

Public

# Transmission Charging Methodologies Forum and CUSC Issues Steering Group

9 January 2025



# Agenda

1	Introduction, meeting objectives and review of previous actions – Dan Arrowsmith, NESO	10:30 – 10:40
2	NESO Connections update – Janeece Hylton, NESO	10:40 – 10:50
3	CMP 428/CM094 follow on mod concept - Alex Curtis / Matt Baller, NESO	10:50 – 11:20
4	Increasing the Transmission Impact Assessment lower threshold in England and Wales – Alison Price, NESO	11:20 – 11:35
5	Code Administrator update – Code Administrator NESO	11:35 – 11:45
6	AOB – CUSC Panel Members – Dan Arrowsmith, NESO	11:45 – 11:50
7	AOB and Meeting Close – Dan Arrowsmith, NESO	11:50 – 12:05

# TCMF Objective and Expectations

## Objective

Develop ideas, understand impacts to industry and modification content discussion, related to the Charging and Connection matters.

Anyone can bring an agenda item (not just the NESO!).

## Expectations

Explain acronyms and context of the update or change.

Be respectful of each other's opinions and polite when providing feedback and asking questions

Contribute to the discussion

Language and Conduct to be consistent with the values of equality and diversity

Keep to agreed scope

# Review of previous action

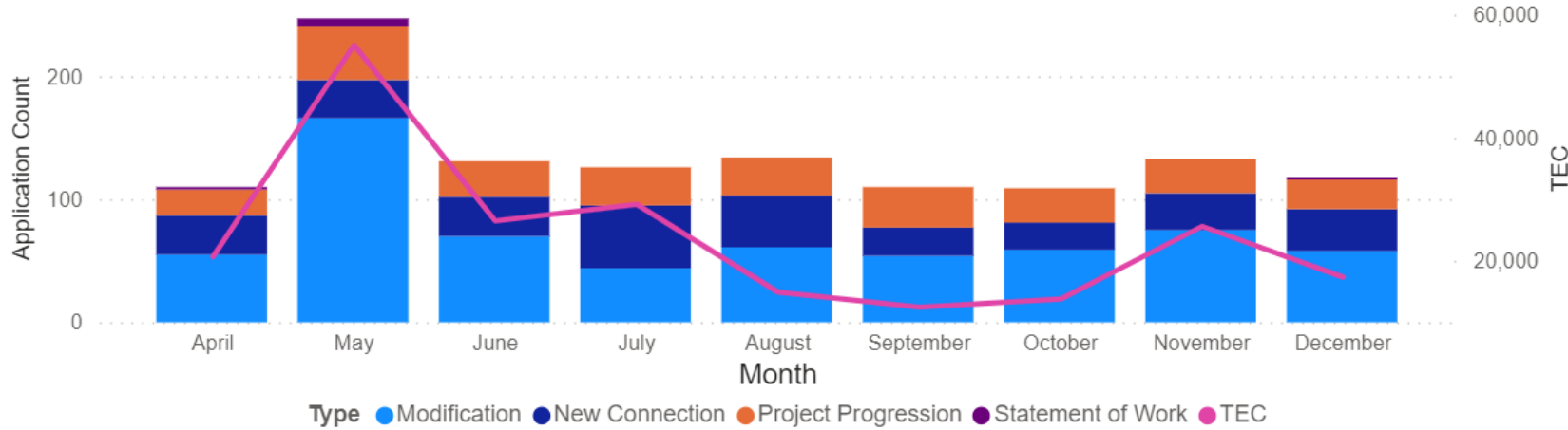
ID	Month	Description	Owner	Notes	Target Date	Status
24-12	July	Post implementation analysis of CMP376: Inclusion of Queue Management process within the CUSC.	DA	NESO will reopen this action in April 2025, as that will be 12 months after CMP376 was included in contract terms.	From April 2025	On Hold
24-13	October	Can projects being accelerated be demonstrated. AC to clarify if non-firm work could be presented.	AC		TBC	New
24-14	October	Data post CMP376 implementation on the TEC register around projects moving forward, backward or staying the same.	DA		TBC	New

