for early competition could be implemented
 - outline the roles and responsibilities of all parties in the proposed end-to-end process
- Our Phase 2 consultation (which focuses on the proposed end to end process) closed on 14 August 2020
- This presentation provides an overview of what we proposed in our Phase 2 consultation
- We are now reflecting on consultation feedback and planning further stakeholder engagement for Phase 3
- Phase 3 will include further thinking on how the industry codes could be impacted by the implementation of early competition as well as the associated timescales and processes for future code modifications

Early Competition Model



We are seeking views on our proposed process and criteria for determining whether to compete projects



Drivers of network needs

Boundary reinforcements covered in this consultation. Other drivers explored in next consultation

Process

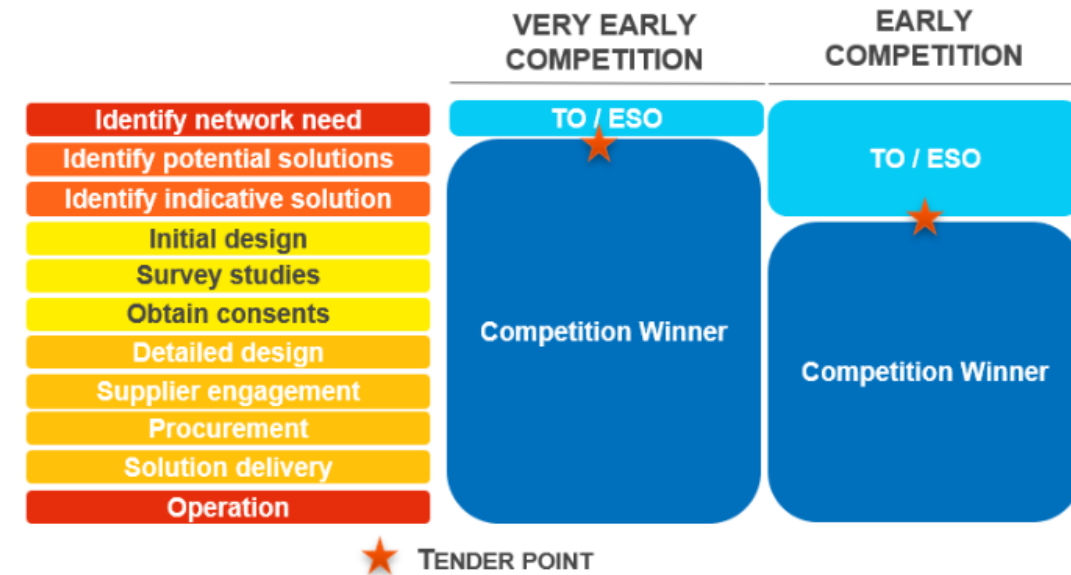
Launch tender at 'early' point (after indicative design developed through NOA process)

But.... **begin market engagement 'very early'** in order to ensure the indicative design considers as broad a range of options as possible.

Criteria

Propose further exploration of potential for **no minimum value threshold** – instead a **CBA** undertaken on individual projects

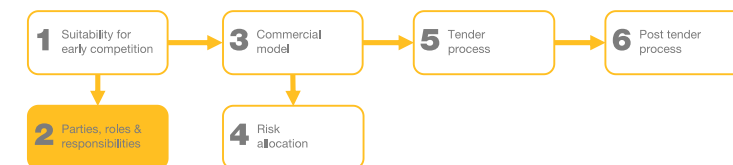
Also propose to consider market appetite, certainty, new and separable



We are consulting on which roles, responsibilities and parties would be best to facilitate early competition

