

CMP423 Generation Weighted Reference Node

Workgroup 3 (20 February 2025)

Online Meeting via Teams

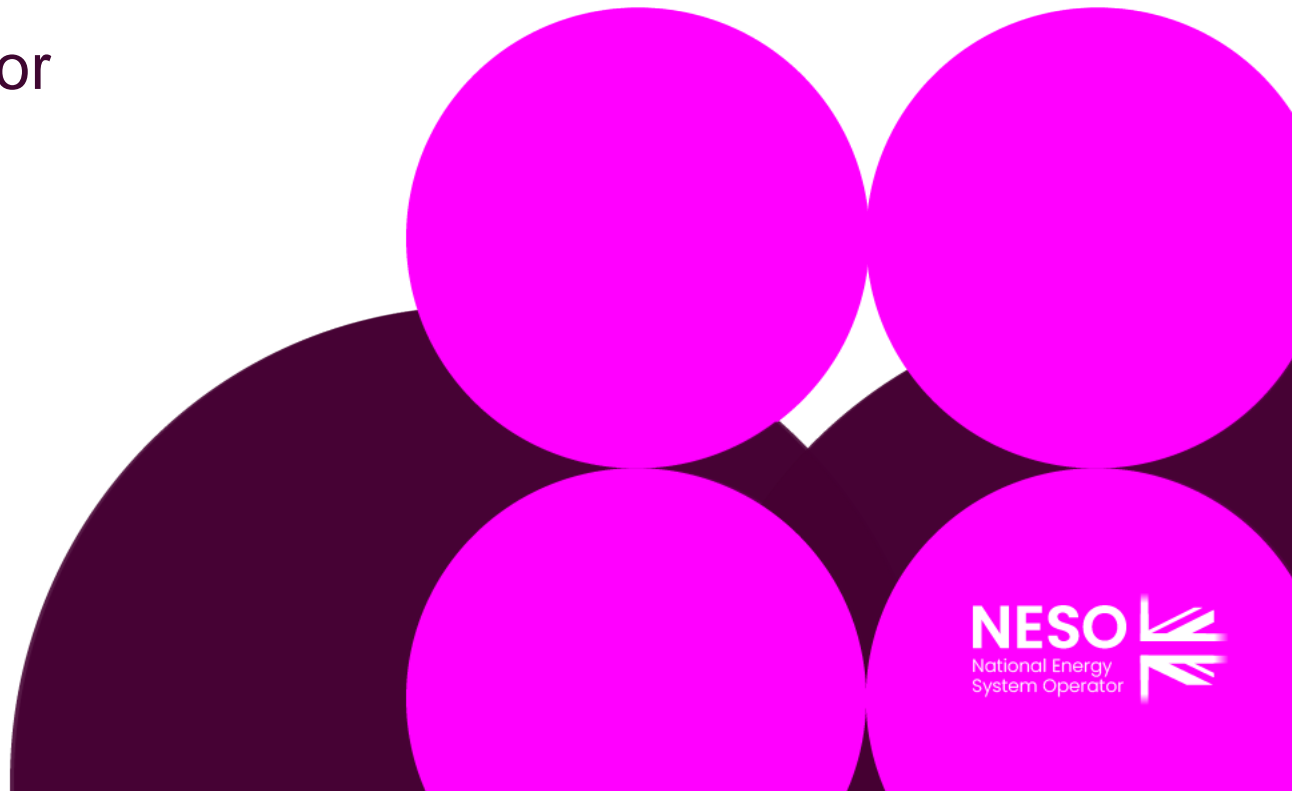
WELCOME

Agenda

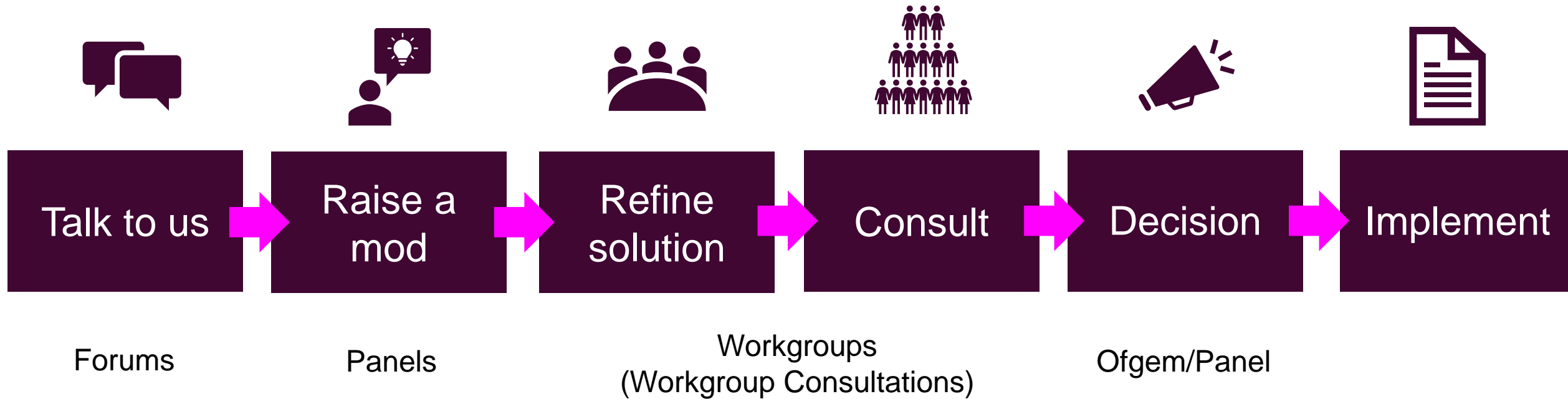
Topics to be discussed	Lead
Introductions	Chair
Code Modification Process Overview <ul style="list-style-type: none">• Workgroup Responsibilities• Workgroup Alternatives and Workgroup Vote	Chair
Objectives and Timeline	Chair
Review Terms of Reference	All
Proposer presentation	Proposer
Questions from Workgroup Members	All
Agree Terms of Reference	All
Cross Code Impacts	All
Any Other Business	Chair
Next Steps	Chair

Modification Process

Prisca Evans – NESO Code Administrator



Code Modification Process Overview



Refine Solution Workgroups



- If the proposed solution requires further input from industry in order to develop the solution, a Workgroup will be set up.
- The Workgroup will:
 - further refine the solution, in their discussions and by holding a **Workgroup Consultation**
 - Consider other solutions, and may raise **Alternative Modifications** to be considered alongside the Original Modification
 - Have a **Workgroup Vote** so views of the Workgroup members can be expressed in the Workgroup Report which is presented to Panel

Consult Code Administrator Consultation

- The Code Administrator runs a consultation on the **final solution(s)**, to gather final views from industry before a decision is made on the modification.
- After this, the modification report is voted on by Panel who also give their views on the solution.



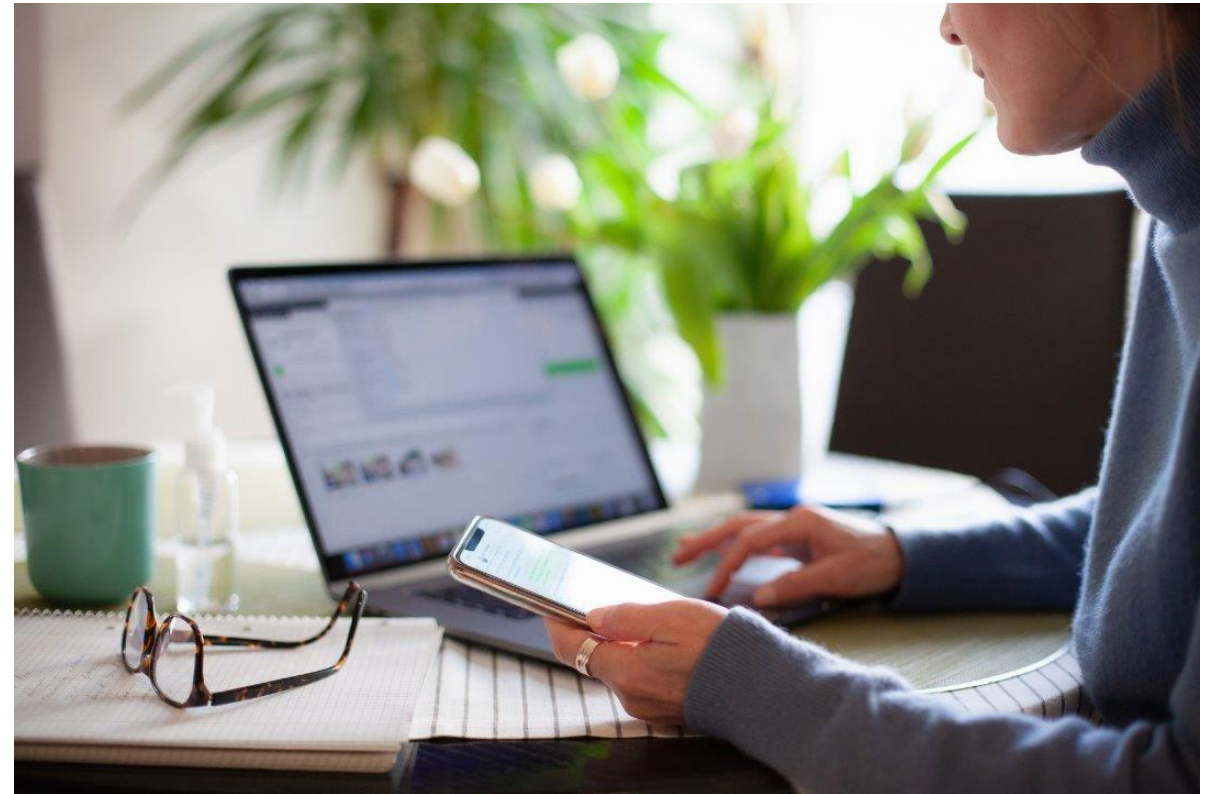
Decision



- Dependent on the Governance Route that was decided by Panel when the modification was raised
- **Standard Governance:** Ofgem makes the decision on whether or not the modification is implemented
- **Self-Governance:** Panel makes the decision on whether or not the modification is implemented
 - an appeals window is opened for 15 days following the Final Self Governance Modification Report being published

