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| Workgroup Consultation | | | |
| **CMP446:**  **Increasing the lower threshold in England and Wales for Evaluation of Transmission Impact Assessment**  **Overview:** The current connections process can be improved to facilitate the timely connection of distribution projects that have minimal impact on the Transmission Network to help meet net zero and Clean Power 2030. This proposal raises the lower threshold at which an Evaluation of Transmission Impact Assessment[[1]](#footnote-2) must be undertaken[[2]](#footnote-3) in England and Wales. | | **Modification process & timetable**  **Proposal Form**  17 January 2025  **Workgroup Report**  05 March 2025  **Code Administrator Consultation**  10 March 2025 to17 March 2025  **Draft Modification Report**  24 March 2025  **Final Modification Report**  28 March 2025  **Implementation**  02 May 2025  **1**  **2**  **3**  **4**  **5**  **6**  **7**    **Workgroup Consultation**  07 February 2025 to 13 February 2025 | |
| **Have 5 minutes?** Read our [Executive summary](#_Executive_summary_1)  **Have 40 minutes?** Read the full [Workgroup Consultation](#_Why_change?)  **Have 120 minutes?** Read the full Workgroup Consultation and Annexes. | | | |
| **Status summary:** The Workgroup are seeking your views on the work completed to date to form the final solution(s) to the issue raised. | | | |
| **This modification is expected to have a: High impact** on Transmission Owners, Distributed Connected Generators, Distribution Network Operators, Independent Distribution Network Operators, Electricity System Operator and Consumers. | | | |
| **Governance route** | Urgent modification to proceed under a timetable agreed by the Authority (with an Authority decision). | | |
| **Who can I talk to about the change?** | **Proposer:**  Martin Cahil, NESO  [Martin.Cahill1@nationalenergyso.com](mailto:Martin.Cahill1@nationalenergyso.com)  Phone: 07840722302 | | **Code Administrator** **Chair**:  Catia Gomes[catia.gomes@nationalenergyso.com](mailto:catia.gomes@nationalenergyso.com) |
| **How do I respond?** | Send your response proforma to[cusc.team@nationalenergyso.com](mailto:cusc.team@nationalenergyso.com) by **5pm** on **13 February 2025** | | |

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# Executive Summary

This modification proposes to raise the lower threshold at which an Evaluation of Transmission Impact Assessment (TIA) must be undertaken.

**What is the issue?**

Since publication of the Connections Action Plan[[3]](#footnote-4) (CAP) in November 2023, the Transmission and Distribution Connection queue has continued to grow; the combined queue has increased from 574GW in November 2023 to 739GW by October 2024. While connections reform[[4]](#footnote-5) will address these challenges and put customers and stakeholders at the heart of change, there is an opportunity to improve the connection process for smaller Distributed Generation (DG) who have minimal impact on the Transmission System.

**What is the solution and when will it come into effect?**

**Proposer’s solution:** It is proposed that that the lower Transmission impact threshold will be raised from 1MW to 5MW and codified[[5]](#footnote-6) within the CUSC for England and Wales (E&W).

**Implementation date:** 02 May 2025

**Summary of potential alternative solution(s) and implementation date(s):**

*Summary of any alternatives that have been discussed/raised (1-3 sentences).*

What is the impact if this change is made?

*Summarise the impacts. Don’t just copy and paste the impacted parties from the front page. This is to explain what the impacts are on those parties. (1-3 sentences)*

**Interactions**

*Identify any interactions with other modifications, other codes/standards or other industry-wide work i.e. BSUoS Taskforce/Open Networks. (1-2 sentences)*

What is the issue?

## The Connections Action Plan[[6]](#footnote-7) (CAP) is a joint publication by the Department for Energy Security and Net Zero (DESNZ) and Ofgem. It sets out ambitious plans to significantly accelerate connections. The CAP highlights that over the last five years the volume of connection applications to the Transmission Network has grown approximately tenfold.

