

CMP423: Generation Weighted Reference Node

22 January 2024
Online Meeting via Teams

WELCOME



Agenda

#	Topics to be discussed	Lead
1.	Introductions	Chair
2.	Code Modification Process Overview <ul style="list-style-type: none">• Workgroup Responsibilities• Workgroup Alternatives and Workgroup Vote	Chair
3.	Objectives and Timeline <ul style="list-style-type: none">• Walk-through of the timeline for the modification	Chair
4.	Review and agree Terms of Reference	All
5.	Proposer Presentation and Questions	Proposer
6.	Cross Code Impacts	All
7.	Any Other Business	Chair
8.	Next Steps	Chair



Modification Process

Jonathan Whitaker – ESO 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

Jonathan Whitaker – 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

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

Jonathan Whitaker – ESO Code Administrator

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

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 Workgroup Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings

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 and Timeline

Jonathan Whitaker – ESO Code Administrator

Timeline for CMP423– Proposed Timeline - *Workgroup*

Milestone	Date	Milestone	Date
Modification presented to Panel	27 October 2023	Code Administrator Consultation (15 working days)	02 December 2024 – 23 December 2024
Workgroup Nominations (15 Working Days)	31 October – 21 November 2023	Draft Final Modification Report (DFMR) issued to Panel (5 working days)	23 January 2025
Workgroup 1,2,3, 4 & 5 To discuss the defect, analysis required and begin refining the solution	22 January 2024 27 February 2024 09 April 2024 14 May 2024 25 June 2024	Panel undertake DFMR recommendation vote	31 January 2025
Workgroup Consultation (15 working days)	02 July 2024 – 23 July 2024	Final Modification Report issued to Panel to check votes recorded correctly	04 February 2025 – 11 February 2025
Workgroup 6, 7 & 8 To review the Workgroup Consultation responses and to finalise the solution	07 August 2024 10 September 2024 22 October 2024	Final Modification Report issued to Ofgem	12 February 2025
Workgroup report issued to Panel (5 working days)	21 November 2024	Ofgem decision	30 September 2025
Panel sign off that Workgroup Report has met its Terms of Reference	29 November 2024	Implementation Date	01 April 2026



Terms of Reference

Jonathan Whitaker – ESO Code Administrator

CMP423 – Draft Terms of Reference

Workgroup Terms of Reference

1.Consider EBR implications

2.Consider implications for the network sharing calculation in the Transport and Tariff model

3.Consider potential locations for new generation such as via the TEC Register, seabed leasing, or other planning sources

4.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.

5.Consider the impact on demand customers contribution from a different location signal especially those unable to react to those signals

6.Consider interactions with other Task Force modifications

7.Consider if the assumption that change in generation will displace generation elsewhere is an appropriate assumption now and in the future

8.Consider whether the reduction within generation charges approaches the euro floor in the limiting regulation and what would happen in that circumstance



