

Modification proposal:	Connection and Use of System Code (CUSC) CMP280: Creation of a New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Generation and Storage Users (CMP280)		
Decision:	The Authority ¹ has decided to reject ² this modification proposal		
Target audience:	National Grid Electricity System Operator (NGESO), Parties to the CUSC, the CUSC Panel and other interested parties		
Date of publication:	30 June 2021	Implementation date:	N/A

Background

Generators and demand users pay for the ongoing costs of the transmission network via Transmission Network Use of System (TNUoS) charges. The revenues are collected by the Electricity System Operator (ESO or 'NGESO') to recover the cost of installing and maintaining the transmission system. These charges are a combination of cost-reflective forward-looking charges, designed to incentivise the efficient development of the system, and residual charges. Transmission Demand Residual (TDR) charges are residual, or 'top-up', charges which ensure that the appropriate amount of Transmission Owner allowed revenue is collected once forward-looking charges have been levied.

Under the current charging methodology, electricity generator and storage parties contribute to demand TNUoS residual tariff elements. In our 2017 Smart Systems and Flexibility Plan, alongside government, we confirmed a set of actions in relation to electricity storage.³ In that plan, we noted that the existing charging regime could put electricity storage sites at a disadvantage relative to other types of electricity generators and flexibility providers. We also noted that, in the regulatory framework, we consider electricity storage a form of electricity generation for licensing purposes. With this in mind, our view is that charging arrangements should not discriminate between electricity storage and generation covered by the licensing regime.

The TDR charges relevant to this CMP, CUSC Modification Proposal 280 ('CMP280'), are levied based on half-hourly metered network assets at times of peak system demand (Triad). Electricity storage facilities import all the electricity they require (i.e. to operate and/or to export at a later stage) from the network, whereas other generators only import a small amount of electricity required to operate the generating asset. As a result, when electricity storage users compete with generators, for instance in the provision of

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.

³ The first publication on the SSFP is available here: <https://www.ofgem.gov.uk/publications-and-updates/upgrading-our-energy-system-smart-systems-and-flexibility-plan>
The update on the SSFP is available here: <https://www.ofgem.gov.uk/publications-and-updates/upgrading-our-energy-system-smart-systems-and-flexibility-plan-progress-update>

ancillary services, they could be at a competitive disadvantage due to their typically much higher exposure to demand charges relative to their exports. Generators and electricity storage operators generally should be able to avoid exposure to demand TNUoS charges by minimising demand at Triad through generating at these times in order to help balance the overall system. However, should they import over Triad, which they require to do in order to then export electricity, they would be exposed to demand TNUoS charges. We have previously stated that we consider this to be a potential disadvantage to storage operators, and that residual charges should be faced solely by final demand.

The modification proposal

CMP280 was raised to remove TDR charges from generation and electricity storage. The removal of TDR charges from generation subsequently became part of the wider TDR reforms being considered through the Targeted Charging Review (TCR) Significant Code Review (SCR). As a result, the scope of this modification was narrowed to focus only on removing TDR charges from electricity storage operators. Scottish Power raised the modification in 2017 and subsequently relinquished ownership of the modification during the Workgroup stage. Drax Power Ltd ('the Proposer') adopted the modification from 20 November 2018.

The development of the proposal was an extended process with the Final Modification Report ('FMR') reaching us on 15 October 2019, with a proposed implementation date of 1 April 2021.⁴ The CMP280 Workgroup developed two proposals: the original proposal ('Original') and one Workgroup Alternative CUSC Modification ('WACM1'). The Original covered Central Volume Allocation (CVA) Storage Facilities only. Further to the Workgroup Consultation, WACM1 was brought forward by Elexon ('the WACM1 Proposer'), with a solution that covered both CVA storage, and Supplier Volume Allocation (SVA) Storage Facilities that met similar criteria. CMP319⁵ was raised to include definitions of CVA Storage Facility and SVA Storage Facility in Section 11 of CUSC. We approved this modification in May 2020⁶.

Both proposals were estimated by NGESO to cost in the region of £1m to implement over a period of twelve months. Owing to the time that has passed since receiving the FMR, we asked NGESO to provide more recent information on implementation costs and timing. NGESO has confirmed that its current estimates remain broadly in line with the information provided to the Workgroup, with the figure now considered to be £1.1m over 12 months. We have considered this information whilst reaching our decision.