## Within the CAP, there is a request for networks (under section 3.5b) to “*assess and review the thresholds for Transmission Impact Assessments (TIA)s; to accelerate connection timescales for distribution customers*”. This is because distribution connections are increasingly dependent on Transmission reinforcements, resulting in the conditional connection dates offered (which only cover Distribution Network aspects) being revised once the Transmission impacts are identified and factored into the connection dates. These revisions can sometimes change dates by as much as 10 years, frequently making such projects unviable. This uncertainty creates risk for project developers and investors.

## Since publication of the CAP in November 2023, the Transmission and Distribution Connection queue has continued to grow; the combined queue has increased from 574GW in November 2023 to 739GW by October 2024. While connections reform[[7]](#footnote-8) will address these challenges and put customers and stakeholders at the heart of change, there is an opportunity to improve the connection process for smaller Distributed Generation (DG) who have minimal impact on the Transmission System.

## CUSC Section 11[[8]](#footnote-9) defines the classification of Embedded Power Stations by size (small/medium/large), linking each size to specific requirements. It then identifies by classification as “relevant” that small and medium DG are required to go through an Evaluation of Transmission Impact Assessment ahead of connection. This process assesses the DG impact on the Transmission Network and identifies whether reinforcement is required. Under CUSC the default position for DG to go through an Evaluation of Transmission Impact Assessment for >1MW in E&W unless notified otherwise. Networks have recently reviewed the suitability of this lower threshold for this process and have concluded that improvements can be made.

## Why change?

National Grid Energy Transmission (NGET), with support from National Energy System Operator (NESO), has analysed the impact on the E&W Transmission Network of increasing the lower threshold for the Evaluation of Transmission Impact Assessment process. A paper was taken to the Connections Delivery Board (CDB)[[9]](#footnote-10) and the Connections Policy Advisory Group (CPAG)[[10]](#footnote-11) reviewing the current lower limit. This paper is included in the Reference Material section of this Proposal. The CDB paper sets out the impacts of changing the lower threshold and analyses the effects on the Transmission Network. It explains that the original 1MW threshold has been in place since 2016. This has given Networks increased visibility and experience of these smaller projects going through the Connection Process. This has resulted in greater confidence in the relevant attrition rates and trends. Further there have also been significant changes to the assumptions now being used to assess the impact on the Transmission Network.

The paper concludes that NGET and NESO support increasing the lower threshold from 1MW to 5MW for E&W DG. This would mean that DG projects in E&W between 1MW and 5MW would sit outside the Evaluation of Transmission Impact Assessment process which would likely allow them to connect earlier as they would no longer be linked to Transmission System reinforcement. This would improve the efficiency of the process by allowing the TOs to focus on the projects that have the biggest Transmission impact. It would also improve the customer (both DNO/IDNO and EG) experience as these smaller projects would no longer have to go through the process or wait for an assessment to conclude. This means they would not have the risk associated with Transmission Network build delaying their connection date and adding cost.

Note that while the CDB paper did review lower-level limits across all of GB, the conclusions for the Scottish networks differ. This reflects the differences between the networks (Scotland compared with E&W) as the system voltage at the Transmission / Distribution (T/D) interface are different, the relative size of Grid Supply Points (GSPs) are different and the relative demand requirements at the load centres are different. This impacts the requirements for the Scottish TOs to plan, develop and maintain an efficient, coordinated and economical system of Electricity Transmission. If the same lower limit threshold was set in Scotland, it could mean that Network assets were constructed that were oversized for the demand that they were required to supply. This would be uneconomic and inefficient – and therefore not be in the best interests of customers who ultimately have to bear the costs of this investment. Therefore, it is not proposed to include changes to these limits for DG in Scotland within this CUSC change proposal. The CDB paper explains that:

