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CUSC Alternative Form - Charging

CMP444 Alternative Request 12:

Phasing in planned network reinforcement

Overview:

The derivation of the cap is based on the highest value for each tariff component in the 5-year TNUoS forecast published in April 2024 and increase by a fixed £/kW amount per charging year up to and including charging year 2033/34 so each tariff component cap, if extended beyond this period, would in 2035/36 be approximately equal to the respective tariff component in the 10-Year Projection for 2030/31

The fixed increases per charging year are also approximately equal to the extrapolation of the upward trajectory of existing forecast charges from 2027/28, 2028/29 and 2029/30

The derivation of the floor is based on the lowest value for each tariff component in the 5-year TNUoS forecast published in April 2024

Cap and floor are applied from 2029/30 to 2033/34 charging years inclusive

Proposer: Lauren Jauss, RWE Supply & Trading GmbH

☒ I/We confirm that this Alternative Request proposes to modify the charging section of the CUSC only

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What is the proposed alternative solution?

Proposed alternative methodology

- The cap and floor for each tariff component are derived from the existing 5-year TNUoS forecast of tariffs published by the NESO in April 2024.
- For each of the following components, the cap is set at the maximum value out of all years and all zones of the 2024 5-Year forecast and each increase by a fixed £/kW amount per charging year as shown in the bottom row of Table 1
- For each of the following components, the floor is set at the minimum value out of all years and all zones of the 2024 5-Year forecast
- Caps and floors applied from charging year 2029/30 to 2033/34 inclusive, at which point the cap and floor end.
- Cap and floor, including annual increases, are inflated by CPI-H

Tariff Components

- Year Round Shared
- Year Round Not Shared
- Peak

	Shared Year Round (£/kW)	Not Shared Year Round (£/kW)	Peak Tariff (£/kW)
NESO 5-Year Forecast for 2029/30	39.463592	34.670938	10.445186
NESO 10-Year Projection for 2030/31	61.755887	70.035592	12.092910
Increase in charges that would result from above network expansion plans	22.292295	35.364654	1.647724
Annual increase if network expansion charges phased in over 6 years (by 2035/36) instead of 1 year	3.715383	5.894109	0.274621
Annual increase rounded to nearest £0.5/kW	3.500000	6.000000	0.500000

Table 1 - Calculation of proposed annual increase

What is the difference between this and the Original Proposal?

This alternative phases in expected costs of network expansion from 2030

This alternative seeks to set a cap that does not truncate charges to exclude the impact on tariffs from planned network expansion in the early 2030s. The proposal recognises that under the current methodology, the uncertainty in the exact delivery dates of each circuit leads to a very high degree of risk in Year Round tariffs for network users during the 2030/31-33/34 period, particularly for those in northern Scotland who pay the highest tariffs. Therefore, this proposal provides more certainty as to

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when the new charges will be applied by phasing in the expected increase, via a cap with a defined trajectory, rather than exposing generators to the risk of uncertain operational delivery dates.

The proposal is to increase the cap annually so that the cost of these circuits, as per the 2030/31 10-Year Projection, would be reflected in charges by around 2035/36.. By this time, these circuits are expected to already be in operation.

This cap does not offer protection in 2034/35 or 2035/36 because by this point an alternative arrangement may have been implemented as a result of REMA. The highest level of uncertainty for generators is in the 2030/31 to 2033/34 charging years because this is when the 10-Year projection indicates a substantial increase in charges may occur. It is this increase that is being phased in.

The proposal also seeks to minimise the impact on the Adjustment tariff from a change in methodology by basing the cap on published expansion plans and expected resulting tariffs. It attempts to avoid the undue truncation of tariffs below expected levels that would simply redistribute that risk across other generators whose costs increase simply due to a regulatory change.