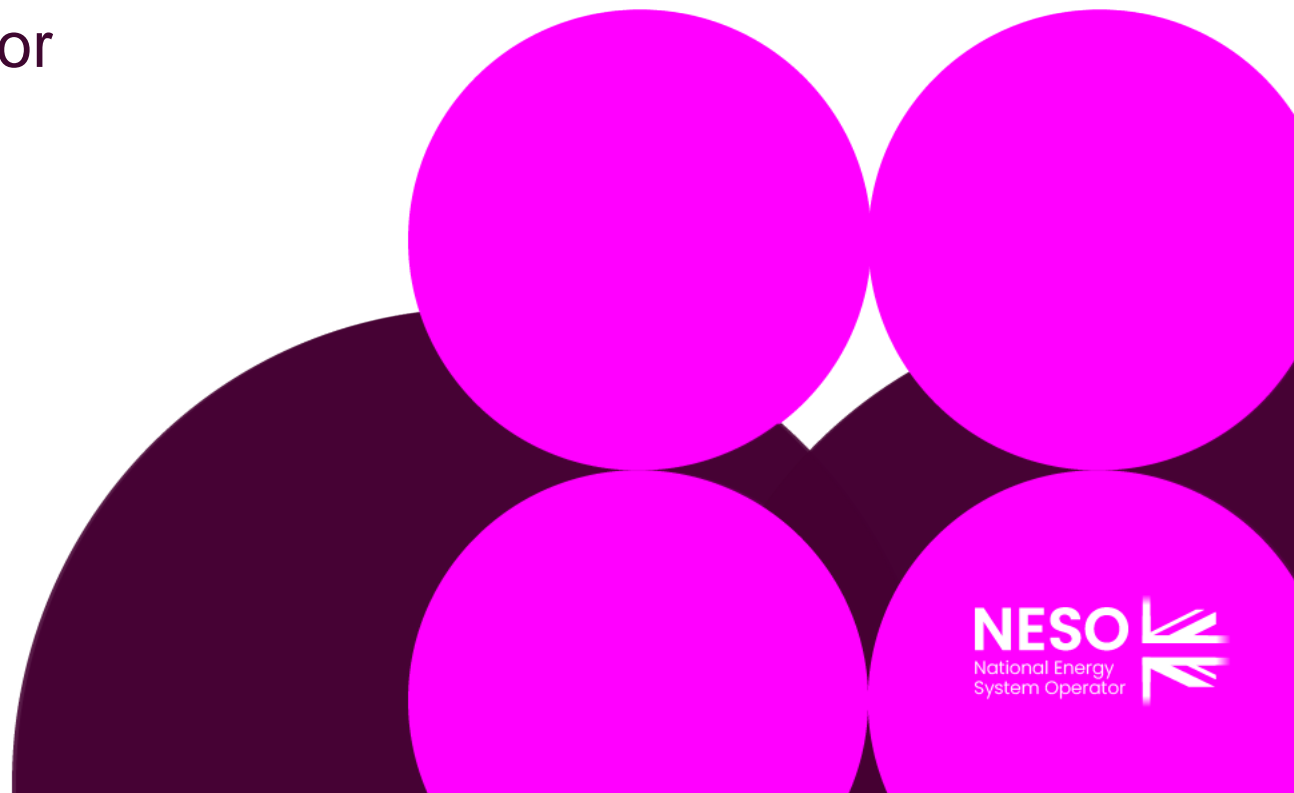
Implement

- The Code Administrator implements the final change which was decided by the Panel / Ofgem on the agreed date.



Workgroup Responsibilities and Membership

Prisca Evans – NESO Code Administrator



Public 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 Membership

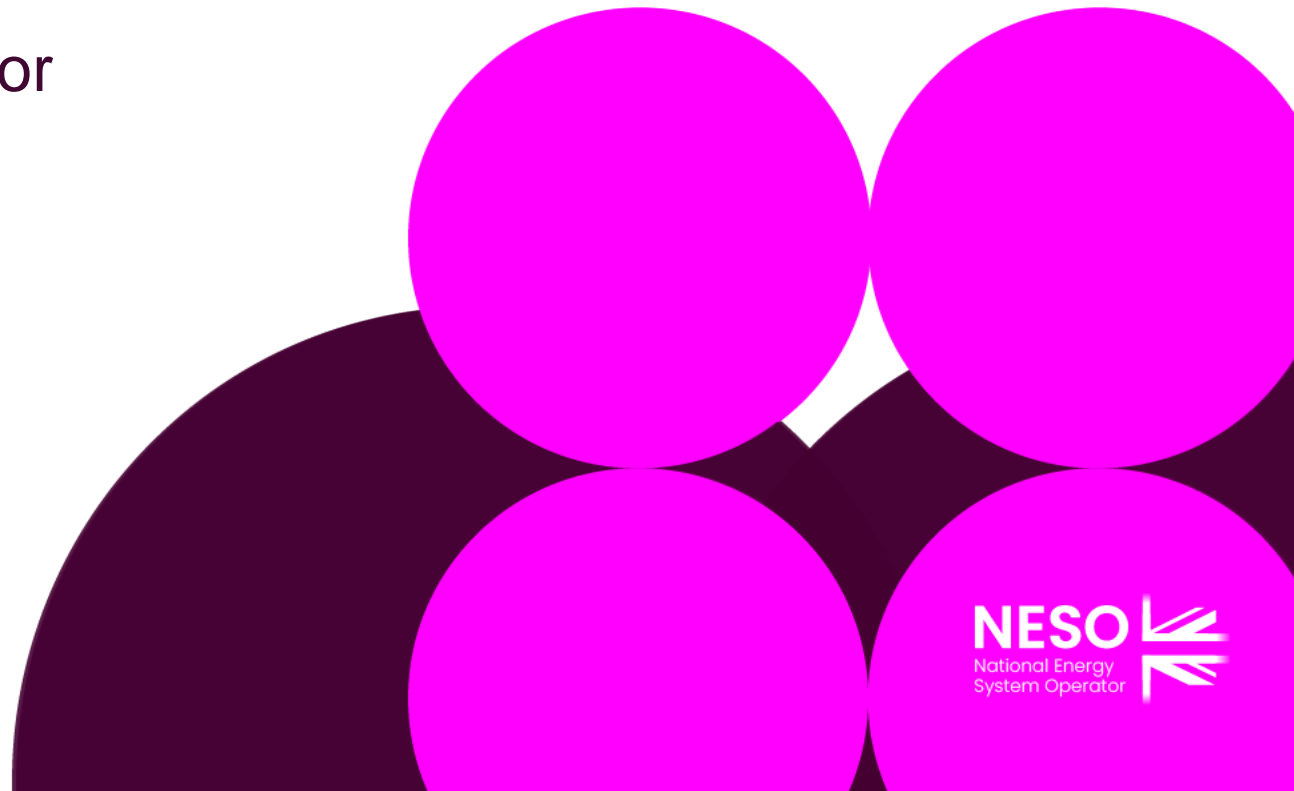
Role	Name	Company	Alternate	Name
Chair	Prisca Evans	NESO		
Tech Sec	Karen Stanton-Hughes	NESO		
Proposer	John Tindal	SSE	Alternate	Damian Clough
Workgroup Member	Ryan Ward	Scottish Power Renewables	Alternate	Joe Dunn
Workgroup Member	Robin Dunne	Intergen UK	Alternate	Ben Butler
Workgroup Member	Robert Longden	Enco Energy Trade		
Workgroup Member	Tom Steward	RWE	Alternate	Lauren Jauss
Workgroup Member	Dennis Gowland	Research Relay Ltd	Alternate	John Morgan
Workgroup Member	Simon Lord	Engie	Alternate	Andrew Rimmer
Workgroup Member	Rachel McLeod	NESO	Alternate	Paul Mott
Workgroup Member	Gregory Edwards	Centrica	Alternate	James Knight
Workgroup Member	Graham Pannel	BayWa r.e	Alternate	Jonathan Oguntona

Workgroup Membership

Role	Name	Company	Alternate	Name
Workgroup Member	Nick Sillito	Peakgen		
Workgroup Member	Nicolas Lescal	Ocean Winds	Alternate	Giulia Licocci
Workgroup Member	Paul Youngman	Drax	Alternate	Joshua Logan
Workgroup Observer	William Maidment	Ventient Energy		
Workgroup Observer	Alan Kelly	Corio Generation		
Workgroup Observer	Faiva Wadawasina	Bellrock offshore Windfarm Limited/Broadshore Offshore Windfarm limited	Alternate	Nancy McLean
Workgroup Observer	Archie Campbell	Zenobe	Alternate	Tom Palmer
Observer	Sally Ann Young	SSE		
Observer	Jess Rivalland	NESO		
Observer	Nina Sharma	Drax		
Observer	Glenn Smith	EDF		
Authority Representative	Shannon Murray	OFGEM		

Workgroup Alternatives and Workgroup Vote

Prisca Evans – NESO Code Administrator



What is the Alternative Request?

