

# GC0117: Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of Power Station requirements

**04 October 2023**

**Online Meeting via Teams**

# WELCOME



# Agenda

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## Topics to be discussed

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Welcome

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Objectives and timeline

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Actions review

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Legal Text

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Terms of Reference Review

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Workgroup Report

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Any Other Business

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Next Steps

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# Workgroup Membership

Role	Name	Company
Proposer	Garth Graham	SSE
Workgroup Member	Mike Kay	Electricity North West
Workgroup Member	Richard Woodward	National Grid Electricity Transmission (NGET)
Workgroup Member	Chris Marsland	AMPS
Workgroup Member	Isaac Gutierrez	Scottish Power Renewables
Workgroup Member	Graeme Vincent	SP Energy Networks
Workgroup Member	Alan Creighton	Northern Powergrid
Workgroup Member	Richard Wilson	UK Power Networks
Work Group Member	Paul Youngman	Drax
Work Group Member	Antony Johnson	National Grid ESO
Workgroup Member	John Lucas	Elexon
Workgroup Member	Tim Ellingham	RWE
Workgroup Member	Andrew Akani	Western Power Distribution
Workgroup Member	Roddy Wilson	SHE Transmission
ESO Rep	David Halford	NGESO

# Code Modification Process Overview



## Expectations of a Workgroup Member

Contribute to the discussion

Be respectful of each other's opinions

Language and Conduct to be consistent with the values of equality and diversity

Do not share commercially sensitive information

Be prepared - Review Papers and Reports ahead of meetings

Complete actions in a timely manner

Keep to agreed scope

## Your Roles

Help refine/develop the solution(s)

Bring forward alternatives as early as possible

Vote on whether or not to proceed with requests for Alternatives

Vote on whether the solution(s) better facilitate the Code Objectives

# Terms of Reference

## Workgroup Term of Reference

- a) Implementation and costs;
- b) Review draft legal text should it have been provided. If legal text is not submitted within the Grid Code Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text;
- c) Consider whether any further Industry experts or stakeholders should be invited to participate within the Workgroup to ensure that all potentially affected stakeholders have the opportunity to be represented in the Workgroup. Demonstrate what has been done to cover this clearly in the report
- d) Consider EBR implications
- e) The current transmission and generation characteristics in Scotland compared to those in England and Wales and whether the rationale for the thresholds being set at the current levels still applies given the current and projected generation composition and transmission infrastructure;
- f) Cross code impacts (BSC, CUSC and DCode) and impact on EBR;
- g) Consider any emerging thinking from the Open Network project;
- h) Any interaction with generator licensing thresholds or requirements;
- i) The impacts for stakeholders including NGENSO, IDNOs, TOs, DNOs and generators;
- j) Implications for new connectees in relation to data exchange, planning, market engagement and any other areas of change;
- k) The implications associated with implementing any changes retrospectively so that they apply to existing connectees rather than just for new connectees; and
- l) The implementation options together with the associated costs and benefits.

## Timeline for GC0117

Stage	Dates
Workgroup 20	13/09/2023
Workgroup 21	04/10/2023
Workgroup Report to Panel	18/10/2023
Post Workgroups	
Code Administrator Consultation	30/10/2023 - 30/11/2023
Draft Final Modification Report to Panel	17/01/2024
Final Modification Report to Panel to check Votes	29/01/2024
Final Modification to Ofgem / Appeals Window opened	06/02/2024
Implementation Date	TBC

