

CMP308: Removal of BSUoS charges from Generation

01	Initial Written Assessment
02	Workgroup Consultation
03	Workgroup Report
04	Code Administrator Consultation
05	Draft Modification
06	Final Modification Report

Purpose of Modification: Purpose of Modification:




This proposal seeks to modify the CUSC to better align GB market arrangements with those prevalent within other EU member states. This will deliver more effective competition and trade across the EU and so deliver benefits to all end consumers.








It is proposed that liability to pay Balancing Services Use of System (BSUoS) charges, which are currently charged to all liable CUSC parties on a non-locational MWh basis, is removed from GB Generators. This will effectively better align the GB ‘generation cost stack’ with those in other EU markets where generators do not pay the equivalent of BSUoS charges, thus better facilitating competition between GB generators and generation in those markets which are not subject to such charges.

There should be no adverse effects for GB end consumers, subject to implementation taking account of existing contractual commitments. Aligning the GB market arrangements with our European trading partners and other interconnected countries better facilitates an efficient functioning internal market in electricity. To that end, GB consumers will benefit from more competitive arrangements delivered through a wider fully functioning competitive market in generation.

Whilst the EU Third Package arrangements recognise that different types of market organisation will exist within the wider internal market in electricity, they also acknowledge the need to reduce market distortions to deliver the full benefits of a competitive internal market in electricity.

This is critical in the context of growth in GB interconnection capacity which is set to significantly increase (4GW today, 8GW by 2021 and, with Ofgem’s approved pipeline, potentially up to 18GW by the early 2020s), which represents almost a third of peak GB demand.

	<p>This document contains the discussion of the Workgroup which formed in December 2018 to develop and assess the proposal. Any interested party is able to make a response in line with the guidance set out in Section 5 of this document.</p> <p>Published on: 5 April 2019</p> <p>Length of Consultation: 20 Working days</p> <p>Responses by: 8 May 2019</p>
	<p>High Impact: The proposer's estimate is that GB generation was disadvantaged, compared to our European trading partners and other interconnected countries, by an extra cost of approximately £600m in 2017.</p> <p>GB interconnection growth is set to significantly increase from 4GW today to 8GW by 2021 and, with Ofgem's approved pipeline, up to 18GW by the early 2020s.</p> <p>In the long run removal of a distortion in the wholesale market will ensure more effective competition which is in consumers' interests: i.e. will ensure dispatch and investment in new generation is more efficient.</p>
	<p>Medium Impact: As a result of CMP202, the G:D split in terms of the total BSUoS payments made by generation versus those made by demand in 2017 was around 49:51 and is expected to be 47:53 by 2020.</p> <p>The proposer estimates that this will reduce the cost increase for suppliers to a value that is roughly equal to the reduction in GB wholesale prices.</p> <p>With sufficient lead time for implementation, the proposer's modelling indicates that the consumer impacts in the short-term are neutral.</p>

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Timetable		
The Code Administrator recommends the following timetable:		
Workgroup Consultation Closes	8 May 2019	
Workgroup Report to Panel	29 June 2019	
Code Administration Consultation Report issued to the Industry (15 Working Days)	2 July 2019	
Draft Final Modification Report presented to Panel	22 August 2019	
Modification Panel decision	29 August 2019	
Final Modification Report issued to Authority (25 WD)	2 September 2019	
Indicative Decision Date	6 October 2019	
Decision implemented in CUSC (2 years after decision)	1 April 2022	

1 About this document

This Workgroup Consultation contains the discussion of the Workgroup which formed in December 2018 to develop and assess the proposal.

Section 2 (Original Proposal) and Section 3 (Proposer's solution) are sourced directly from the Proposer and any statements or assertions have not been altered or

substantiated/supported or refuted by the Workgroup. Section 4 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

The CUSC Panel detailed in the Terms of Reference the scope of work for the CMP308 Workgroup and the specific areas that the Workgroup should consider.

The table below details these specific areas and where the Workgroup have covered them or will cover post Workgroup Consultation.

The full Terms of Reference can be found in Annex 1.

Table 1: CMP308 ToR

Specific Area	Location in the report
a) Identifying the impact on demand and generation	Section 4
b) Identifying the impacts on Storage	Section 4
c) Identifying the impact on distribution connected parties	Section 4
d) Identifying the potential changes to the shape and distributional impacts of BSUoS	Section 4

2 Original Proposal

Section 2 (Original Proposal) and Section 3 (Proposer's solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 4 of the Workgroup Consultation contains the discussion by the Workgroup on the Proposal and the potential solution.

