

CMP419: Generation Zoning Methodology Review – Workgroup 3

12 December 2023
Online Meeting via Teams

WELCOME



Agenda

Topics to be discussed	Lead
Introductions	Chair
Action Log	Chair
Proposer presentation and questions	Proposer
Timeline and Terms of Reference	Chair
Cross Code Impacts	All
Any Other Business	Chair
Next Steps	Chair

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 Membership

Role	Name	Company
Proposer	Nitin Prajapati	National Grid ESO
Workgroup Member	Ryan Ward	Scottish Power Renewables
Workgroup Member	Paul Jones	Uniper UK Ltd
Workgroup Member	Grace March	Sembcorp Energy
Workgroup Member	Lauren Jauss	RWE Supply & Trading GmbH
Workgroup Member	Claire Hynes	RWE Renewables
Workgroup Member	Robin Dunne	Intergen
Workgroup Member	Dennis Gowland	Research Relay Ltd
Workgroup Member	Calum Duff	Thistle Wind Partners
Workgroup Member	Graz Macdonald	Waters Wye & Associates
Workgroup Member	Damian Clough	SSE Generation
Workgroup Member	Paul Youngman	Drax
Workgroup Member	Nicolas Lescal	Ocean Winds
Authority Representative	Pedro Arcain	Ofgem

Action Log for CMP419

Action number	Workgroup Raised	Owner	Action	Comment	Due by	Status
1	WG1	DG	Provide views to ESO on potential anomalies in charging methodology		WG3	Open
4	WG1	NP	Investigate potential effect on boundaries if constraints are removed by the bootstrap. Also look into expected trajectory of constraints.	Update provided within slide 7	WG2	Propose to close
7	WG2	NP	Clear usable map illustrating ETYS zones (Shape file, zoomable, more interactive the better).	Update provided within slide 7	WG3	Propose to close
8	WG2	NP	ETYS boundaries and zones on one map.	Update provided within slide 7	WG3	Propose to close
9	WG2	AH	Circulate CMP324/325 documentation links with Workgroup.	CMP324/325 Modification page	WG3	Propose to close
10	WG2	AH	Circulate "Approach to understanding generation rezoning" document link	"Approach to understanding generation rezoning" document link	WG3	Propose to close
11	WG2	NP	ESO Revenue team to attend WG4 and present analysis.	Analysis will not be available until March and will be circulated to the Workgroup when available	WG3	Open
12	WG2	NP	Look at CUSC 14.15.12 and investigate if this could be used.	Update provided within slide 8	WG3	Propose to close

Action 1

MITS and Non-MITS.

Nodes which are enmeshed in the grid but are not all classed as MITS. This follows work done during the OTNR subgroup (Feb –Sept 2023) in which circuits and nodes in the offshore HND were discussed including radial and non-radial circuits. It became apparent that not all interconnected nodes in the HND would be classed as MITS under the current 2 descriptions. There was a consensus in the group that such a node (or nodes) seemed anomalous when these included non-radial circuits, where onshore flows could pass electrical boundaries, in addition to connecting offshore generation.

Since this point was raised at CMP419 (meeting#1), and the Action Point, I note that ESO is proposing a Mod (notified at TCMF 23/11/23) to address this potential deficiency – where circuits at a node cross boundaries and may be used for onshore flows. As far as I understand it, the proposed Mod would not seek to change or add to the present descriptions of a MITS. How this solution is progressed could have an impact on zones where HND and 'Bootstrap' circuits terminate onshore.

Action 1

Locational signals

Taking a quote from the recent Ofgem 'Open Letter' on strategic transmission charging reform' "As described in Section 1, both network flows and the role for and market participation of smaller assets are changing in fundamental ways as the number of distribution-connected generation and storage assets increases, and there is a proliferation of renewable energy generation in new areas. These changes may require adjustments to historical approaches to reflecting costs and benefits in transmission charges for generation, demand and storage."

Rezoning could give rise to either more or less granular charges which, if the outcome was to increase the differences between generators based on historical signals, then there may be a potential consequence that such a result could frustrate the aims of the future system design if those signals are meant to influence investment.

What generation –and would it be technology based – would be encouraged and where – to fulfil the requirements leading to Net Zero? Would present locational signals encourage or discourage?

Actions from WG2

Action 4 – Investigate the interaction of bootstraps with zone movement and zone creation.

- If bootstraps are implemented, which do not involve major network changes they are unlikely to change ETYS zones or create new ETYS Zones.
- However if there are major network changes involving a number of new circuits and substations then there is a possibility for changes to ETYS Zones and possibility of new ETYS Zones being created.
- So the scale of the network change will be a key factor in determining if there are any impacts to ETYS Zones.