* Scottish Power Transmission (SPT) / Scottish Power Distribution (SPD) believe that the current lower threshold of 200kW in their area strikes the right balance between accelerating connections ahead of Transmission reinforcements while maintaining a manageable level of risk in both the SPD Distribution and SPT Transmission Scottish Transmission Networks. This is subject to regular review by SP Energy Networks.
* Scottish and Southern Electricity Networks (SSEN) Transmission, working in collaboration with SSEN Distribution, have undertaken a review of the Transmission Impact Assessment threshold across the north of Scotland Transmission Area. The review concluded that the threshold can be raised to 200kW for the majority of GSPs in the SSEN Transmission Network. A four-fold increase in the threshold – from 50kW to 200kW – will see more projects being able to connect without the cost and delay that comes with this assessment needing to be carried out. SSEN Transmission will continue to review the lower limit threshold and assess any future opportunities to further increase it or identify any emerging concerns around network security that might require it to be adjusted.

**Interaction with CMP434 and CMP435**

CMP434[[11]](#footnote-12) and CMP435[[12]](#footnote-13) propose the implementation of a new connections process based on an annual application window and two formal Gates. Under this, Gate 1 will provide an indicative connection date and location following batched assessment. Gate 1 would also give the right to the capacity and technology applied for (subject to the applicant meeting the Gate 2 criteria). Gate 2 will be used to determine project specific queue position, confirm connection date and location, and include the requirement to provide User Commitment from point of acceptance of their Gate 2 Offer and comply with the Queue Management Milestones.

* To realise the full benefit of this modification, it would need to be implemented before the proposed Gate 2 window opens for CMP435. This would remove those Distributed Generators projects less than 5MW in E&W to go through the Evaluation of Transmission Impact Assessment process.
* If CMP434 and CMP435 are not approved or delayed then we would still seek to progress this modification, but the urgency requirement could fall away.
* CMP434/435 proposes that any projects which are under the lower limit Evaluation of Transmission Impact Assessment thresholds will not have to go through any Gate 2 process.
* Implementation of this modification before the Gate 2 window opens will release around 400 DG projects from having to demonstrate Gate 2 compliance or alignment with Clean Power 2030 targets.

What is the solution?

## Proposer’s solution

As NGET are unable to raise a CUSC modification, NESO will act as the proposer for this modification. It is expected that NGET will offer significant support to the proposer as the analysis underpinning and justifying this change was conducted by NGET.

It is proposed that that the lower Transmission impact threshold will be raised from 1MW to 5MW and codified[[13]](#footnote-14) within the CUSC for E&W. Doing so will significantly accelerate the connection of DG sized between 1-5MW as they would no longer have to go through an Evaluation of Transmission Impact Assessment or wait for the completion of any Transmission reinforcement identified in the process.

A 5MW lower limit of Evaluation of Transmission Impact Assessment threshold has been identified as having an appropriate balance between improving the efficiency of the process for smaller DG and minimising the risk of impact on the Transmission System in E&W.

This would mean that from the CUSC Implementation Date (if this modification is approved):

* Any new sub 5MW DG connection would not require an Evaluation of Transmission Impact Assessment.
* Sub 5MW applications currently in flight or not yet connected projects which are provided for in the CUSC NESO/(I)DNO agreements will no longer be subject to the Evaluation of Transmission Impact Assessment processes or any associated requirements. These projects will effectively be removed and the agreements adapted as required to reflect this.
* Any already connected sub 5MW DG would not be removed from existing BCAs and their existing terms and conditions would be unchanged. While this potentially introduces some differences in the terms and conditions between Generators who connect before and after the new lower limit is in place, the small benefit in changing agreements retrospectively would be significantly outweighed by the complexity in doing so. This is because there are already ~2.5GW of these projects connected and the system impact of removing them would need to be fully evaluated and managed. This could potentially be a subsequent CUSC modification, but to include within the scope of this proposal would mean there would not be time to implement ahead of Connections Reform. This could also have an impact on Regional Development Programmes and Technical Limits.

