CMP424: Amendments to Scaling Factors used for Year Round TNUoS Charges

Workgroup Meeting 1
24 January 2024 10am
Online Meeting via Teams

ESO

WELCOME

Introductions

Claire Goult – ESO Code Administrator

Confirm Workgroup Membership Details

Name	Role	Company	Email address	Type of Organisation	Alternate	Alternate Email Address
Claire Goult	Chair	ESO	claire.goult@nationalgrideso.com			
Andrew Hemus	Tech Sec	ESO	andrew.hemus@nationalgrideso.com			
Martin Cahill	Proposer	ESO	Martin.Cahill1@Nationalgrideso.com			
Faiva Wadawasina	Workgroup member	Renantis/Bluefloat Partnership	Faiva.wadawasina@renantis.com	Generator	Joanna Carter	joanna.carter@renantis.com
Ryan Ward	Workgroup member	ScottishPower Renewables	Ryan.Ward@ScottishPower.com	Generator	Joe Dunn	joseph.dunn@scottishpower.com
Graz Macdonald	Workgroup member	Waters Wye & Associates	graz@waterswye.co.uk	Consultant	Kyran Hanks	Kyran@waterswye.co.uk
Anthony Dicicco	Workgroup member	ESB	anthony.dicicco@esb.ie	Generator	Eva Rapskaukaite	eva.rapkauskaite@esb.ie
Damian Clough	Workgroup member	SSE Generation	Damian.Clough@sse.com	Generator	John Tindal	John.Tindal@sse.com
David Tooby	Authority Representative	Ofgem	David.Tooby@ofgem.gov.uk			
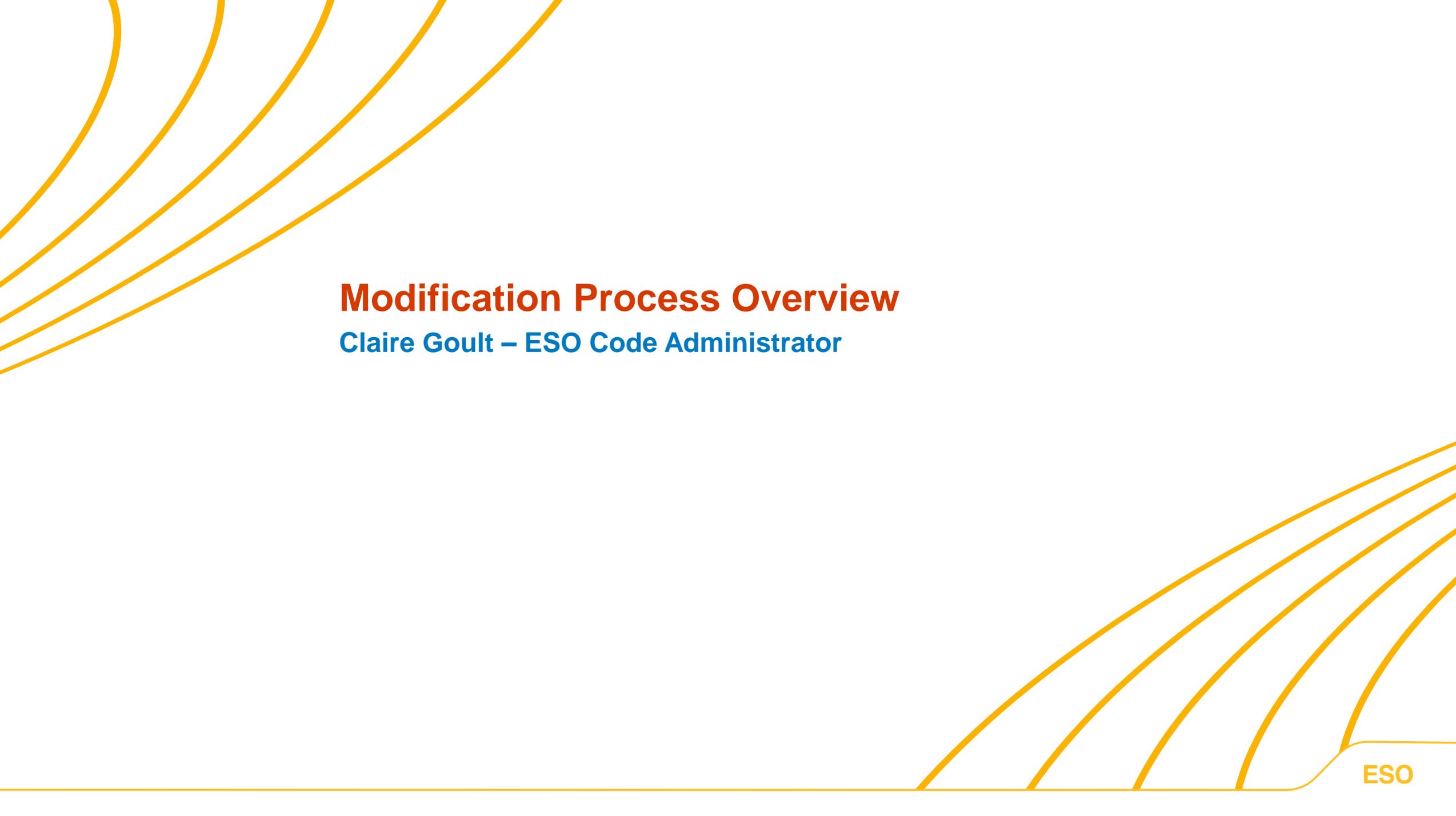
Modification Process Overview