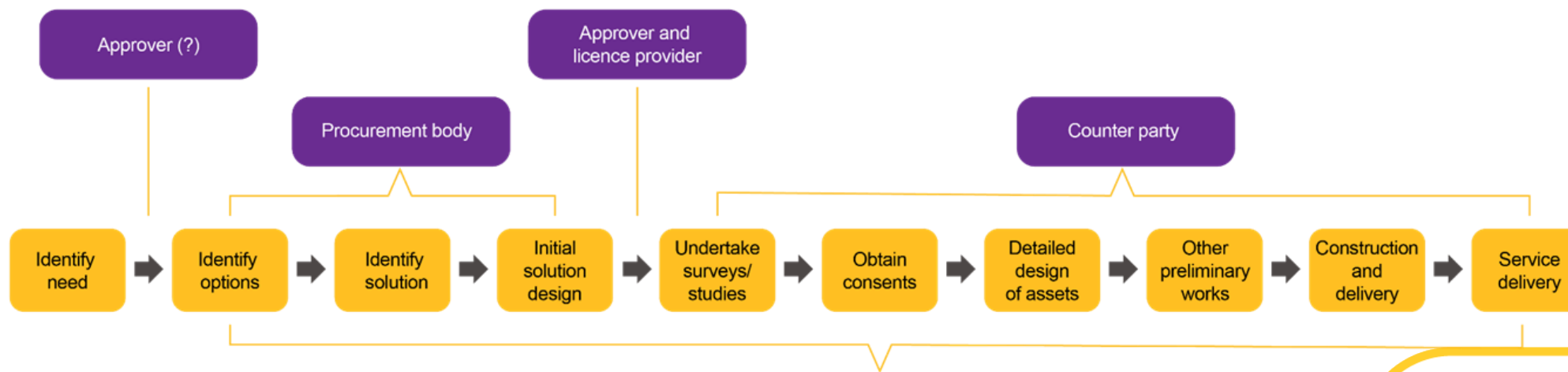
Parties

- ESO, Ofgem and the potential of a third party
- Incumbent TOs
 - TOs will bid into the same procurement process
 - Subject to the same post tender arrangements as other bidders, including receiving a revenue stream and adhering to any cost change mechanisms developed for the process



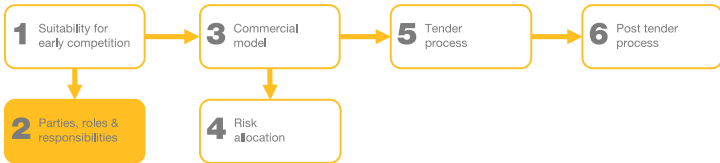
We are seeking views on whether TO's should participate in competitions through the same process as other bidders and what needs to be in place for this to happen.

We have identified 4 key new roles in early competition



What role could the TO play during the process?

We are seeking views on these roles and which entities would be best placed to fulfil each new role



Procurement Body

The role could be carried out by:

nationalgridESO

Or

ofgem

Or



Approver

These entities could carry out these roles:

nationalgridESO

Or

ofgem

Or



This role could be shared across two separate entities

License provider

The power to issue a License sits with:

ofgem

We do not envisage any other party would be more appropriate to undertake this role

Counterparty

This role is split by transaction:

• License

ofgem

• Contract



Or nationalgridESO

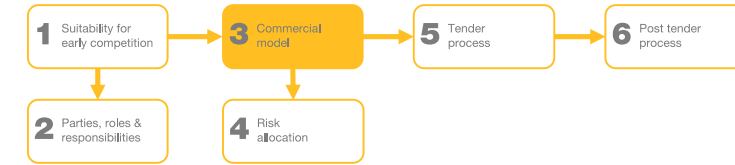
• Payment



Or nationalgridESO

nationalgridESO

We are seeking views on the revenue model, the revenue duration and the end of revenue period arrangements



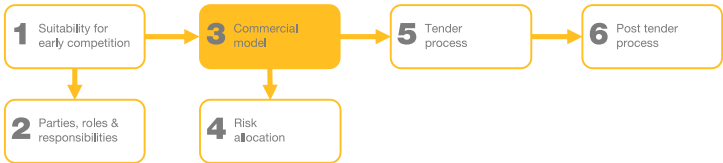
We propose that:

- Successful bidders are awarded an indexed tender revenue stream for up to a maximum period of 45 years
- This tender revenue stream will be set based upon the expected duration of the tendered network needs
- A revenue period extension mechanism will be required where a need and technical asset life remains

We are seeking views on the commercial model, cost assessment process and debt competition

We propose that:

- Underlying costs remain indicative at tender award and become fixed via a post preliminary works cost assessment process
- Overheads and margins are fixed at tender award
- The cost of equity is fixed at tender award
- The cost of debt remains assumed at tender award and becomes fixed via a post preliminary works debt competition



Post-prelims cost assessment with debt competition			
1. Underlying costs	I	X	
2. Overheads/margins	X		
3. Equity cost	X		
4. Debt cost	A	X (FC)	

Key:

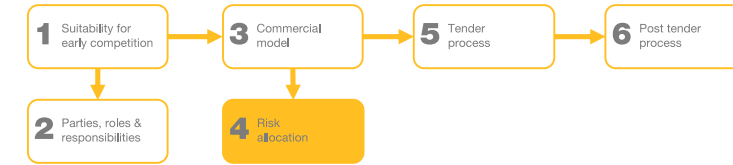
I	stage at which bidder provides indicative cost
A	stage at which procuring authority provides an assumption
X	stage at which bidder is committed to a cost item
(FC)	financial close for any third party debt

We are seeking views on risk and risk allocation

Key risks which we start to consider in the consultation are as follows:

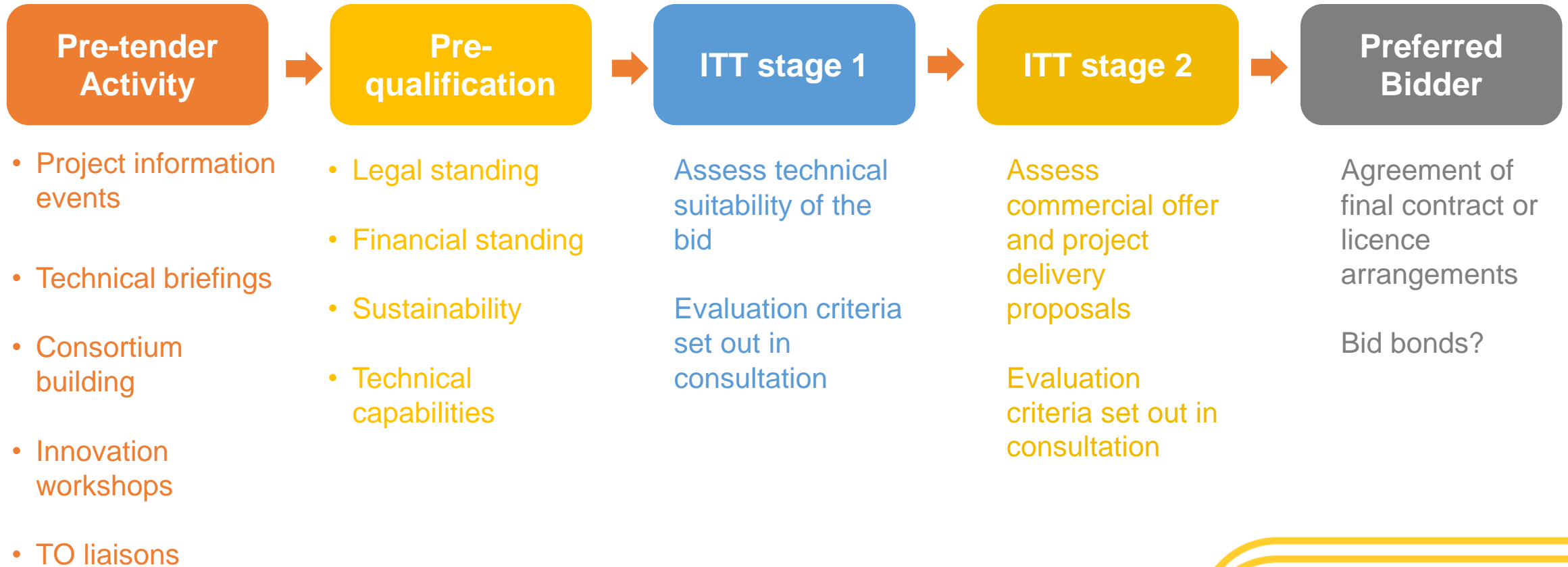
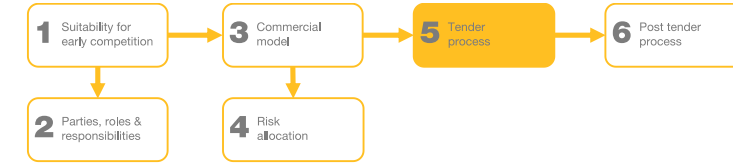
Risk	Bidders	Shared	Consumers
Change in need			X
Preliminary Works e.g. consents		X	
Debt		X	
Refinancing		X	
Commissioning	X		
Decommissioning	X		