Proposer's Solution

CMP423
Generation Weighted Reference Node

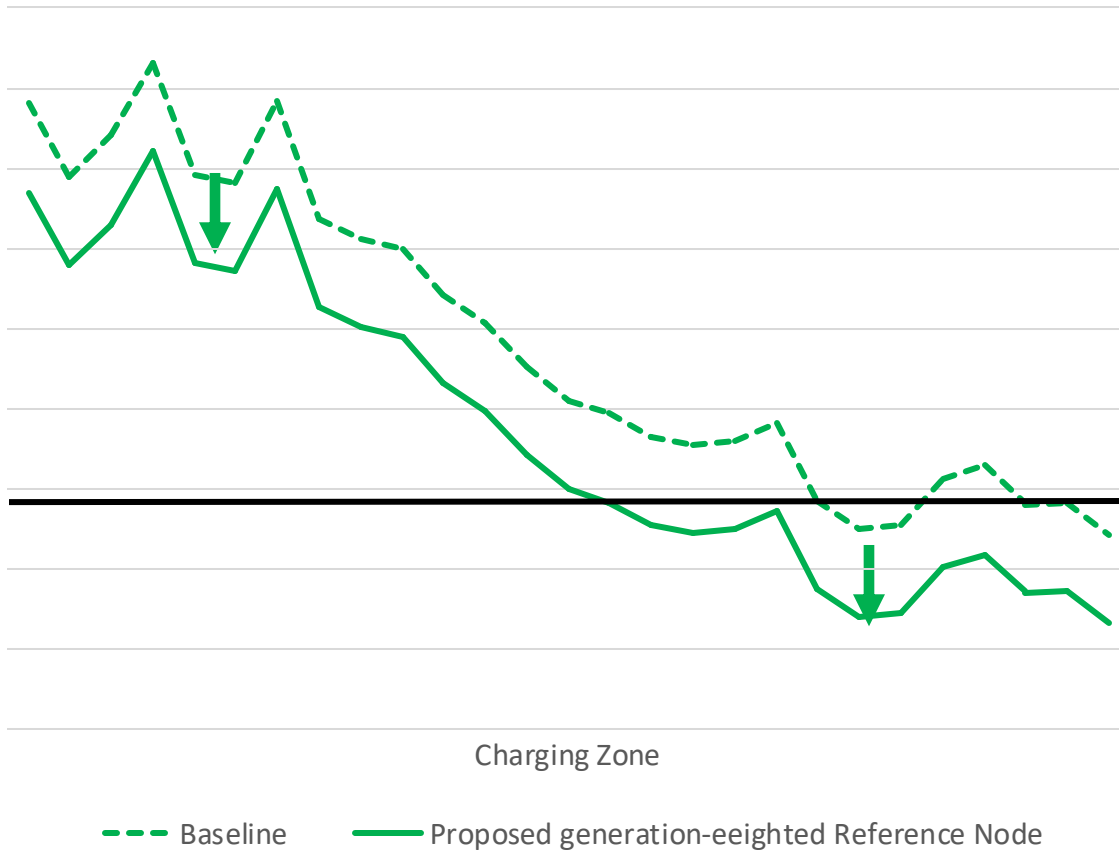
John Tindal SSE

January 2024

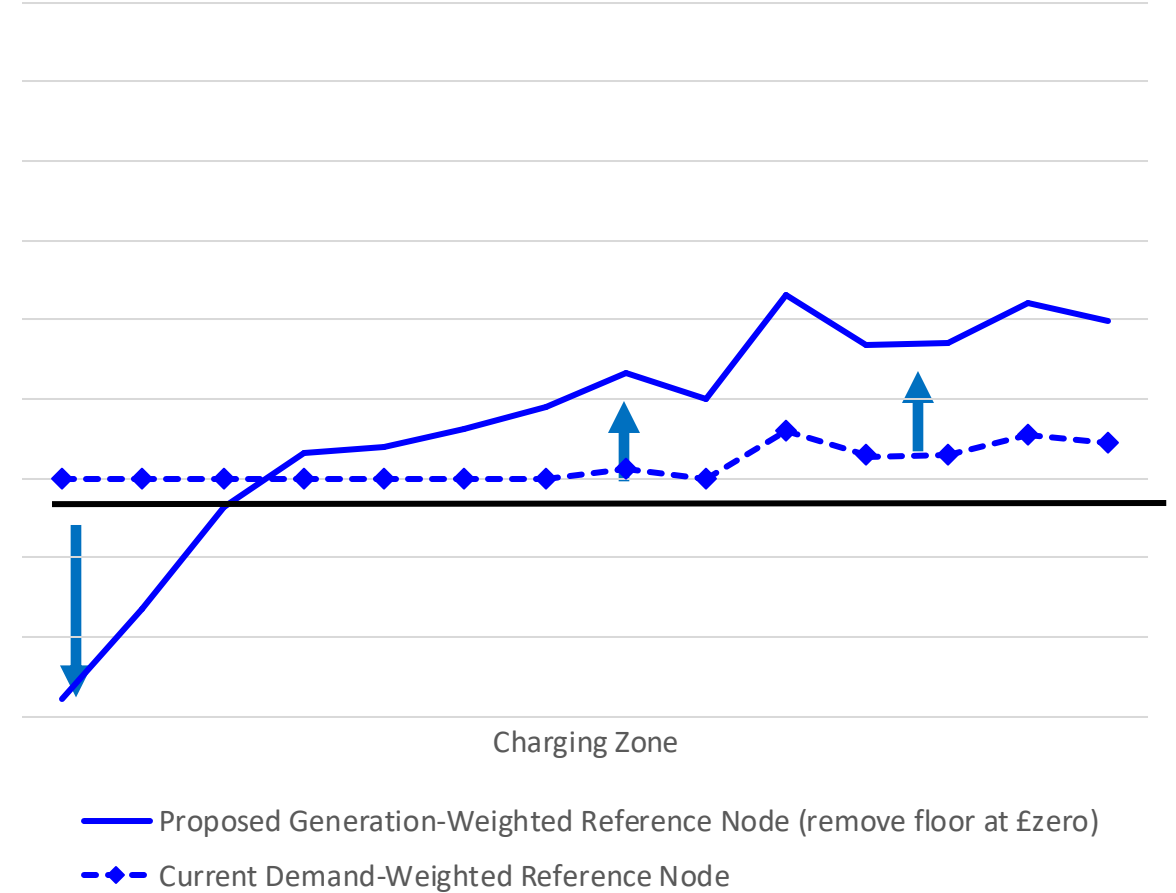


Potential impacts

Illustrative Generation Wider Locational Tariffs (sum of Peak Security and Year Round tariffs)