Claire Goult – ESO Code Administrator

Code Modification Process Overview

Talk to us	→	Raise a mod	→	Refine solution	→	Consult	→	Decision	→	Implement
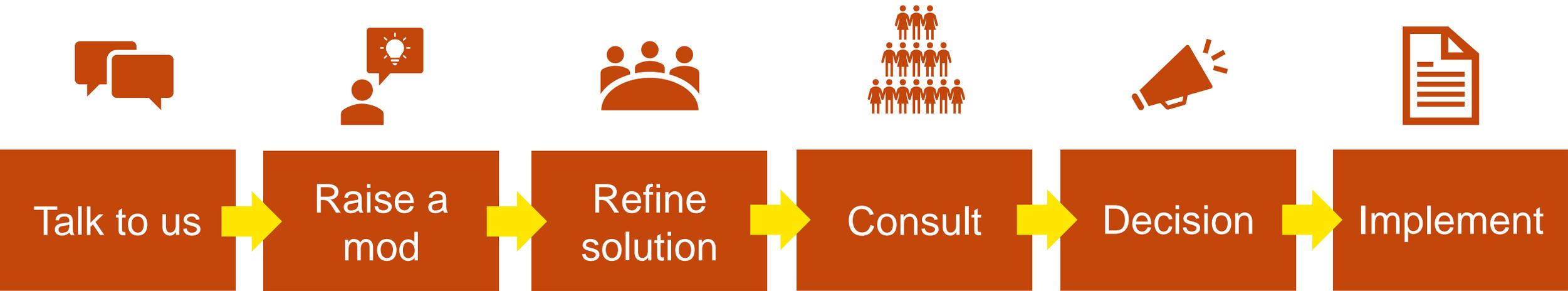
Forums

Panel decided standard governance route

Workgroup Phase
Workgroup Consultation
Workgroup Vote
Workgroup Report
Post Workgroup Phase
Code Admin Consultation
DFMR
FMR

Ofgem

Code changes: Beginner's Guide | ESO (nationalgrideso.com)