Any risk transfer from bidders to consumers will need to be proportionate and be expected to provide a benefit to consumers



We expect any shared risks in the preliminary works stage will be linked to the cost assessment process

We are seeking views on our proposed tender process



We are seeking views on whether the proposed list of network related information is adequate to develop a tender proposal?

List of data

System Requirement Form (pt A)

Required and expected boundary capability

ETYS models

Circuit information over 10 years

Network modelling

Software to model solutions

Study guidelines

Assumptions to be used for modelling

Land

Info held by ESO and TO's

CBA tool

Bidder can run own indicative cost benefit

Key messages

Technology agnostic

Support development of network and non-network solution

Access

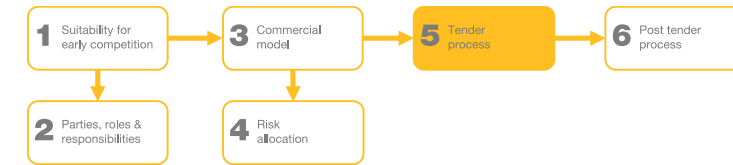
For bidders not signed up to STC, non-disclosure agreements required before access supplied and supplied models will have encrypted core data

Feedback to date

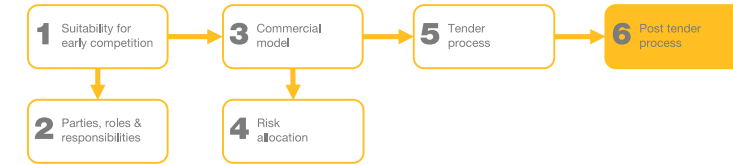
Proposed list of information and access measures is appropriate