# Action Review

Action number	Workgroup Raised	Owner	Action	Comment	Due by	Status
70	WG16	DD/DH	Investigate potential cost impact on industry from this modification	Under discussion with FES team	ASAP	Open
87	WG20	DH	Write a summary of analysis completed to date and circulate with final analysis documents	NA	WG21	Proposed to close as circulated with Workgroup 20 summary
88	WG20	TJ	Speak to control room regarding impacts on operational planning and constraints, and ANM controlling of generators. Investigate how they intend to manage ANM with the threshold change	Awaiting response	WG21	Open
89	WG20	AC/MK/GV/RW	Investigate potential impacts of GC0117	NA	WG21	Open
90	WG20	TJ/GV	Investigate how GEMS works in South Scotland	Verbal update to be given in meeting	WG21	Open
91	WG20	GV	Investigate any issues SPEN face with thresholds	NA	WG21	Proposed to close as no particular issues identified following further investigation.
92	WG20	GV	Investigate any STC impact of GC0117	NA	WG21	Proposed to close as no impacts identified following review of STC.
93	WG20	MK	Investigate whether any DCode changes need to be done imminently	NA	WG21	Proposed to close as circulated with Workgroup 21 Papers
94	WG20	TJ	Review legal text prior to next Workgroup	NA	WG21	Proposed to close as circulated with Workgroup 21 Papers
95	WG20	ML	Reach out to Open Networks Team regarding workplan	Awaiting response	WG21	Open



# GC0117

Overview of DNOs' concerns

4 October 2023

# High level overview

1. Legacy Transmission Focus:
  - a) System frequency management & Boundary Flow Management.
  - b) Achieved by managing output Large Power Stations.
2. Legacy Distribution Focus:
  - a) DNO system constraint management.
  - b) Traditionally achieved by reinforcement, but increasingly by managing the output from Small Power Stations and modulation of demand via flexibility service contracts, ANM schemes.
3. Legacy general approach (setting Scotland aside) was for NGENSO to manage Large Power Stations and for DNOs to manage Small (embedded) Power Stations.
4. Changing Power Station Categorisation changes these legacy positions (or at least extends the scope from Scotland to England and Wales).
  - a) This may well be a reasonable direction of travel and NGENSO has demonstrated the benefits to NGENSO.
  - b) The implications associated with the interface between NGENSO and the DNO needs to be understood.
  - c) The implications for the DNOs needs to be understood specifically in the context of the transition to DSO.

# Implications – Connection Process

1. What is the effect on the connection queue and queue management in relation to the distribution connection queue and the transmission connection queue. What arrangements may need to be in place for a transitional period?
2. What is the effect on the queue and queue management? Particularly the interaction between the transmission queue and distribution queue, and the implications for customers currently in one of the two queues?
  - a) How might these points align with the Queue Management initiatives from the Strategic Connections Group?
  - b) Have the proposals been discussed with the Strategic Connections Group reviewing connection queues?
3. There is a need to consider the connection application process for embedded Large Power Station connections post GC0117 as the change could allow generators to connect and receive constraint payments straight away whereas all existing accepted offers have requirement to wait until transmission reinforcement is complete.
4. Large Power Stations would need to apply for a BEGA (BELLA's won't be available) from NGENSO and also connection to the DNO. There could be a formal existing connection application process that could be followed (e.g. as in Scotland) – but volumes would increase.
  - a) Are NGENSO connections team geared up to accommodate the new volumes?
  - b) This will affect two of the three relevant TOs (NGET and SPT – no change in SSEN-T) who actually undertake the connection design process and issue a TOCO (TO Construction Offer) to the ESO – are TO connections team geared up to accommodate the new volumes?
5. Implications for the Statement of Works process - as Large embedded Power Stations fall outside the scope of the SoW process. The volumes of connections subject to SoW may reduce, but there may be other SoW/CUSC implications as there will now be contracts directly between the ESO and generators as well as between the generator and the DNO (and of course changes to the BCA between the ESO and the DNO to manage.