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Workgroup Responsibilities

Claire Goult – ESO Code Administrator

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
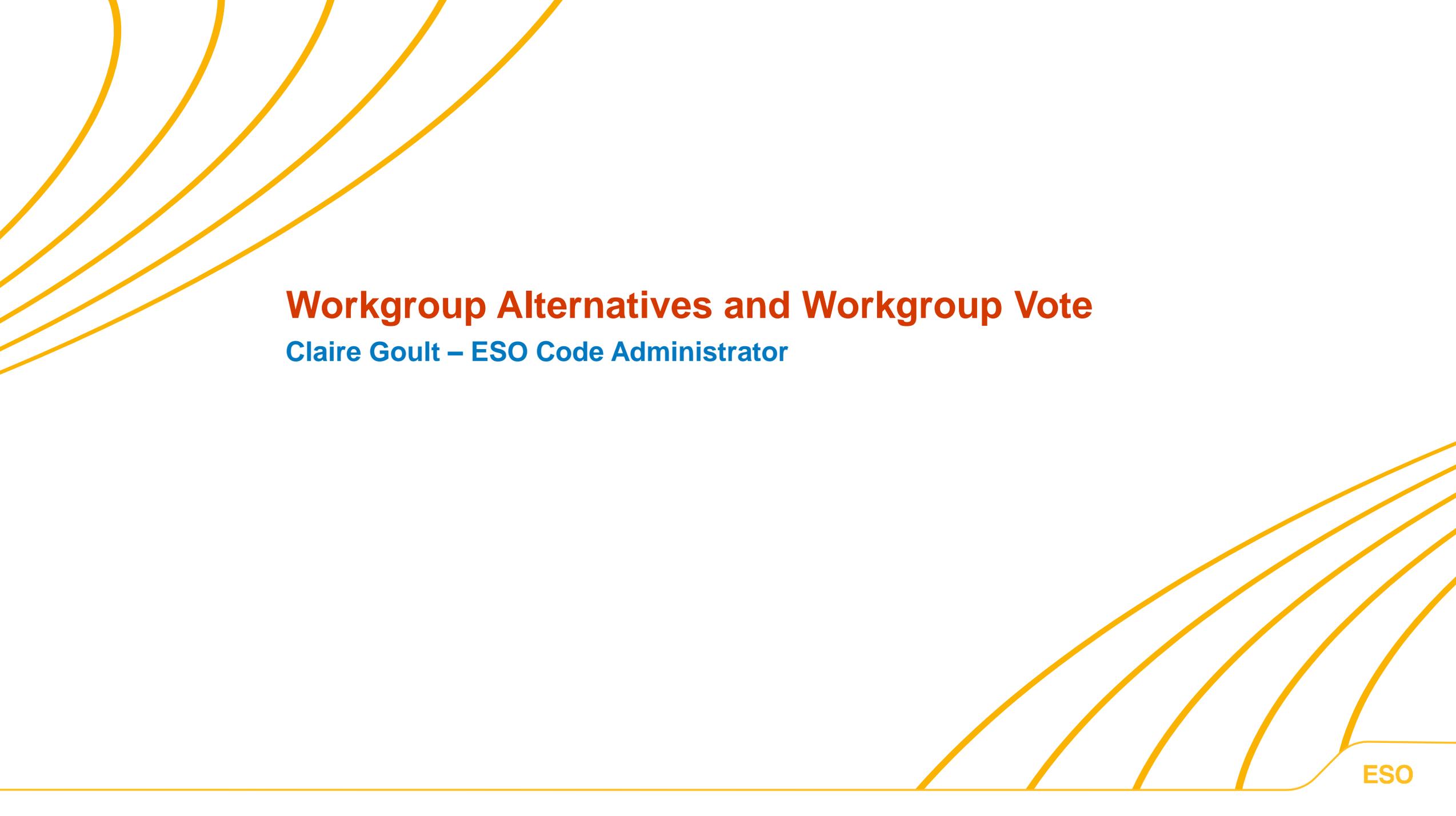
Email communications to/cc'ing the .box email

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

Workgroup Alternatives and Workgroup Vote

Claire Goult – ESO Code Administrator

# Can I vote? and What is the Alternative Vote and Workgroup Vote?

To participate in any votes, you will have been nominated as a Workgroup member (not observer) and need to have attended at least 50% of meetings

Stage 1 – Alternative Vote

- This Vote is carried out to identify the level of Workgroup support there is for any potential Workgroup Alternative Requests brought forward by a member of the Workgroup OR an Industry participant as part of the Workgroup Consultation. should become Workgroup Alternative CUSC Modifications (WACM).

