

CMP446 Increasing the lower threshold in England and Wales for Evaluation of Transmission Impact Assessment

Workgroup Meeting 8, 24 February 2025

Online Meeting via Teams

WELCOME

Agenda

Topics to be discussed	Lead
Welcome	Chair
Actions update	Proposer
WACM Discussion and Legal Text	Chair
Terms of Reference Check In	Chair
Any Other Business	All
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

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	Eligibility to Vote
Proposer	Martin Cahill	NESO	Eligible
Workgroup Member	Brian Hoy	Electricity North West	Eligible
Workgroup Member	Ciaran Fitzgerald	Scottish Power Renewables	Eligible
Workgroup Member	Dan Clarke	National Grid Electricity Transmission (nominated by NESO)	Eligible
Workgroup Member	Drew Johnstone	Northern Powergrid	Eligible
Workgroup Member	Garth Graham	SSE Generation	Eligible
Workgroup Member	Grant Rogers	Qualitas Energy	Eligible
Workgroup Member	Helen Stack	Centrica	Eligible
Workgroup Member	Jack Purchase	National Grid Electricity Distribution	Eligible
Workgroup Member	Joe Colebrook	Innova Renewables	Eligible
Workgroup Member	Kate Teubner	Low Carbon	Eligible
Workgroup Member	Kyran Hanks	WWA (nominated as a CUSC Panel Member)	Eligible
Workgroup Member	Nina Sharma	Drax	Eligible
Workgroup Member	Ross O'Hare	SSEN	Eligible
Workgroup Member	Zivanayi Musanhi	UK Power Networks	Eligible
Authority Representative	Alasdair MacMillan	Ofgem	N/A

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.

Timeline for CMP446 on 21 February 2025

Workgroups		High Level Objectives
CMP446 Workgroup Meeting 1	24/01/2025	Full solution and ToR assessment
CMP446 Workgroup Meeting 2	30/01/2025	Any Alternative requests suggestion/ Review of Workgroup Consultation
CMP446 Workgroup Meeting 3	03/02/2025	Review of Workgroup Consultation / Contingency
CMP446 Workgroup Meeting 4	05/02/2025	Workgroup Consultation Review
CMP446 Workgroup Meeting 5	06/02/2025	Workgroup Consultation Review
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CMP446 Workgroup Meeting 7		
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CMP446 Panel for ToR sign off	10/03/2025	
Post Workgroups		
CMP446 Code Administrator Consultation	10/03/2025 - 17/03/2025	
CMP446 Draft Final Modification Report to Panel	24/03/2025	
CMP446 Panel Recommendation Vote	28/03/2025	
CMP446 Final Modification Report to Panel to check Votes	28/03/2025	
CMP446 Final Modification to Ofgem	28/03/2025	
CMP446 Decision Date	29/04/2025	
CMP446 Implementation Date	02/05/2025	

Terms of Reference

Workgroup Term of Reference

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|----|--|
| a) | Consider EBR implications |
| b) | Consider the scope of work identified and whether this is achievable within the timeframe outlined in the Ofgem Urgency decision letter. |
| c) | Consider the legal and practical implementation of this modification alongside CMP434/CMP435 and any other relevant in flight CUSC modifications. |
| d) | Consider any cross-code impacts. |
| e) | Consider data and any other requirements from DNOs to implement |
| f) | Consider how CMP446 would be compatible with the requirement for the NESO acting in a non-discriminatory manner |
| g) | Consider how CMP446 would be compatible with the requirement for harmonised rules for generator connections in GB. |
| h) | Consider what the MW capacity relates to: for example, export capacity or installed capacity or developer capacity? |
| i) | Consider if the change applies only to new projects (up to 5MW) or also to existing D connected projects that increase their capacity by up to 5MW (4MW to 6MW), and projects that reduce to be below the threshold. |
| j) | Consider potential for interlinked impact of cumulative/aggregated <5MW projects which would otherwise breach the proposed 5MW threshold. |
| k) | Consider the interaction with Technical (Planning) limits and Distribution (DNO) managed Active Network Management (ANM) schemes |