What is an Alternative Request? The formal starting point for a Workgroup Alternative Modification to be developed which can be raised up until the Workgroup Vote.

What do I need to include in my Alternative Request form? The requirements are the same for a Modification Proposal you need to articulate in writing:

- a description (in reasonable but not excessive detail) of the issue or defect which the proposal seeks to address compared to the current proposed solution(s);
- the reasons why you believe that the proposed alternative request would better facilitate the Applicable Objectives compared with the current proposed solution(s) together with background information;
- where possible, an indication of those parts of the Code which would need amending in order to give effect to (and/or would otherwise be affected by) the proposed alternative request and an indication of the impacts of those amendments or effects; and
- where possible, an indication of the impact of the proposed alternative request on relevant computer systems and processes.

How do Alternative Requests become formal Workgroup Alternative Modifications? The Workgroup will carry out a Vote on Alternatives Requests. If the majority of the Workgroup members or the Workgroup Chair believe the Alternative Request will better facilitate the Applicable Objectives than the current proposed solution(s), the Workgroup will develop it as a Workgroup Alternative Modification.

Who develops the legal text for Workgroup Alternative Modifications? ESO will assist Proposers and Workgroups with the production of draft legal text once a clear solution has been developed to support discussion and understanding of the Workgroup Alternative Modifications.

Can I vote? And What is the Alternative Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference)

Stage 1 – Alternative Vote

- Vote on whether Workgroup Alternative Requests should become Workgroup Alternative CUSC Modifications.
- The Alternative vote is carried out to identify the level of Workgroup support there is for any potential alternative options that have been brought forward by either any member of the Workgroup OR an Industry Participant as part of the Workgroup Consultation.
- **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.**

Can I vote? And What is the Alternative Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference)

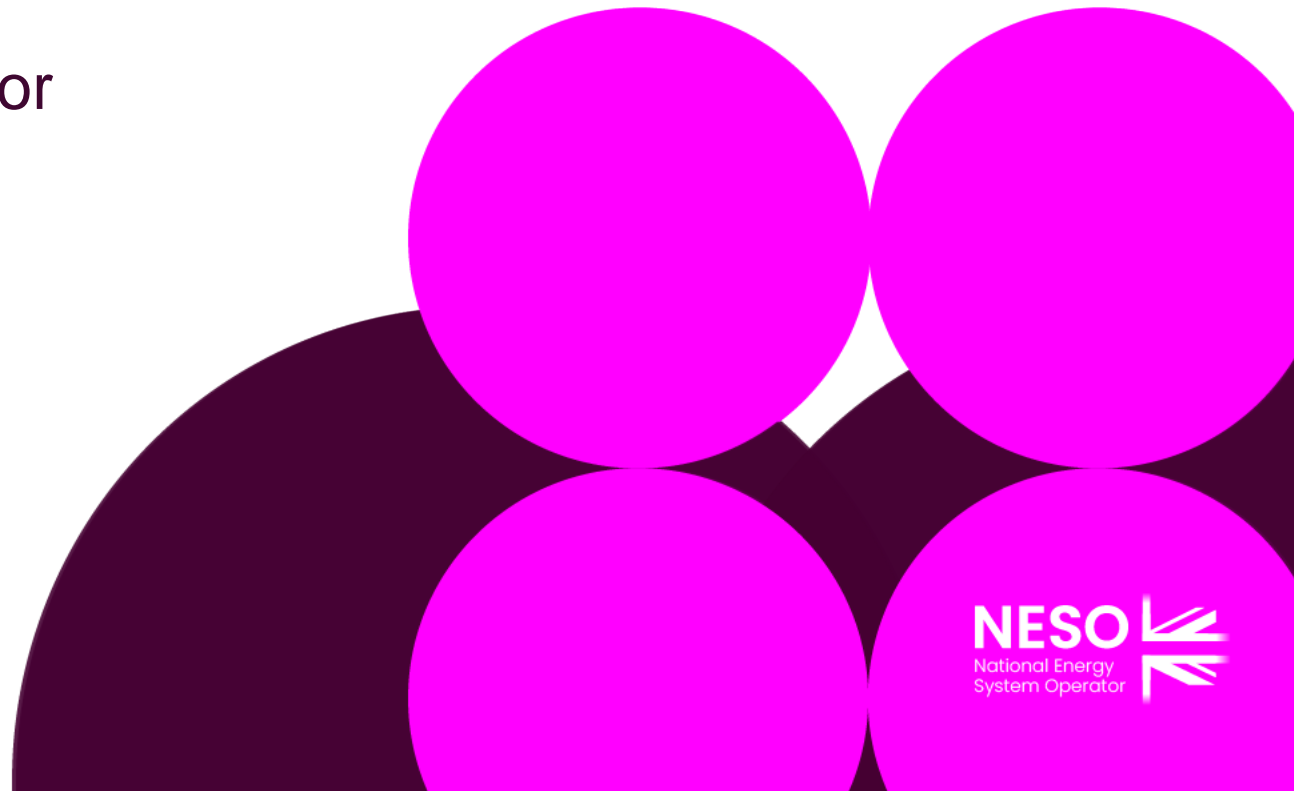
Stage 2 – Workgroup Vote

- 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.

Alternate Requests cannot be raised after the Stage 2 – Workgroup Vote

Objectives and Timeline

Prisca Evans – NESO Code Administrator



Public Timeline for CMP423 as of 20 February 2025

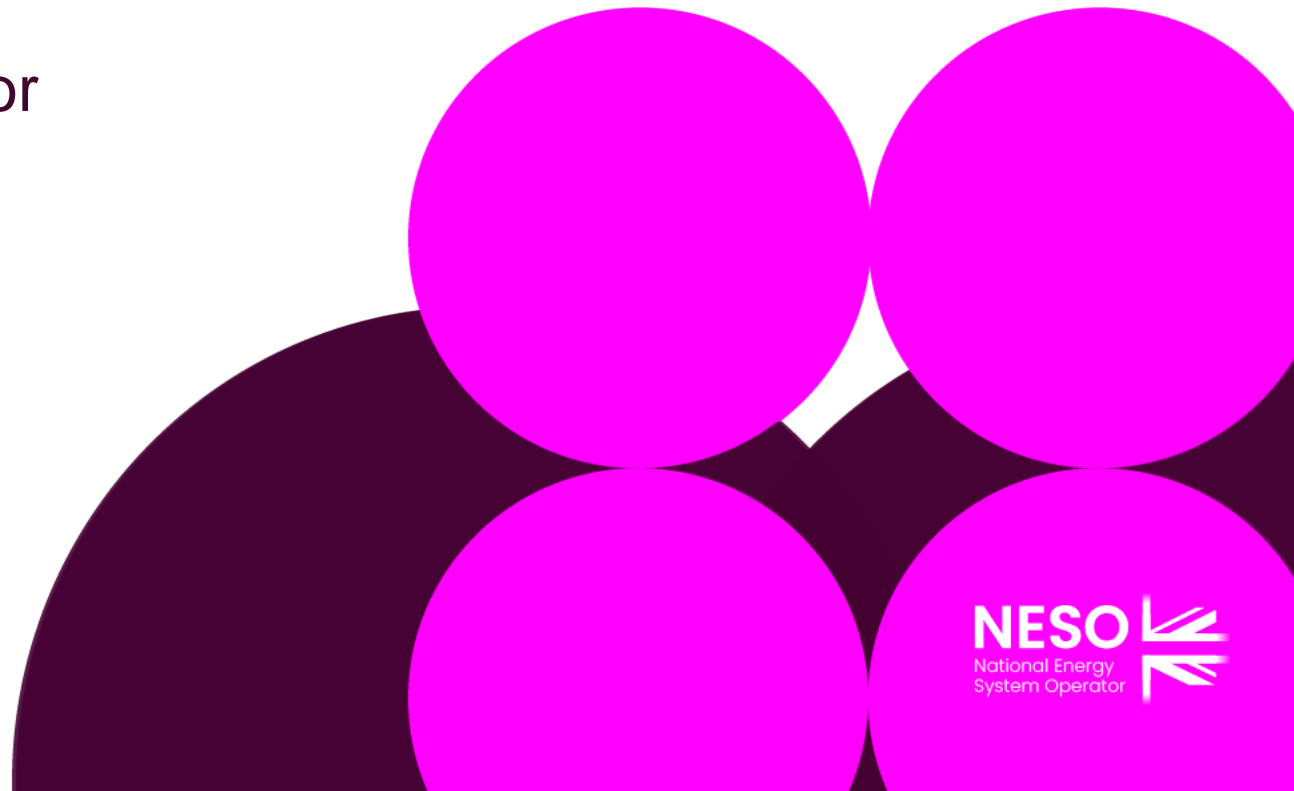
Pre-Workgroup		
Proposal raised	12/10/2023	
Proposal submitted to Panel	27/10/2023	
Workgroup Nominations	31/10/2023	
Urgency Decision Granted	22/01/2024	
Workgroups		
Workgroup 1	22/01/2024	Objectives and Timeline/Review and Agree Terms of Reference / Proposer presentation
Workgroup 2	17/04/2024	Solution Development / Workgroup Discussions/Legal Text
Workgroup 3	20/02/2025	Draft Legal Text/Draft Workgroup Consultation /Specific Questions
Workgroup 4	18/03/2025	Final Workgroup Consultation Review
Workgroup Consultation	28/04/2025-21/05/2025	
Workgroup 5	01/04/2025	Review of Workgroup Consultation Responses / Alternative Requests Discussion/Review Solution position
Workgroup 6	22/04/2025	TOR Discussion/Alternative Requests Presentations and Vote (if required)/
Workgroup 7	29/05/2025	Draft Legal text and WACMs Legal text (if required) review
Workgroup 8	17/06/2025	Final Workgroup Report Review / ToR Sign-off / Final Legal Text Review (WACMS legal text)