- Should the majority of the Workgroup OR the Chair believe that the potential alternative solution may better facilitate the CUSC objectives than the Original then the potential alternative will be fully developed by the Workgroup with legal text to form a Workgroup Alternative CUSC Modification (WACM) and submitted to the Panel and Authority alongside the Original solution for the Panel Recommendation vote and the Authority decision.
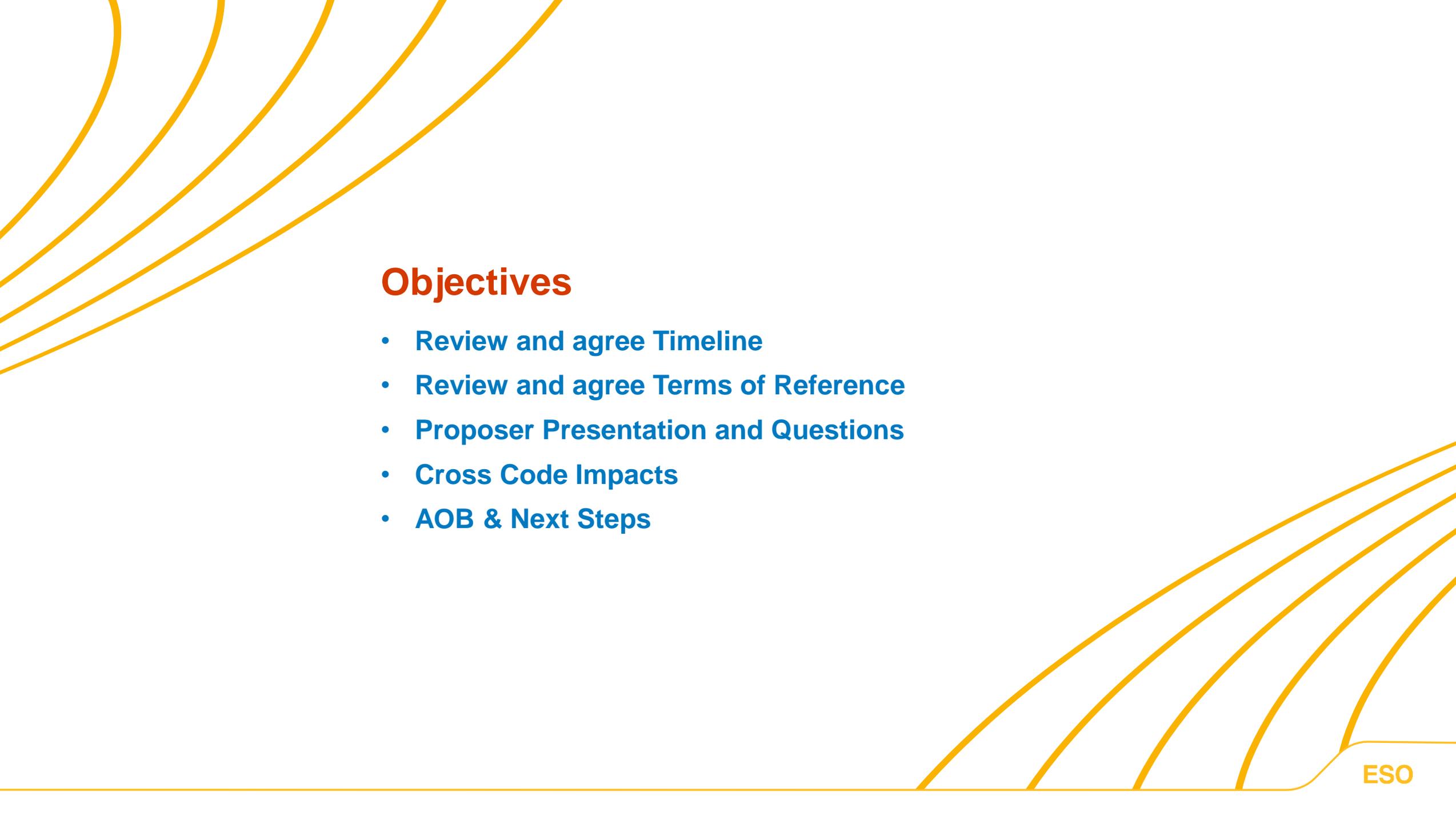
Stage 2 – Workgroup Vote

2a) Assess the Original and Workgroup Alternative (if there are any) against the relevant Applicable Objectives compared to the Baseline (the current code)

2b) Vote on which of the options is best.
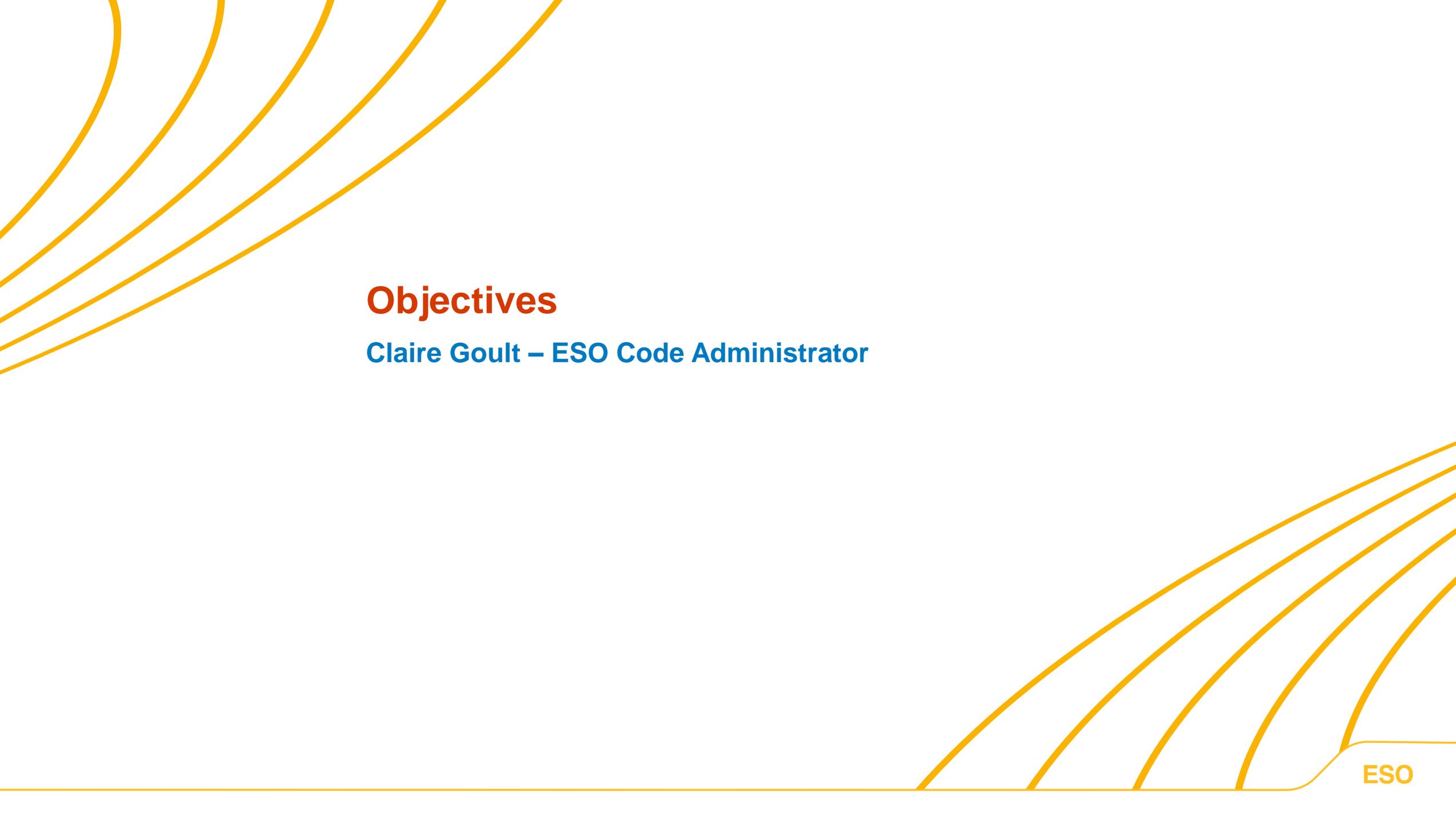
Objectives