Selecting a cap trajectory that is cost reflective of planned network expansion

The Proposer believes that NESO's latest 5-Year forecast published in April 2024 includes an assumption that Eastern Green Link (EGL) 1 & 2 will both be fully operational in 2029. The Proposer considers this to be a robust assumption given that construction contracts have been awarded for EGL1 with construction due to commence this year. Construction has already started on EGL2 converter stations. The relatively high cost of these HVDC links, which are due to be factored into Wider Generation TNUoS charges when they are commissioned, is the reason why tariffs for Intermittent Generators in Scotland are forecast to increase quite significantly from 2028/29 to 2029/30, as shown in Figure 1. Hence, the Proposer agrees with NESO that the 2024 NESO 5-Year TNUoS forecast of Wider Tariffs is cost reflective of credible network expansion plans and, therefore represents a highly likely outcome of charges.

Figure 3 below shows an extract from NESO's Beyond 2030 report. This map shows the locations of EGL1 & 2. It also shows the additional circuits that NESO has an ambition to build by 2030. The Proposer believes that in the NESO 10-Year Projection, it is assumed that these circuits will be operational in 2030/31. Therefore, NESO has projected a substantial step change in Year Round Shared and Not Shared charges between 2029/31 and 2030/31.

Figure 1 below also shows the projection with the cap applied. It illustrates how this proposal would follow a trajectory to phase in network expansion costs over 6 years from 2029/30 to 2035/36 instead of over 1 year between 2029/30 and 2030/31. The cap would become less biting on the 10-Year projection in the later years because it is higher to reflect the probability that planned circuits will be

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operational. The particularly material uncertainty in the 2030s of a step change in charges, depending on whether circuits are delivered to plan or not, is largely mitigated.