Defect

In our European trading partners and other interconnected countries, the equivalent charges for balancing activities are more commonly charged entirely on demand.

As a result, the wholesale prices offered by generators in interconnected countries will not reflect these costs in the same way as those offered by a GB generator. Our estimate is that GB generation was disadvantaged by the extra cost by approximately £600m in 2017.

Why change

Better aligning the GB market arrangements and the charges faced by GB generation with those prevalent in other interconnected countries, where generation is typically not subject to such charges, would allow GB and continental generation to compete on a more equitable basis and would remove the potential for BSUoS to distort cross border trade.

Ofgem broadly supported a similar proposal (CMP201) in 2014 but considered the short-term consumer negative impact outweighed the longer-term benefits:

“We consider that in principle, removing BSUoS from generators would have a small positive impact on competition. However, we are concerned that at this time the potential benefits this would bring would not be material enough to offset the potential costs to consumers from implementing the modification” – from Ofgem’s CMP201 decision document, October 2014.

However, NGET’s calculations, on which Ofgem’s decision was based, were that CMP201 would be detrimental to consumers in the short term. This did not take into account the impact of CMP202 (Revised treatment of BSUoS charges for lead parties of Interconnector BM Units), so:

- CMP201 modelling (for status quo) assumed BSUoS was split 50:50 between demand and generation.
- As a result of CMP202 the G:D split for BSUoS charging in 2017 was around 49:51 and is expected to be 47:53 by 2020.
- This reduces the cost increase for suppliers to a value that is roughly equal to the reduction in GB wholesale prices.

Why

The proposal supports the UK Industrial Strategy for building a nation fit for the future with investment in skills, industries and infrastructure.

The EU “Third Package” aims to deliver all consumers greater choice with more cross-border trade to achieve efficiency gains, competitive prices and security of supply. It recognises that different market structures will exist; however, it also acknowledges the need for fair competition across the European Community so as to provide producers with the appropriate incentives for dispatching and investing in new generation.

Changing the GB arrangements as proposed thus facilitates the aims outlined in EU Directive 2009/72/EC concerning rules for the internal market in electricity.

With sufficient lead time for implementation, our modelling indicates that the consumer impacts in the short-term are neutral.

In the long run removal of a distortion in the wholesale market would ensure more effective competition which is in consumers’ interests: i.e. it would ensure dispatch and investment in new generation is more efficient.

How

It is proposed that Balancing Services Use of System (BSUoS) charges, which are currently charged to all liable CUSC parties on a non-locational £/MWh basis, are removed from GB Generators. This will effectively align this part of the cost base that lies behind the GB ‘generation cost stack’ with that of generators in other EU markets, thus facilitating more equitable competition with generation in other markets which are not subject to such charges.

3 Proposer’s solution

Section 2 (Original Proposal) Section 3 (Proposer’s solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 4 of the Workgroup Consultation contains the discussion by the Workgroup on the Proposal and the potential solution.

This proposal seeks to modify the CUSC to align GB market arrangements with those prevalent within other EU member states. This will deliver more effective competition and trade across the EU and so deliver benefits to all end consumers.

It is proposed that Balancing Services Use of System (BSUoS) charges, which are currently charged to all liable CUSC parties on a non-locational MWh basis, are removed from GB Generators. This will effectively better align the GB ‘generation cost stack’ with those in other EU markets, thus facilitating more equitable competition with generation in those markets which are not subject to such charges.

In the FMR (Final Modification Report) for CMP201, a very similar proposal, National Grid indicated that there would be an impact on central IS systems to adjust revenue

recovery to demand parties. They stated that this impact is likely to be relatively minor (less than £100k) and would not comprise a “critical path” item for implementation (assuming a minimum two year lead time for contractual reasons).

Also, in the CMP201 FMR no significant IS issues for Users were identified as part of the Workgroup consultation.

Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No

Consumer Impacts

With sufficient lead time for implementation, our modelling indicates that the consumer impacts in the short-term are likely to be neutral.

In the long run removal of the identified distortion in the wholesale market would ensure more effective competition which is in consumers’ interests: i.e. will ensure dispatch and investment in new generation is more efficient.