# Implications – Technical

1. The primacy rules associated with instructions from NGENSO and DNOs would need to be codified so that an embedded large generator was clear about which conflicting instruction should be followed. There should be co-ordination with the primacy rules being developed in Open Networks.
  - a) How would an existing / new ANM scheme work with an embedded 'new Large' power station?
  - b) How do Regional Development plans work with an embedded 'new Large' power station?
  - c) How would the (joint) Strategic Connections Group initiative re Delegated Technical Limits (and the associated Visibility (via ICCP) and Control arrangements) work with an embedded 'new Large' Power Station?
2. Are there any implications for Distribution Restart as Large embedded generators who are Restoration Contractors may be more like generators participating in a LJRP and will be a CUSC party.
3. ESO tripping to DNO generators, N-3 for thermal issues and new discussions starting for tripping in timeframes to deal with stability.
4. There are over 60 references to Large in the CUSC. What are the unintended consequences of changing the threshold? The initial suggestion is that there may not to many consequences for the BSC as the BSC doesn't distinguish between Large, Medium and Small instead the distinction was between Exemptable and Licensable, but there should be a proper review. Are there any implications for other codes?
5. Are there other codes that reference Large Power Stations?

# Implications – Operational

1. What are the practical implications of NGENSO issuing BM instructions to embedded large generators.