# NESO Connections update

Janeece Hylton, NESO

# Connection Applications

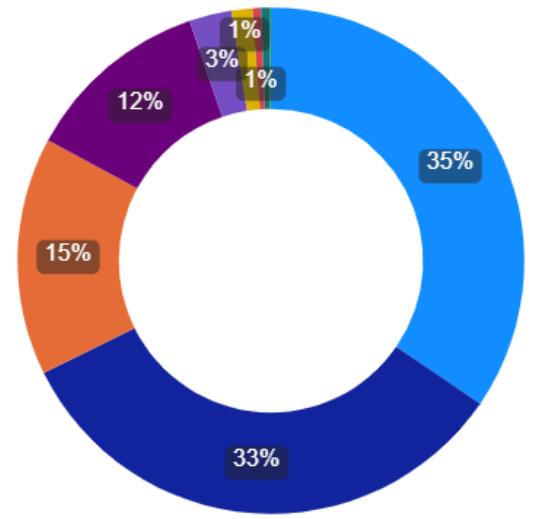
Applications Received **April - December FY 2024/25**



Applications Received Count	-15 <b>118</b>
Transmission Entry Capacity	-8.2GW <b>17.3GW</b>
Demand Capability	-1.1GW <b>3.2 GW</b>

Application Type	Count	Generation Capacity (MW)
ESO New Connection Application	34	4,458
ESO Modification Application	58	12,128
ESO Project Progression Application	24	737
ESO Statement of Work Application	2	4
<b>Total</b>	<b>118</b>	<b>17,326</b>

- Technology**
- Storage
  - Solar
  - Wind Onshore
  - Demand
  - Non-Renewable
  - Wind Offshore
  - Interconnector
  - Other Renewable
  - Nuclear



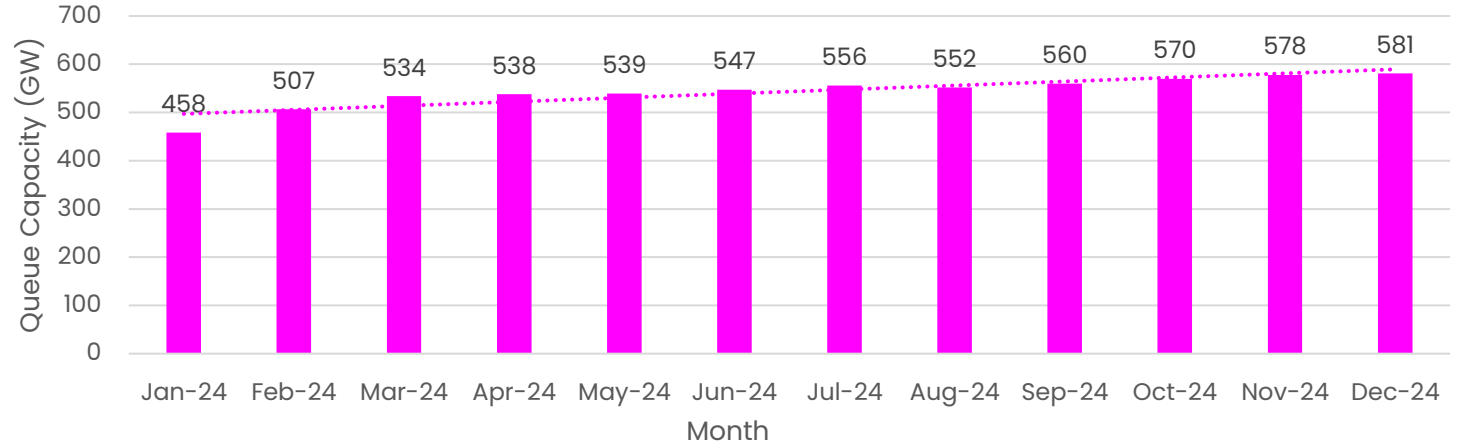
# Transmission Connections

	Count	Capacity
Transmission Queue	+17 <b>1,685</b>	+3GW <b>581 GW</b>
Directly Connected Demand*	<b>88</b>	<b>17GW</b>

