Connection and Use of System Code (CUSC) CMP413: Rolling 10-year wider TNUoS generation tariffs

Decision	The Authority[1] has decided to reject[2] this modification
Target audience	National Grid Electricity System Operator (NGESO), Parties to the CUSC, the CUSC Panel and other interested parties
Date of publication:	30 September 2024
Implementation date:	NA

Background

Transmission Network Use of System (TNUoS) charges are the charges paid by Users of the electricity transmission system. TNUoS charges recover the costs of building and maintaining the transmission network and are designed to send a signal to Users to make siting decisions that minimise these costs. To do so, these charges are aimed to be reflective of a User's impact on the electricity transmission system. They are calculated annually and levied by NGESO. NGESO publishes forecasts of TNUoS tariffs ahead of the final tariffs, with variable levels of accuracy due to underlying volatility of TNUoS charges. Final TNUoS tariffs are currently published on 31st January each year, with charges taking effect from the following 1st April. This provides two months notice to CUSC parties of the charges they will face.

The short period of notice, and the high risk of final tariffs not matching previous NGESO forecasts, result in charges that are hard to anticipate long-term for Users. Current generator charges also present significant year-on-year volatility, which increases their unpredictability. This volatility is due to a number of features of the charging methodology, many of which

[1] References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work. This decision is made by or on behalf of GEMA.
[2] This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

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were explored by the TNUoS Task Force[3] or outlined in our Open Letter on Strategic Transmission Charging Reform[4].

Over the next decade, a great deal of investment is required to ensure the transmission system keeps up with pressure from increased generation and demand[5]. In September 2023, NGESO published a 10-year projection of TNUoS tariffs[6] across the 27 generation zones which signalled a potentially significant increase in charges for some Users, and credits for others. These steep changes in tariffs projected would exacerbate the issue of volatility for these Users, as fluctuating charges would have a greater detrimental impact. It was specified that this is a projection rather than a forecast, with significantly lower certainty in the figures provided, increasing uncertainty as to the absolute values of the tariffs to be paid by the end of the decade particularly in locations further from demand centres. Until now, NGESO has only produced forecasts for five years into the future[7].

The TNUoS Task Force was established in 2022 to develop long-term improvements to the electricity transmission charging methodology. It is composed of voluntary experts and chaired by NGESO. Volatility of charges is a key defect it intends to address alongside a suite of other issues. The TNUoS Task Force has already created a number of proposed changes to the transmission methodology through the code modification process and there are more planned to be raised in the near future.

[3] Task Forces | ESO (nationalgrideso.com)
[4] Open letter on strategic transmission charging reform | Ofgem
[5] Ofgem's Accelerated Strategic Transmission Investment (ASTI) framework is fast-tracking 26 major connection projects which will boost grid capacity and could deliver estimated savings of £1.5 billion. Additionally, the Pathway to 2030 Holistic Network Design will support the UK Government's ambition for 50 GW of offshore wind by 2030 by setting out a single, integrated approach that supports large scale delivery of electricity from offshore wind to where it is needed across Great Britain.
[6] TNUoS 10-Year Projection 2024/25 to 2033/34 (nationalgrideso.com)
[7] Forecasts on: Transmission Network Use of System (TNUoS) Charges | ESO (nationalgrideso.com)

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The modification proposal

EDF Energy (the 'Proposer') raised modification CMP413 (the ' Original Proposal') on 16 March 2023. CMP413 seeks to increase long term certainty in TNUoS charges for Users and developers, providing improved clarity for commercial decisions that will, they argue, support the delivery of low carbon infrastructure at least cost for consumers.

It aims to do so by fixing generation tariffs for each of the 27 generation zones on a rolling 10-year duration based upon a 10-year forecast provided by NGESO. NGESO's forecast would include a wider generation tariff for each of the 27 generation zones for 10 years from the year of forecast. Under CMP413, once the tariffs are set using the forecast, the extent to which they can vary over the following 10 years would be capped by a model, with the variation permitted reducing as the final charging year approaches. For example, if the charging year is nine years away, the wider tariffs can change (increase / decrease) by up to £2.50/kW from the original forecast, but if it is five years away, it can change by only £0.75/kW. Under the Original Proposal, if the final tariffs generated varied from the initial forecast to a greater extent than what the cap permits, additional costs not borne by generators would be recovered from consumers under the the Transmission Demand Residual charge (TDR). CMP413 is intended to reduce the volatility of tariffs long-term.