Public Actions

Action number	Action	Status
24	The Proposer took an action to ensure that the fault level headroom considerations are clearly documented in the Workgroup consultation, including any necessary legal text adjustments.	Proposed to Close
25	It was confirmed by NGET that a list of GSPs that have no fault level headroom will be made available next week, and that the Proposer will consider what the enduring solution will be for the list to be made available publicly. Action to remain open pending new actions and further discussion (Consider any further analysis which shows how queue could change after Gate 2)	Open
26	The Proposer of Alternative 1 took an action to consider changing the terminology within this this proposal from "MVA" to "MW".	Proposed to Close
33	Proposer to consider the inclusion of Trade Associations in the Communications Plan.	Open
34	Proposer to share a table with the Workgroup that clarifies the treatment of projects under differing Fault Level Headroom scenarios and to include this in the Workgroup Report. .	Proposed to Close
35	Proposer to share updated draft Legal Text with Fault Level Headroom considerations.	Proposed to Close
37	In relation to the 5 MW threshold in the Original Proposal, the Proposer will issue updated Legal Text that clarifies the decimal point issue.	Proposed to Close
38	In relation to the definition of 'Registered Capacity', the Proposer will share a table that shows the Distribution Code and Grid Code definitions side-by-side along with their impact on the MW thresholds.	Proposed to Close

Action 26

The Proposer of WACM1 took an action to consider changing the terminology within this this proposal from “MVA” to “MW”.

After reviewing the draft legal text for the Original (based on Grid Code, Registered Capacity (c) version or the Distribution Code definition) which refers to ‘MW’ (rather than MVA) they are intending to keep ‘MW’ (for consistency) with the WACM.

Fault Level Headroom Treatment (Action 34)

	Baseline <1kA Headroom	CMP446 Original <1kA Headroom	Baseline >1kA Headroom	CMP446 Original >1kA Headroom
<1MW	No TIA required, not included in Appendix G. Note may be subject to other mitigations set by DNO e.g. delay until works to address fault level completed	No TIA required, not included in Appendix G. Note may be subject to other mitigations set by DNO e.g. delay until works to address fault level completed	No TIA required, not included in Appendix G.	No TIA required, not included in Appendix G.
1-5MW	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station	No TIA required, not included in Appendix G.
>5MW	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station	Must go through TIA process before connecting, included in Appendix G and classed as Relevant Power Station

Capacity Definitions (Action 38)

Grid Code	Distribution Code
<p>(c) In the case of a Power Station, the maximum amount of Active Power deliverable by the Power Station at the Grid Entry Point (or in the case of an Embedded Power Station at the User System Entry Point), as declared by the Generator, expressed in whole MW, or in MW to one decimal place. The maximum Active Power deliverable is the maximum amount deliverable simultaneously by the Power Generating Modules and/or Generating Units and/or CCGT Modules and/or Power Park Modules less the MW consumed by the Power Generating Modules and/or Generating Units and/or CCGT Modules in producing that Active Power and forming part of a Power Station.</p>	<p>The normal full load capacity of a Power Generating Module as declared by the Generator less the MW consumed when producing the same; ie for all Generators, including Customer With Own Generation, this will relate to the maximum level of Active Power deliverable to the DNO's Distribution System.</p> <p>For Power Generating Modules connected to the DNO's Distribution System via an inverter, the inverter rating is deemed to be the Power Generating Module's rating.</p>
<p>Advantages</p> <ul style="list-style-type: none"> • Used in SQSS Chapter 2 • Refers specifically to Power Station • Aligns with definitions used for small/medium/large • Clear that the figure should be given to one decimal place • Can use CUSC definition as Grid Code definition is already referenced in section 11 <p>Disadvantages</p> <ul style="list-style-type: none"> • Raised in GC0117 that this has not always been universally applied in the same way for embedded – though it has been proposed to update the definition. This could be done through GC0117 or another modification if GC0117 is not approved 	<p>Advantages</p> <ul style="list-style-type: none"> • Potentially clearer that demand which isn't used to run the power station isn't netted off <p>Disadvantages</p> <ul style="list-style-type: none"> • Uses a different definition to the one referenced in section 11 of CUSC • Only refers to Power Generating Module rather than a Power Station

Legal Text (Action 24, Action 35, Action 37)

Proposed (Grid Code definition)

(f) In England and Wales, it is acknowledged that only an **Embedded Small Power Station** which has a **Registered Capacity** of 5MW or above or (if there is less than 1kA of fault level headroom as set out in the Appendix G for the relevant **Grid Supply Point** at the time of the submission of an **Evaluation of Transmission Impact**) 1MW or above is a **Relevant Embedded Small Power Station** requiring the submission of an **Evaluation of Transmission Impact** to **The Company** in accordance with Paragraph 5.1(a) above.”

