

# Grid Code Development Forum

10:00-11:20

Wednesday 02 September 2020

Digital only meeting via WebEx

Please register below to receive the details to join:

[WebEx Registration Link](#)

# Agenda

1. Introductions
2. Presentation: Industry Codes and Early Competition  
(Mike Oxenham, NG ESO)
3. Presentation: Energy UK Lessons Learnt 9 August Power Interruption  
(Matthew Deitz, Energy UK)
4. Any other business
5. Close



# Early Competition Plan

Phase 2 Consultation Overview

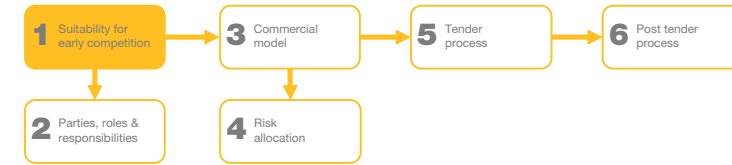
# Early Competition Plan

- 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

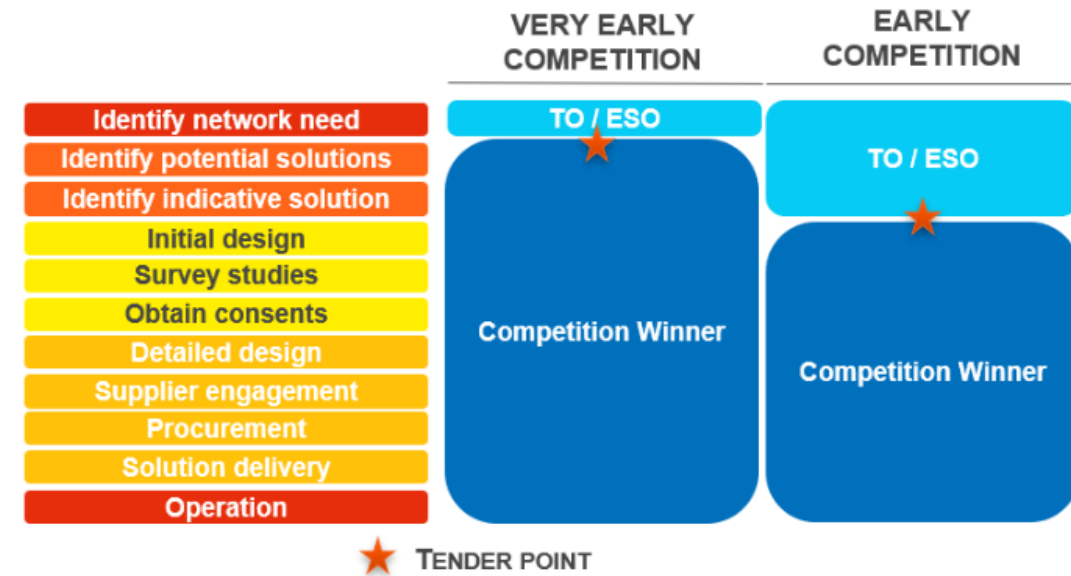
**Launch tender at 'early' point** (after indicative design developed through NOA process)

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

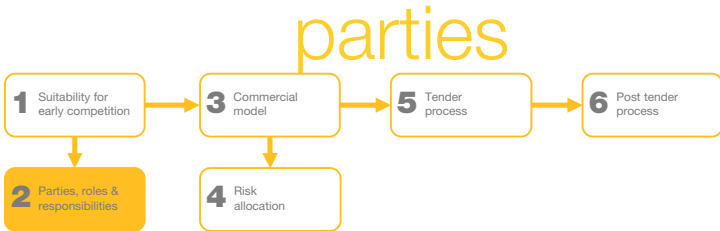
## Criteria

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 would be best to facilitate early competition