Areas for further exploration

Pre-submission review; Post Award access to detailed technical information



We are seeking views on payments, incentives and decommissioning arrangements

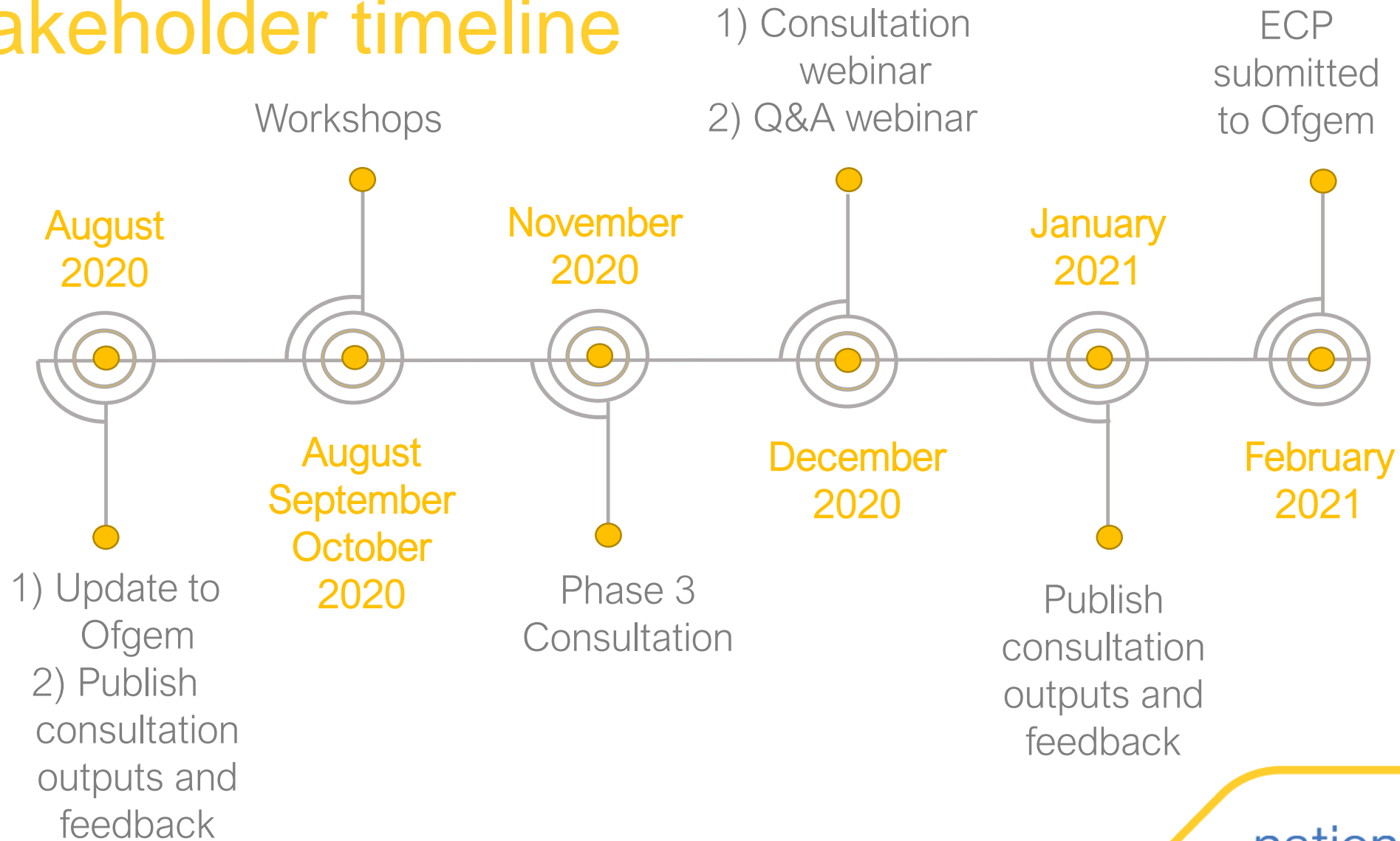


We propose that:

- The tender revenue stream will commence upon solution commissioning but that there is also the potential for earlier milestone-based payments for preliminary works
- There will be an availability based operational incentive, as well as potential operational incentives related to environmental and timely connections performance
- The tender revenue stream includes decommissioning costs and there will need to be associated securities

The preferred bidder will be provided with a licence or contract (as appropriate) so they can deliver and operate the successful solution for the tendered revenue period

Stakeholder timeline



Next steps

- We are holding further engagement workshops in September 2020 to feed into our ongoing model development.
- Our Phase 3 consultation is expected to be launched in November 2020.
- If you have any comments or questions you can contact us in the meantime.

Box.earlycompetition@nationalgrideso.com



Q&A



Implementation Update

None

Electrical Standards

No Update



Governance

1. **GC0133 Authority decision and next steps for Panel decision**
2. **GC0137 Modification title change**

GC0133 – Authority Decision

GC0133: Timely informing of the GB NETS System State condition

Their decision has been a **send back** requiring further information.

To enable the Authority to make a decision on this modification proposal they need more detailed information on how specific market participants could use the system state updates in practice, and a demonstration of what positive steps they could take upon receiving these updates. They also need additional information on the challenges of publishing this information as proposed by this modification.