Claire Goult – ESO Code Administrator

Objectives

- **Review and agree Timeline**

- **Review and agree Terms of Reference**

- **Proposer Presentation and Questions**
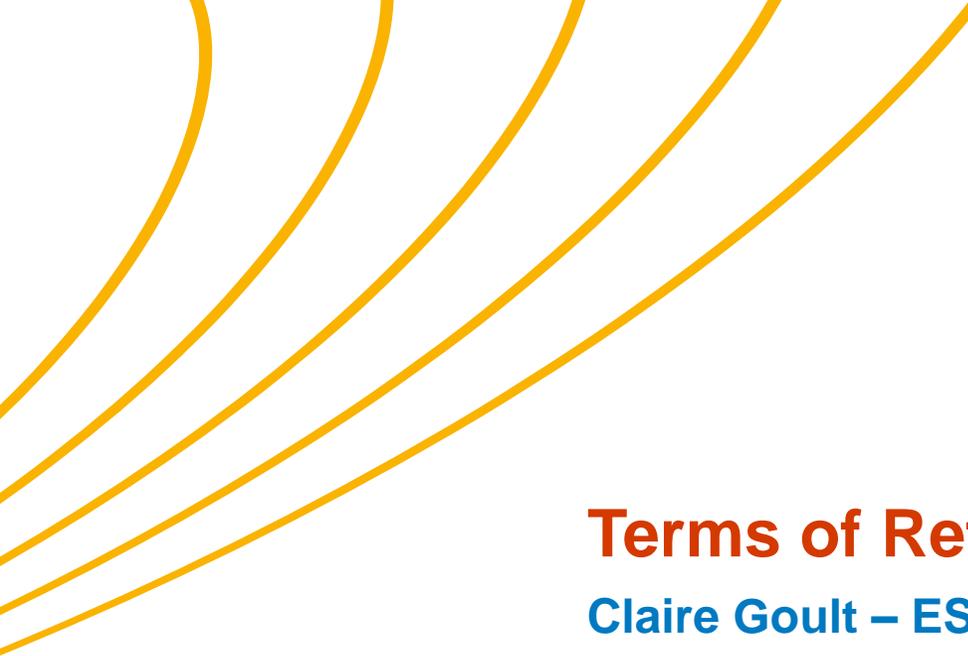
- **Cross Code Impacts**

- **AOB & Next Steps**

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Timeline

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Proposed Timeline for CMP424