CUSC Panel⁷ recommendation

At the CUSC Panel (the 'Panel') meeting on 12 September 2019, the Panel considered by majority (5/6) that the CMP280 Original and WACM1 would better facilitate the Applicable Charging Objectives ('ACOs') than the baseline (the existing provisions of the CUSC). A majority of the Panel members considered that overall WACM1 would better facilitate the ACOs than the Original or the baseline. Of the six votes, five considered that WACM1 would be the best option, whilst one considered that the baseline would be the best option.

The table below summarises the Panel members' assessment of the options against the ACOs (neutral assessments are not shown).

⁴ [CMP280: Creation of a New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Generation and Storage Users | National Grid ESO](#)

⁵ <https://www.nationalgrideso.com/document/154596/download>

⁶ https://www.ofgem.gov.uk/sites/default/files/docs/2020/05/cmp319_d.pdf

⁷ The CUSC Panel is established and constituted from time to time pursuant to and in accordance with section 8 of the CUSC.

Proposed Solution	Applicable Charging Objective							
	A		B		C		E	
	+ve	-ve	+ve	-ve	+ve	-ve	+ve	-ve
Original Proposal	4	2	2	0	1	1	1	1
WACM1	5	1	2	0	2	1	1	1

Link to our TCR Decision⁸ and progress so far

As part of our final TCR Decision and Directions, published in November 2019, we decided that residual charges, including the TDR, should be levied on final demand consumers only and issued Directions to NGENSO and the Distribution Network Owners to bring forward such modifications as were necessary to give effect to that decision. We initially expected the TDR reforms to be implemented in April 2021, which would have effectively made the implementation of a solution specific to storage (as proposed by CMP280) redundant.

During the first quarter of 2020, we gave consent to NGENSO to withdraw the TCR modification that was related to TDR charge reform (CMP332) to allow a delay in the implementation of the modification by one year to April 2022.⁹ This was based on information we had received since our TCR Decision regarding the uncertainty around TDR charges and implementation risks, and the impact on suppliers and non-domestic consumers. CMP343 was raised to replace CMP332 and give effect to the TCR Decision with an implementation date of 1 April 2022.¹⁰

In October 2020, we published an open letter¹¹ where we noted the implementation challenges and costs associated with CMP280, and stated that any approval of CMP280 at that time would have likely resulted in the solution for standalone generation being in place for one year only (2021/22) before the planned TDR reforms for all demand were due to be implemented for 2022/23. As such, we noted that we expected to make a final determination on CMP280 in light of the progress of the relevant TCR modifications.

On 1 April 2021, we published an open letter on the timing of CMP343, informing industry that we would be consulting in May 2021 on our minded-to position, including a proposed delay to the implementation of the modification by one further year to April 2023. Our consultation on our minded-to decision and Impact Assessment on CMP343 was published on 10 May 2021, with the consultation closing on 5 July 2021.¹²

Given the TCR Direction, any solution brought forward under CMP280 would be a short-term solution, which would ultimately be superseded by wider reforms to TDR charges. In practice, this means that implementation of CMP280 for the charging year 2022/23 could be superseded by any decision to implement CMP343 from April 2022. Any delay to CMP343 to 2023/24, in line with our minded-to position, would see CMP280 in place for

⁸ [Targeted Charging Review: Decision and Impact Assessment | Ofgem](#)

⁹ [Consent to withdraw Connection and Use of System Code \(CJSC\) Modification Proposal CMP332 'Transmission Demand Residual bandings and allocation \(TCR\)' and Direction to raise a new modification proposal to enable new Transmission Demand Residual charges to be effective as of 1 April 2022 \(ofgem.gov.uk\)](#)

¹⁰ [CMP343 and CMP340 'Transmission Demand Residual bandings and allocation for 1 April 2022 implementation \(CMP343\)' and 'Consequential changes for CMP343 \(CMP340\) | National Grid ESO](#)

¹¹ https://www.ofgem.gov.uk/system/files/docs/2020/10/open_letter-cmp280_final.pdf

¹² <https://www.ofgem.gov.uk/publications-and-updates/open-letter-timing-cmp343>
[CMP343 – consultation on minded-to decision and impact assessment | Ofgem](#)

one year. An assessment of the benefits of a shorter-term solution versus the costs of implementation is outlined later in this letter. Whilst we are consulting on the implementation date for TDR reforms through CMP343, and there is a clear interaction between that proposal and CMP280, we consider it appropriate to make a Decision in respect of CMP280 now to reduce any uncertainty as to the liabilities faced by the operators of storage facilities.