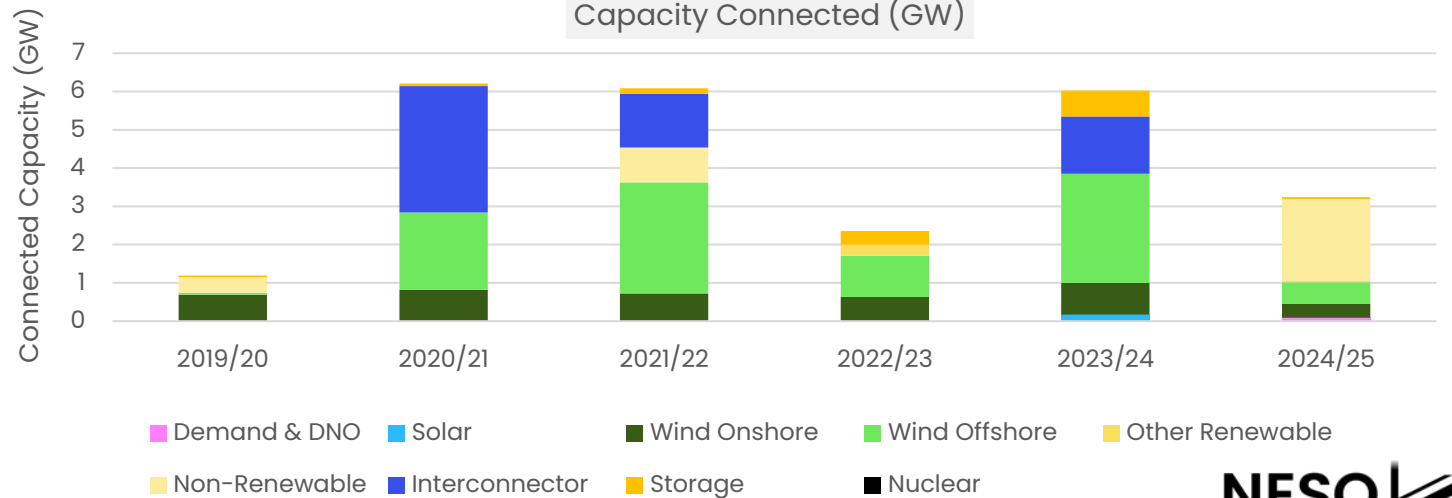
## December 2024

Connections Energised (FON)	+1 <b>2</b>	+0.02GW <b>0.08GW</b>
Project Terminations	+3 <b>6</b>	+0.1GW <b>1.3GW</b>

Transmission Queue Growth



Capacity Connected (GW)



\*Directly connected demand corrected to include contracted projects only

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# CMP428/CM094 follow on mod concept

Alex Curtis / Matt Baller, NESO



## CMP428/CM094 follow on mod concept

- Background is CMP428, and CM094 : first CMP428:
- CMP428 redefined User Commitment liabilities for circuits classified as “Onshore transmission (reinforcement)” within the HND
- Excludes them from Attributable Works (AW) liabilities (under CUSC Sec. 15) for onshore transmission-connected Generators
- Ensures **purpose/function** of “onshore transmission (reinforcement)” circuits are considered in Users’ liabilities
- New def. of “Excluded Works” created via CMP428
- Doesn’t allow unfixing of fixed AW (FMR noted no relevant stakeholders)

## CM094 (STC Mod) roots

- Sought to remove certain Generator liabilities where onshore reinforcement works are part of Ofgem-approved needs case for ASTI or LOTI.
- Was rejected due to perceived misalignment/conflicting legal text with CMP428
- Ofgem’s decision suggested both CMP428 and CM094 could be “*consistent with previous policy intent of encouraging coordinated expansion of the offshore network*”. Agreed User liabilities should be apportioned fairly; asking specific Users to secure liabilities wholly could discourage developers from connecting to these circuits and could jeopardise Net Zero targets.