Timeline for CMP423 as of 20 February 2025

Post Workgroups		Key info
Workgroup Report submitted to Panel	10/09/2025	
Panel to agree whether ToR have been met	26/09/2025	
Code Administrator Consultation	09/10/2025	
Code Administrator Consultation Analysis and DFMR generation	17/11/2025	
Draft Final Modification Report to Panel	18/11/2025	
Panel Recommendation Vote	01/12/2025	
Final Modification to Ofgem	09/12/2025	
Decision Date	30/09/2026	
Implementation Date	01/04/2027	

Review Terms of Reference

Prisca Evans - NESO Code Administrator



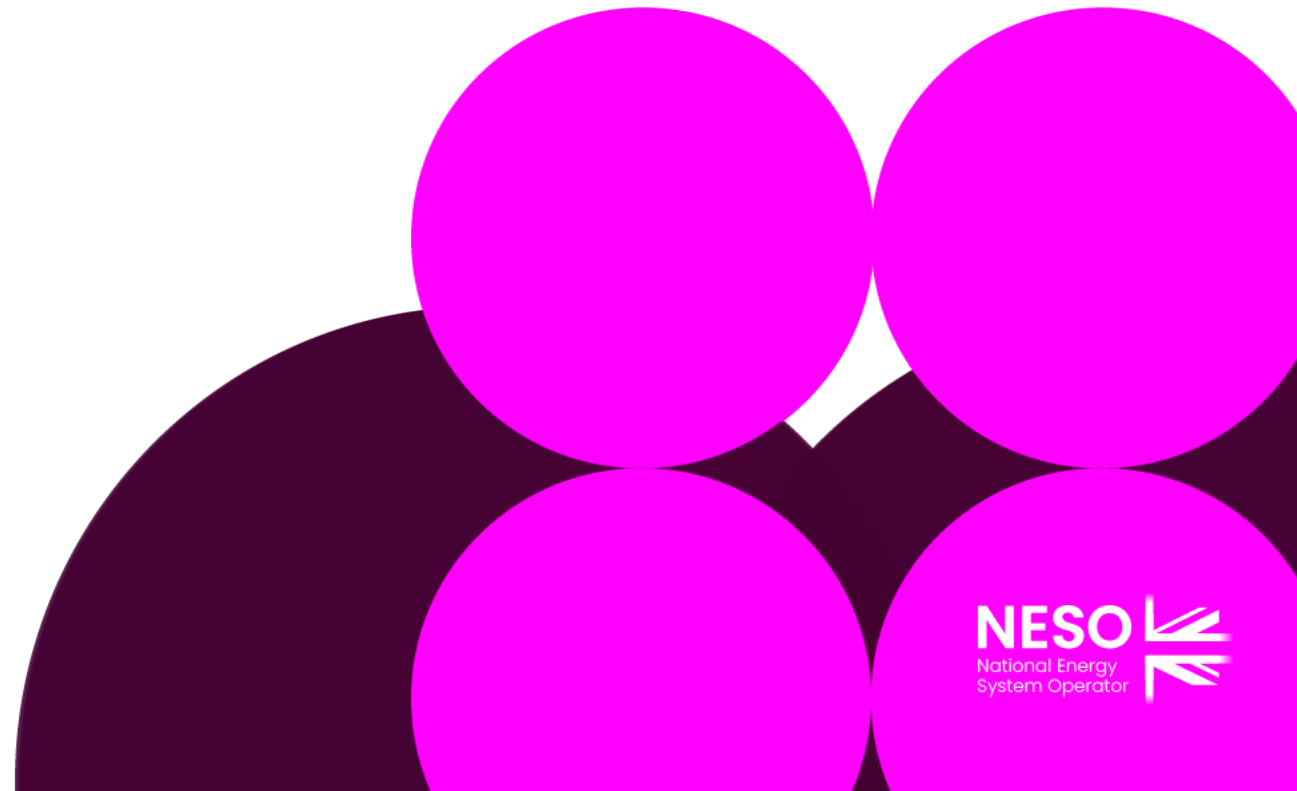
Public

CMP423 - Terms of Reference

Workgroup Term of Reference	Location in Workgroup Report (to be completed at Workgroup Report stage)
a) Consider EBR implications	
b) Consider implications for the network sharing calculation in the Transport and Tariff model	
c) Consider potential locations for new generation such as via the TEC Register, seabed leasing, or other planning sources	
d) Consider the impact on tariffs that may arise from changes in the way circuits may be placed into either Peak Security and Year-Round buckets.	
e) Consider the impact on demand customers contribution from a different location signal especially those unable to react to those signals	
f) Consider interactions with other Task Force modifications	
g) Consider if the assumption that change in generation will displace generation elsewhere is an appropriate assumption now and in the future.	
h) Consider whether the reduction within generation charges approaches the euro floor in the limiting regulation and what would happen in that circumstance	
i) Consider the scope of work identified and whether this is achievable within the timeframe outlined in the Ofgem Urgency decision letter.	

Proposer's Solution: Background; Proposed Solution; Scope; and Assessment vs Terms of Reference

John Tindal – SSE



Generation Weighted Reference Node CMP423

SSE Presentation WG3

20th February 2025



Public Terms of Reference

- a) Consider EBR implications
 - None
 - b) Consider implications for the network sharing calculation in the Transport and Tariff model
 - Addressed in this presentation
 - c) Consider potential locations for new generation such as via the TEC Register, seabed leasing, or other planning sources
 - Addressed in this presentation
 - d) Consider the impact on tariffs that may arise from changes in the way circuits may be placed into either Peak Security and Year Round buckets.
 - WG2 concluded modification does not change the way circuits are allocated to buckets
 - e) Consider the impact on demand customers contribution from a different location signal especially those unable to react to those signals
 - Existing action on NESO to provide impact on demand tariffs
 - f) Consider interactions with other Task Force modifications
 - Addressed in this presentation
 - g) Consider if the assumption that change in generation will displace generation elsewhere is an appropriate assumption now and in the future
 - Discussed in WG2
 - See SSE report from consultant
 - h) Consider whether the reduction within generation charges approaches the euro floor in the limiting regulation and what would happen in that circumstance
 - Addressed in this presentation
-

Contents:

TOR b: Consider implications for the network sharing calculation in the Transport and Tariff model

TOR c: Consider potential locations for new generation such as via the TEC Register, seabed leasing, or other planning sources