- Demand BSUoS will be less than double of current BSUoS £/MWh rates as interconnector flows to GB do not pay BSUoS (i.e. split of BSUoS between demand and generation is not currently 50:50), i.e. consumers neutral short term.
- Sufficient lead time of 2 years after a decision is made to ensure:
 - wholesale market adjusts to the removal of BSUoS from generation
 - time for consumers and suppliers to adjust for change.
- Benefit of avoiding the need to factor BSUoS risk into generation/wholesale market costs, instead being covered within more predictable demand volumes.

4 Workgroup Discussions

The Workgroup convened 4 times between December 2018 and March 2019 year to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the Applicable CUSC Objectives. The Workgroup will in due course conclude these tasks after this consultation (taking account of responses to this consultation).

The Workgroup discussed a number of the key attributes under CMP308 and these discussions are described below.

1. Context – CMP201 and CMP202

1.1 What did CMP201 try to achieve?

1.1.1 CMP201: Removal of BSUoS charges from Generation was raised by National Grid Energy Transmission in October 2011. Like CMP308, CMP201 sought to remove BSUoS liabilities from Generation in order to bring GB Market arrangements in line with those prevalent within other EU member states. It was argued in the proposal for

CMP201 that this would deliver more effective competition and trade across the EU and so deliver benefits to all end consumers.

1.1.2 The Proposer of CMP201 argued that removing BSUoS charges from generation would yield no adverse effects for GB end consumers, subject to implementation taking account of then existing contractual commitments. The argument was put forward that aligning the GB market arrangements with other member states better would facilitate an efficient functioning internal market in electricity and to that end, GB consumers would benefit from more competitive arrangements delivered through a wider fully functioning competitive market in generation.

1.1.3 After going through the standard CUSC modification procedure, CMP201 was rejected by Ofgem on 2 October 2014¹. Despite rejection of the modification, Ofgem stated in this letter that they “firmly support the move towards more closely integrated European markets for electricity”, and that “removing BSUoS from generators would have a small positive impact on competition”². However, the Authority highlighted that the “potential benefits this would bring would not be material enough to offset the potential costs to consumers from implementing the modification”. The Authority came to the conclusion that the short-term negative impacts to the market of implementing CMP201 would not be negated by the longer-term benefits of the modification at that point in time.

The modelling suggested that the costs to GB consumers could be between £200m - £250m per year (equating to £2.00-£2.50 increase in bills for the average domestic consumer) with an annual increase in generator profits of between £181m and £281m³.

1.1.4 At the time CMP201 was raised, BSUoS charges were levied on a 50:50 split basis generators and suppliers. Generators would charge on their share of BSUoS charges to suppliers through the wholesale price and suppliers then pass the cost to the consumer through the retail price. The proposer and some workgroup members believe that the parameters in this scenario, under which Ofgem rejected CMP201, have now changed, leading for the need for the defect to be re-examined.

1.2 What has changed since CMP201?

1.2.1 CMP202 was raised by National Grid Energy Transmission in December 2011 to remove BSUoS charges from interconnector Balancing Mechanism (BM) Units and Trading Units associated with interconnectors. This modification was implemented into the CUSC charging arrangements on 1 April 2013. The proposer of CMP308 believes that in 2017, the results of the implementation of CMP202 has shifted the balance of BSUoS G:D charging split was 49:51, and is expected to shift even further to demand, with a 47:53 split expected by 2020.

¹ Ofgem Decision Letter on CMP201 – 2 October 2014 -

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/removal-bsuos-charges-generation>

² Ibid, p1.

³ <https://www.nationalgrideso.com/document/6156/download>, p4

1.2.2 The Proposer revisited the findings of the CMP201 modelling and presented this to the workgroup. Although awareness of CMP202 was noted by the workgroup in the CMP201 report (as referenced in Annex 13) and Ofgem decision letter, the Proposer argued that an assumption of CMP201 was that BSUoS charges were at that time split 50:50 between production and demand. As mentioned in 1.1.6, following CMP202 the production volume from interconnection is no longer liable for BSUoS charges and thus this assumption no longer held. This assumption affects the modelled consumer impacts in the short-term identified by National Grid Transmission’s modelling at the time. Revising this assumption means that the consumer impacts in the short-term are close to neutral, whereas Ofgem has seen this as negative in their assessment of CMP201. The longer-term benefits from more effective competition will remain⁴.