[https://www.ofgem.gov.uk/sites/default/files/2024-06/CM094\\_Decision\\_11Jun2024.pdf](https://www.ofgem.gov.uk/sites/default/files/2024-06/CM094_Decision_11Jun2024.pdf)

# History of ASTI and LOTI vs HND

- RII0-ET2 Final Determinations established Large Onshore Transmission Investment (LOTI) mechanism to assess and fund large (£100m+) onshore transmission projects during the T2 Price Control Period.
- In December 2022 Ofgem introduced new Accelerated Strategic Transmission Investment (ASTI) framework to accelerate large onshore projects to deliver Govt's objective to connect 50GW~ offshore gen by 2030.
- Where HND projects meet criteria for onshore transmission classification, TOs will be responsible for developing Detailed Network Design (DND) of projects likely to qualify under LOTI and ASTI.
- Through the price controls framework, the Authority has approved certain infrastructure projects as part of this strategic approach to network reinforcement.
- Where TOs incur costs in delivering LOTI or ASTI projects, costs will be returned to the TO via the price control framework.
- Despite this, connecting Users currently provide securities associated with such strategic reinforcement works despite the build not being triggered by the User.
- CMP428 changed CUSC S15 with an exclusion for relevant HND circuit designations.
- **The definition of excluded works could be extended to ASTI and LOTI works where relevant to a project's attributable works.**

## The resulting new mod concept – part 1

- Addresses requirement for securities related to ASTI/LOTI projects (CMP428 relevant for just one project).
- Addresses defect of Users providing unnecessary securities which creates a barrier to entry. This would deliver benefits including facilitation of Net Zero via acceleration of connections & minimisation of construction delays.
- Removing unnecessary liabilities & reducing securities enables more viable connections to progress.
- Very high securities for these works could significantly impact small Users, which can make projects unviable and be deemed anti-competition.
- In short: Users would no longer securitise works approved via the price control framework.
- For relevant works, Users would continue to provide securities until “Construction Approval” (for ASTI/LOTI) is received by the Authority. Securities would only be released in the following Security Period. The amendment of securities would occur during biannual security runs.

# The resulting new mod concept – part 1

- The need that the mod concept being previewed today would address, is to remove the requirements for securities related to specific infrastructure projects that have received Authority approval and where the investment to reinforce the network for a relevant TO is guaranteed under the price controls framework (ASTI/LOTI); this includes assets that are required to be built regardless of the connection of a specific User and for Transmission Construction Works which are not as a result of connection of any given party
- This would address a defect that Users are providing unnecessary securities which is, in their view, creating a barrier to entry. This change proposal would remove this barrier, and would thereby deliver benefits including the facilitation of Net Zero, acceleration of User's connections, and the minimisation of construction delays. Removing unnecessary securities would enable more viable Users connections : more potential generation Users could access the electricity system by potentially lowering the securities for projects which may have not been viable and seen as a barrier to entry under the current process. Very high securities for these associated works, for the few projects for which this mod could be relevant (CMP428 was only relevant for one project), could significantly impact small Users, which can make projects unviable and be deleterious to competition.
- A number of generators have been assigned high attributable works potential cancellation charges, with securitisation of the same to the usual CUSC Section 15 timescales, that we believe are inappropriate, as fully described in the "what's the issue" section above



## The resulting new mod concept – part 2 : revision of fixes

- Ofgem's CMP428 decision noted:

*"We recognise that some Users will have opted to fix their liabilities at the point of contracting, and that the benefit of this CMP428 may not, without further proposals being brought forward, be felt by them. We believe NGENSO should now consider whether, or the extent to which i) consequential changes to the processes contained within the CUSC or STC are required as a result of this CMP428; and ii) arrangements for existing Users who have already selected to fix their liabilities should be reviewed. We will consider any further proposals and associated requests for Urgency on their specific merits".*