Illustrative sum of Demand Locational Tariffs (sum of Peak Security and Year Round tariffs)



Potential impacts

G:D split may remain the same

Generation

- **Generator Adjustment Credit:** Reduce scale and need for generator adjustment credit
- **Generator Wider locational charges:** Reduce total collected from generation Wider locational towards £zero (currently large £positive collection)

Demand

- **Demand Residual:** Reduce standing charges by reducing the value of unavoidable Demand Residual charges i.e. the Residual fixed charge per site
- **Demand Wider locational:** Demand charges weighted more towards Wider locational charge

Other issues to consider

- Network sharing calculation in Transport and Tariff model
- Review potential locations for new generation such as via the TEC Register, seabed leasing, or other planning sources
- Impact on tariffs that may arise from changes in the way circuits may be placed into either Peak Security and Year Round buckets
- Interaction with other possible TNUoS Task Force proposals
 - **Demand Triad charges:** Separate out demand PS and YR charges and apply to different charging bases
 - **Embedded Export Tariff (EET):** Implications for the way smaller Distribution Connected generators face TNUoS signals

Evaluation against applicable CUSC objectives

Improved cost reflectivity

➤ **Charges would better reflect incremental transmission system cost/benefit that is caused by user's investment decisions:**

- i) **Generation:** For change in generation, system responds by changing generation elsewhere, not by changing demand
- ii) **Demand:** For change in demand, system responds by changing generation, not by changing demand elsewhere

Improved Effective Competition

➤ **Better for GB generation vs international markets:** Reduces the distortionary competitive disadvantage of GB generators compared with generators in other countries that do not pay transmission charges

➤ Better competition between GB generation and demand

More level playing field of price signal between voltage of connection, co-location, or behind customer meters

- i) **Locational signals:** Reduce distortion caused by demand “floor at £zero” and make demand and generation locational charges more equal/opposite.
- ii) **Residual charges:** Reduce magnitude of both Demand Residual and Generator Adjustment Credit:
 - Better enable demand to take action to reduce their own TNUoS charges because demand Residual charges are reduced as more of demand charge is weighted towards locational instead of Residual.
 - Reduce distortions caused by different parties being exposed to different adjustments, or residuals. Better align the business case for generation and demand across different voltages, co-located arrangements, and behind customer meters.

Why Reference Node matters

Before Project TransmiT: Choice of Reference Node did not matter for either absolute, or relative charges for individual users

➤ Choice of specific Reference Node did not change either the magnitude, or relative locational signals faced by different users because:

All users paid their locational tariff and Residual tariff on the same charging base, so any changes cancelled each other out

Re-referencing brought charges back to G:D split of 27:73 irrespective of choice of Reference Node

After Project TransmiT: Choice of weighted Reference Node does matter – Impacts both absolute and relative charges paid by individual users

This means it is now important to consider the most appropriate way of dealing with the Reference Node

➤ **Generation**

Different generators pay different elements of TNUoS charge on different charging bases: conventional generators pay the Peak Security tariff, while intermittent generators do not, all generators pay the Year Round Shared tariff by their own different station specific ALF, and conventional carbon generators have their ALF applied to their Year Round Not-Shared tariff, while other generators pay this at 100% of TEC, Generator Adjustment Credit applied on 100% of TEC.

➤ **Demand**

Demand Residual is now applied to a different charging base from the locational demand charges.

TNUoS Task Force may split Peak Security and Year Round onto different charging bases

What is the issue ?

Defect

➤ TNUoS Transport model currently calculates incremental flows by bringing total generation and demand into balance by pro-rata increasing all demand using a “demand weighted reference node”. This is not cost reflective and is detrimental for effective competition.

Proposed solution

➤ Switch from a demand weighted Reference Node to a generation weighted reference node instead

“ 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.”

Process

- Normal CUSC Workgroup process
- Implementation 1st April 2026, earlier if possible
- Ofgem decision at least 6 months before implementation to provide sufficient notice for parties



Cross Code Impacts

Jonathan Whitaker – ESO Code Administrator



Any Other Business

Jonathan Whitaker – ESO Code Administrator



Next Steps

Jonathan Whitaker – ESO Code Administrator