

## Workgroup Report

# CMP453: To Bill BSUoS on a net basis at BSC Trading Units

**Overview:** The move to gross billing of Balancing Services Use of System (BSUoS) means that customers forming part of a Balancing and Settlement Code (BSC) Trading Unit are paying BSUoS when the net flows at the point of connection are exports, so the customers are not using the system and should not pay BSUoS.

## Modification process & timetable

1	<b>Proposal Form</b> 30 April 2025
2	<b>Workgroup Consultation</b> 14 July 2025 – 04 August 2025
3	<b>Workgroup Report</b> 18 September 2025
4	<b>Code Administrator Consultation</b> 29 September 2025 – 17 October 2025
5	<b>Draft Final Modification Report</b> 23 October 2025
6	<b>Final Modification Report</b> 11 November 2025
7	<b>Implementation</b> 01 April 2026

**Have 5 minutes?** Read our [Executive summary](#)

**Have 40 minutes?** Read the full [Workgroup Report](#)

**Have 60 minutes?** Read the full Workgroup Report and Annexes.

**Status summary:** The Workgroup have finalised the Proposer's solution. They are now seeking approval from the Panel that the Workgroup have met their Terms of Reference and can proceed to Code Administrator Consultation.

**This modification is expected to have a:** Medium impact Suppliers and Directly connected transmission demand by altering the BSUoS liabilities between final demand but improving cost reflectivity.

**Governance route** Standard Governance modification with assessment by a Workgroup.

**Who can I talk to about the change?**

**Proposer:**

Matthew Foster

[matthew.foster@tritonpower.co.uk](mailto:matthew.foster@tritonpower.co.uk)

Phone: 07549026586

**Code Administrator Chair:**

Prisca Evans

[prisca.evans@neso.energy](mailto:prisca.evans@neso.energy)

Public

## Contents

Executive Summary.....	3
What is the issue?.....	3
What is the defect the Proposer believes this modification will address? .....	4
Why change? .....	4
What is the solution? .....	5
Proposer's Original solution.....	5
Legal text.....	5
Workgroup considerations.....	5
Workgroup Discussion ahead of the Workgroup Consultation .....	5
Workgroup Consultation Summary .....	8
Post Workgroup Consultation Discussion .....	9
Terms of Reference Overview .....	10
What is the impact of this change? .....	10
Proposer's assessment against Code Objectives .....	11
Assessment of the impact of the modification on the stakeholder / consumer benefit categories .....	13
Workgroup Vote.....	13
When will this change take place?.....	14
Interactions .....	14
Acronyms, key terms and reference material .....	15
Annexes .....	16

Public

## Executive Summary

CMP453 proposes to change how the Balancing Services Use of System (BSUoS) charges are applied by billing them on a net basis for Balancing and Settlement Code (BSC) Trading Units. This modification was raised, because under the current gross billing approach, final demand customers within Trading Units are charged BSUoS even when the net flows at the point they are connected are exports—meaning they are not actually using the system—resulting in a charge that is not cost reflective.

### What is the issue?

When BSUoS charges became gross rather than net, customers who don't always contribute to balancing costs were still charged. Although energy imbalance charges are accounted for the net impact of co-located generation and demand through Trading Units, BSUoS charges do not, leading to a charge that is not cost reflective.

### What is the solution and when will it come into effect?

**Proposer's solution:** Where a demand Balancing Mechanism Unit (BMU) forms part of a transmission connected Trading Unit, where all BMU's within that Trading Unit connect to the Transmission Network at the same connection point, BSUoS will be billed on a net basis, i.e. when the site is importing (i.e. the net position of the BMUs is import) it will pay BSUoS, but when it is exporting it will not.

**Implementation date:** 01 April 2026.

### What is the impact if this change is made?

This modification would make BSUoS charges more cost-reflective by not charging sites when their net flows do not contribute to system balancing costs. This only occurs where generation and demand are collocated, so the impact of the imports and exports are aligned with the sites net position and not the gross position of each of its BMUs.

While this would slightly increase costs for other customers (assuming all other things remain equal), the impact is expected to be minimal, especially since many affected sites are Energy Intensive Industries (EIs) that already pay reduced BSUoS. The change targets only specific configurations and avoids broader system impacts, better aligning with how energy imbalance charges are already calculated by Elexon under the BSC.