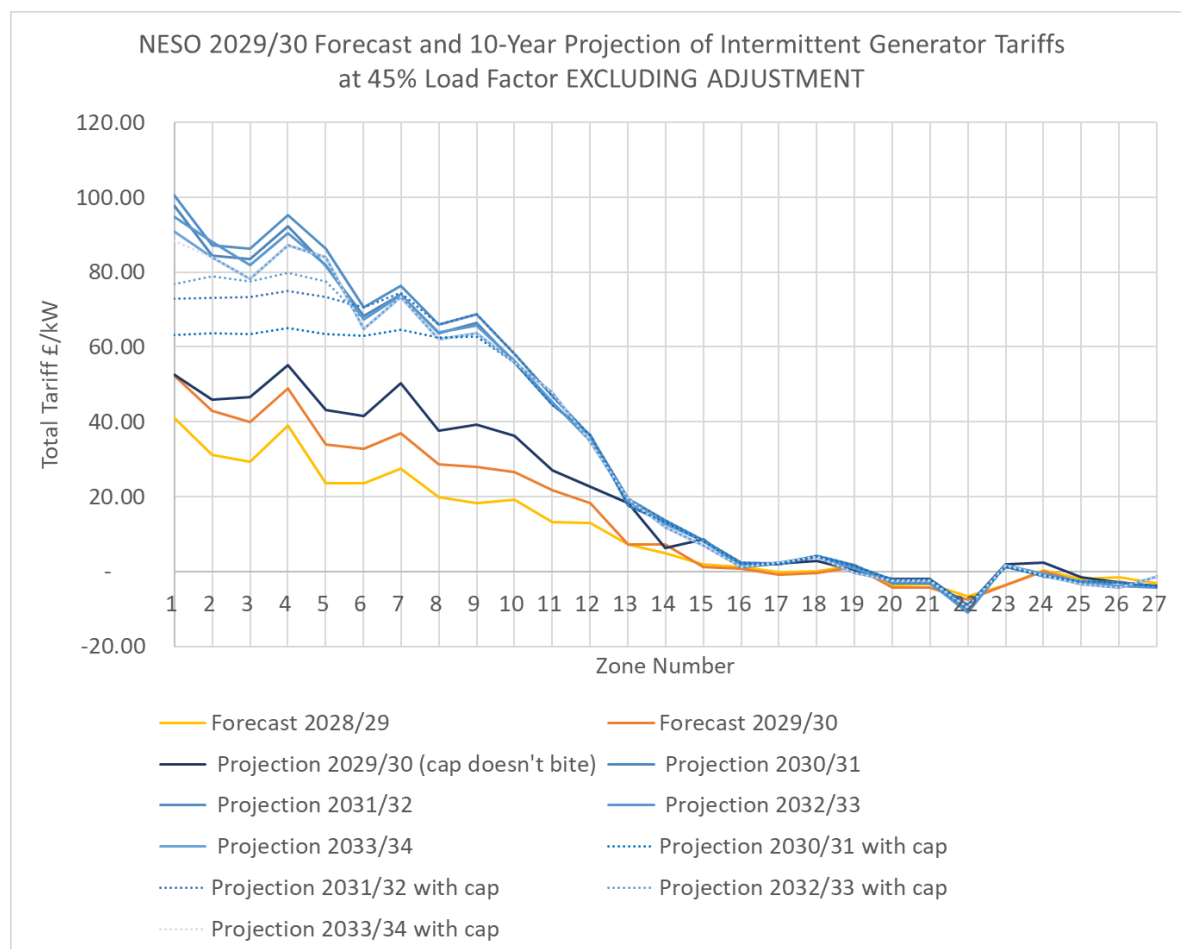


Figure 1 - 10-Year Projection with cap applied to estimated tariffs

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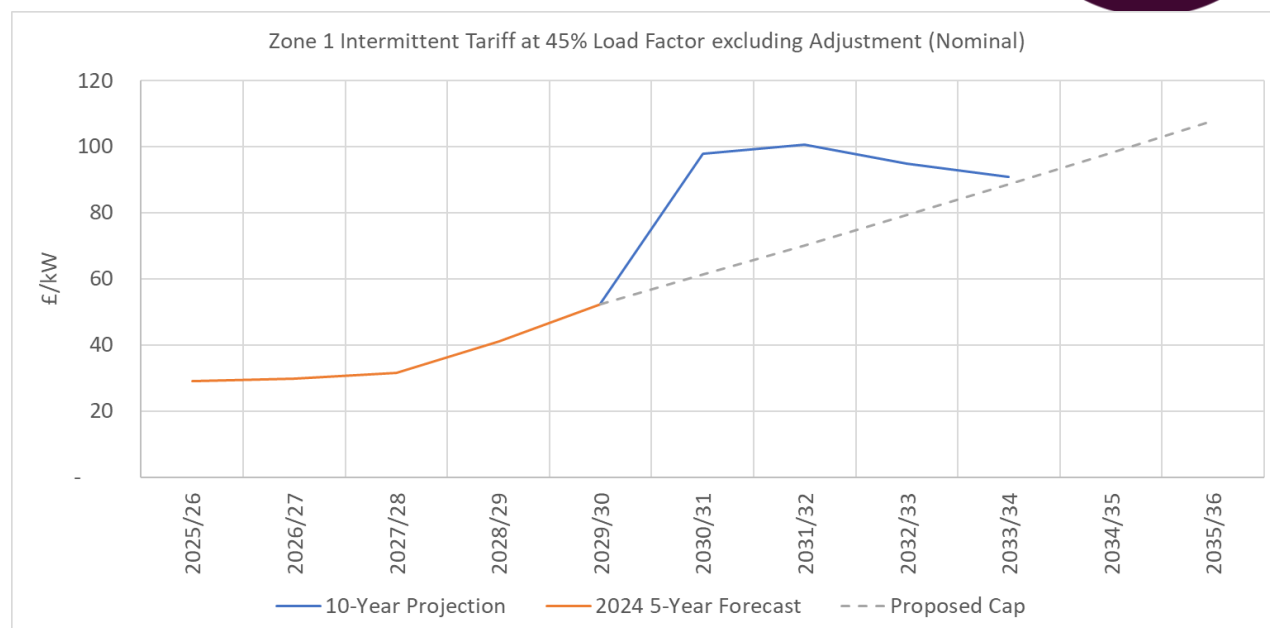