- Those who fixed attributable works securities would benefit from the fix being adjusted to take out the portion of costs relating to the relevant works only.
- A principle of CMP192 is that fixing is irreversible & important in the design of the regime – but this effect would be limited and bound to this mod/these circumstances.
- This could be effected by way of a one-off recalculation for existing Fixed Liabilities, to be conducted in a similar way as the TEC amnesty

# Impact

- Numbers of relevant Fixed projects and specific benefits are still to be calculated, but one example is as follows:

Current MM3 Basis		Revised MM3 Basis (LOTI TORI removed)	
Component	Attributable Works Cancellation Amount	Attributable Works Cancellation Amount	
Transformers	£1,307,218.06	£1,307,218.06	
Circuit Breakers	£500,695.72	£500,695.72	
Bays	£168,118.59	£168,118.59	
Disconnectors	£46,523.38	£46,523.38	
[LOTI] SHET-RI-019 (Dounreay to NW Orkney 132kV AC Link)	£28,412,733.57	£0.00	<b>Reduction</b>
<b>Total for MM3 Fixed</b>	<b>£30,435,289.32</b>	<b>£2,022,555.75</b>	<b>£28,412,733.57</b>

- CAO non-charging: Enhances competition by ensuring generation stakeholders face appropriate cancellation charge liabilities (and are securitising appropriately).
- Will provide clarity to industry on assets classified as Attributable Works for generators. It is likely that an increasing number of Customer connections will be realised by reducing the number of unnecessary securities required.
- Will create a modest administrative burden across relevant NESO and TO functions to identify & remove excluded works & potential liabilities, provided that this can be done at the time the contracts are open as part of TMO4+.

# Legal text – part 1 (draft and unverified)

CMP428 added to CUSC section 11, a definition :

“Excepted Works” : any Construction Works which have designated not to be Attributable Works for the purposes of CUSC by the Authority.

It is proposed to alter that definition to :

- (a) any Construction Works which have designated not to be Attributable Works for the purposes of CUSC by the Authority, and
- (b) Transmission Construction Works which have Construction Approval and which are;
  - i) subject to approval by the Authority under the **Accelerated Strategic Transmission Investment**, Major Project Regime, Holistic Network Design or **Large Onshore Transmission Investment funding** mechanism(s)
  - ii) limited exclusively to Transmission Construction Works upon Transmission circuits and any substation works required for the connecting of such Transmission circuits;

**Accelerated Strategic Transmission Investment** – need to add definition - as such terms are/ will probably be defined in the relevant Transmission Licensee’s Licence

**Large Onshore Transmission Investment funding** - need to add definition - as such terms are/ will probably be defined in the relevant Transmission Licensee’s Licence

# Legal text – part 2 to allow un-fixing (draft and unverified)

- **Existing** : 6 Electing for the Fixed Cancellation Charge 6.1 To elect for a the Fixed Cancellation Charge, a User must notify The Company to this effect by (a) returning a signed copy of the Notification of Fixed Cancellation Charge with its acceptance of the Construction Agreement or (b) , where a User does not elect at that time, it can elect 45 days (or if such day is not a Business Day the next following Business Day) prior to each 30 September or 31 March thereafter by returning a signed copy of the Notification of Fixed Cancellation Charge as provided with the relevant Cancellation Charge Statement. 6.2 Once a User has elected for the Fixed Cancellation Charge, the Pre Trigger Amount, Attributable Works Amount and Cancellation Charge Profile will then be fixed as that set out in the Notification of Fixed Cancellation Charge by reference to which such election was made **and a User cannot revert to the Actual Attributable Works Cancellation Charge.**
- **New** : Only the ending of the above needs changing ? : “.... The fixed attributable works profile will be adjusted (recalculated) where **excludable works** were not applicable at the time that the user opted for a Fixed Cancellation Charge, yet where **excludable works** are now applicable in relation to the attributable works that were attributed to this **Connection Site** at the time the user opted for a Fixed Cancellation Charge.