Public

**Workgroup conclusions:** The Workgroup concluded by majority that the Original Proposal better facilitated the Applicable Objectives than the Baseline.

### Interactions

Possible interaction with the Balancing and Settlement Code as it defines Trading Units.

## What is the issue?

### What is the defect the Proposer believes this modification will address?

When BSUoS charging moved to being a gross charge, it resulted in customers who are demonstrably not always causing balancing costs to be charged BSUoS. The idea of a Trading Unit is that it recognises that where generation assets (Genco's) and demand are co-located on the transmission system, it is their net impact on the system that drives balancing costs. This is reflected for energy imbalance charges, but not BSUoS.

### Why change?

It is not cost reflective to charge customers for energy balancing costs when they are not using the system and contributing to the cost drivers, i.e. they do not cause Balancing Services activity as the generation meter next to their demand meter counteracts their impact on the system. (Note that: Balancing Services forms a part of the BSUoS charge but there are other aspects to BSUoS) In fact, it may be the case that at that point of connection the site is providing ancillary services, as many have Mandatory Services Agreements (MSAs) given their size and technology types. Without this change the customers will be forced to pay to rewire their connections putting them "behind the meter". While this would remove the BSUoS costs, it would create additional costs for the affected parties for no reason, as their impact on the total system will remain the same. The Original Proposal form can be found in **Annex 01**.

Public

## What is the solution?

### Proposer's Original solution

Where a demand BMU forms part of a transmission connected Trading Unit, BSUoS will be billed on a net basis, i.e. when the total site is importing it will pay BSUoS, but when it is exporting it will not.

If the trading unit is importing energy within a 30-minute period, it will pay BSUoS based on its net flows. If it is exporting, it will pay no BSUoS.

The BSUoS charges will be allocated to the same registrants as prior to the change. The only difference will be they will be charged on a net basis rather than a gross basis.

### Legal Text

The Legal text for this change can be found in **Annex 03**.

## Workgroup considerations

The Workgroup convened four times to discuss the issue as identified by the Proposer within the scope of the defect, consider potential solutions, and evaluate the proposal in relation to the Applicable CUSC Code Objectives.

### Workgroup Discussion ahead of the Workgroup Consultation

**Consideration of the Proposer's solution:** The Proposer presented the solution to the Workgroup and discussions were held on the proposal.

#### Issue Presented:

- **Billing on a Gross Basis:** The current issue involves the billing of integrated trading unit sites with final demand on a gross basis. This means that customers forming a trading unit are charged when the demand BMU is importing, even though the net position of the site is export.

#### Proposed Solution:

- **Net Basis Billing:** The proposed solution is that the billing should be on a net basis at Trading Units, as defined in the BSC. This means that when the total site is importing, it uses the system and should be charged BSUoS. However, when the

## Public

total site is exporting (i.e., the demand connected on the same site is being met from the co-located generation with no impact on the total system), it should not be charged. The Workgroup Members agreed that this approach was more cost-reflective and avoided unnecessary site reconfiguration.

A Workgroup Member highlighted that the billing and subsequent charges are a commercial issue between the Generator and its customers. Noting that the Generator, who owns the BMU, faces the charges, and how these charges are passed on is a matter of commercial arrangements.

- **Technical Configuration:** The Proposer acknowledges that while a change to the wiring configuration is technically possible, it would be complex, costly and unnecessary since there is no change in the impact on the system. The Workgroup Members agreed with this view, noting that physical reconfiguration would not alter system impact and should not be required to achieve fair BSUoS charging.
- **Site Configuration:** The Proposer provided an example of their site configuration, constructed between 1997 and 2000, which includes the generation units Saltend Cogeneration Company Limited (BMUs SCCL 1 to 3) and a demand unit (SCCL 4). The demand is mainly met from the generation units, but the current wiring configuration sees the BMUs export and then import at the same time. This results in charges that are not cost-reflective of the customers use of the system.
- The Workgroup considered the practicalities of making physical configuration changes to sites to meet the intent of CMP453. The Proposer explained that while a physical wiring change could theoretically address the issue, it would be technically complex and unnecessary. The Workgroup Members agreed with this assessment noting that the proposal resolves the problem without requiring impractical site modifications.
- The Workgroup Members decided that the site configuration was not the primary focus and instead chose to concentrate on addressing the billing and charging issues.
- **Cost Reflectiveness:** The Proposer argues that the current charges are not cost-reflective for the impacted industrial customers and that the proposed solution of billing on a net basis would better reflect their actual impact on the system. The Workgroup Members agreed, supporting net basis billing as a fairer and more accurate reflection of system usage for these customers.

