

Modification proposal:	Connection and Use of System Code (CUSC) CMP333: BSUoS – charging Supplier Users on gross demand (TCR)		
Decision:	The Authority ¹ directs that this modification be made ²		
Target audience:	National Grid Electricity System Operator (NGESO), Parties to the CUSC, the CUSC Panel and other interested parties		
Date of publication:	03 December 2020	Implementation date:	01 April 2021

Background

In November 2019, we published our Decision (and associated Direction) on the Targeted Charging Review (TCR) Significant Code Review.³ Once the Decision is implemented, the costs of operating, maintaining and upgrading the electricity grid will be spread more fairly and, through reducing harmful distortions, will save consumers approximately £300m per year, with anticipated consumer savings of £4bn-£5bn to 2040.

The TCR included a review of how residual network charges are set and recovered, and also sought to remove some remaining distortions in network charging, known as Embedded Benefits. Embedded Benefits is the name given to the differences in charging arrangements between Small Distributed Generators and large generators (with capacity >100MW) connected to either the distribution or transmission networks.

BSUoS charges are the means by which National Grid Electricity System Operator (NGESO) recovers the costs associated with balancing the electricity transmission system. BSUoS charges are currently recovered from demand customers and large generators based on the amount of energy imported or exported onto the network (£/MWh) within each half-hourly settlement period.

Energy suppliers are currently charged BSUoS based on their net demand measured at the Grid Supply Point (GSP). In some cases, suppliers effectively receive a discount on their BSUoS charges by contracting with 'Small Distributed Generators' (generators with capacity of <100MW, connected to the distribution system) as this has the effect of reducing their net demand (as measured at the GSP) and, in turn, their liability for BSUoS charges. Suppliers pass on the majority of the associated BSUoS savings to Small Distributed Generators through direct contractual agreements with them.

The ability for suppliers to reduce their liability for BSUoS charges in this way was one of the Embedded Benefits reviewed in the TCR. The other two Embedded Benefits considered by the TCR were:

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.

²This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

³ https://www.ofgem.gov.uk/system/files/docs/2019/12/full_decision_doc_updated.pdf

- the Transmission Generation Residual (TGR) , a dis-benefit to Small Distributed Generators because this is a credit paid to larger generators which we decided to set to 0⁴, addressed by CMP317/27⁵, and
- Small Distributed Generators not being liable for BSUoS charges whereas larger generators are liable for BSUoS charges. Rather than address this Embedded Benefit as part of the TCR Decision, we launched a second BSUoS Taskforce to determine which parties should be liable for BSUoS charges and the mechanism to recover them. This followed the findings of the first BSUoS Taskforce that said BSUoS charges should be treated as cost-recovery charges.

In our TCR Decision, we stated that the Embedded Benefit available for Small Distributed Generators as a result of BSUoS charges being levied on the basis of net demand, measured at the GSP, is causing harmful distortions and that it should be removed. Alongside our Decision, we issued a Direction⁶ to NGESO, to bring forward proposals to modify the Connection and Use of System Code (CUSC) in relation to these BSUoS charges.

The Direction says that BSUoS charges for suppliers should be applied using gross demand at the GSP. It was noted that this would have the “*effect of removing the Embedded Benefit that enables the offsetting of Suppliers’ net demand and in turn their liability for balancing services charges*” (paragraph 47 of the Direction). In removing this distortion, it is anticipated that competition in the generation of electricity will be improved, leading to cost savings for consumers.

The modification proposal

NGESO (the ‘Proposer’) raised CMP333 on 12 December 2019 to comply with the TCR Direction requirements that BSUoS charges are to be applied on a gross volumetric basis at the GSP. To do this, the Final Modification Report (FMR) sets out:

- The calculation of the overall BSUoS costs per settlement period. The costs for each half-hourly settlement period will be divided by the total BSUoS chargeable volumes in that settlement period. The total BSUoS chargeable volumes will be calculated by the sum of BSUoS liable transmission connected sites’ net trading unit positions and supplier Balancing Mechanism (BM) Units’ gross demand positions, all adjusted for the Transmission Loss Multiplier.
- Transmission connected sites will be charged BSUoS based on the net position of their trading units in a settlement period which may be in delivering or exporting mode.
- Supplier BM Units will be charged BSUoS on a gross demand basis for each supplier BM Unit per settlement period and not on a trading unit basis.
- Exempt Export BM Units (both Supplier Volume Allocation (SVA) and Central Volume Allocation (CVA))⁷ will be treated in the same way as supplier BM Units