The case for change has grown since CMP201:			
	Interconnection (GW)	Interconnection volume (TWh)	BSUoS (£/MWh)
CMP201 (2012)	3GW (2GW to mainland EU)	10	£1.51/MWh
Now (2017)	4GW (3GW to mainland EU)	16	£2.48/MWh
Future	c.8GW 2020 c.18GW early 2020s	30-70TWh (2021-2025) ¹	Growing

Figure 1 – Table produced by proposer illustrating case for change growing since CMP201

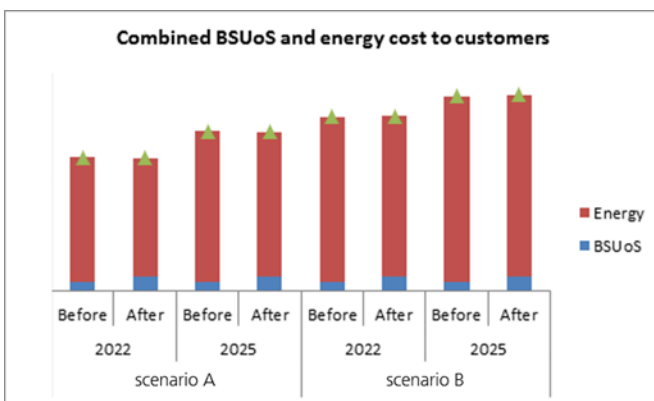


Figure 2: Proposer Analysis of Combined BSUoS and Energy Costs to Consumers (Long-Term Benefit)

1.3 Have the Consumer Benefits Changed Since CMP201 was rejected, and CMP202 was implemented?

⁴ NGENSO confirmed that throughout the modification analysis for CMP201, the work took into account the effects of CMP202. CMP201 was raised as a response to the intention to raise CMP202 so the effects were always considered throughout the process.

1.3.1 In the initial discussions around the modification, the Proposer highlighted several consumer benefits of the modification. For our European trading partners and other interconnected countries, the equivalent charges for balancing activities are more commonly paid entirely by suppliers.

1.3.2 The proposer opined that as a result, the wholesale prices offered by generators in interconnected countries will not reflect these costs in the same way as those offered by a GB generator. The proposer's estimate is that GB generation is disadvantaged by the extra cost of around £600m in 2017. The proposer set out his view that removing the costs from generation would hence better facilitate efficient competition between GB generation and generation in other interconnected markets.

1.3.3 The proposer stated that better aligning the GB market arrangements and the charges faced by GB generation with those prevalent in other interconnected countries, where generation is typically not subject to such charges, allows GB and continental generation to compete on a more equitable basis and removes the potential for BSUoS to distort cross border trade. By and large, similar points were made throughout the CMP201 process.

1.3.4 The proposer also highlighted that the modification supports the UK Industrial Strategy⁵ which was not in place when CMP201 was rejected. The proposer also highlighted the EU "Third Package" aims to deliver all consumers greater choice with more cross-border trade so as to achieve efficiency gains, competitive prices and security of supply.

1.3.5 The workgroup revalidated the longer-term benefits used in CMP201 during the Workgroup process. Within the CMP201 Ofgem decision letter the following was stated: *We support the fundamental economic principle that increasing competition should lead to lower wholesale prices in the long run.*

Specifically, in relation to longer-term impacts Ofgem made the following points:

- *Higher profits for generators should encourage greater investment in GB generation – either in the form of new plant build or delayed closure/refurbishment of existing infrastructure;*
- *The increased investment would exert competitive pressure on the GB wholesale electricity price which would reduce or potentially eliminate the short-term increase noted above.*

1.3.6 Also, within the CMP201 Final Modification Report the following were highlighted, as a part of the EU Third Package, as important benefits for end consumers in the long term:

- *market prices should give the right incentives for investing in new generation;*
- *promoting fair competition and fostering new generation capacity in order to allow consumers to take full advantage of the opportunities of a liberalised market;*
- *fostering integration of their internal markets*
- *development of a true internal market through cross-border trade;*

⁵ <https://www.gov.uk/government/topical-events/the-uks-industrial-strategy>

- *Common rules for a true internal market that provides undistorted market prices, providing incentives for cross-border interconnection and new generation investment*

1.3.7 The proposer reiterated the benefits to both Industrial Strategy and Security of Supply as referenced in the report in section 3, page 5. After discussions the workgroup agreed that these potential benefits would still exist should CMP308 be implemented.