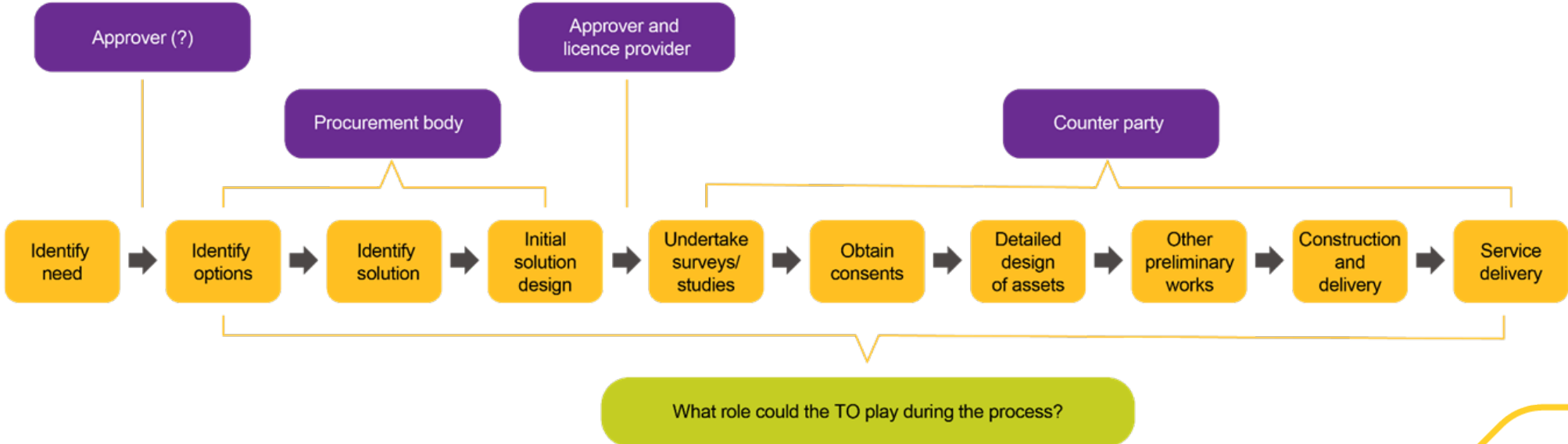


### Parties

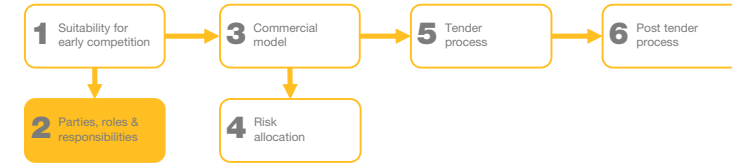
- ESO, Ofgem and the potential of a third party
- Incumbent TOs
  - TOs will bid into the same procurement process
  - Subject to the same post tender arrangements as other bidders, including receiving a revenue stream and adhering to any cost change mechanisms developed for the process

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



# 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

## Licence provider

The power to issue a Licence 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:

- Licence

ofgem

- Contract



Or nationalgridESO

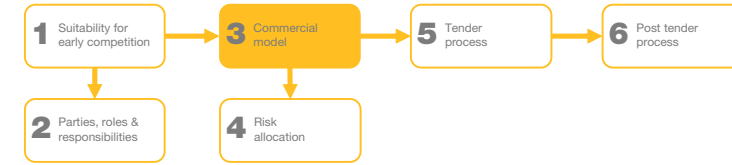
- Payment



Or nationalgridESO



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



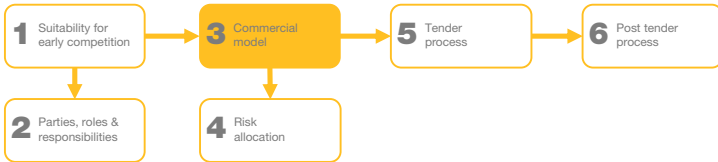
We propose that:

- 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

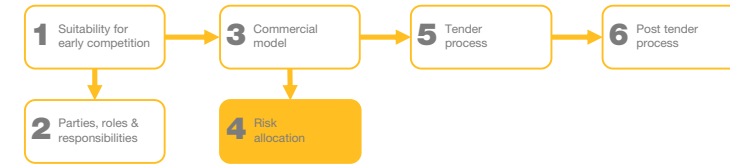


Post-prelims cost assessment with debt competition			
1. Underlying costs	I	X	
2. Overheads/margins	X		
3. Equity cost	X		
4. Debt cost	A	X (FC)	

**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:

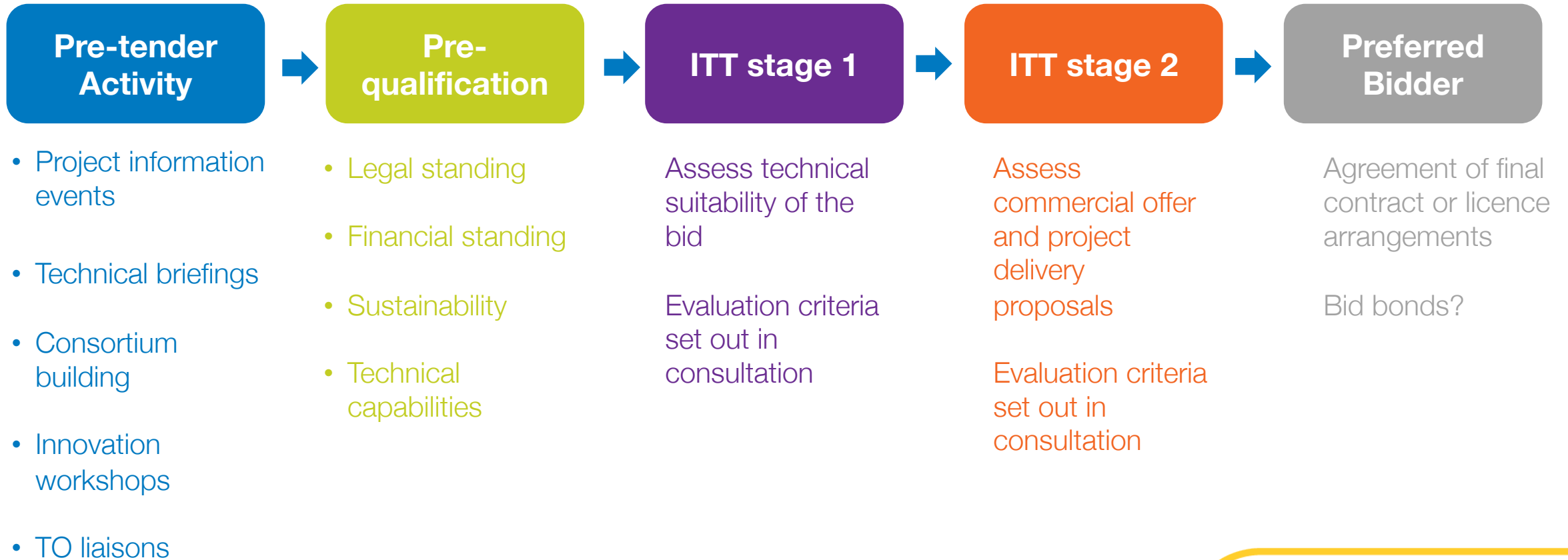
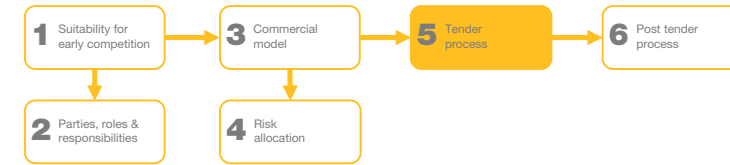


Risk	Bidders	Shared	Consumers
Change in need			X
Preliminary Works e.g. consents		X	
Debt		X	
Refinancing		X	
Commissioning	X		
Decommissioning	X		