  - a) What volume of BM instructions could reasonably be envisaged per day / year?
  - b) What opportunity does the DNO control engineer have to influence the BM instructions?
  - c) Are the existing NGENSO and DNO arrangements scalable?
  - d) What other practical control room implications are there? (SSEN input)?
2. What might the implications of GCode BC1.6.1 be re Operational Planning?
  - a) Can the BC1.6.1 arrangements be applied to management of real time constraints?

# Implications – Planning

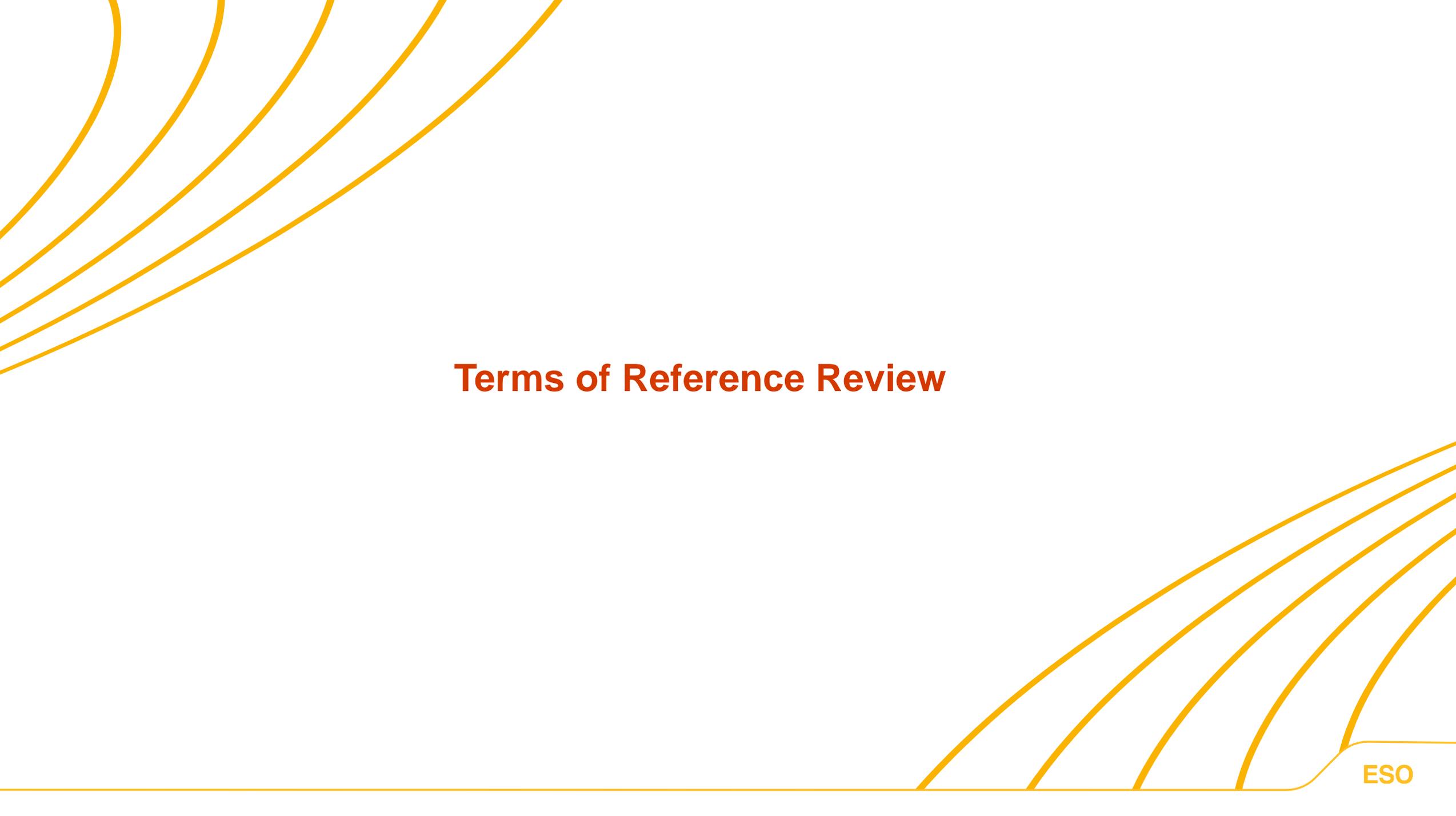
1. Large Power Stations have obligations to provide planning timescale data to NGENSO as part of their week 24 obligations. There is a need to be clear about the additional work for smaller generators and also be mindful of any increase in operational timescale data exchange.
  - a) Given that the proposal is not retrospective and hence an existing 15MW power station would be treated differently than a new 15MW power station, is there a need for DNOs and NGENST to keep track of the connection date and share week 24 data differently depending on the 'connection date' or the date of any substantial modification.
  - b) There would need to be a common interpretation of a substantial modification between DNOs and NGENSO.
  - c) How will such dates be tracked consistently between DNOs and NGENSO?
  - d) Is there a need to update the Schedule 11 proformas in the PCA to reflect this?
2. Are there any implications associated with being categorised as a High Priority SGU?
3. How might NGENSO issuing instructions to embedded power stations influence the 'fortuitous' DG security contribution as calculated under EREC P2 / EREP 130?