## Public

### Legal Text Update

The NESO representative delivered an update on the legal text, elaborating on the proposed amendments to CUSC Section 14.30.3 to charge BMUs on a net basis where the sites form part of a mixed-use trading unit. The NESO representative introduced new terms to support this modification and provided examples to clarify how the new terms and proposed changes would be implemented in practice, including scenarios involving multiple final demand BMUs.

### Terms of Reference Discussion

The Terms of Reference (ToR) were presented in Workgroup 1 and a Workgroup Member proposed adding a comparison of how similar setups are handled at the distribution level to ensure consistency and identify any anomalies. After review, the Workgroup agreed that this is reflected in the ToR.

The NESO Representative, suggested including a reference to competition within the ToR, highlighting the importance of promoting competition within the industry. However, a Workgroup Member clarified that the modification impacts customers and not competition between Suppliers or Generators.

There were no new ToR put forward, and the Workgroup Members agreed to the existing Terms of Reference agreed by the CUSC Panel.

### Discussion on Workgroup Consultation Questions

The Workgroup Members debated the relevance of the question, "Do you believe this modification will create a collocated benefit that could create a barrier to entry for other Generators?" A Workgroup Member suggested replacing it with, "Do you agree that the modification results in a more cost reflective charging of BSUoS for customers who do not use the Total System by virtue of their connection agreement?"

The second question, "Do you believe this modification creates a benefit for the entire industry that outweighs the collocated benefit to the trading unit?" was also debated. A Workgroup Member suggested that the focus should be on cost reflectivity rather than "benefits". Another Workgroup Member suggested that the two concepts are not mutually exclusive and that the question should remain to ensure due diligence.

A Workgroup Member was concerned that the change proposed could create a new collocated benefit to a small group of customers. This benefit to some, at the expense of other customers, may not be to the benefit of the majority. However, one Workgroup

## Public

Member believed the obligation on NESO to have cost reflective charging was more important.

The Workgroup Members decided to include the concerns and discussions in the Workgroup considerations section of the document, reflecting both perspectives.

The NESO Representative raised concerns about the ambiguity in the definition of “Trading Units” and the potential for creating an incentive to avoid BSUoS costs if the definition was not well defined.

A Workgroup Member advised trading units consist of 6 classes:

- Class 1-3 Generators will always have collocated demand and generation within the same site.
- Class 4 Trading Units are not transmission connected; they are embedded generation.
- Class 5 Trading Units are Interconnector and not relevant regarding the Proposal as not subject to BSUoS.
- Class 6 Trading Units are units that don’t meet the definitions 1-5, these can be Production and or Consumption BM Units that are included within Trading Unit Class 6 which might use the system as a consequence they should be the process is managed through [BSCP31](#). As BSUoS charges are only applied to final demand, Class 6 sites might not be a suitable definition for this benefit as this does not stipulate that the Trading Unit assets need to be co-located.

## Workgroup Consultation Summary

The Workgroup held their Workgroup Consultation between 14 July – 04 August 2025 and received 2 responses. The full responses and a summary of the responses can be found **Annex 05** and **Annex 06**.

Two non-confidential responses were received. One respondent believed that the original proposal better facilitated the applicable objectives. The other respondent raised concerns that the modification does not improve overall BSUoS efficiency but instead shifts the cost burden onto fewer participants, creating stronger financial incentives to form Trading Units and potentially leading to inequitable outcomes for customers.



Public

## Post Workgroup Consultation Discussion

### Consultation Responses

The Workgroup reviewed the two non-confidential Workgroup Consultation responses, focusing on key concerns raised around cost allocation, implementation timelines, and financial incentives.

The Workgroup discussed who would be eligible for this BSUoS saving and whether it should be defined as Trading Units Class 1-3 and Class 6 or whether it should be defined as co-located.