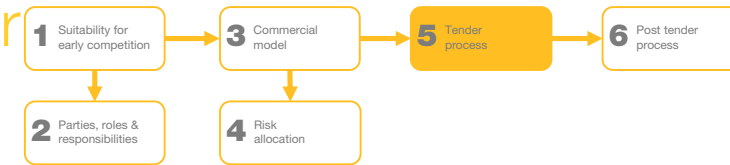
We expect any shared risks in the preliminary works stage will be linked to the cost assessment process

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

# 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

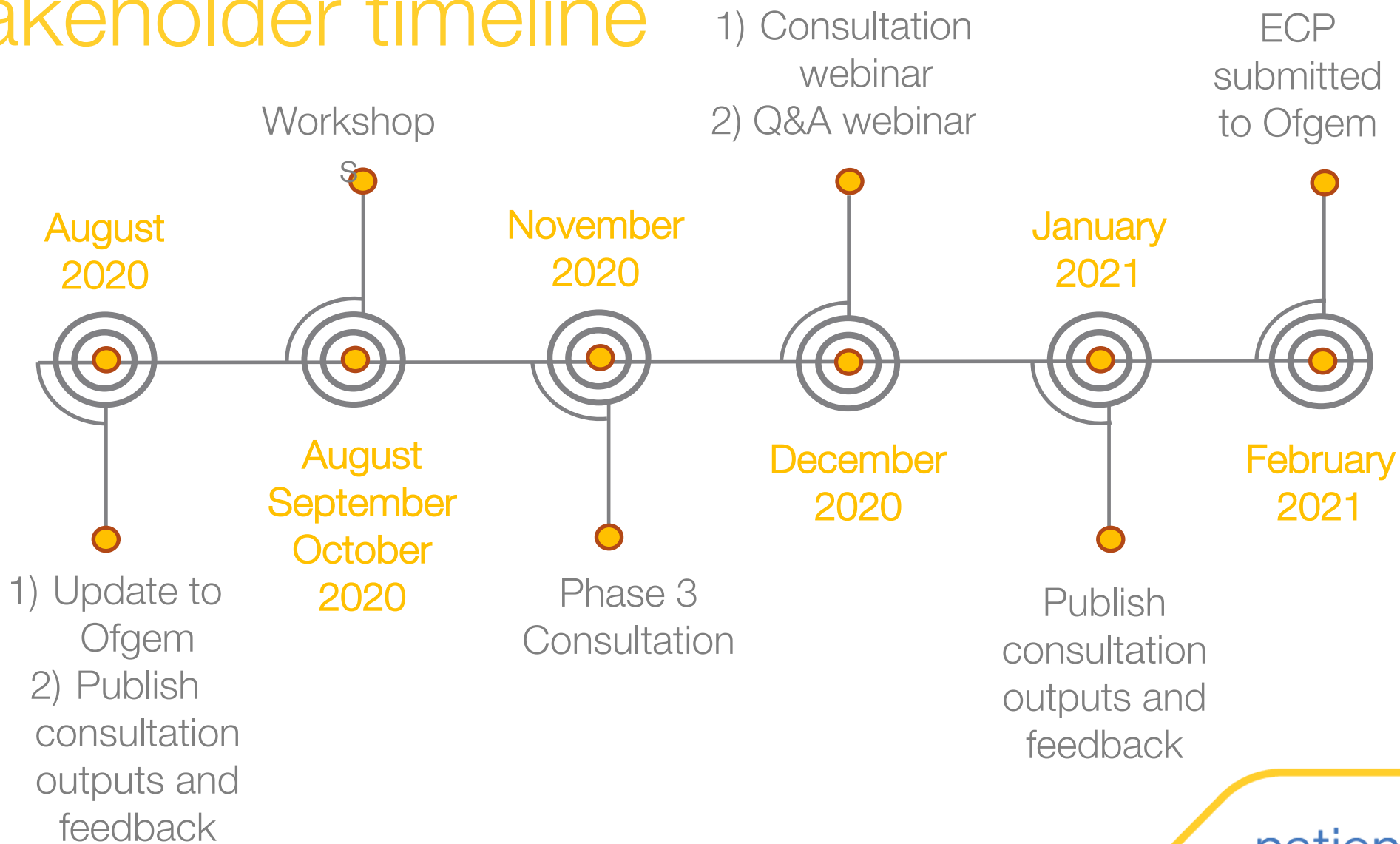


We propose that:

- 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](mailto:Box.earlycompetition@nationalgrideso.com)







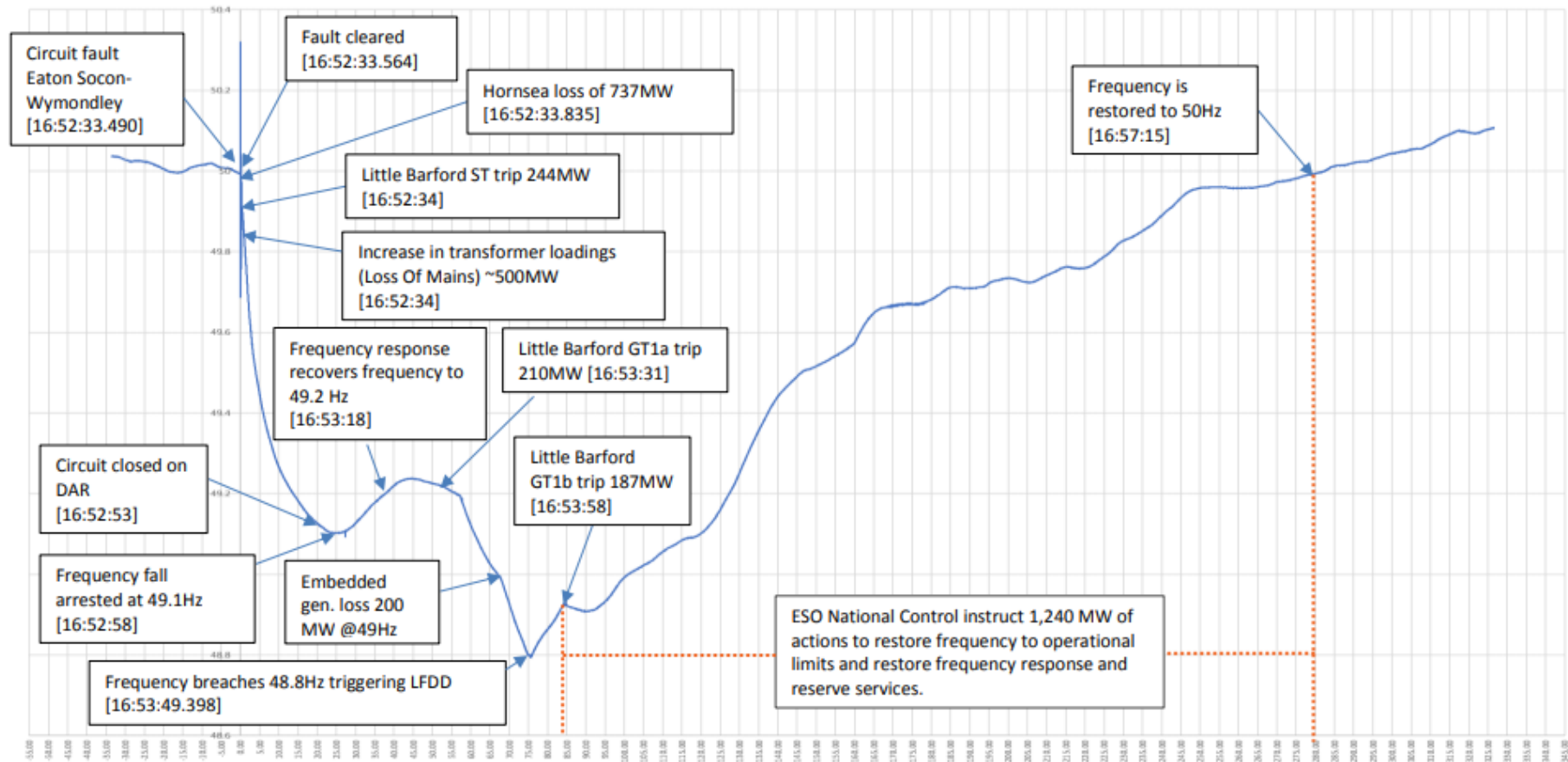
Your questions

# 9 August 2019 Power Disruption

Preliminary lessons learnt for  
generators

Matthew Deitz

# Background



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# Response

- Ofgem launches an investigation into the events.
- National Grid ESO is instructed by Ofgem to present a technical report to Ofgem.
- Energy Emergencies Executive Committee (E3C) is instructed by the Secretary of State to compile a report.

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# Energy UK's role

- Generation representative on
  - The Energy Emergencies Executive Committee (E3C);
  - The E3C's 9 August 2019 report drafting party; and
  - Power Disruption Implementation Group.
- Charged with the action of disseminating lessons learnt for generators.

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# Lessons Learnt – Hornsea-1

- It is advised that individual owners/operators of relevant generators are to review control systems and the performance of reactive power oscillation damping to ensure compliance with all relevant industry codes and licenses.

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# Lessons Learnt – Little Barford CCGT

- It is advised that all owners/operators of relevant generators should verify turbine speed monitoring logic to establish its suitability and associated parameters settings. This may be a common issue among CCGT's.
- It is advised that all owners/operators of relevant generators should review the pressure limits of the systems and the tolerances of their steam bypass protections, to ensure continued generation, whilst maintaining safety.
- It is advised that all owners/operators of relevant generators should review its UPS systems on site to ensure correct and expected functioning, as this cannot be discounted as contributing to the disconnections at Little Barford at this time.

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# Lessons Learnt – Embedded Generation