Figure 2 - Illustration of the cap applied to Zone 1 tariffs

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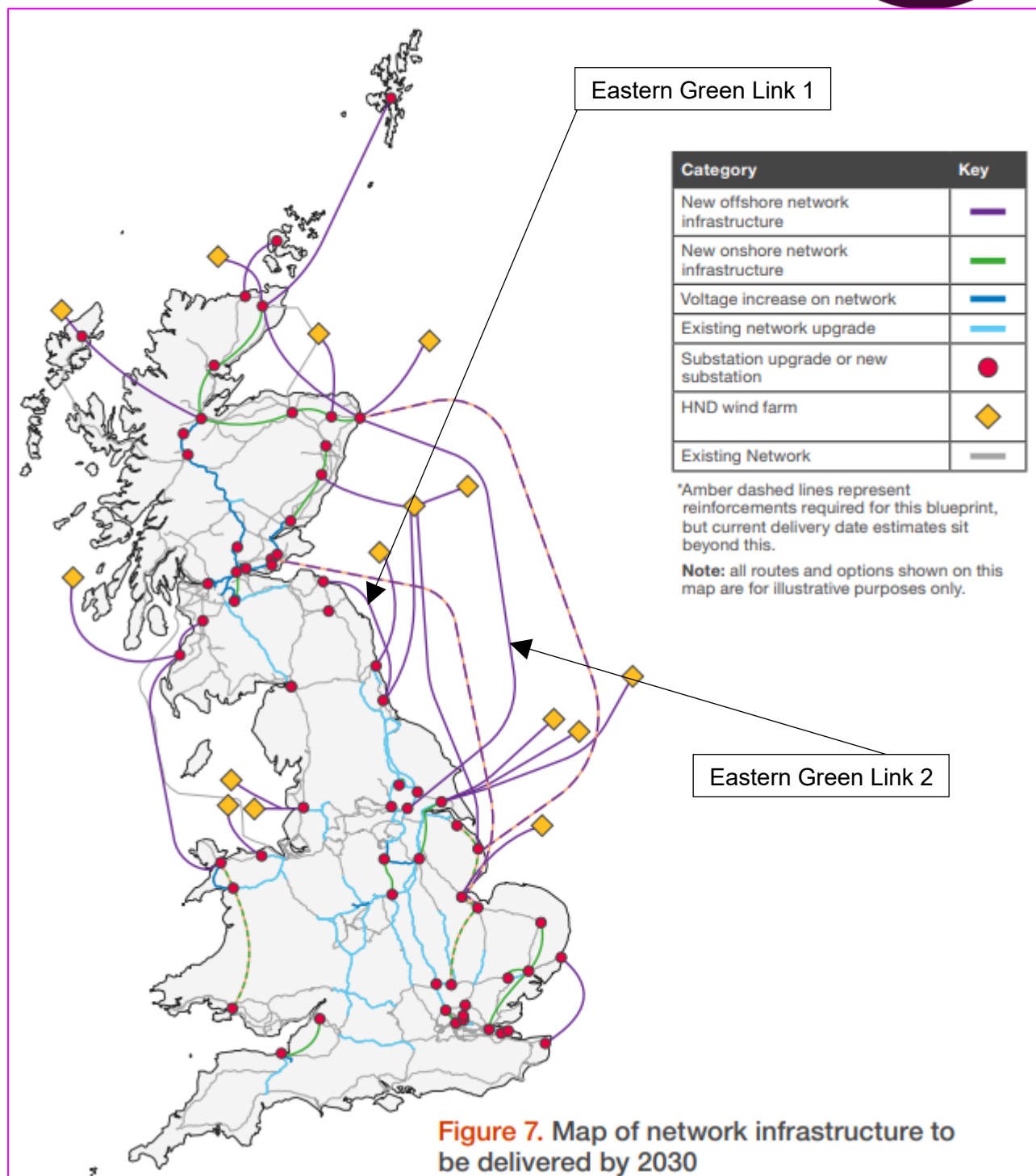


Figure 3 - Extract from NESO's Beyond 2030 report showing Eastern Green Link 1 & 2 HVDC circuits due to be operational in 2029

<https://www.neso.energy/publications/beyond-2030>

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Reason for levels of the Peak and Year Round floors

It is worth noting that the Year Round Shared and Year Round Not Shared tariff forecasts for Intermittent Generators in Zone 1 for 2029/30 in the 5-Year Forecast are almost identical to the 10-Year Projection.