# Implementation date if mod is raised

- The ESO will work with the TOs to agree content of any communications and the most appropriate methods for communicating changes to customers.
- Due to time required to update Securities statements, implementation may require an interim step confirmed via email with TOs, to confirm cancellation charges will not factor in ASTI/LOTI funded Works.
- Statements could then be updated formally as part of Reform Gate 1/Gate 2 updates, but would provide reassurance in the meantime for any Users considering terminating projects.



# Next Steps

Questions? Feedback?

These will be considered before we decide on next steps.

# Increasing the Transmission Impact Assessment lower threshold in England and Wales

Alison Price, NESO

# Increasing the TIA lower threshold

**Connections Action Plan (CAP), published in November 2023 under 3.5b requested networks to “assess and review the thresholds for Transmission Impact Assessments (TIA)s; to accelerate connection timescales for distribution customers”. Subsequent review of thresholds were conducted by the 3 on-shore TO’s, in summary:**

**Scotland, South** – SPT & SPD the current lower threshold for TIA of 200kW strikes the right balance between accelerating connections ahead of Transmission Reinforcements.

**Scotland, North** – SSEN Transmission & SSEN Distribution across the north of Scotland transmission area. The review has concluded that the threshold can be raised to 200kW for the majority of GSPs (mainland) in the SSEN Transmission network. This change has since been implemented.

**England & Wales (E&W)** – Analysis carried out by NGET supported an increase in the lower TIA threshold to at least 5MW.

Paper taken to Connections Process Advisory Group (CPAG) and Connections Delivery Board (CDB) with a recommendation that the E&W threshold lower limit be codified as the CUSC currently references a 1MW limit for an Appendix G in England and Wales.

NGET are unable to raise a CUSC mod; NESO will act as the proposer on their behalf.

# Why change the lower TIA in E&W

- Original 1MW threshold for Distributed Generators has been in place since 2016; the assumptions that are now being used to assess the impact on the Transmission network have changed significantly with greater confidence and experience in trends and attrition rates has been gained in terms of accepted and connected projects.
- Various thresholds were assessed.
- Subsequently both 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 would sit outside the TIA 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 TIA process by focusing on the projects that have the bigger transmission impact. It would also improve the customer experience as these smaller projects would no longer have to wait for a TIA to conclude and would not have the risk associated with transmission network build delaying their connection date and adding cost.