Workgroup considerations

The Workgroup convened XX times to discuss the identified issue within the scope of the defect, develop potential solutions, and evaluate the proposal in relation to the Applicable Code Objectives.

**Consideration of the Proposer’s solution**

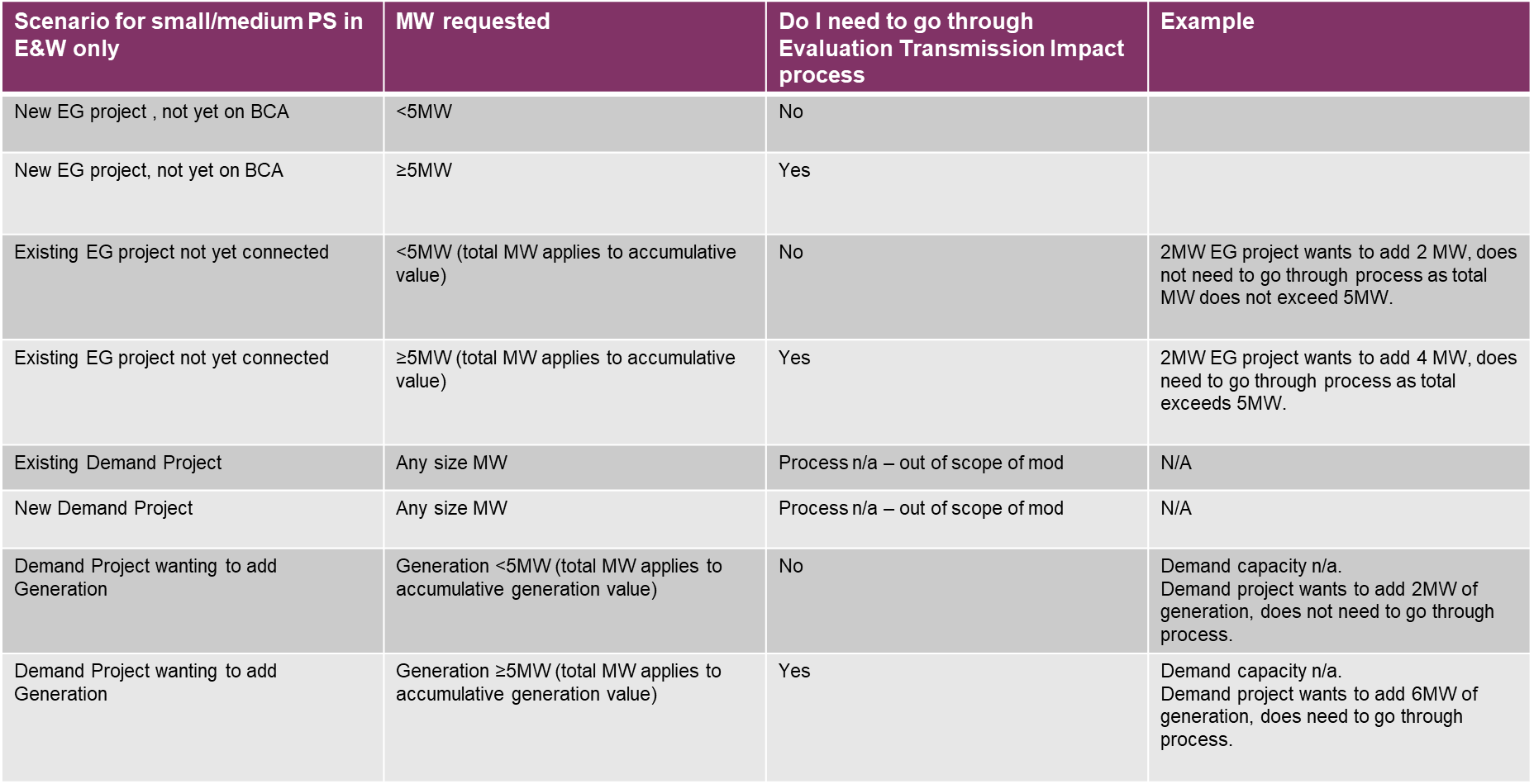
**Modification Defect and Scope**

1. Some Workgroup members did not agree with the Proposer’s ascertain that as the modification defect states England and Wales exclusively that there is no need to codify Scotland as part of this modification. The Proposer noted that a further Modification could be raised to codify these thresholds.
2. Workgroup members stated that codifying these thresholds would provide legal clarity and consistency across GB.