- It is advised that individual owners/operators of embedded generation review protection settings in line with all relevant code and license obligations updates and modifications. It is the responsibility of all generators to ensure their compliance with the relevant industry codes and regulations. Including, but not limited to:
  - Under Frequency protection settings;
  - RoCoF relays;
  - Vector Shift Protection;
  - Removing or deactivating unnecessary Loss of Mains protection.



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## Lessons Learnt – Embedded Generation 2

- It is advised that individual owners/operators of embedded generation review their suitability and consider suitability for the Accelerated Loss of Mains Protection Settings support scheme. Further information can be sought through the Energy Networks Association or your relevant DNO.
- It is advised that individual owners/operators of embedded generation discuss with their relevant DNO its arrangements for LFDD to review the suitability of generation disconnection through this process.

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# Sources for review

- [Energy Emergencies Executive Committee \(E3C\): Final report](#)
- [9 August 2019: preliminary lessons learnt for generators](#)
- [National Grid ESO Technical Report on the events of 9 August 2019](#)
- [Ofgem Investigation into 9 August 2019 power outage](#)

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@EnergyUKComms



# Code Administrator General Updates



# Dates for your diary

	September	October	November
<b>GCDF Submission Date</b>	21/08/2020	25/09/2020	23/10/2020
<b>GCDF Papers Day</b>	25/08/2020	30/09/2020	27/10/2020
<b>GCDF</b>	02/09/2020	07/10/2020	04/11/2020
<b>New Modification Proposal Submission Date</b>	09/09/2020	14/10/2020	11/11/2020
<b>GCRP Papers Day</b>	16/09/2020	21/10/2020	18/11/2020
<b>Grid Code Review Panel</b>	24/09/2020	29/10/2020	26/11/2020

# Any Other Business (AOB)



[nationalgrideso.com](http://nationalgrideso.com)

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