A Workgroup Member reflected on the issue of customers being charged for systems they do not use, agreeing with the consultation response on the importance of cost reflective charging. Referencing the BSC Task Force's intent for cost-reflective charging and highlighting that charging customers not using the system was not anticipated, drawing parallels to the changes under CMP333: BSUoS – charging Supplier Users on gross demand (TCR).

A Workgroup Member disagreed with a consultation response that the modification would impact competition in generation, highlighting that connection capacity is the primary barrier. However, a Workgroup Member raised concerns that this would still be a financial barrier to entry for existing generation.

A Workgroup Member noted that the proposal changes the charging basis from gross to net, on a number of defined sites, not the allocation method. However, a Workgroup Member noted that if there is more than one final demand BMU in the Trading Unit the net BSUoS charge will be allocated based on the ratios of the BMU's gross demand.

A Workgroup Member highlighted their view that if the proposed change is not made, companies may consider reconfiguring their sites, which would result in unnecessary expenditure to adapt their wiring due to historical differences.

A Workgroup Member raised concerns around the implementation date of the modification, requesting formal input from NESO IT regarding the feasibility of implementing the change at short notice; the Workgroup Member believed that the impact would be limited to a small number of sites, suggesting 10 or so. NESO's concern had been raised at a previous meeting by the NESO Representative and was formally recorded in their Workgroup consultation response.

Public

The Chair confirmed that the Legal Text had not changed since the Workgroup consultation and sought agreement from the Workgroup Members to proceed to the vote, with no objections raised. The Legal text for this change can be found in **Annex 03**.

## Terms of Reference Overview

<p><b>1) Consider EBR implications:</b></p> <p>The Workgroup confirmed there are no Electricity Balancing Regulation (EBR) impacts resulting from CMP453. This was discussed and agreed in Workgroup 3.</p>
<p><b>2) Consider whether CMP453 proposed solution is consistent with the principles that were recommended for the charging of BSUoS under the Balancing Services Charges Task Force and as reflected in the solution derived under modification proposal CMP333:</b></p> <p>The Workgroup has discussed the balancing services reviews and concluded that BSUoS sent no effective cost-reflective signals and should be treated as a cost recovery charge. The review also concluded that this charge should be levied on final demand customers as volumetric charge (as opposed to a fixed banded by site charge). <u>CMP333</u> modified BSUoS so that it was levied on suppliers on a gross demand basis rather than a net demand basis. The Workgroup has discussed these themes as can be evidenced by the Workgroup Report and consultation responses.</p>
<p><b>3) Consider the practicalities of making physical configuration changes to a site to meet to the intent of CMP453:</b></p> <p>The Workgroup considered whether sites would need to make physical changes to meet CMP453's intent. While some concerns were raised about potential rewiring as a workaround, the group agreed that the proposal does not require impractical changes.</p>

Public

## What is the impact of this change?

The Proposer believes this change will improve the cost reflectivity of BSUoS charges by not charging points of connection where their net flows at that point are not contributing to system balancing costs. Their impact on the system of these sites is already recognised by the way energy imbalance charges are calculated under the BSC. By the few impacted sites paying less BSUoS, other customers will pay more.

However, the Workgroup believe the impact is minimal as many of the customers at these sites are EIs and therefore face either no, or lower, BSUoS costs. Nevertheless, for some industrial customers these can still be material, so it would be in the interests of industrial policy not to charge them for costs that they are not driving.

The Proposer notes that there may be similar issues for Final Demand where it is collocated with generation at a Grid Supply Point (GSP) but registered into the Supplier Volume Allocation (SVA) system. However, Supplier BMUs at Grid Supply Points (GSPs) are usually made up of multiple points of connection across a Distribution Network Operator (DNO) network. Each individual meter therefore does have an impact on balancing costs across the network as a whole. This modification is only seeking to remove BSUoS from sites where the meter is importing directly next to a generation meter, so it is not impacting the operation of the system.

Implementation should not be difficult as these sites used to be charged on a net basis. However, Ofgem's BSUoS Task Force took the view that the netting at all GSPs was incorrect as the DNO connected customers being netted off against generation at the Suppliers' BMUs was not cost reflective. The reality is those customers and generation are spread over the DNOs' networks. As NESO balances for the whole system, with customers on the DNO networks taking, for example, reactive power, reserve and response, all bought by NESO, this is a different "use of system" than those customers who are part of transmission connected Trading Units, when the Trading Unit is exporting.