Alternative (Distribution Code definition)

(f) In England and Wales, it is acknowledged that only an **Embedded Small Power Station** which has a Registered Capacity (as defined in the **Distribution Code** and rounded to one decimal place) of 5MW or above or (if there is less than 1kA of fault level headroom as set out in the Appendix G for the relevant **Grid Supply Point** at the time of the submission of an **Evaluation of Transmission Impact**) 1MW or above is a **Relevant Embedded Small Power Station** requiring the submission of an **Evaluation of Transmission Impact** to **The Company** in accordance with Paragraph 5.1(a) above.”

Additional Workgroup Scenarios check

- Response 3 and 6 asked for a scenario showing installed capacity without increasing export capacity, referencing different technology types. Response 21 asks a similar question but from a starting point of already being over the 5MW threshold
 - The Original solution is technology agnostic and is covered by Figure 2 contains an example where installed capacity increases but export doesn't, awaiting confirmation of consequence of WACM1.
- Response 10 queried the need to have existing demand connection (say 10MW import) that adds between 5 -10MW generation with an export between 0 – 10MW), which is increasing Export capacity and this scenario is captured in Figure 2.
- Response 21:
 - We believe existing connections with already secured export capacity above the TIA threshold and where there is no requirement to increase the existing secured export, should be allowed to add a technology type to the existing connection without needing a full TIA assessment e.g. an existing site with 10MW of secured export capacity for synchronous (non-intermittent) generation should be allowed to add 10MW of (intermittent) solar generation capacity in order to maximise the use of the connection. Under this scenario the site's maximum export capacity would remain at 10MW with appropriate export limiting installed and suitable interlocking to ensure the existing synchronous generation and new solar generation cannot be connected in parallel with the distribution network at the same time (which would ensure the site's existing fault level contribution is not exceeded). In this scenario we would expect the existing non-intermittent generation is modelled such that it could export the full 10MW 24-hours a day. Therefore adding intermittent generation to this export profile should not have any detrimental impact on other customers and could simply be recorded as a technology change/addition. The addition of solar generation at the existing site could potentially count towards CP30 targets.