Our decision

We have considered the issues raised by the modification proposal and the Final Modification Report (FMR)¹³ dated 15 October 2019. We have considered and taken into account the responses to the consultations on the modification proposal which are attached to the FMR. We have also taken into account the progress of the TCR TDR implementation changes. We have concluded that:

- implementation of the modification proposal would better facilitate the achievement of the ACOs (a), (b) and (c) but it would have a detrimental impact on ACO (e); and that
- directing that the modification be made would not be consistent with our principal objective and statutory duties.¹⁴

As such, we have decided to reject this CUSC Modification Proposal.

Reasons for our decision

We consider that both the Original and WACM1 would better facilitate ACOs (a), (b), and (c). We consider that the impact of the modification on ACO (e) would be detrimental. We believe WACM1 is a better solution than the Original, but that the implementation costs of either option would significantly outweigh the benefits of the proposals. Given that any solution would only be in place for a limited time, until the TCR TDR reforms come into effect, we do not think that the modification is in the wider interests of consumers. As part of this assessment, we asked NGENSO to provide up to date information about the current and expected TDR liabilities faced by Storage Facilities. This information is discussed later in this decision.

(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 Proposer considered that the Original would better facilitate ACO (a) as it seeks to remove a distortion in competition between electricity storage providers and generators, therefore putting electricity storage providers on a level footing with other providers.

The majority of the Panel members considered that the Original would better facilitate ACO (a). Panel members noted that the Original partially resolved the issue that electricity storage faced two residual charges – one under demand TNUoS arrangements, and one under generation (under the then existing arrangements). They considered that removing the liability for the TDR from CVA Storage Facilities would therefore result in more effective competition with other forms of generation.

Two Panel Members considered that the Original would not better facilitate ACO (a). It was noted that the Original would only apply to CVA storage, therefore introducing a

¹³ CUSC modification proposals, modification reports and representations can be viewed on NGET's website at: <https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc/modifications>

¹⁴ 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.

market distortion between CVA and SVA storage sites and negatively impacting competition.

The WACM1 Proposer believed that the alternative proposal would better facilitate competition in the same way as the Original, and bring additional benefits, as it would also avoid arbitrary differences in treatment between SVA-registered and CVA-registered storage facilities. They therefore considered the solution would better facilitate competition by avoiding the introduction of further distortions into the market for generation and storage.

The majority of the Panel members agreed that WACM1 would better facilitate this ACO, as WACM1 covers both SVA and CVA, providing a complete solution by removing the potential for any distortions between CVA and SVA registered users. It was also noted that WACM1 would ensure that storage facilities can compete on an equitable footing with other providers. It was noted, however, by one Panel member that the modification would be unlikely to have a significant commercial impact in practice as the chances of storage importing at Triad are low.

Our position

We consider that both the Original and WACM1 would better facilitate ACO (a). We agree that both proposed solutions would remove a distortion between storage and generation. and believe that WACM1 is a better solution compared to the Original, as it covers both CVA and SVA assets, therefore avoiding a further distortion.

We note arguments made in relation to storage facilities facing two residual charges, but note that, as a result of our CMP317/327 decision¹⁵, the generation residual (the 'TGR') has been removed since the FMR was submitted to us. As such, these arguments no longer apply.

We believe that there are already strong incentives for storage assets to avoid imports during Triad, although we appreciate that importing during these times might be required when storage is providing balancing or ancillary services on the network. As such, we agree that the commercial impact of this modification would unlikely be significant. This is also supported by information provided by the NGENSO, explored further below.

(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 in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage connection);

The Proposer considered that the Original would have a positive or neutral impact on ACO (b). Since residual charges are not intended to be cost reflective, the Proposer believed that the solution would have little impact on cost reflectivity other than removing a distortion whereby some users pay a disproportionate amount of the costs.

The WACM1 Proposer considered that WACM1 would bring an improved solution, as it would avoid entirely non-cost reflective differences between CVA and SVA assets.

Two Panel members voted that the Original would better facilitate this ACO, as they considered it to be better than the baseline in terms of cost reflectivity in the context of electricity storage users. Two Panel members voted that the WACM1 solution would better facilitate this ACO than the baseline. One of them noted that the solution would

¹⁵ https://www.ofgem.gov.uk/sites/default/files/docs/2020/12/cmp317327_decision_171220.pdf

introduce more cost reflective charges for storage and thus for other TNUoS payers as well, therefore enabling a more cost reflective charging approach overall.