The fix introduced by CMP413 is intended to be in place for 10 years and not be subject to change during the fixed period. This would result in any modifications that cause significant changes to generator tariffs (outside the cap/collar introduced by CMP413) to be effectively delayed by the duration of the fix (10 years). However, due to the nature of the code modification process, future modifications could potentially alter the CUSC text describing CMP413 to change the period of fixing or allow a re-opening of tariffs if this was deemed necessary for implementation. This would result in previously fixed tariffs being changed according to the new modification, meaning the modification would be fully implemented before the end of the 10-year fix. While this is against the intention of this modification, it is a possibility under open governance.

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The Proposer believes that the added certainty on TNUoS charges for generators will enhance competition within the market by reducing the need for participants to forecast their charges and provide certainty for renewable developers and Users. The Proposer believes that CMP413 would have a positive impact on CUSC Applicable Code Objective (ACO) (a)[8], as providing a centralised forecast will produce a 'level playing field' for Users. They also believe that CMP413 would be beneficial for both ACO (b)[9] as network charges would align with Transmission Owners' investment plans and ACO (c)[10] as 'longer term tariffs' would reflect expected developments on the transmission system. Finally, they believe that CMP413 will be positive for ACO (e)[11] as the 'useful' signals provided by a long-term central forecast will be more efficient for Users.

The Workgroup decided to raise two Workgroup Alternative Code Modifications (WACMs), though one was later withdrawn. The alternative that was retained, "WACM 1", operates as per the Original Proposal but with the cost of fixing charges – the total not paid by generators due to fixing – being socialised across generators rather than collected through the TDR. It would do so through a non-locational adjustment to generation tariffs, with all generators contributing to the cost of fixing.

The Workgroup Consultation was issued on 11 September 2023 and resulted in 13 non-confidential responses from industry, with seven supporting the Original Proposal, five against it, and one unsure. The only alternative raised and agreed was the suggestion of socialising across generation, becoming WACM 1.

During Workgroup considerations of the consultation responses, a discussion was held on the feasibility of NGESO producing a 10 year *forecast*, given they have to date only published a 10

[8] ACO (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.
[9] ACO (b) That compliance with the use of system charging methodology results in charges which reflect, as far as is 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 C26 requirements of a connect and manage connection).
[10] ACO (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.
[11] ACO (e) Promoting efficiency in the implementation and administration of the system charging methodology.

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year *projection*. An NGESO representative explained to the Workgroup that there are material gaps in the dataset that preclude a 10-year forecast, and that the 2023 projection was a one-off exercise. The regular 5-year forecasts that NGESO provides rely on a methodology and dataset that is not available for 10 years.[12] While stating that producing a new methodology for a 10-year forecast would not be impossible, NGESO considered this would be a significant project and would work best as an iterative process, improving year-on-year. Given the extensive effort required to produce a projection, and the data gaps that exist, NGESO raised significant concerns as to the feasibility of CMP413 which relies entirely upon an annual 10-year forecast.

The statements made by NGESO are especially problematic given that the first year of forecast in a 10-year cycle is the most important under CMP413 – as it sets the overall boundaries for 10 years – which under an iterative improvement process would theoretically be the least accurate. Any major improvements to NGESO's own forecasting methodology in subsequent years would not significantly impact generator charges for 10 years due to the fix introduced by earlier inaccurate forecasting.

The Workgroup voted on 6 February 2024, with the majority voting that the existing arrangements (the 'Baseline') better facilitated the ACOs than the Original Proposal or WACM1. Only two of the nine members voted that the Original Proposal and WACM 1 would better facilitate the ACOs.

The Code Administrator Consultation was issued on 26 February 2024, resulting in nine non-confidential responses, one late non-confidential response, and one confidential response. Of the 10 non-confidential responses, seven stated that the Baseline better facilitated the ACOs, while three thought that the Original Proposal and WACM 1 variably benefitted ACOs (a), (b), (c) and (e).

CUSC Panel[13] recommendation

[12] The details of what data issues exist for a 10 year forecast are shown on page 27 of the FMR.
[13] The CUSC Panel is established and constituted from time to time pursuant to and in accordance with section 8 of the CUSC.

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At the CUSC Panel meeting on 26 April 2024 the Panel considered both the Original Proposal and WACM 1. Of the nine Panel members, six voted that the Baseline best facilitated the ACOs, while two voted for the Original Proposal and one voted for WACM 1.