WACM Discussion and Legal Text

Public Legal Text Comparison Table

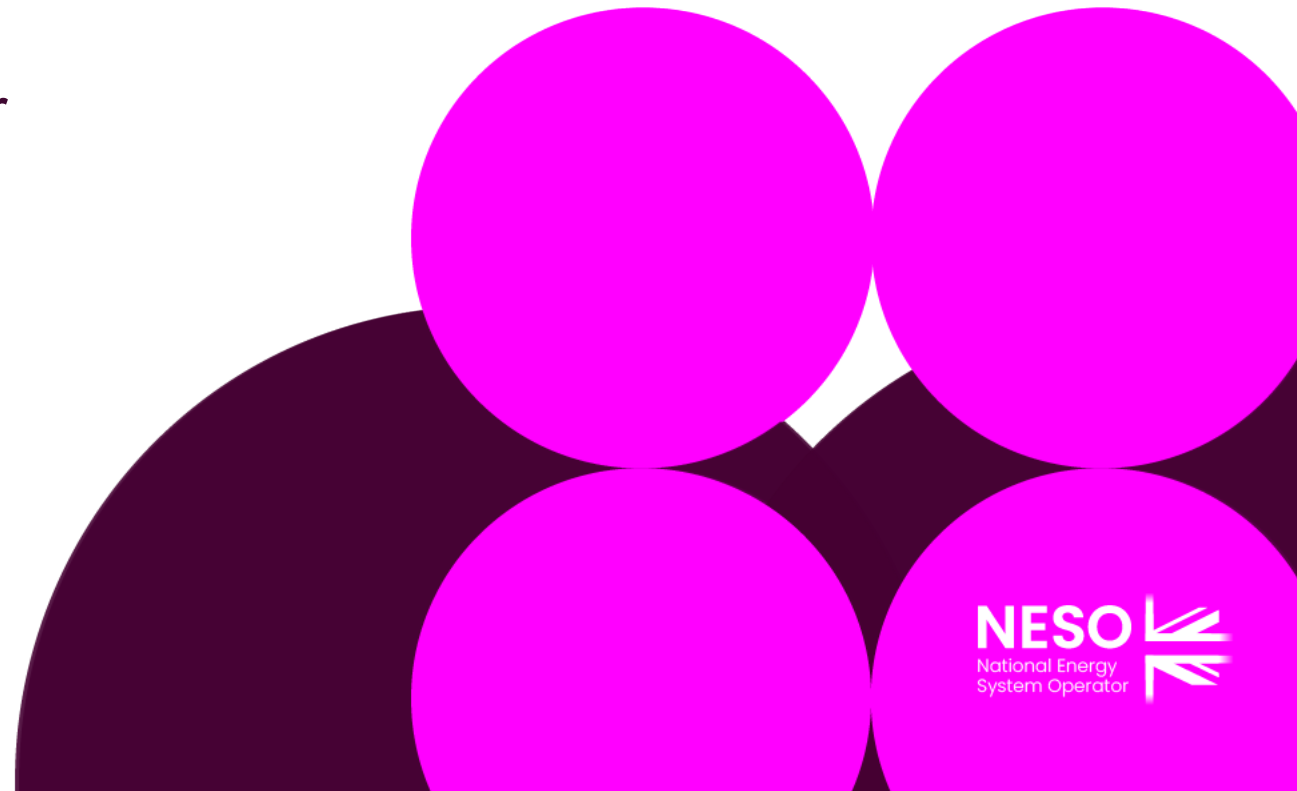
	Schedule 2 Exhibit 1A 2.5	Appendix G Schedule 2 Section 10 paragraph 3	Section 6.5.1 a	Section 6 6.5.1(f)	Section 11 definitions
Original	For the purposes of CUSC Paragraph 6.5.1(b), Embedded Small Power Stations of 1MW and above will be deemed to be a Relevant Embedded Small Power Station unless otherwise notified by The Company in accordance with CUSC Paragraph 6.5.1(b)	For the purposes of the Evaluation of Transmission Impact and unless otherwise indicated by The Company under CUSC 6.5.1(b), Embedded Power Stations of 1MW and above will be deemed to have an impact on the National Electricity Transmission System and must be included in Appendix G Schedule 4		(f) In England and Wales, it is acknowledged that only an Embedded Small Power Station which has a Registered Capacity of 5MW or above or (if there is less than 1kA of fault level headroom as set out in the Appendix G for the relevant Grid Supply Point at the time of the submission of an Evaluation of Transmission Impact) 1MW or above is a Relevant Embedded Small Power Station requiring the submission of an Evaluation of Transmission Impact to The Company in accordance with Paragraph 5.1(a) above."	
WACM1	Same as for Original	Same as for Original		<p>Same as for Original but using Export Capacity instead of Registered</p> <p>(f) In England and Wales, it is acknowledged that only an Embedded Small Power Station which has an Export Capacity of 5MW or above or (if there is less than 1kA of fault level headroom as set out in the Appendix G for the relevant Grid Supply Point at the time of the submission of an Evaluation of Transmission Impact) 1MW or above is a Relevant Embedded Small Power Station requiring the submission of an Evaluation of Transmission Impact to The Company in accordance with Paragraph 5.1(a) above."</p> <p>Either –</p> <p>Add as new section 11 definition (with specific reference to 6.5)</p> <p>Include definition in 6.5.1 "export capacity for this purpose means"</p>	Export Capacity - The maximum continuous Apparent Power expressed in MW and maximum continuous Active Power expressed in MW which can flow from a power station connected to a Network Operator's User System , which is connected to the NETS.
WACM2	Same as for Original	Same as for Original	<u>(aa) The Company shall publish and regularly review an Evaluation of Transmisison Impact threshold for each Grid Supply Point. An Embedded Small Power Station which has a Registered Capacity (as defined in the Distribution Code) below the Evaluation of Transmission Impact threshold for the relevant Grid Supply Point is not required to undergo an Evaluation of Transmission Impact in accordance with Paragraph 5.1(a) above.</u>		
WACM3	Same as for Original	Same as for Original		Same as Original , but additional text required to codify cap at each GSP	
WACM4	Same as for Original	Same as for Original		Same as WACM1 but additional text required to codify cap at each GSP	Same as for WACM1