# Why change the lower TIA in E&W

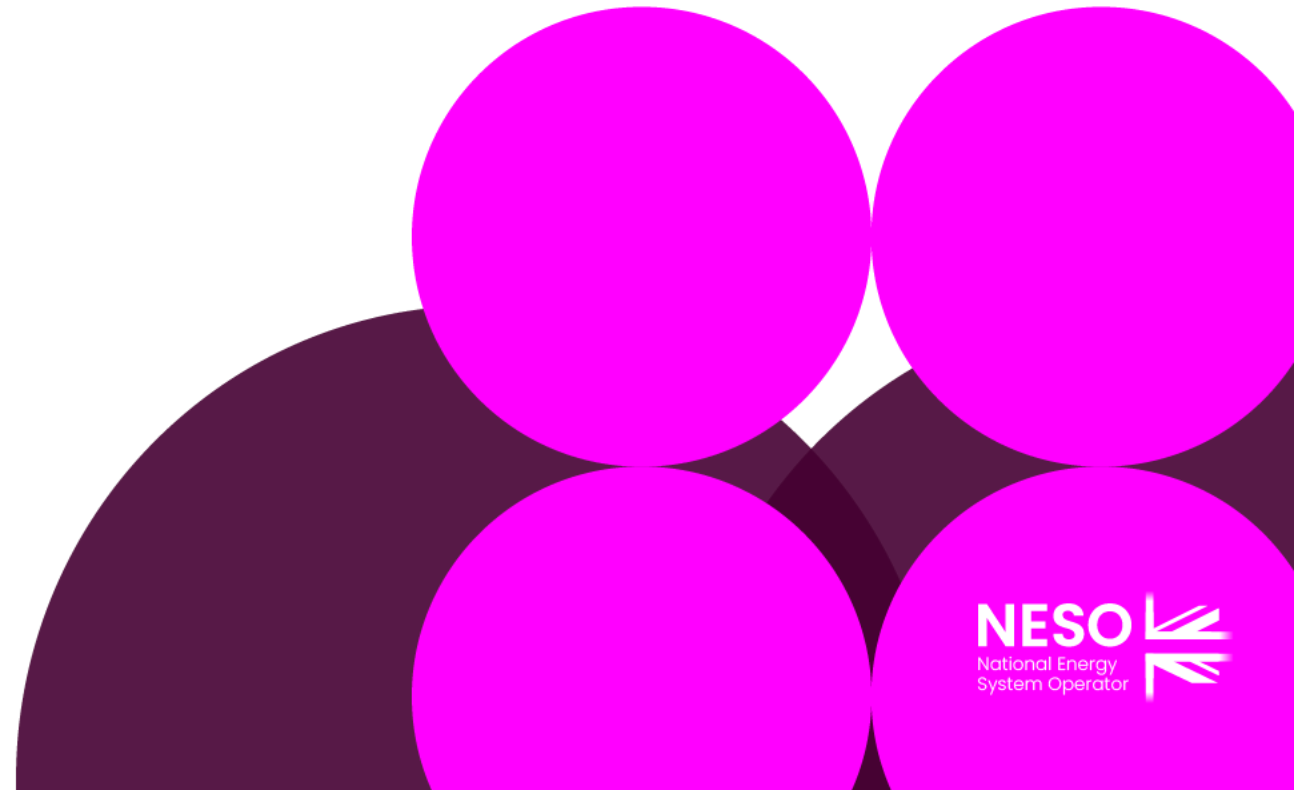
- To codify within the CUSC a lower limit threshold for a Transmission Impact Assessment to 5MW for an Evaluation of Transmission Impact assessment (which is applicable to small and medium Relevant Embedded Generators).
- We will propose this is progressed as an urgent modification, with implementation aligned with CMP435 implementation date. This is estimated to benefit ~400 DG projects with ~1GW of mainly renewable and storage potential capacity.
- Additionally it will ensure that NGET are only assessing projects that have a bigger impact on the transmission system. If this proposal is not implemented ahead of connections reform, we would be requiring 1-5MW DG to demonstrate gate 2 compliance and alignment with the clean power 2030 targets unnecessarily.

## **For clarification – the following are out of scope for this modification**

- Large embedded i.e. currently over 99.9MW (for England and Wales),
- Embedded demand connections,
- Directly connected generation and demand,
- Planning assumptions used to assess the impact on the transmission system,
- Revising the Appendix G process,
- Differentiating between DNOs and iDNOs.
- Codifying lower limit TIA for Scotland



# Code Administrator Update



# Key Updates since last TCMF

## New Modifications / Nominations

**CMP445** 'Pro-rating first year TNUoS for Generators'

Proposer's request for Urgency :

- **CMP405** 'TNUoS Locational Demand Signals for Storage'
- **CMP423** 'Generation Weighted Reference Node'
- **CMP432** 'Improve "Locational Onshore Security Factor" for TNUoS Wider Tariffs'

## Decisions

**CMP316** 'TNUoS Arrangements for Co-located Generation Sites' The Authority were unable to form an opinion and have sent back the FMR to Panel for a full review of the legal text for both the Original and WACMI to be conducted.

**CMP445** 'Pro-rating first year TNUoS for Generators' the Authority have decided that CMP445 should not be progressed on an urgent basis.