The Panel recommended by majority vote that the Original Proposal and WACM1 do not better facilitate the ACOs than the Baseline, and that neither should be implemented.

Our decision

We have considered the issues raised by the Original and WACM1 modification proposals as well as the Final Modification Report (FMR) dated 08 May 2024. We have considered and taken into account the responses to the industry consultations on the modification proposals which are attached to the FMR. We have also considered and taken into account the votes of the Workgroup and the CUSC Panel. We have concluded that:

- implementation of the modification proposals will not better facilitate the achievement of the applicable charging objectives of the CUSC;[14] and that
- directing that the modification be made would not be consistent with our principal objective and statutory duties.[15]

While we are rejecting the specific fixing methodology set out by CMP413, we remain open to the idea of introducing upper and lower limits to generator TNUoS, and today have published a letter setting out our views and encouraging NGESO to raise a code modification along these lines.

Reasons for our decision

[14] As set out in Standard Condition C6(11) of NGET's Transmission Licence, see: Licences and licence conditions | Ofgem
[15] The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Electricity Act 1989.

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We consider both the Original Proposal and WACM 1 to be marginally positive on ACO (a), neutral on ACO (d), and negative on ACOs (b), (c) and (e).

(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;

The majority of the CUSC Panel voted in favour of ACO (a) being better facilitated by the Original Proposal, though voted against WACM1 being positive for ACO (a). The Workgroup voted by majority that the Original Proposal and WACM1 better facilitate ACO (a) than the Baseline. The Proposer believes that the Original Proposal will provide assurances to Users of future TNUoS liability, facilitating competition by ensuring a level playing field. Further statements on ACO (a) by the Workgroup and Panel, as well as in the consultation responses, state that the Original and WACM1 will reduce the need for forecasting, echoing the comments of the Proposer.

Our position

We agree that both the Original Proposal and WACM1 would increase certainty in future TNUoS costs for generators to a degree, reducing the pressure for Users to forecast their charges. Forecasting is easier for larger, established players, and therefore reducing the requirement for forecasting would make it easier for new entrants to the market to compete. However, this is balanced against the increased complexity of understanding the charge given the rolling nature of the tariff fix which may prove challenging to Users, especially new entrants.

Additionally, the code governance framework means that any measures or changes introduced to the CUSC are subject to future changes via the code modification process and Ofgem decisions. Therefore, it is worth considering that CMP413 could not create an absolute certainty for users over their 10-year charges, as future changes to the CUSC could remove or alter the fix. We believe this to be a risk given the rigid tariffs and long timeline introduced by CMP413. Any such re-opening of fixed tariffs could prove detrimental to Users who have planned or made investment decisions based on the certainty given by CMP413.

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As such, we conclude that both the Original Proposal and WACM 1 are marginally positive for ACO (a), due to the significant risk of detriment.

(b) that compliance with the use of system charging methodology results in charges which reflect, as far as is 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 C26 requirements of a connect and manage connection);

The Proposer believes that CMP413 will have a positive impact on ACO (b), as network charges would align with the investment plans of Transmission Owners. However, both the Workgroup and Panel voted by majority that the Original and WACM 1 are detrimental to ACO (b). Common themes included both a direct concern that capping charges will by its essence reduce their cost reflectivity and a more general concern that any 10-year forecast will be subject to significant uncertainty and inaccuracy and therefore negatively impact cost reflectivity.

Our position

We agree that there is a material risk of inaccurate forecasting, which would result in inappropriate charges being fixed for 10 years. This would result in charges being less reflective of Users' impact on the system for 10 years. Additionally, we agree with the sentiment that fixing charges will, by necessity, reduce the cost reflectivity by resulting in less granular and adaptive charges. Overall, we agree with the positions of the Workgroup and Panel that a combination of the risk from inaccurate forecasting and the likely reduction in cost reflectivity from a cap based on these forecasts will negatively impact ACO (b). As such, we conclude that both the Original and WACM1 negatively impact ACO (b).

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(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;

The Proposer believes that CMP413 will be beneficial for ACO (c), as longer term tariffs would be better aligned with expected developments in the transmission system. Both the Workgroup and Panel voted by majority that both the Original and WACM1 would be detrimental to ACO (c). Their arguments included that fixing tariffs will prevent charges from properly reflecting changes to transmission business for 10 years, and as such both the Original and WACM1 would negatively impact ACO (c).