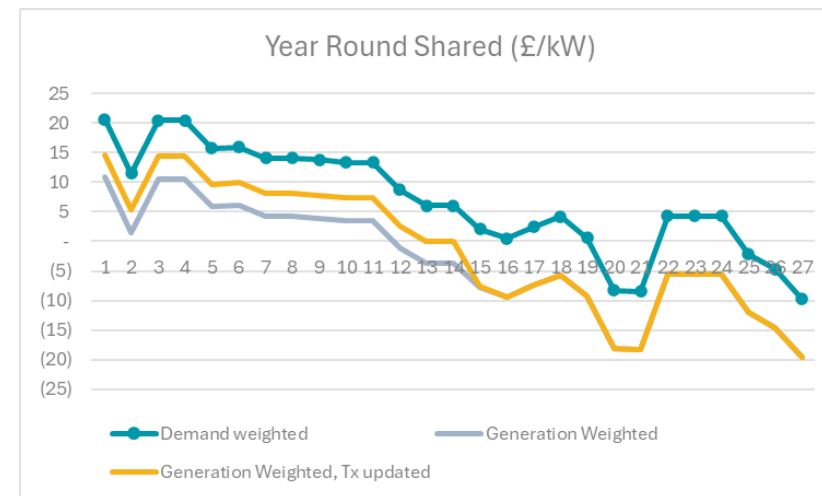
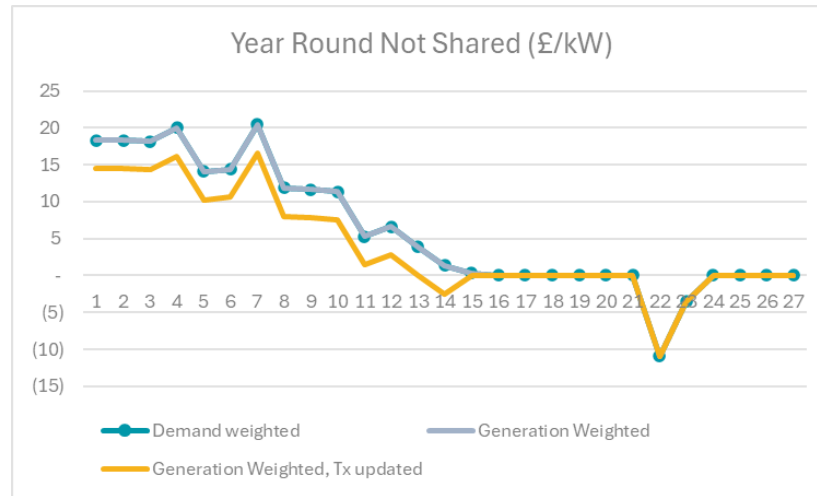
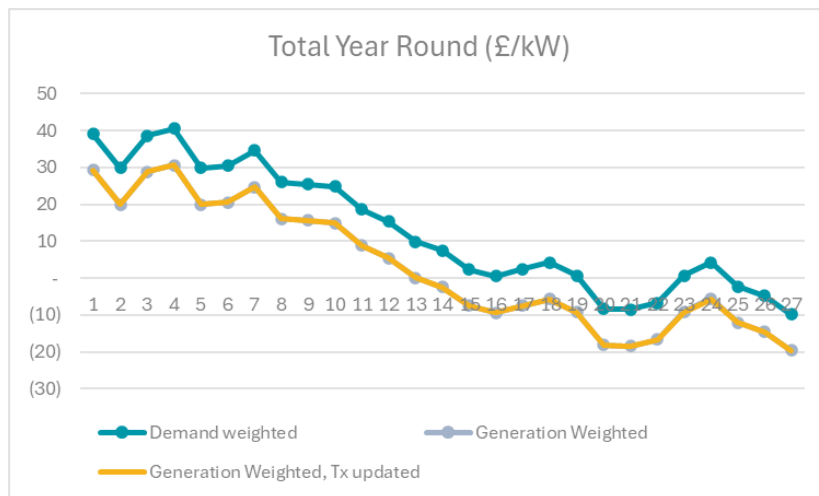
TOR f: Consider interactions with other Task Force modifications

TOR h: Consider whether the reduction within generation charges approaches the euro floor in the limiting regulation and what would happen in that circumstance

Need to update Reference Node in network sharing calculation of Transport and Tariff model

- Original proposal form proposed considering implications for sharing:
 - *“Specific issues a CUSC Workgroup could consider include: • Implications for the network sharing calculation in Transport and Tariff model”*
- Proposed feature:
 - **Update “TxNetwork” tab table:** Network connectivity diagram currently reflects the old Demand Weighted Reference Node, so will need to be updated to reflect the new Generation Weighted Reference Node
 - **Update “Connection map” tab diagram:** Only for explanatory purpose
- **Impact of updating connectivity diagram:** Only affects sharing split between Year Round Shared versus Year Round Not-shared. Does not impact Peak Security tariffs, and does not impact total Year Round tariff (Shared plus Not-shared)
- **The impact of not updating the Reference Node in the Connectivity diagram:** Would distort the sharing calculation. Changing the Reference Node in the VBA code would only change the Year Round Shared tariff, leaving the Year Round Not-shared tariff unchanged.

Impact on tariffs of updating Reference Node in connectivity diagram



Year Round Total tariffs

Changing to Generation Weighted Ref Node
= decrease in YR tariffs

Updating the Connectivity diagram
= no change in total YR tariffs

Year Round Not-Shared tariffs

Changing to Generation Weighted Ref Node
= no change in YRNS

Updating the Connectivity diagram
= decrease in YRNS tariffs

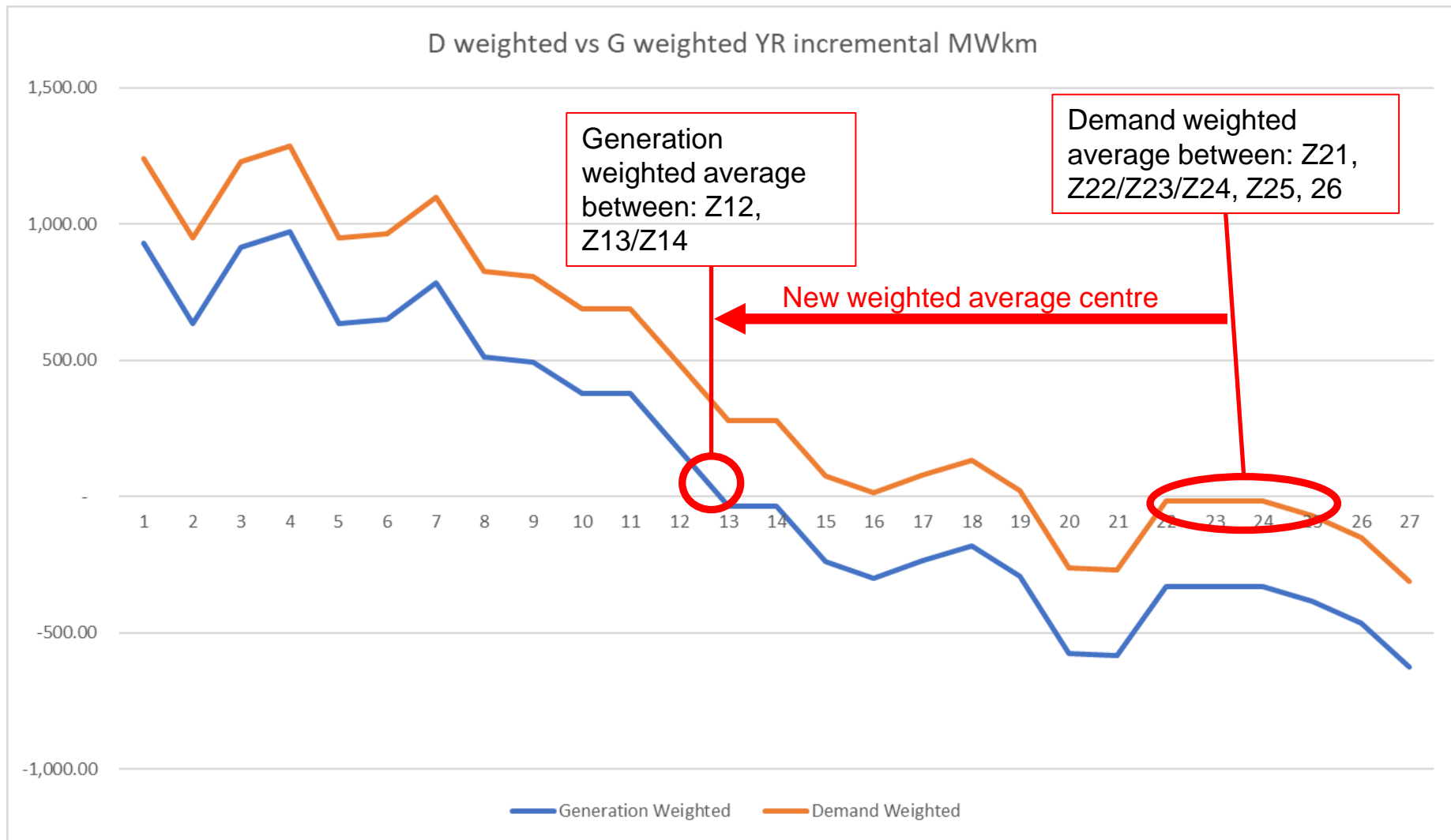
Year Round Shared tariffs

Changing to Generation Weighted Ref Node
= decrease in YRS tariffs

Updating the Connectivity diagram
= smaller decrease in YRS tariffs

Public

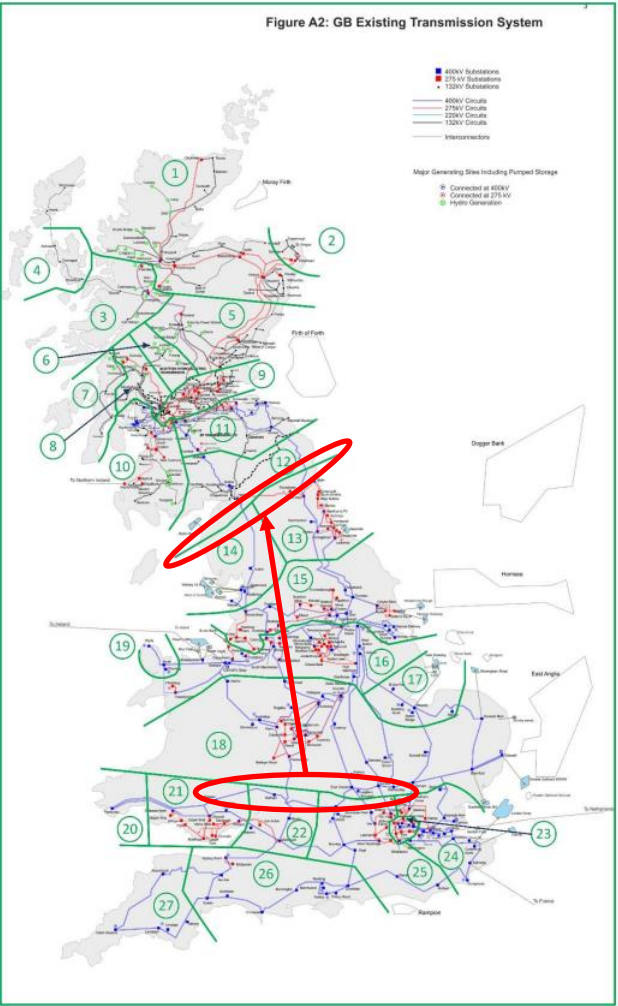
Why: YR incremental MWkm weighted average zero point moves north