Table 2 below also shows that it is largely the Adjustment element that changes and is increasingly negative in the NESO 10-Year Projection compared with the 5-Year Forecast published a year or so later. This is because NESO expect fewer Intermittent generators to be located and paying TNUoS in Scotland. The Adjustment forecast is largely dependent on the rate of generation asset development, rather than the rate of network development, the latter being the main driver of tariff components.

Table 2 – Tariff comparisons for 2029/30 forecast and projection

Zone 1	Shared Year Round Tariff (£/kW)	Not Shared Year Round Tariff (£/kW)	Intermittent Tariff	
			Excluding Adjustment 45% Load Factor (£/kW)	Adjustment
NESO 5-Year Forecast for 2029/30	39.46	34.67	52.43	- 4.38
NESO 10-Year Projection for 2029/30	39.00	35.12	52.67	- 11.64
% difference	-1.2%	1.3%	0.5%	165.9%

Error! Reference source not found. above illustrates that the most negative tariffs, in England and Wales, are not projected to materially change into the 2030s. The reason why charges in the south are expected to become increasingly negative is almost entirely because of the Adjustment.

Hence, the Proposer believes flat floors are appropriate, and using the lowest tariffs of all years in the 5-Year forecast takes into account the fluctuations in tariffs and transfer of charges between tariff components from year to year.

What is the impact of this change?

Proposer's assessment against CUSC Charging Objectives	
Relevant Objective	Identified impact
(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	Positive A protection from risk of higher charges allows generators to make informed investment decisions and reduce their risk capital costs
(b) That compliance with the use of system charging methodology results in charges which reflect, as far as is	Positive

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reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C11 requirements of a connect and manage connection);	Better reflects network investment costs by basing charges more on how the network is planned rather than when it is delivered.
(c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses and the ISOP business*;	Positive Takes into account the expected investment costs of network development planned from 2030
(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and	Neutral
(e) Promoting efficiency in the implementation and administration of the system charging methodology.	Negative Peak cap and floors make the charging methodology more complicated than necessary

* See Electricity System Operator Licence

**The Electricity Regulation referred to in objective (d) 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.

Proposer's assessment against CUSC Connection Charging Objectives

Relevant Objective	Identified impact
(a) means the Use of System Charging Objectives, as if references therein to the Use of System Charging Methodology were to the Connection Charging Methodology and in addition, the objective (where consistent with the other objectives) of facilitating competition in the carrying out of works for connection to the National Electricity Transmission System.	Positive A more stable tariff signal will help reduce risk that certain connections will not be ultimately required

When will this change take place?

Implementation date:

1 April 2026

Implementation approach:

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Will require minor changes to NESO TNUoS tariff setting process to apply the cap/floor to necessary tariff components in the DCLF (Direct Current Load Flow) ICRP (Investment Cost Related Pricing) Transport & Tariff Model.

Acronyms, key terms and reference material

Acronym / key term	Meaning
CUSC	Connection Use of System Code
EGL	Eastern Green Link

Reference material:

1. https://www.ofgem.gov.uk/sites/default/files/2024-09/Open_letter_TNUoS_intervention_vF_Publications.pdf
2. <https://www.neso.energy/publications/beyond-2030>
3. <https://www.neso.energy/industry-information/charging/tuos-charges>
4. <https://www.neso.energy/document/317561/download> (5 Year View)
5. <https://www.easterngreenlink1.co.uk>
6. <https://www.easterngreenlink2.co.uk/>

<https://www.neso.energy/document/288956/download>