**Scenarios – Change in MW**

1. Workgroup members questioned how the proposal would address scenarios where existing sites incrementally increase their capacity.

The following table outlines this at a high level.



**Potential Risks and impacts of changing the threshold**

The Workgroup discussed potential risks and impacts of the proposed threshold change including:

* The possibility of increased applications and how this could lead to a higher volume of projects and potential impacts on the transmission network
* The need for visibility and tracking of sub-5 MW projects to monitor their potential cumulative impact on the transmission network, including whether there should be any action taken if too many sub 5MW projects connect and the cumulative impact is too great
* Risk management strategies will be required to address potential issues arising from the increased threshold

**Interaction with Clean Power 2030**

The Workgroup discussed interactions and agreed that xxxxxxxx

* CP30 alignment - Proposed changes should be aligned with CP30 requirements, ensuring that distribution network operators (DNOS) consider the cumulative impact of sub-5 MW projects and manage applications accordingly

**Interaction with CMP434/CMP435**

1. It was clarified by the Proposer that this Modification is not dependant on CMP434 being approved. Alignment with CMP434 has caused this Modification to have an urgent timeline in order to meet the Gate 2 deadline.
2. The Workgroup required clarity on how the timelines for decisions and implementation worked together and what the impact to the modification would be dependent on the approved solutions. The key points to note are

* This modification can be implemented after the implementation dates of CMP434 and CMP435 but must be before the Gate 2 window opens.
  + If implemented before CMP434/CMP435 implementation, the impacted DG projects would be removed as part of the CMP435 process from the BCAs.
  + If not implemented before the Gate 2 window opens, prospective projects would still be part of an Evaluation of Transmission Impact Assessment, with associated costs and delays.
* CMP434 WACM1 introduces specific MW sizes under categories to legal text, if taken forward this modification may have to amend this text to reference <5MW generators in E&W being exempt from process.
* If approved and implemented after CMP434/CMP435, NESO would still use the mechanics of CMP435 to remove these DG projects from the BCAs.

1. A diagram of a company's process

   Description automatically generated with medium confidence
2. **MW Capacity Definition**
3. The Proposer took an action to clarify the definition of MW capacity, as different terms such as installed capacity, export capacity, and developer capacity are used inconsistently.
5. **Cross-code impact**
6. The Workgroup discussed the interactions between GC0117 and GC0139, and agreed with the Proposer that whilst there were interactions CMP446 was not impacted by them.

**Consideration of other options**

*This area should provide an overview of options that the Workgroup have discussed in their initial meetings ahead of the Consultation being issued.*

Workgroup consultation question X: Xxxxx?

**Draft legal text**

The draft legal text for this change can be found in Annex 5.

Below is a snapshot of the proposed changes:

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| --- | --- |
| **CUSC Section** | **Summary of proposed changes** |
|  |  |
|  |  |

What is the impact of this change?