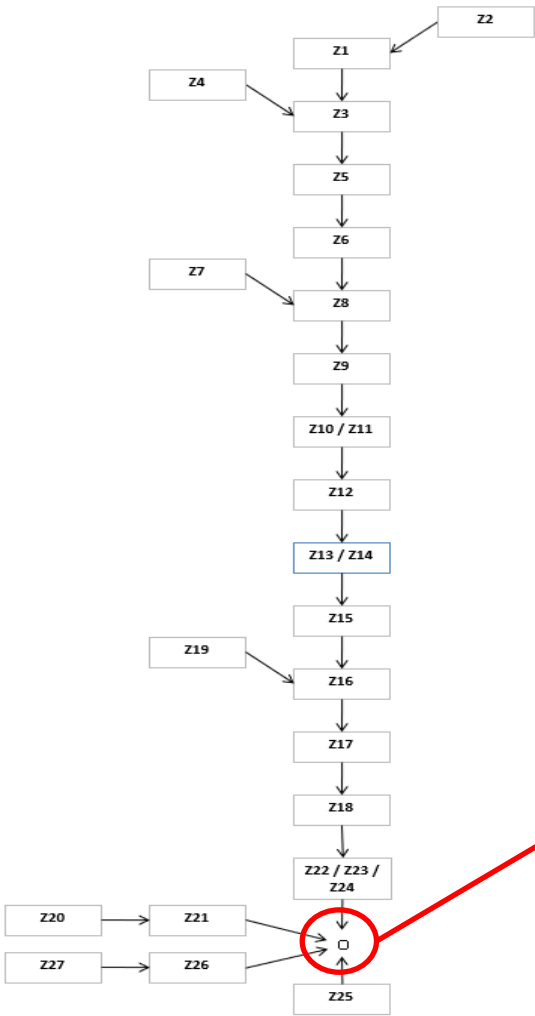
Note: MWkm values for parallel zones are averaged

Public

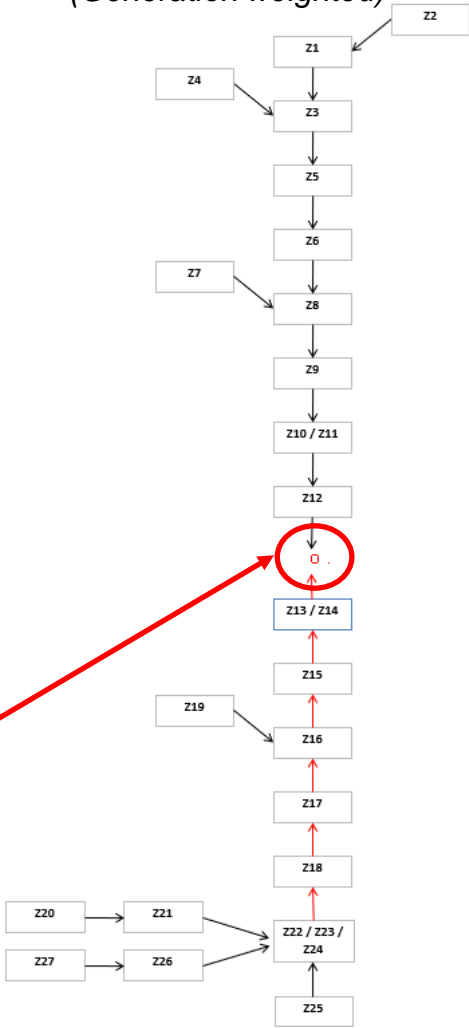
Connectivity diagram reflect weighted average reference node



Current Connectivity Diagram
(Demand weighted)



New Connectivity Diagram
(Generation weighted)



How: Reflect in coding of Transport Model “TxNetwork” tab

Zone Connectivity Input

Chart 1

Original NESO 2024/25 demand weighted model

Demand weighted centre point, zones 21-26

		From																											
		Gen Zone	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
To	1	1	1																										
	2		1																										
	3			1																									
	4				1																								
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	25																									1			
	26																										1		
	27																											1	
Demand Centre																													

Chart 2

Updated Connectivity Inputs moving centre point to

Generation Weighted centre point, zones 12, 13 & 14

Orange = 1 changed to 0
Red = 0 changed to 1

		From																											
		Gen Zone	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
To	1	1	1																										
	2		1																										
	3			1																									
	4				1																								
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Generation Centre																													

Contents:

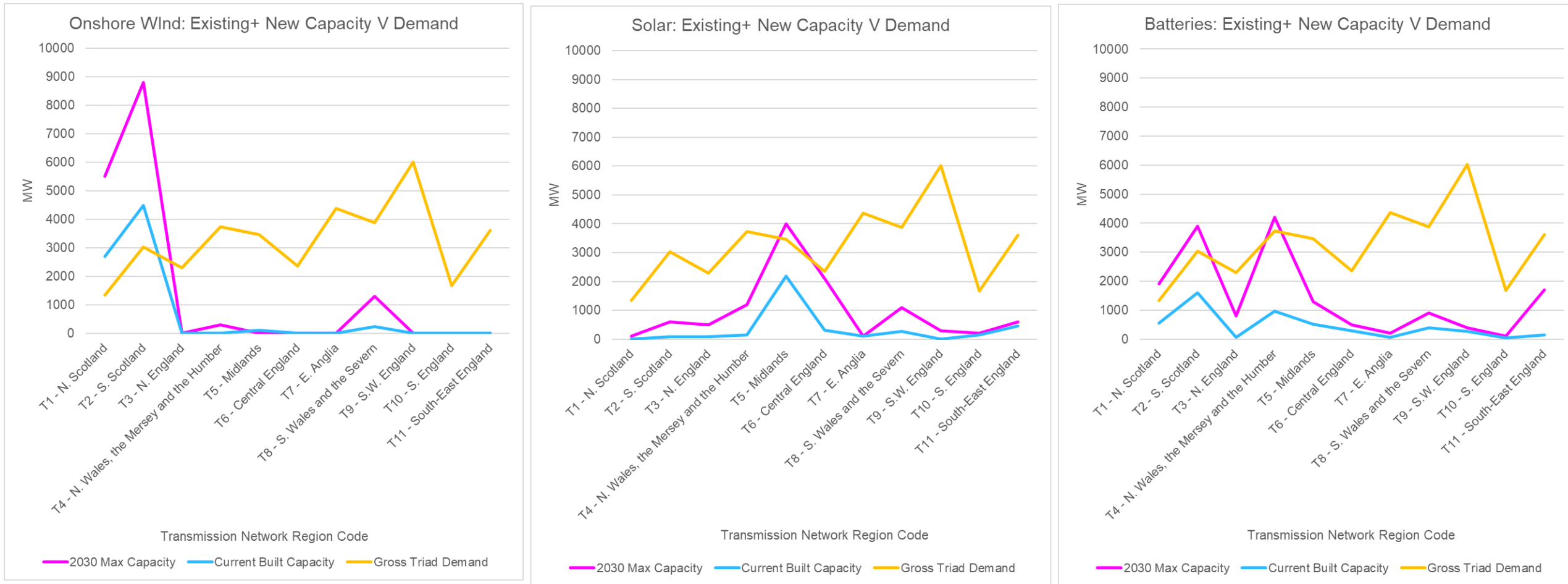
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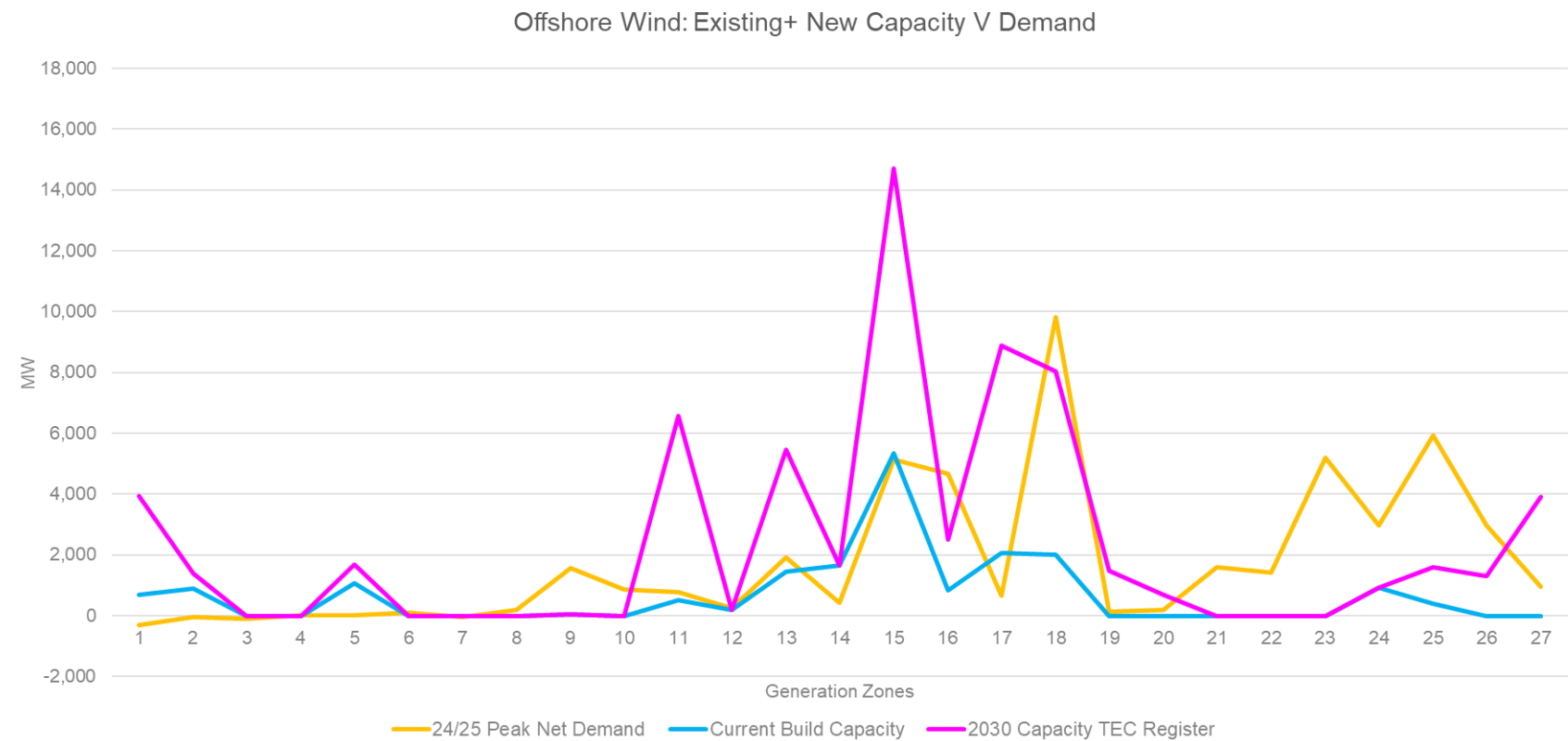
TOR h: Consider whether the reduction within generation charges approaches the euro floor in the limiting regulation and what would happen in that circumstance