One of the aims of this modification is to enable market participants to be aware of the condition of the NETS, to allow them to perform their work in a way that is conducive to supporting the ESO. The Authority noted that this modification does not however require the ESO to inform market participants of the reasons for the changes in system state.

The Authority therefore direct the Grid Code Panel to revise the FMR so that further analysis in respect of objectives (a) and (c) is included, setting out:

- 1. the benefits of the modification to market participants and stakeholders; and**
- 2. the challenges to the ESO of providing this information, including the challenges of publishing the reasons for the changes of system state condition.**

The Code Administrator will request direction from the Grid Code Review Panel on the 24 September 2020.

A large, abstract yellow watercolor splash shape on the left side of the slide, with some darker yellow and brownish spots extending from its edges.

Ask of the Panel

**The Panel is invited by the
Independent Chair to:**

- 1) Instruct this go to a workgroup **or**
- 2) The Code Administrator Consultation to be re-issued.

GC0137 Modification name change

[Slide to be updated before Panel Meeting]

Existing: Minimum Specification Required for Provision of Virtual Synchronous Machine (VSM) Capability

New: Minimum Specification Required for Provision of GB Grid Forming (GBGF) Capability (formerly Virtual Synchronous Machine/VSM Capability)

The background features several decorative yellow lines. In the top left, there are several thin, curved lines that sweep upwards and to the right. In the bottom left, there are several thin, curved lines that sweep downwards and to the right. On the right side, there are several thick, parallel diagonal lines that sweep upwards from the bottom left towards the top right. A horizontal yellow line runs across the bottom of the slide, just above the logo.

Grid Code Development Forum and Workgroup Day(s)

Grid Code Development Forum and Workgroup Day(s)

September Grid Code Development Forum and Workgroup Days

Workgroup Days – 01 and 02 September 2020

GCDF – 02 September 2020 – Draft agenda as follows:-

- Industry Codes and Early Competition – Mike Oxenham (NG ESO)
- Update on findings from E3C report related to 9 Aug Event – Matthew Deitz (Energy UK)

October Grid Code Development Forum and Workgroup Days

Workgroup Days – 06 - 07 September 2020

GCDF – 07 October 2020 – No agenda items (could be cancelled)

Standing Items

- **Distribution Code Panel update (Alan Creighton)**
- **JESG Update (Kavita Patel)**

JESG Update

Joint European Stakeholder Group meeting took place on 08 September 2020.

Bernie Dolan provided an update on “A18 Consultation on Dynamic Containment” and how it will be procured for the soft launch. Dynamic Containment is designed to operate post-fault, i.e. for deployment after a significant frequency deviation in order to meet our most immediate need for faster-acting frequency response.

Six months after go-live all providers must be able to meet the 20Hz requirement to participate in Dynamic Containment.

Robert Selbie, provided an update on Elec-Link. The Splitting Rules determine how this total capacity is apportioned between the various long-term products. Interconnectors offer capacity in various long-term timescales. e.g. annual, quarterly, seasonal, monthly, weekly.

JESG Update

The Channel regulators requested an assessment of the necessity of the proposed reservation of 10% for daily allocation.

- Channel TSOs are currently considering the amendment request and are aiming to submit an amended proposal by 17 October 2020.
- Channel regulators will then have 2 months to consider the updated proposal.

Grahame Neale provided an update on the “Upcoming BSC Modification: Imbalance charges for non-BM balancing service providers” Three potential approaches were considered in detail.

- 1) Make a change to the Balancing Mechanism processes to accommodate – specifically through an extension to the processes and functionality introduced through P354, which introduced functionality to allow energy differences to be settled through the ABSVD mechanism.
- 2) Make a consultative change to existing non-BM balancing service provider contracts to allow any under-delivery against instructed energy to be penalised at any imbalance price (rather than through availability payment clauses). This would be settled directly by NGESO, rather than by Elexon.
- 3) A manual approach to 2) that could be delivered quickly.