*Who will it impact? How will it impact them and when? What are the positive and negative impacts?*

## Proposer’s assessment against Code Objectives

|  |  |
| --- | --- |
| **Proposer’s assessment against CUSC Non-Charging Objectives** | |
| **Relevant Objective** | **Identified impact** |
| (a) the efficient discharge by the licensee of the obligations imposed upon it under the Electricity Act 1989 and by this licence[[14]](#footnote-15); | Positive  A more efficient Transmission/Distribution interface will help the efficient discharge of network licence obligations (NESO, NGET and DNOs) |
| (b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity; | Positive  Quicker connections for viable projects needed to deliver Net Zero. Currently project developers are waiting to connect, and this is hindering progress to deliver Net Zero. |
| (c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency[[15]](#footnote-16); and | Neutral |
| (d) Promoting efficiency in the implementation and administration of the CUSC arrangements. | Positive  The existing process imposes obligations on 1-5MW DG that are disproportionate to their impact on the Transmission System |

|  |  |
| --- | --- |
| **Proposer’s assessment of the impact of the modification on the stakeholder / consumer benefit categories** | |
| **Stakeholder / consumer benefit categories** | **Identified impact** |
| Improved safety and reliability of the system | Neutral  NGET analysis shows the limited Transmission System impact of 1-5MW DG within the design and connection process. |
| Lower bills than would otherwise be the case | Positive  This reduces the risks (and hence costs) on 1-5MW DG developers when developing their projects which will ultimately benefit end consumers by reducing their bills. |
| Benefits for society as a whole | Positive  This societal benefits include lowering bills and reducing environmental damage by reducing the risk on 1-5MW DG developers when developing their projects and speeding up their connection. This would also facilitate the connection of E&W community energy projects which are typically under 5MW. |
| Reduced environmental damage | Positive  The proposal will support quicker connections for viable projects needed to deliver Net Zero. Currently project developers are waiting to connect, and this is hindering progress to deliver Net Zero. |
| Improved quality of service | Positive  This means that 1-5MW DG developers will no longer have to go through the Evaluation of Transmission Impact Assessment process. This will improve their connection journey and make it considerably quicker for them to connect and they will have an improved quality of service. |

When will this change take place?

**Implementation date**

02 May 2025

**Date decision required by**

29 April 2025

**Implementation approach**

This Proposal would benefit from being implemented prior to the proposed Gate 2 window in CMP435 to allow the existing 1-5MW DG currently in the queue to benefit as connections reform is implemented.

Interactions

|  |  |  |  |
| --- | --- | --- | --- |
| 1. ​​​Grid Code | 1. ​​​BSC | 1. ​​STC | 1. ​​SQSS |
| 1. ​​European Network Codes | 1. ​​EBR Article 18 T&Cs1 | 1. Other modifications | 1. ​​Other |

See Workgroup Considerations above

How to respond

**Standard Workgroup Consultation questions**

1. Do you believe that the Original Proposal and/or any potential alternatives better facilitate the Applicable Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?
5. Do you agree with the Workgroup’s assessment that the modification does not impact the European Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Code?

**Specific Workgroup Consultation questions**

1. Xxxxxxxxx

The Workgroup is seeking the views of CUSC Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to [cusc.team@nationalenergyso.com](mailto:cusc.team@nationalenergyso.com) using the response pro-forma which can be found on the [CMP446 modification page](https://www.neso.energy/industry-information/codes/cusc/modifications/cmp446-increasing-lower-threshold-england-and-wales-evaluation-transmission-impact-assessment-tia).

In accordance with Governance Rules if you wish to raise a Workgroup Consultation Alternative Request please fill in the form which you can find at the above link.

*If you wish to submit a confidential response, mark the relevant box on your consultation proforma. Confidential responses will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel, Workgroup or the industry and may therefore not influence the debate to the same extent as a non-confidential response.*