Our position

We agree with the position of the majority of the Panel and Workgroup that a delay to reflecting changes to transmission business due to the fixing of tariffs constitutes a detriment to ACO (c). This is due to any changes in the business of Transmission Owners only significantly impacting generator tariffs after 10 years of fixing. In addition, compliance with any directions could be negatively impacted as significant changes to generator tariffs could take 10 years to take effect. As such, we conclude that both the Original and WACM 1 would produce a negative outcome for ACO (c) compared to the baseline.

(e) promoting efficiency in the implementation and administration of the system charging methodology.

The Proposer has stated that the long-term centralised forecast provided by the Original will produce more useful signals for Users, which in turn will promote efficiency and support ACO (e). Both the Workgroup and Panel voted by majority that the Original and WACM1 would be detrimental to ACO (e). Statements commonly cite the increased complexity introduced to the CUSC and increased burdens on NGESO through the obligation to create an accurate 10 year forecast every year.

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Our position

We agree with the views of the majority of the Workgroup and Panel that the increased complexity within the CUSC alongside the significant challenge presented to NGESO in creating a regular 10 year forecast presents a detrimental impact for ACO (e). Because of this we conclude that both the Original and WACM1 would negatively impact ACO (e).

Authority's Principle Objective and Fixing TNUoS

We appreciate that the defect that CMP413 seeks to address – the uncertainty of future TNUoS for generators – is a material challenge for some generation investments, including renewable energy generators. We also recognise the sentiment set out in consultation responses and voting statements that, despite reservations on the specific methodology of CMP413, there is an appetite for fixing TNUoS costs in the long-term.

We believe that approving CMP413, whether as per the Original Proposal or through WACM1, would constitute a significant cost to consumers without sufficient benefit, particularly given the risk of inaccuracy from creating rolling 10-year forecasts to fix tariffs. The positive impacts of increased TNUoS predictability for generators could encourage increased investment in renewable development projects, facilitating the UK's transition to net zero. Additionally, this certainty could significantly reduce CfD strike prices, resulting in lower overall costs for consumers. This would constitute a long-term benefit to consumers. However, this benefit must be balanced against the costs to consumers, both now and in the long term. The Original Proposal intends to collect the entire cost of fixing from demand, and this cost is potentially significant due to the unreliability of any 10 year forecast produced by NGESO in the near-term. We cannot assess how much this cost could be as it is dependent on a novel forecasting method to be produced by NGESO, but there is the potential for a high cost of fixing. This may result in significant future costs to consumers.

WACM1 would seek to recover the costs of fixing from generators instead, using a non-locational generator charge. We consider it very likely however that this additional cost would

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be directly passed on to consumers through the transmission demand residual. Owing to the Limiting Regulation[16], there are upper and lower limits on the transmission charges payable by generators. At present NGESO must apply a negative adjustment tariff to generator Wider charges as without such adjustment those charges would fall outwith the Permitted Range. The negative adjustment tariff is funded by the transmission demand residual charge. The addition of a non-locational generator charge as is proposed under WACM1 would increase Wider charges, which in turn would increase the negative adjustment tariff payable to generators to ensure charges fall within the Permitted Range. As noted above, the negative adjustment tariff is a credit to generators but a debit to consumers, and therefore we consider that in practical terms WACM1 would in fact see the costs associated to the fixing of generator TNUoS being paid by consumers directly through demand TNUoS. Given this, there is still significant risk of high costs to consumers from WACM1 balanced against an uncertain reduction in charge volatility for generators, so we consider WACM1 to also be insufficient cost value for money.

That said, we are open to the possibility of introducing upper and lower limits to Wider generation TNUoS charges in such a way that some increase in consumer costs could be justified to deliver overall benefits resulting directly or indirectly from these limits. We have published an open letter on this issue to outline our position further.

[16] Assimilated Commission Regulation (EU) No. 838/2010 (the "Limiting Regulation") requires that annual average transmission charges paid by generators fall within a prescribed range ("the Permitted Range"), excluding i) charges for physical assets required for connection or the upgrade of the connection; ii) charges related to ancillary services; and iii) specific system loss charges.

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Decision notice

In accordance with Standard Condition C10 of the Transmission Licence, the Authority has decided that modification proposal CUSC CMP413: *Rolling 10-year wider TNUoS generation tariffs* is not to be made.

Eleanor Wood
Deputy Director
Energy Systems Management and Security

Signed on behalf of the Authority and authorised for that purpose

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