Public

Proposer's assessment against CUSC Charging Objectives	
Relevant Objective	Identified impact
(d) 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;	<b>Positive</b> This modification would improve competition by correctly charging balancing costs to the parties responsible.
(e) 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 C11 requirements of a connect and manage connection);	<b>Positive</b> The system charging methodology works on the basis that charges should be cost reflective. This modification would improve cost reflectivity.
(f) 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*;	<b>Positive</b> It will not benefit the total system if these customers choose to rewire their sites, making no difference to their system impact, but adding costs to British business.
(g) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and	<b>Neutral</b> n/a
(h) Promoting efficiency in the implementation and administration of the system charging methodology.	<b>Positive</b> The improved cost reflectivity improves efficiency.

\* See Electricity System Operator Licence

\*\*The Electricity Regulation referred to in objective (g) 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.

Public

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	Identified impact
Improved safety and reliability of the system	<b>Neutral</b> n/a
Lower bills than would otherwise be the case	<b>Positive</b> It will lower the bills of large industrial customers who are currently being charged for costs they are not driving.
Benefits for society as a whole	<b>Positive</b> It is to the benefit of UK plc (a collective term to describe British commercial organisations) that industrial customers are correctly charged for the costs they are causing and that industrial users are not paying more for power than they need to.
Reduced environmental damage	<b>Positive</b> It would be of benefit to the environment if these customers do not use additional resources rewiring their sites to make their impact on the system better reflected in their charges.
Improved quality of service	<b>Neutral</b> n/a

## Workgroup Vote

The Workgroup met on **27 August 2025** to carry out their Workgroup Vote. The full Workgroup Vote can be found in **Annex 07**. The table below provides a summary of the Workgroup Members view on the best option to implement this change.

*For reference the Applicable CUSC (charging) Objectives are:*

- d. *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;*
- e. *That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding*

## Public

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);

f. 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\*;

g. Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency \*\*; and

h. Promoting efficiency in the implementation and administration of the system charging methodology.

\* See Electricity System Operator Licence

\*\*The Electricity Regulation referred to in objective (g) 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.

The Workgroup concluded by majority that the Original Proposal better facilitated the Applicable Objectives than the Baseline.

Option	Number of voters that voted this option as better than the Baseline (out of 6)
Original	4

## When will this change take place?

### Implementation date

01 April 2026

### Date decision required by

30 September 2025

### Implementation approach

Changes to CUSC Section 14 and identification of impacted sites. As noted above, this is how these sites used to be charged, so once identified it should not be difficult to go back to this way of charging.

Public

## Interactions

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> CUSC                   | <input type="checkbox"/> BSC                              | <input type="checkbox"/> STC                 | <input type="checkbox"/> SQSS             |
| <input type="checkbox"/> European Network Codes | <input type="checkbox"/> EBR Article 18 T&Cs <sup>1</sup> | <input type="checkbox"/> Other modifications | <input checked="" type="checkbox"/> Other |

Possible interaction with the BSC as it defines Trading Units.

## Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
BSUoS	Balancing Services Use of System
BMU	Balancing Mechanism unit
CMP	CUSC Modification Proposal
CUSC	Connection and Use of System Code
DNO	Distribution Network Operator
EBR	Electricity Balancing Guideline
EII	Energy Intensive Industries
GSP	Grid Supply Point
Genco's	Generation Companies
MSA	Mandatory Services Agreements
STC	System Operator Transmission Owner Code
SCCL 1 to 4	Saltend Cogeneration Company Limited generation/demand units (SCCL 1 to 4)
SVA	Supplier Volume Allocation
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions

Public

## Annexes

Annex	Information
Annex 01	CMP453 Proposal form
Annex 02	CMP453 Terms of Reference
Annex 03	CMP453 Legal Text
Annex 04	CMP435 Elexon Trading Units Table
Annex 05	CMP453 Workgroup Consultation Responses
Annex 06	CMP453 Workgroup Consultation Responses Summary
Annex 07	CMP453 Workgroup Vote
Annex 08	CMP453 Action Log
Annex 09	CMP453 Workgroup Attendance