Milestone	Date	Milestone	Date
Proposal Presented to Panel	27 October 2023	Panel sign off that Workgroup Report has met its Terms of Reference	**CUSC Panel Date 26 April 2024**
Workgroup Nominations	31 October 2023 – 2 January 2024 (Extended)	Code Administrator Consultation (15 working days)	30 April 2024 – 21 May 2024
Workgroup 1 – Understand / discuss proposal and solution(s), review and agree on Terms of Reference and Timeline, review cross code impacts, review analysis and agree next steps.	24 January 2024	Draft Final Modification Report (DFMR) issued to Panel	20 June 2024 (Papers Day)
Workgroup 2 – Refine solution(s), draft legal text, consider potential Workgroup Consultation questions and finalise Workgroup Consultation	5 February 2024 (Afternoon as clashes with CMP426)	Panel undertake DFMR recommendation vote	**CUSC Panel Date 28 June 2024**
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Workgroup 3 – Review Workgroup Consultation responses, consider new points raised, refine solution, review legal text and discuss any potential alternatives	18 March 2024	Final Modification Report issued to Ofgem	09 July 2024
Workgroup 4 – Finalise solutions (including legal text) and alternatives and hold alternative vote. Finalise Workgroup Report and hold Workgroup Vote	9 April 2024	Ofgem decision	By 30 September 2024
Workgroup Report issued to Panel (5 working days)	18 April 2024 (Papers Day)	Implementation Date	01 April 2025

Timeline for CMP424 – Proposed Workgroup 1 Update

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Terms of Reference

Claire Goult – ESO Code Administrator

Terms of Reference

Workgroup Term of Reference
a) Consider EBR implications
b) Consider where the minimal level of the variable factor should be set
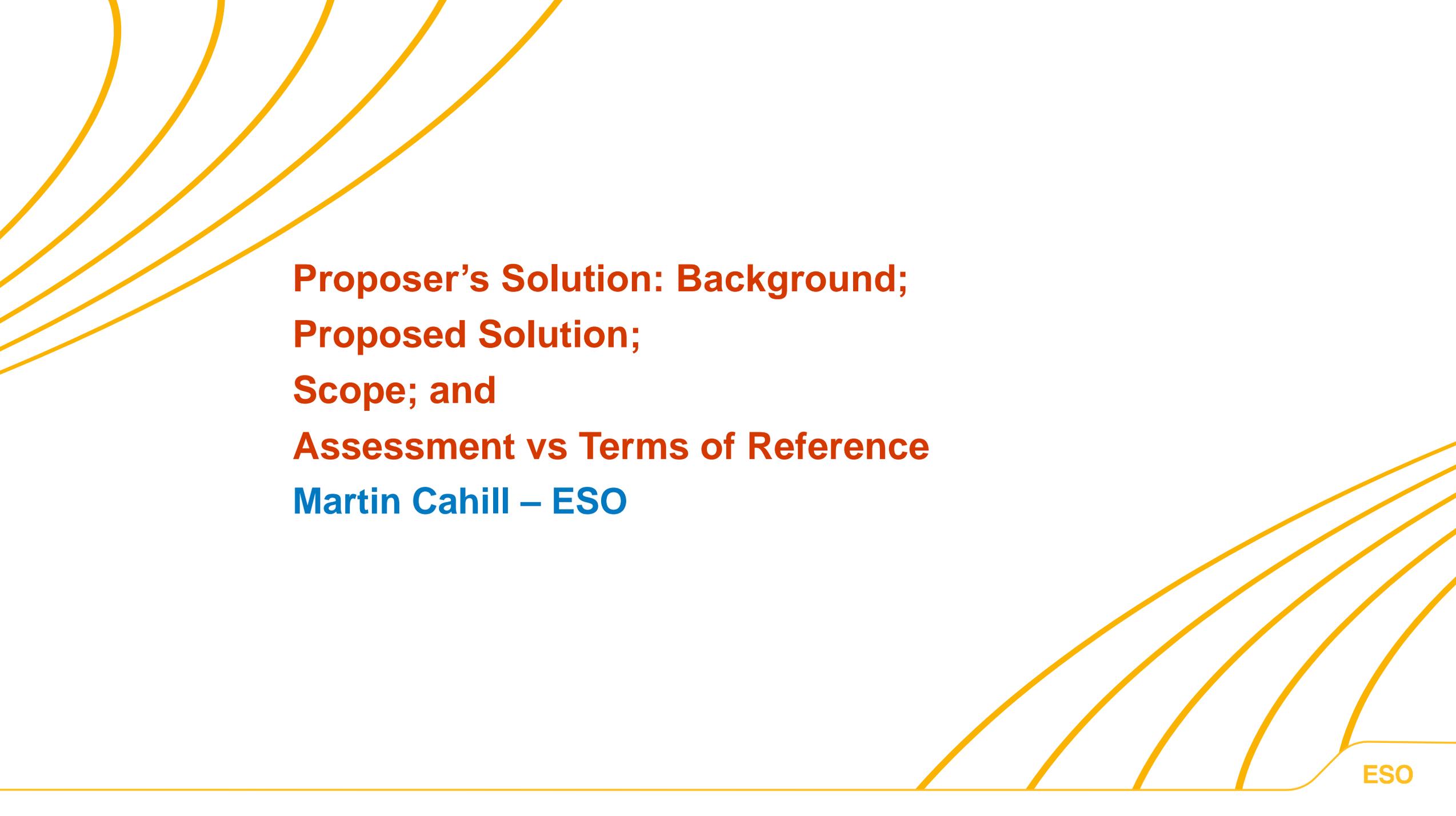
Proposer's Solution: Background;