## Implementations

None

## Authority Expected Decision Date

Modification	FMR submitted	Expected Decision Date
<b>CMP315</b> 'TNUoS Review of the expansion constant and the elements of the transmission system charged for' and <b>CMP375</b> 'Enduring Expansion Constant & Expansion Factor Review'	07/02/2024	07/02/2025 (Previously 29/11/2024)
<b>CMP330 &amp; CMP374</b> 'Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length and Extending contestability for Transmission Connections'	10/08/2023	TBC Subject to CMP414 send back
<b>CMP397</b> 'Consequential changes required to CUSC Exhibits B and D to reflect CMP316 (Co-Located Generation Sites)'	12/06/2024	24/01/2025 (previously 31/10/2024 )
<b>CMP403</b> 'Introducing Competitively Appointed Transmission Owners & Transmission Service Providers (Section 14)'	11/06/2024	31/01/2025 (Previously 30/09/2024)
<b>CMP404</b> 'Introducing Competitively Appointed Transmission Owners & Transmission Service Providers (Section 11)'	11/06/2024	31/01/2025 (Previously 30/09/2024)
<b>CMP436</b> 'Update CUSC arrangements to replace the Electricity Arbitration Association with the London Court of International Arbitration (LCIA) (Non-Charging)'	07/08/2024	12/02/2025
<b>CMP437</b> 'Update CUSC arrangements to replace the Electricity Arbitration Association with the London Court of International Arbitration (LCIA) (Charging)'	07/08/2024	12/02/2025
<b>CMP434</b> 'Implementing Connections Reform'	20/12/2024	TBC
<b>CMP435</b> 'Application of Gate 2 Criteria to existing contracted background'	20/12/2024	TBC

The Authority's publication on decisions can be found on their website below:

<https://www.ofgem.gov.uk/publications/code-modificationmodification-proposals-ofgem-decision-expected-publication-dates-timetable>

# Key Consultations in January

## Workgroup Consultations

**CMP444** 'Introducing a cap and floor to wider generation TNUoS charges' scheduled to open 23 January and **closes 29 January**

## Code Administrator Consultations

**CMP443** 'Removing references to "Fax" or "Facsimile" within the CUSC' second CAC opened 16 December 24 and **closes 17 January**

## Appeals Window

None

## Useful Links

Ofgem's expected decision dates/ date they intend to publish an impact assessment or consultation, for code modifications that are with them for decision are available [here](#)

Updates on all Modifications are available on the Modification Tracker [here](#)

The latest CUSC Panel Headline Report and prioritisation stack are available [here](#)

If you would like to receive updates from the Code Administrator on CUSC modifications, please join the distribution list [here](#)

## CUSC 2025 - Panel dates

	Panel Dates	Papers Day	Modification Submission Date	(TCMF) CUSC Development Forum
December	13	5	28 November	21 November (cancelled)
January	31	23	16	9
February	28	20	13	6
March	28	20	13	6
May (April's Panel)	02	24 April	15 April	10 April
May	23	15	8	1
June	27	19	12	5
July	25	17	10	3
August	22	14	7	7
September	26	18	11	4
October	31	23	16	2
November	28	20	13	6
December	12	4	16	20 November

# Your CUSC Panel representatives

- Industry is represented at CUSC Panel by representatives, who would love your input. Their contact details can be found [here](#).
- Panel members represent their industry segments at Panel; the more input they have, the more your voice can be heard.

<b>Trisha Mcauley</b>	Independent Panel Chair		<b>Joseph Dunn</b>	Panel Member		<b>Camille Gilsenan</b>	NESO Representative
<b>Catia Gomes</b>	Panel Secretary and Code Administrator Representative		<b>Kyran Hanks</b>	Panel Member		<b>Daniel Arrowsmith</b>	NESO Representative
<b>Ren Walker</b>	Panel Technical Secretary		<b>Paul Jones</b>	Panel Member		<b>Andy Pace</b>	Consumer Panel Representative
<b>Andrew Enzor</b>	Panel Member		<b>Cem Suleyman</b>	Alternate Panel Member		<b>Rashmi Radhakrishnan</b>	BSC Representative
<b>Binoy Dharsi</b>	Panel Member		<b>Mark Duffield</b>	Alternate Panel Member		<b>Nadir Hafeez</b>	Ofgem Representative
<b>Garth Graham</b>	Panel Member		<b>Lauren Jauss</b>	Alternate Panel Member		<b>Harriet Harmon</b>	Ofgem Representative
<b>Joe Colebrook</b>	Panel Member						



# AOB & Close