Public Location of new generation is closer to existing generation than demand



Source: 6 - For Publication - Connections_Reform_Data_Impact_Assessment_Part_B_Data_Workbook (3)
[December - Connections Reform Data Assessment](#)

Location of new generation is closer to existing generation than demand



Source: TEC Register

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Public Interaction with other modifications

Ofgem urgency decision for CMP423 - download

- “We agree with the rationale that if this Proposal was to be progressed, it should be done on time to feed into the cap and floor design.”
- “However, although we are not granting urgency for CMP423, we do agree with the Proposer that the timing of any CMP423 decision should be considered in the context of, and be made ahead of, any fixed price TNUoS methodology as proposed through CMP442, as this would then allow any relevant changes to the methodology to be incorporated into NESO’s forecast to allow tariffs to be fixed at an appropriate level.” [Emphasis added]

Contents:

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Adjustment Tariff maintains charges in the range: Bring up to £0, or down to € 2.50 Euro (with error margin)

CUSC 14.14.5

“vii.) If having applied the exclusion of Charges for Physical Assets Required for Connection The Company identifies that an adjustment to TNUoS Charges is required to remain compliant with the Limiting Regulation then an Adjustment Tariff will be applied to all Generators in the following circumstances.

a) The Adjustment Tariff will be applied if The Company identifies that either:

a. Annual average TNUoS charges payable by Generator Users will fall below €0/MWh

OR

b. Annual average TNUoS charges payable by Generator Users will exceed €2.50/MWh adjusted by a risk margin to allow for error in tariff setting.

b) Where annual average TNUoS charges to Generators are positive under the GCharge (Forecast) the Adjustment Tariff will be applied if the Adjustment Revenue is less than £0. The Adjustment Revenue is expressed as:

$$AdjRevenue = (GO * ((CapEC * (1 - \gamma)) * ER)) - GCharge(Forecast)$$

c) Where annual average TNUoS charges to Generators are negative under the GCharge (Forecast) the Adjustment Revenue will be the difference between £0 and the total recovered from Generators. The Adjustment Revenue will be expressed as:

$$AdjRevenue = 0 - GCharge(Forecast)$$

CUSC 14.23

“Adjustment Tariff

(vi) We now need to calculate the Adjustment Tariff. This is calculated by taking the Adjustment Revenue and dividing this by the Chargable Generation Capacity (as per to 14.14.5 (viii) (h)) create a £/kW figure” [emphasis added]

Contents:

Proposed legal text

Legal text: for changing the Reference Node

From the Proposal Form: The modification proposes the following change to the CUSC legal text:

“14.15.27 Using these baseline networks for Peak Security and Year Round backgrounds, the model then calculates for a given injection of 1MW of generation at each node, with a corresponding 1MW ~~reduction of generation~~ ~~offtake~~ ~~(net demand)~~ distributed across all ~~generation demand~~ nodes in the network, the increase or decrease in total MWkm of the whole Peak Security and Year Round networks. The proportion of the 1MW ~~reduction of generation~~ ~~offtake~~ allocated to any given ~~generation demand~~ node will be based on the total background nodal ~~generation net-demand~~ in the model. For example, with a total net GB ~~generation demand~~ of 60GW in the model, a node with a ~~generation net-demand~~ of 600MW would contain 1% of the ~~reduction of generation~~ ~~offtake~~ i.e. 0.01MW.”

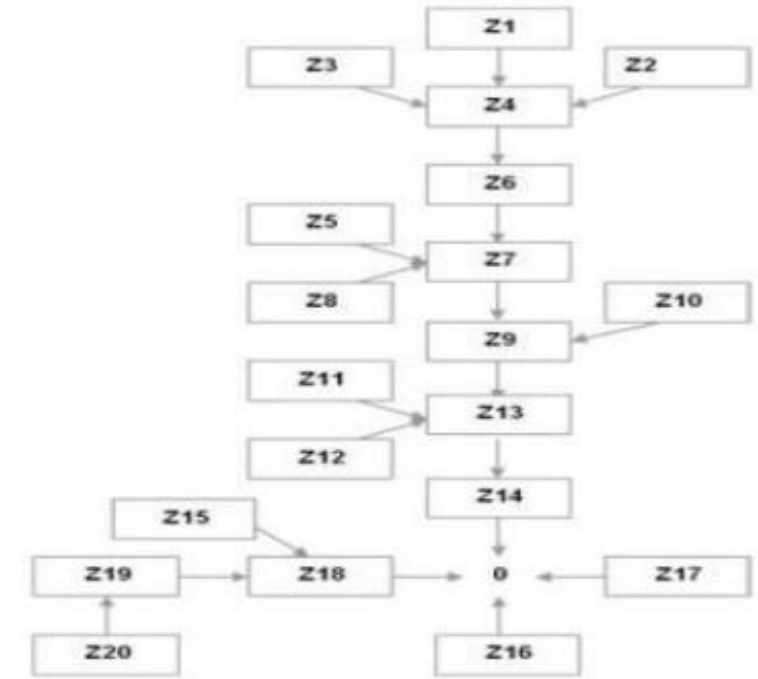
Legal text: relating to “centre of the system”

“14.15.51 An illustrative Connectivity diagram is shown below:

The arrows connecting generation charging zones and amalgamated generation charging zones represent the incremental km transmission boundary lengths towards the notional centre of the system.

Generation located in charging zones behind arrows is considered to share based on the ratio of Low Carbon to Carbon cumulative generation TEC within those zones