Action 7 & 8 - Clear usable map illustrating ETYS zones and ETYS boundaries

- ETYS zones are created by electrical layout and are not precisely geographical. They are to capture power flows along the circuits.
- Therefore the reference diagram for them is schematic. For a customer connection it is important for the ESO to know where a generator connects electrically and how that changes the power flows.
- The definition therefore is not precisely geographic. i.e. a customer may want to decide to build either side of a road/river on which a geographic boundary they sit but they would still connect back to the same electric node.
- Therefore mapping the ETYS zones to geographical points would lead to it becoming inaccurate as the zones are based on an electrical layout not a geographical one.
- **However it is important to note, the substations the generators will connect to are all outlined in the [ETYS document](#), so this helps to establish where the generators will be located within the ETYS zones.**

Actions from WG2

Action 12 – Look at CUSC 14.15.12 and investigate if this could be used.

- This was in relation to determining an approach for HVDC circuits as their reactance can vary within a significant range, making it challenging to determine their circuit flows
- CUSC section 14.15.12 outlines:

‘For HVDC circuits, the impedance will be calculated to provide flows based on a ratio of the capacity provided by the HVDC link relative to the capacities on all major transmission system boundaries that it parallels.’

- This approach in the methodology was intended for point to point connections and therefore cannot be applied to the HND, because multiple HVDC circuits, each having its own “desired MW flow” based on the relevant boundary flows, will conflict the Kirchoff’s Circuit Law at the points where they join one another.



Proposer's Update

Nitin Prajapati - ESO

Approach to Analysis

Data

- The latest [ETYS document](#) and the associated data will be utilised to determine which zone the substations are located in.
- This will then be used to amend the inputs in the Transport and Tariff model to ensure the nodes are assigned to the new generation zone based on the ETYS major zones.

Users

- The analysis will be conducted for onshore and offshore generators.
- The analysis will also consider if there are any subsequent impacts on demand users.

Format

- Represented in Excel, with tables and charts to illustrate tariffs in the various generation zones.
- Overview of the analysis via PowerPoint slides.

Approach to Analysis

Outputs

- Forecast nodal prices by generation zone, including system peak tariff, shared year round tariffs, not shared year round tariffs and adjustment tariffs.
- Overview of the number of nodes within a generation zone.
- Comparison between nodal prices under the current methodology vs the proposed methodology under CMP419.

Analysis Period and Timeframes

- Forecast Tariffs for charging year 2026/27.
- The analysis is aiming to be ready for the Workgroup meeting in March 2024.

Other Considerations

- Assess the impacts on the connectivity element between generation zones.



Timeline and Terms of Reference

Lizzie Timmins – ESO Code Administrator

Proposed Timeline for CMP419

Milestone	Date	Milestone	Date
Modification presented to Panel	25 August 2023	Code Administrator Consultation (15 working days)	30 October 2024 to 19 November 2024
Workgroup Nominations (15 Working Days)	30 August 2023 to 20 September 2023	Draft Final Modification Report (DFMR) issued to Panel (5 working days)	05 December 2024
Workgroup 1 – Workgroup 6 To discuss the defect, analysis required and begin refining the solution	12 October 2023 08 November 2023 12 December 2023 17 January 2024 06 March 2024 16 April 2024	Panel undertake DFMR recommendation vote	13 December 2024
Workgroup Consultation (15 working days)	21 April 2024 to 10 May 2024	Final Modification Report issued to Panel to check votes recorded correctly	16 December 2024 to 20 December 2024
Workgroup 6 – Workgroup 11 To review the Workgroup Consultation responses and to finalise the solution	05 June 2024 02 July 2024 30 July 2024 03 September 2024 01 October 2024	Final Modification Report issued to Ofgem	23 December 2024
Workgroup report issued to Panel (5 working days)	17 October 2024	Ofgem decision	TBC – required by 30 September 2025
Panel sign off that Workgroup Report has met its Terms of Reference	25 October 2024	Implementation Date	01 April 2026

Terms of Reference

Workgroup	Term of Reference
a)	Consider EBR implications
b)	Consider how the implementation of a new zoning methodology, its governance and associated impact of rezoning will impact the predictability, cost reflectivity, and stability of charges.
c)	Assessing the use of ETYS boundaries and/or use of other methods to develop generation zones before considering how this may or may not increase the range of nodal prices within a generation zone.
d)	Assess the frequency of reviewing the number of generation zones, factoring in the decision from CMP324/325 and associated impacts on the stability of TNUoS charges.
e)	Consider relevant regulatory changes



Cross Code Impacts

All

[Link for Workgroup](#)



Any Other Business

Lizzie Timmins – ESO Code Administrator



Next Steps

Lizzie Timmins – ESO Code Administrator