⁴ Subject to maintaining compliance with regulation 838/2010

⁵ This dis-benefit to Small Distributed Generators is being addressed through CMP317/27

⁶ https://www.ofgem.gov.uk/system/files/docs/2019/11/cusc_direction_1.pdf

⁷ Supplier Volume Allocation is the determination of quantities of Active Energy to be taken into account for the purposes of Settlement in respect of Supplier BM Units. Central Volume Allocation means the determination of

and therefore will not receive an Embedded Benefit or be charged when exporting but will be charged BSUoS when importing.

Export Exempt BMUs are registered by unlicensed generation or storage, i.e. those facilities which are exempt from the requirement to obtain a Generation Licence. These BMUs are exempt from BSUoS charges when exporting from their trading unit and are currently used, like supplier exports from Small Distributed Generation, to reduce BSUoS liability for their trading unit when the net position is measured at the GSP. This modification would remove the Embedded Benefit received by offsetting BMUs that have liability for BSUoS charges with BMUs which do not.

CUSC Panel⁸ recommendation

At the CUSC Panel meeting on 16 September 2020, the CUSC Panel unanimously considered that CMP333 would better facilitate the CUSC charging objectives and the Panel, therefore, recommended its approval. We set out a summary of the panel members' views alongside ours in the 'Our decision' section below.

Our decision

We have considered the issues raised by the modification proposal and the FMR dated 18 September 2020. We have considered and taken into account the responses to the Workgroup Consultation and the three Code Administrator Consultations (CACs), attached to the FMR.⁹

We have concluded that:

1. implementation of the modification proposal will better facilitate the achievement of the relevant charging objectives of the CUSC;¹⁰ and
2. directing that the modification be made is consistent with our principal objective and statutory duties.¹¹

Reasons for our decision

We consider this modification proposal will better facilitate CUSC objectives (a), (b) and (c) and has a neutral impact on the other applicable objectives.

(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

quantities of Active Energy to be taken into account for the purposes of Settlement in respect of Volume Allocation Units.

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

⁹ CUSC modification proposals, modification reports and representations can be viewed on NGESO's website at <https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc>

¹⁰ As set out in Standard Condition C5(5) of the Electricity Transmission Licence, see: <https://epr.ofgem.gov.uk/Content/Documents/Electricity%20transmission%20full%20set%20of%20consolidated%20standard%20licence%20conditions%20-%20Current%20Version.pdf>

¹¹ 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 as amended.

CUSC Workgroup respondents unanimously voted in favour of the solution presented in the code modification and considered that CUSC charging objective (a) would be better facilitated, than it would under the baseline. CUSC Workgroup respondents supported their votes stating that the modification would improve competition between generators by removing the market distortion which arises as a result of this Embedded Benefit.

The CUSC Panel also voted unanimously that this objective would better facilitate objective (a) than the baseline, agreeing with the Workgroup that this change would improve competition by removing this distortion.

Our position

In the TCR Direction, we stated that the current basis on which BSUoS charges are levied (i.e. on net demand at the GSP) distorts competition between Small Distributed Generators and other generators. We stated that this differential treatment does not reflect any difference in the value provided or the cost imposed on the electricity network system between those types of generators. CMP333 better facilitates CUSC charging objective (a) as it reduces this distortion and improves competition.

(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);

CUSC Workgroup respondents considered charging objective (b) was neutral for CMP333. There was no consideration to the CUSC objectives beyond (a) and (c) by the CUSC panel.

Our position

We consider that CMP 333 better facilitates charging objective (b). By reducing this harmful distortion, the charges levied on all generation should better reflect the impact that generators have on the system. Removing inefficient incentives should increase cost reflectivity.

(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 majority of CUSC Workgroup respondents (seven out of eight) indicated that the modification proposal better facilitated CUSC charging objective (c). Respondents considered that the proposal will deliver Ofgem's TCR Direction (to NGENSO) to charge BSUoS to suppliers on a gross volumetric basis. Similarly, all but one of the CUSC Panel voted that objective (c) would be better facilitated through this modification, taking into account the development of industry and arrangements around the licensees' business.