Proposed Solution;

Scope; and

Assessment vs Terms of Reference

Martin Cahill – ESO

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What are Scaling Factors?

- Scaling factors are used in the calculation of TNUoS tariffs (Year-Round Background and Peak Security)

- There are pre-defined and variable scaling factors which are detailed in SQSS (Appendix E gives the different parameters (for directly scaled plant) and calculation (for variably scaled plant) to be used

- Factors are used to scale capacity of plants to equal the ACS Peak Demand (estimated unrestricted winter peak demand on the ETS for the average cold spell)

- If any scaling factors are negative the TNUoS tariff model will not work

- e.g. a –ve scaling factor for CCGTs would mean adding 1MW reduces network cost rather than increasing

Table 1.5 Generation scaling factors for the purpose of tariff calculation

Generation Plant Type	Peak Security Background	Year-Round Background
Intermittent	Fixed (0%)	Fixed (70%)
Nuclear & CCS	Variable	Fixed (85%)
Interconnectors	Fixed (0%)	Fixed (100%)
Hydro	Variable	Variable
Electricity Storage (including Pumped Storage)	Variable	Fixed (50%)
Peaking	Variable	Fixed (0%)
Other (Conventional)	Variable	Variable

The statement of use of system charges

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Why is this an issue?

- Large amount of wind on the network shifts the calculation

- Wind has a direct scaling factor of 70%

- As the amount of wind in relation to other generation types on the network increases, the top of the formula becomes smaller and smaller, until it is negative and all variably scaled factors become negative

- This breaks the model for additional calculations on shared tariffs

- In next few years, this will result in negative calculated scaling factors, unless any changes are made

- TEC register regularly changes so difficult to pinpoint exactly when negative tariffs will occur

ACS Peak Demand

Direct Scaling Factor for specific plant

Capacity for directly scaled plant

$$S = \frac{P_{loss} + \sum_{j} L_j - \sum_{DT} \left(\sum_{k} \left(D_T \times R_{DT_k} \right) \right)}{\sum_{VT} \left(\sum_{n} R_{VTn} \right)}$$

Capacity of Variably scaled plant

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What is the proposed solution?

- **Introduce a control to the mechanism which floors Scaling Factors at 10%**

- **Fixed Scaling Factors would uniformly adjust to allow this**

- **This would be introduced as a short term fix, whilst SQSS is reviewed and considers enduring changes to scaling factors**

Why?

- Review of SQSS could take a significant amount of time, and risks –ve scaling factors in calculation before any changes are made

- CUSC currently references SQSS for scaling factors to be used in transport model. This method would maintain alignment to SQSS as much as possible whilst addressing defect

- Relatively simple to implement

- 10% ensures there is some impact included in tariff setting for additional flexible generation (rather than flooring to 0%)

- Variable scaling factors are currently being calculated at around 8% so this would be a minimal change from current state

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What were the alternatives considered?

Option	Pros	Cons
Reduce fixed scaling factors (particularly for wind generation)	• Simple Implementation	• With level of future renewable investment required, this may only delay the issue • Could make model less cost reflective • Discussion about appropriate levels to reduce scaling factor too could make this option more complex
Remove Interconnectors (currently 100%) from calculation	• Quick Fix • Simple Implementation	• With level of future renewable investment required, this may only delay the issue • Impact on Scottish Tariffs (removing contribution of Interconnectors which are predominantly in South
Implement Generic Scaling Factor	• Quick Fix • Simple Implementation	• May reduce cost reflectivity of model
More fundamental methodology change	• May be more cost reflective	• Lengthy Fix • At risk of not being implemented before we see negative factors

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How to Calculate

- **Scaled Generation must always equal ACS Peak Demand**

- **Simplified Network Example: ACS Peak Demand = 400MW**

Plant	Type	Capacity (MW)	Initial Scaling Factor
1	Intermittent	200	0.7
2	Intermittent	300	0.7
3	CCGT	100	Variable
4	Hydro	100	Variable
5	Interconnector	100	1