JESG Update

In summary, it was felt that an approach that did not fully interact with the BM (options 2 and 3) would not sit coherently with the current market arrangements and would leave too many areas of difficulty (for example dealing with imbalance revenues and neutrality).

For this reason, the proposed BSC Modification (option 1) was felt to be the most logical solution.

Future agenda items suggested for as follows:

- BEIS guidance on Trading electricity from 1 January 2021
- BREXIT update from BEIS
- Clarification on Competition & Markets Authority Role from BEIS
- NGESO update on TERRE, MARI and LIBRA.
- Cross-border participation in capacity mechanisms

The next JESG meeting will be 13 October 2020 starting at 10am.

Link to presentation:

<https://www.nationalgrideso.com/document/176131/download>

Updates on other industry codes



Horizon Scan

(February, May, August, November)

Forward Plan Update/Customer Journey)

- **EBGL Changes**

Nisar Ahmed, Code Administrator

EBGL Article 18 – modification process updates



What is EBGL Article 18?

- The Electricity Balancing Guideline (EBGL) is a European Network Code introduced by the Third Energy Package European legislation in late 2017.
- The EBGL regulation lays down the rules for the integration of balancing markets in Europe, with the objectives of enhancing Europe's security of supply. The EBGL aims to do this through harmonisation of electricity balancing rules and facilitating the exchange of balancing resources between European Transmission System Operators (TSOs)
- Article 18 of the EBGL states that TSOs such as the ESO should have terms and conditions developed for balancing services, which are submitted and approved by Ofgem.
- There is a change process outlined in other EBGL Articles 4, 5, 6 & 10 on how a proposal should be submitted, approved by Ofgem, how it should be amended, and that there should be a one month public consultation.
- ESO submitted terms and conditions for approval to Ofgem that included different sections of different GB network codes, BSC, CUSC and Grid Code, as well as some of the Standard Contract Terms (SCTs).
- This means that if any of those sections change through a modification, they will also legally have to go through a change process that meets the criteria set out in EBGL.

Key points to consider for the modification process

1 month Consultation (Article 10.1)

- This will take place at the Code Administrator Consultation stage.
- For Grid Code, this will be for all Modifications, not just EBGL impacting.

Ofgem must approve Modifications that have EBGL Implications (Article 4.1)

- Where a Modification is also an EBGL change, the Final Modification Report will also be considered to be a EBGL amendment proposal. Ofgem will effectively be taking two aligned decisions against one Final Modification Report.

ESO must consider all responses to the 1 month Consultation (Article 10.6)

- All responses to the consultation should have a 'sound justification' as to whether they are included or not included in the Final Modification Report (Article 10.6).
- For Grid Code, this will be for all Modifications, not just EBGL impacting

Implementation Date no longer than 12 months from Ofgem's approval unless agreed by Ofgem (Article 5.5)

- Final Modification should also contain details of the expected impact on the EBGL objectives (Article 5.5)

If "Send back", an updated Final Modification Report should be returned to Ofgem in 2 months (Article 6.1).

- Some additional steps have been included to allow the Modification Panel to send it back to a Workgroup if needed.

What does this mean for our process

Proposal Form

- Proposers to identify if EBGL implications on Proposal Form – we will clarify with Proposers prior to submission and in Critical Friend window (where required)

Modification Tracker

- Includes a new column to indicate if EBGL implications

Workgroup Terms of Reference

- “Consider EBGL implications” will be added as a Terms of Reference

Code Administrator Consultation

- 1 month if EBGL
- For Grid Code, this will be for all Modifications, not just EBGL impacting.

Modification Templates

- Review structure to allow the EBGL Implications to be called out



AOB

1. **General discussion on impacts of coronavirus outbreak on Grid Code (ALL)**

Next Panel Meeting

10am on 29 October 2020 via WebEx

Papers Day – 21 October 2020

Modification Proposals to be submitted by 14 October 2020

Close



Trisha McAuley
Independent Chair, GCRP