Our position

CMP 333 addresses the relevant parts of the TCR Direction relating to the basis on which BSUoS charges are to be levied for suppliers (i.e. on gross demand measured at the

GSP). In this respect, it better facilitates CUSC charging objective (c) as NGENO is fulfilling the requirements placed upon it as regards this development in its transmission businesses. NGENO are undertaking system changes to implement CMP333 by 1 April 2021 as set out in the TCR Direction.

Other considerations

We note that three Code Administrator Consultations (CACs) were undertaken, the first was published before our approval of CMP281 ('Removal of BSUoS liability from imports to storage facilities'). We asked industry to take account of the changes arising from CMP281 in the CUSC legal text and its impacts on this modification and to re-consult.¹² Following this, respondents raised concerns in the second CAC which were taken into account before the third and final CAC, and our decision.

Price cap

We have coordinated with the Retail Price Regulation team within Ofgem to ensure that changes arising from CMP333 will flow through into the Default Tariff Cap calculation. We are satisfied that the data published by NGENO will change from net to gross measurement for supplier BMUs when this modification is implemented from April 2021, and will be factored in to future price cap calculations.

Generating BMUs attracting Embedded Benefits within exporting trading units

During the second CAC it was suggested that an Embedded Benefit remained under a specific trading unit configuration. In such an instance, a BSUoS credit would be attracted by offsetting the generation BMUs with the storage imported BMUs. Implementation of CMP281 means that storage BMUs will not be charged BSUoS for their imports and these imports are not visible for the purposes of BSUoS charging. Therefore, this could potentially be an outstanding Embedded Benefit.

Based on trading unit registration data, we do not think that there are any trading units configured in such a way as to take advantage of this potential remaining Embedded Benefit. We do not consider there is sufficient incentive to reconfigure trading units to benefit from this in the short term. Given the work being undertaken by the BSUoS Taskforce which includes consideration of who should pay BSUoS charges and how they are recovered, we expect these arrangements to be revisited as the BSUoS Taskforce recommendations are progressed.

The CMP333 Workgroup have referred this issue to the BSC Issues panel. It will be monitored and if a change in behaviour to exploit these arrangements is detected, a BSC code modification could be raised to allow the trading unit direction, storage imports and other BMU activity to be individually measured to prevent this.

Impact assessment

For completeness we note that during the TCR SCR, we undertook whole systems modelling and a full Impact Assessment to consider the impacts of the change this modification will implement, alongside the other TCR reforms. This work suggested a consumer saving of between £100m and £150m per year. The Workgroup FMR suggested a higher overall BSUoS saving, of c.10%. The Workgroup used the 2018/19 average net

¹² https://www.ofgem.gov.uk/system/files/docs/2020/05/cmp281_d.pdf

price of £3.25/MWh and the model used takes account of this change extending to all Export Exempt BMUs, whereas the TCR consumer savings assessment was based on a BSUoS charge of £2.50/MWh, the average price at the time of the modelling. Both analyses demonstrate that there are significant consumer benefits to be realised from this reform.

Section 5A of the Utilities Act 2000 imposes a duty on the Authority (its 'Section 5A duty') to undertake an impact assessment in certain circumstances. In particular, this duty applies where it appears to the Authority that a proposal is important. A proposal is important for these purposes if its implementation would be likely to, among other things, "have a significant impact on persons engaged in commercial activities connected with the ... generation, transmission, distribution or supply of electricity." Where this applies, the Authority is obliged to carry out an impact assessment.

The reforms to BSUoS liability, as measured at the GSP, through these changes, as set out in CMP333, are consistent with our TCR Decision. CMP333 will give effect to one Embedded Benefit reform in the TCR Decision, and as such, we consider that the impact assessment conducted for the TCR Decision satisfies our obligations under the Utilities Act, with respect to this modification.

Decision notice

In accordance with Standard Condition C10 of the Transmission Licence, the Authority, hereby directs that modification proposal *CMP333: BSUoS – charging Supplier Users on gross demand (TCR)* be made.

Andrew Self

**Deputy Director, Electricity Network Charging & Access
Energy Systems Management & Security**

Signed on behalf of the Authority and authorised for that purpose