Our position

We have consistently stated that where charges are cost-recovery, (such as the TDR) electricity storage should not pay a disproportionate amount compared to other forms of generation. We consider that excluding electricity storage from paying cost-recovery charges on both imports and exports, given the distinctive characteristics of electricity storage with respect to electricity imports, helps address the current disproportionate situation. We consider it is more cost reflective if electricity storage facilities do not face a disproportionate level of cost-recovery charges.

(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;

Both the proposers of the Original and of WACM1 believed their solutions to better facilitate this ACO owing to the relative size (£/kW) of the TDR. Generally, the Panel considered the proposals to be neutral against this ACO. One Panel member considered that the Original would better facilitate ACO (c), whilst another considered that it would not. They have not included specific details on their position in their voting statements.

In assessing WACM1, two Panel Members considered that the modification would better facilitate ACO (c). One noted that WACM1 would be better compared to the Original as they considered it to properly take account of transmission developments, in terms of the growth of storage on the whole system, when considered with the effects on competition and cost reflectivity. One Panel member considered that WACM1 would not better facilitate this ACO.

Our position

We agree with both proposers that the two solutions brought forward would better facilitate ACO (c). We expect that electricity storage will play an increasingly significant role in the future energy systems as we transition to Net Zero. In particular, WACM1 provides a solution that covers more storage assets, including SVA Storage Facilities, which we consider to be important for overall system stability. In this respect, we think that both options address an issue that will reflect changes in the transmission licensees' businesses, with WACM1 doing so more comprehensively.

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

The Proposer and the WACM1 Proposer both consider that the Original and the WACM1 solution would be neutral against ACO (e).

One Panel member considered that the Original and WACM1 would better facilitate this ACO, and one Panel member considered that this ACO would not be better facilitated by the proposed solutions. They have not commented on their assessments in detail.

Our position

We believe that neither the Original nor WACM1 would better facilitate this objective. The earliest any solution would be in place is from April 2022 and this would be fully replaced when the TCR TDR reform is implemented.

We consider that approving such a modification at this point in time would not be consistent with efficient implementation or administration of the CUSC. We therefore consider this proposal to be negative against ACO e). Implementation timescales and costs of this modification are far higher than the benefits we understand would arise from its approval, such benefits being in place for a short period before being superseded by our broader TDR reforms. We consider that the question of implementation of this proposal falls not only under this ACO e), but is a matter linked to our principle objective and statutory duties, as outlined below.

Assessment against the Authority's principal objective and statutory duties

We are broadly supportive of the intent of the modification, but we have decided to reject it owing to the high implementation costs, the short-term nature of the potential solution, and the absence of evidence that the benefit would outweigh the costs.

NGESO has confirmed:

- estimated implementation costs of c.£1.1m, with a 12-month implementation timescale;
- the maximum benefit to transmission-connected storage as a class is estimated to be c.£7,500 per year¹⁶; and
- the maximum benefit to all storage as a class is estimated to be less than £150,000 per year¹⁷

In practice, consumers bear the costs of implementation of changes to NGESO's systems and processes, as NGESO recovers its spend through Balancing Services Use of System charges. Implementation costs in this instance far exceed the estimated annual benefit to storage facilities (such benefit, we expect, would be passed through to consumers via reduced market prices).

It would take many years for the cost of implementation recovered through BSUoS to be offset by any reductions to market prices. We therefore do not consider that approval of this proposal would be in the interests of consumers, who would not see a benefit commensurate with the costs incurred.

Decision notice

In accordance with Standard Condition C10 of the Transmission Licence, the Authority has decided that modification proposal *CUSC CMP280: Creation of a New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Generation and Storage Users* should not be made. In light of this decision, we expect NGESO to raise a housekeeping modification to remove any superfluous definitions brought in by CMP319, which introduced some terms to enable CMP280 that will not now be required.¹⁸

Harriet Harmon

Head of Electricity Network Charging

Duly authorised on behalf of the Authority

¹⁶ NGESO has considered potential savings by existing storage facilities and, based on available data (2017/18 – 2020/21) estimates a maximum benefit to transmission-connected storage of £7,500/year

¹⁷ NGESO has considered potential savings by existing distribution-connected storage facilities using publicly available data and some of its own assumptions (for instance as to the proportion of triad imports made by storage). It has estimated a total potential saving in the range of £35-140,000/year. In the absence of a robust dataset being available to NGESO we are content that their assumptions can serve as a reasonable proxy.

¹⁸ <https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp319>