- **In this example, the variable factor would have to be -0.25 to equal ACS Peak**

- **Under CMP424 proposal, instead the variable scaling factor is fixed at 0.1. Following this, the other factors are all reduced by a uniform ratio so that the total of capacity x SF still equals ACS Peak (400MW)**

- **Worked example provided shows this in more detail**

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Terms of Reference initial thoughts

- This is intended to be a short – medium term fix to address a clear defect which would have an impact within the next few years if left unaddressed

- We are not proposing a more significant change to the methodology

- On this basis believe 10% is an appropriate level to minimise any impact but welcome views from workgroup

- Have not initially identified any implications for other codes/policy
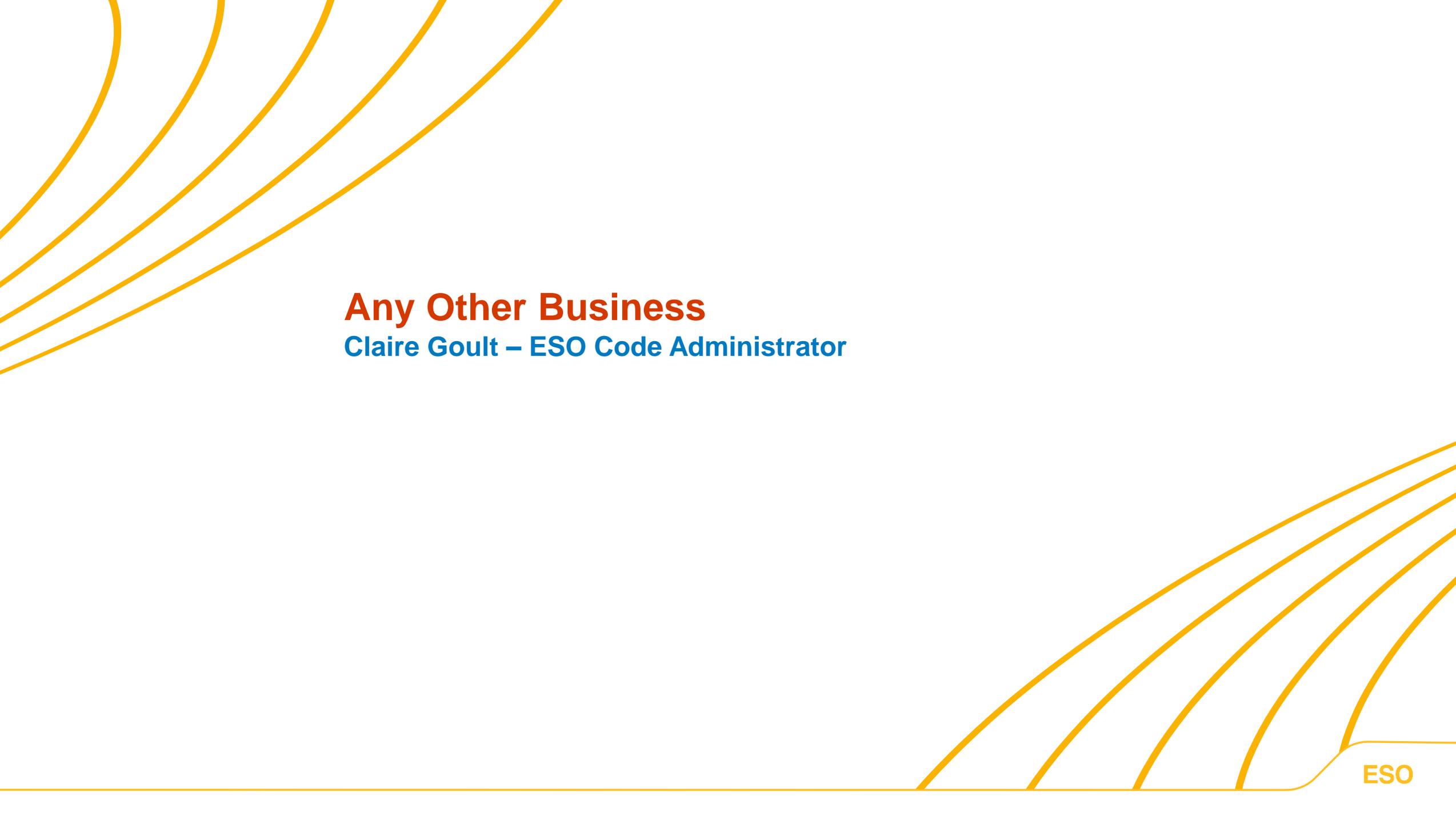
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Cross Code Impacts

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Any Other Business
Claire Goult – ESO Code Administrator

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Next Steps

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