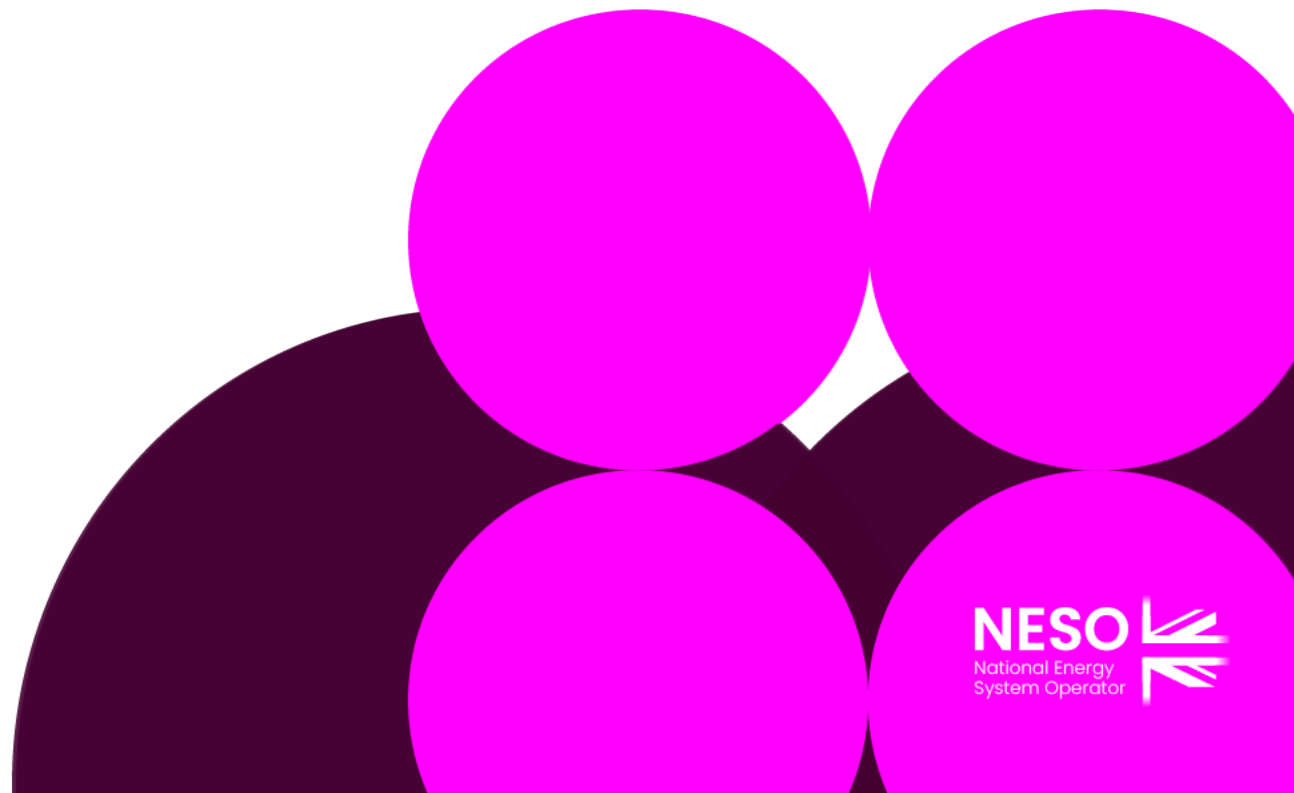
14.15.52 The Company will review Connectivity at the beginning of a new price control period, and under exceptional circumstances such as major system reconfigurations. If any such reassessment is required, it will be undertaken against a background of minimal change to existing Connectivity and in line with the notification process set out in the ESO Licence, the Transmission Licence and the CUSC.” [emphasis added]



- **Propose:** More prescriptive text to set out how The Company should determine the “centre of the system” based on incremental flows

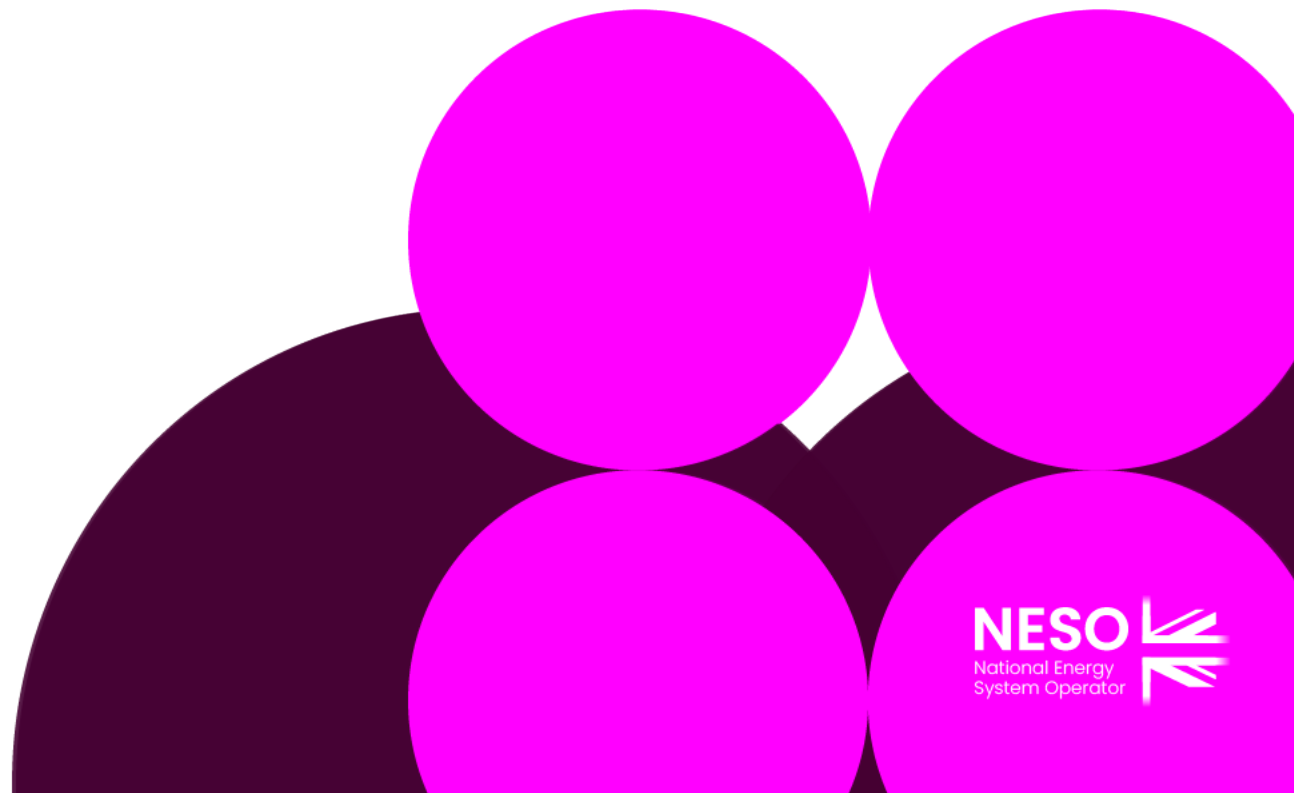
Agree Terms of Reference

Prisca Evans - NESO Code
Administrator



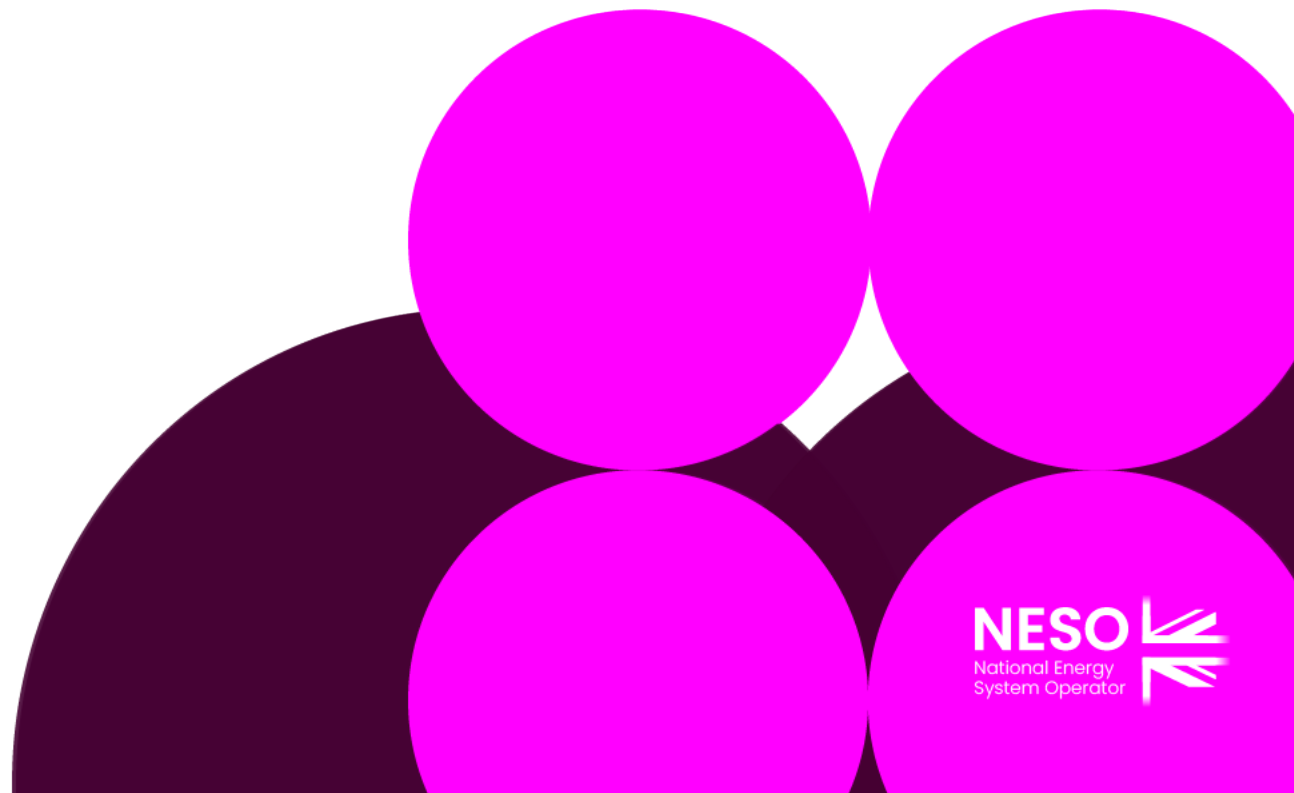
Cross Code Impacts

Prisca Evans - NESO Code
Administrator



Any Other Business

Prisca Evans – NESO Code
Administrator



Next Steps

Prisca Evans – NESO Code Administrator