Acronyms, key terms and reference material

|  |  |
| --- | --- |
| 1. **Acronym / key term** | 1. **Meaning** |
| 1. BCA | 1. Bilateral Connection Agreement |
| 1. BSC | 1. Balancing and Settlement Code |
| 1. CAP | 1. Connections Action Plan |
| 1. CDB | 1. Connections Delivery Board |
| 1. CMP | 1. CUSC Modification Proposal |
| 1. CPAG | 1. Connections Policy Advisory Group |
| 1. CUSC | 1. Connection and Use of System Code |
| 1. DESNZ | 1. Department for Energy Security and Net Zero |
| 1. DG | 1. Distributed Generation |
| 1. DNO | 1. Distribution Network Operator |
| 1. EBR | 1. Electricity Balancing Regulation |
| 1. EG | 1. Embedded Generation |
| 1. E&W | 1. England and Wales |
| 1. GSP | 1. Grid Supply Point |
| 1. IDNO | 1. Independent Distribution Network Operator |
| 1. NESO | 1. National Energy System Operator |
| 1. NGET | 1. National Grid Energy Transmission |
| 1. SPT | 1. Scottish Power Transmission |
| 1. SSEN | 1. Scottish and Southern Electricity Networks |
| 1. STC | 1. System Operator Transmission Owner Code |
| 1. SQSS | 1. Security and Quality of Supply Standards |
| 1. T/D | 1. Transmission/Distribution |
| 1. T&Cs | 1. Terms and Conditions |
| 1. TO | 1. Transmission Owner |
| 1. TIA | 1. Transmission Impact Assessment |

**Reference material**

Annexes

|  |  |
| --- | --- |
| **Annex** | **Information** |
| Annex 1 | CMP446 Proposal form |
| Annex 2 | CMP446 Terms of reference |
| Annex 3 | CMP446 Urgency letters |
| Annex 4 | Transmission Impact Assessment Threshold position paper |
| Annex 5 | Draft Legal Text |
| Annex X |  |
| Annex X |  |
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1. <https://www.ofgem.gov.uk/sites/default/files/2024-11/Connections_Reform_TMO4%2B_Licence_Changes_Policy_Consultation.pdf> - see para 5.6, This mod is made against the current CUSC baseline. [↑](#footnote-ref-2)
2. Link to 6.5.1(e) in the CUSC identifies what requires an Evaluation of Transmission Impact Assessment <https://www.neso.energy/document/300876/download> [↑](#footnote-ref-3)
3. [Connections Action Plan, a joint publication by The Department for Energy Security and Net Zero and Ofgem](https://assets.publishing.service.gov.uk/media/6581730523b70a000d234bb0/connections-action-plan-desnz-ofgem.pdf) [↑](#footnote-ref-4)
4. Via CUSC modifications CMP434 and CMP435 and STC modification CM095 [↑](#footnote-ref-5)
5. Section 6.5 of the CUSC [↑](#footnote-ref-6)
6. [Connections Action Plan, a joint publication by The Department for Energy Security and Net Zero and Ofgem](https://assets.publishing.service.gov.uk/media/6581730523b70a000d234bb0/connections-action-plan-desnz-ofgem.pdf) [↑](#footnote-ref-7)
7. Via CUSC modifications CMP434 and CMP435 and STC modification CM095 [↑](#footnote-ref-8)
8. CUSC Section 11 – Interpretation and Definitions – definition of Distributed Generation [↑](#footnote-ref-9)
9. The ENA publish the Connections Delivery Board minutes here [CDB minutes 31/10/24](https://www.energynetworks.org/assets/images/Publications/2024/241128-cdb-october-minutes.pdf?1736244681) [↑](#footnote-ref-10)
10. NESO publish the Connections Policy Advisory Group minutes here [CPAG minutes 12/09/24](https://www.neso.energy/document/349396/download) [↑](#footnote-ref-11)
11. <https://www.neso.energy/industry-information/codes/cusc/modifications/cmp434-implementing-connections-reform> [↑](#footnote-ref-12)
12. <https://www.neso.energy/industry-information/codes/cusc/modifications/cmp435-application-gate-2-criteria-existing-contracted-background> [↑](#footnote-ref-13)
13. Section 6.5 of the CUSC [↑](#footnote-ref-14)
14. See Electricity System Operator Licence [↑](#footnote-ref-15)
15. The Electricity Regulation referred to in objective (c) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006. [↑](#footnote-ref-16)