## Legal Text



# Workgroup Report Review



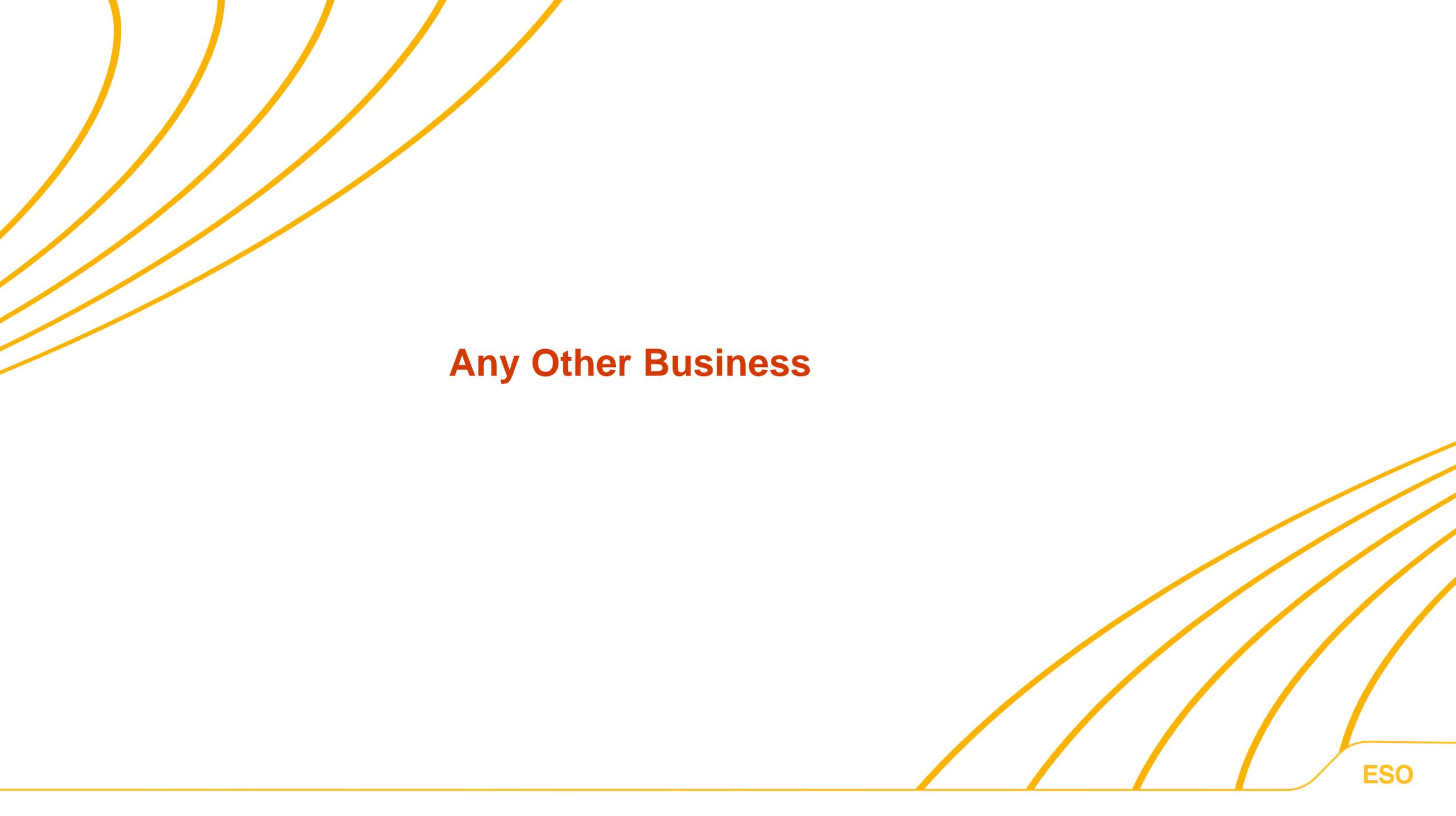
## **Terms of Reference Review**

# Terms of Reference

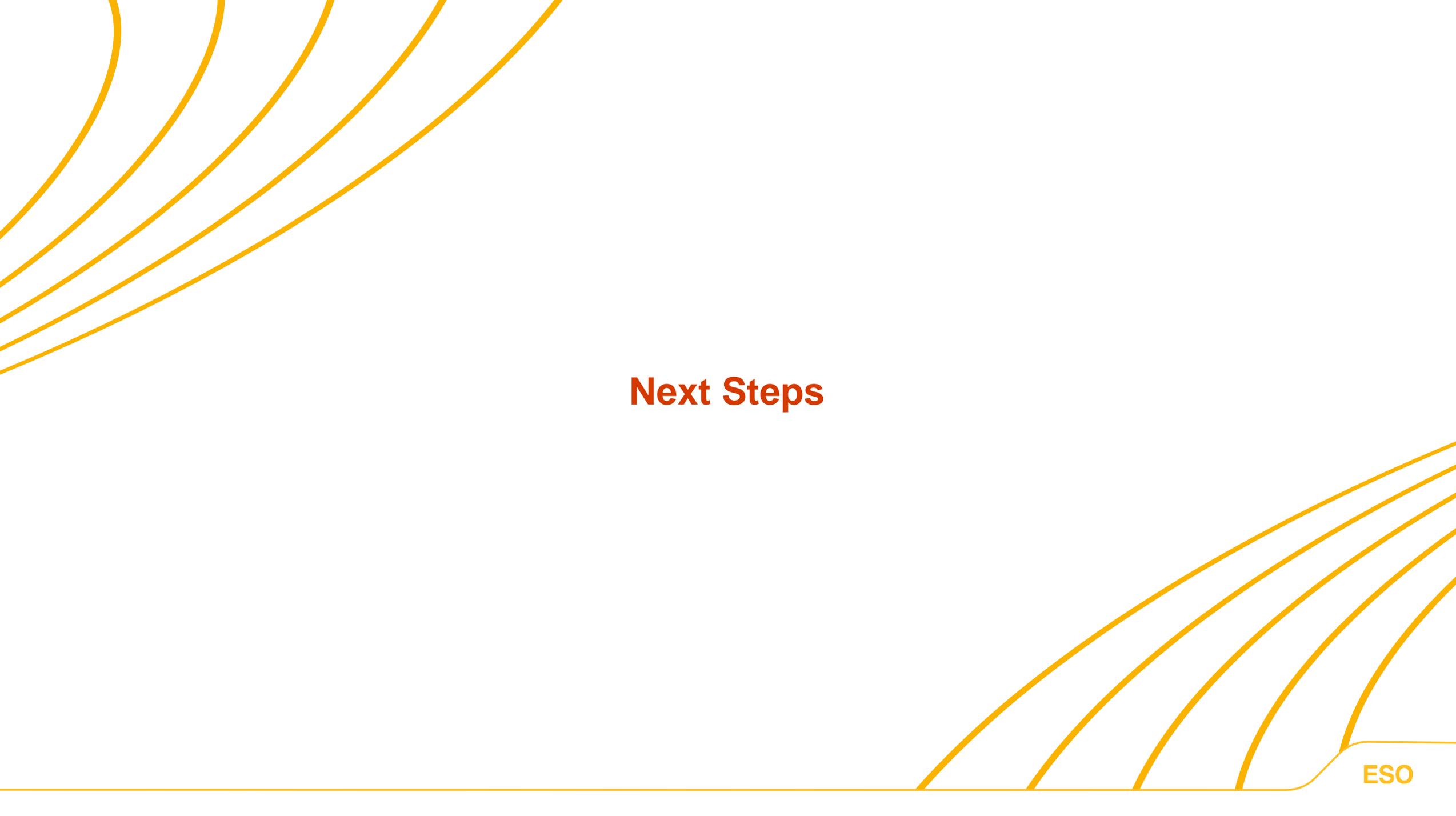
Workgroup Term of Reference	Outstanding from Workgroup 20 discussion
a) Implementation and costs;	Actions 70 and 89 are in place to fulfil this
b) Review draft legal text should it have been provided. If legal text is not submitted within the Grid Code Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text;	WAGCM1 solution needs to be finalised in order to complete the legal text
c) Consider whether any further Industry experts or stakeholders should be invited to participate within the Workgroup to ensure that all potentially affected stakeholders have the opportunity to be represented in the Workgroup. Demonstrate what has been done to cover this clearly in the report	Considered to be met; David and Tony are presenting to the ADE forum on 5 October (pack included in Workgroup Meeting Papers)
d) Consider EBR implications	No implications
e) The current transmission and generation characteristics in Scotland compared to those in England and Wales and whether the rationale for the thresholds being set at the current levels still applies given the current and projected generation composition and transmission infrastructure;	Actions 70 and 91 are in place to fulfil this. No additional concerns from SPEN perspective (action 91)
f) Cross code impacts (BSC, CUSC and DCode) and impact on EBR;	Actions 92 and 93 were in place to fulfil this.  No STC impacts identified (action 92) DCode changes identified (included in Workgroup Meeting Papers) (action 93)

# Terms of Reference

Workgroup Term of Reference	Outstanding from Workgroup 20 discussion
g) Consider any emerging thinking from the Open Network project;	Action 95 in place to fulfil this.
h) Any interaction with generator licensing thresholds or requirements;	Considered to be met.
i) The impacts for stakeholders including NGENSO, iDNOs, TOs, DNOs and generators;	Actions 87 and 89 in place to fulfil this.  Generator assessment shared with workgroup and no feedback provided (action 87)
j) Implications for new connectees in relation to data exchange, planning, market engagement and any other areas of change;	Considered to be met.
k) The implications associated with implementing any changes retrospectively so that they apply to existing connectees rather than just for new connectees; and	Action 87 in place to fulfil this.
l) The implementation options together with the associated costs and benefits.	Action 87 in place to fulfil this.



**Any Other Business**



## Next Steps