Terms of Reference Check in

Workgroup Term of Reference	Location in Workgroup Report
Consider EBR implications	Terms of Reference section
Consider the scope of work identified and whether this is achievable within the timeframe outlined in the Ofgem Urgency decision letter.	Defect and Scope
Consider the legal and practical implementation of this modification alongside CMP434/CMP435 and any other relevant in flight CUSC modifications.	Interaction with CMP434 and CMP435
Consider any cross-code impacts.	Cross Code Impact
Consider data and any other requirements from DNOs to implement	E&W DNO Application Process
Consider how CMP446 would be compatible with the requirement for the NESO acting in a non-discriminatory manner	Defect and Scope
Consider how CMP446 would be compatible with the requirement for harmonised rules for generator connections in GB.	Defect and Scope
Consider what the MW capacity relates to: for example, export capacity or installed capacity or developer capacity?	MW Capacity Definition
Consider if the change applies only to new projects (up to 5MW) or also to existing D connected projects that increase their capacity by up to 5MW (say from 4MW to 6MW), and projects that reduce to be below the threshold.	Change in MW Level and impact on whether a TIA is required
Consider any legal text interactions with CMP434 and CMP435.	Interaction with CMP434 and CMP435
Consider potential for interlinked impact of cumulative/aggregated <5MW projects which would otherwise breach the proposed 5MW threshold.	Potential Risks and impacts of changing the threshold
Consider the interaction with Technical (Planning) limits and Distribution (DNO) managed Active Network Management (ANM) schemes	Interaction with Active Network Management

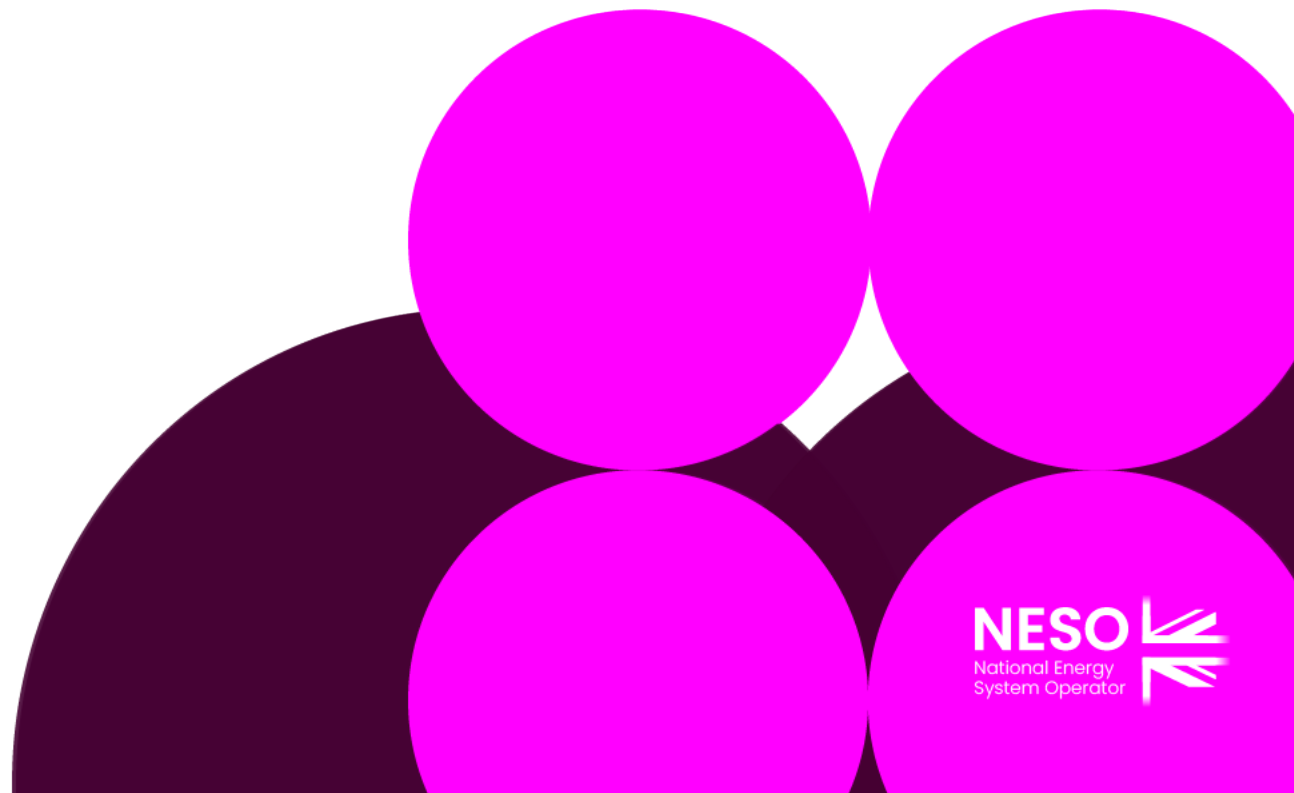
Any Other Business

Milly Lewis – NESO Code Administrator



Next Steps

Milly Lewis – NESO Code Administrator



Timeline for CMP446

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