2. Analysis required to support CMP308

2.1 Recovery from Generation in Other European Countries

Recovery from Generation?	System Services						
	Primary reserve	Secondary reserve	Tertiary reserve	Congestion	Black start	Voltage control	System Balancing
Albania	No	No	No	No	No	No	No
Austria	No	Yes	No	No	No	No	No
Belgium	Yes	Yes	Yes	Yes	Yes	Yes	No
Bosnia and Herzegovina	No	No	No	No	No	No	No
Bulgaria	No	No	No	No	No	No	No
Croatia	No	No	No	No	No	No	No
Cyprus	No	No	No	No	No	No	No
Czech Republic	No	No	No	No	No	No	No
Denmark	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Estonia	No	No	No	No	No	No	No
Finland	No	No	Yes	Yes	Yes	Yes	Yes
France	No	No	No	No	No	No	No
Germany	No	No	No	No	No	No	No
Great Britain	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Greece	No	No	No	No	No	No	No
Hungary	No	No	No	No	No	No	No
Iceland	No	No	No	No	No	No	No
Ireland	Yes	Yes	Yes	Yes	Yes	Yes	No
Italy	No	No	No	No	No	No	No
Latvia	No	No	No	No	No	No	No
Lithuania	No	No	No	No	No	No	No
Luxembourg	No	No	No	No	No	No	No
Macedonia (FYROM)	No	No	No	No	No	No	No
Montenegro	No	Yes	Yes	No	No	No	Yes
Netherlands	No	No	No	No	No	No	No
Northern Ireland	No	No	No	No	No	No	No
Norway	Yes	Yes	Yes	Yes	Yes	Yes	No
Poland	No	No	No	No	No	No	No
Portugal	No	No	No	No	No	No	No
Romania	No	Yes	Yes	No	Yes	Yes	No
Serbia	No	No	No	No	No	No	No
Slovakia	Yes	Yes	Yes	No	Yes	Yes	No
Slovenia	No	No	No	No	No	No	No
Spain	No	No	No	No	No	No	No

Sweden	Yes	No	No	No	Yes	Yes	No
Switzerland	No	No	No	No	No	No	No

Figure 3: Balancing Charges Levied on Generation in Other European Countries

2.1.1 As Figure 3 illustrates⁶, the current situation whereby BSUoS is charged on Generation in the GB market, albeit not unique in its specificity, is certainly in the minority when compared to other European Countries. In terms of GB arrangements, the only country which directly has the same arrangements is Denmark.

2.1.2 The majority of countries (26 out of the 36 illustrated above, or roughly 72%) charge no components of their balancing services charges equivalent on generation. In terms of electricity wholesale prices, this would place the GB wholesale market prices higher, ultimately impacting market participants and end consumers alike. This perceived disadvantage becomes even more pertinent when you consider the disparity between GB and some of our interconnected counterparts, such as the Netherlands and France.

2.1.3 The proposer undertook analysis in order to calculate a £s Million figure to this perceived disadvantage. This figure, which is the BSUoS figure paid by GB Generators in 2017, was approximately £600m.

2.2 Analysis of 2017 data, with and without the change implemented

2.2.1 As previously set out in the initial proposal, CMP308 seeks to remove the liability for BSUoS payments from generation. The thought process is to better align GB arrangements to those which are prevalent in our European equivalents, which should in turn see a reduction in the wholesale energy costs charged by generators to suppliers in the GB energy market for Balancing Services. In order to establish the case behind the hypothesis of this proposal, the workgroup undertook various pieces of analysis.

2.2.2 The workgroup initially examined analysis undertaken by the proposer, which looked into BSUoS data from 2017 without the proposed change implemented (generation and demand still paying BSUoS), and BSUoS data from 2017 with the proposed change implemented (with only demand paying BSUoS) to see what the impacts would be. This Analysis can be found in full in Annex 1. The analysis shows that if the change had been implemented for 2017, the reduction in wholesale electricity prices does not need to be the full BSUoS £/MWh rate, which may be the case due to increased GB generation being at a higher marginal cost when offsetting changes in interconnector flows. With an efficiently operating market⁷ this means that there would still be a consumer benefit manifesting itself in the total cost to the consumer in the short-term, unless the differential was greater than 15p a MWh.

2.3 Analysis on likely effect of CMP308 on risk management costs and processes

2.3.1 A workgroup member put forward to the workgroup that although CMP308 is primarily focussed on removing a distortion to cross border trade, there is also an argument that it simplifies the processes needed to manage the risk that BSUoS

⁶ ENTSO-E Overview of Transmission Tariffs in Europe: Synthesis 2018

https://docstore.entsoe.eu/Documents/MC%20documents/TTO_Synthesis_2018.pdf

⁷ <https://www.gov.uk/cma-cases/energy-market-investigation>

imposes on the market in its current form, and therefore reduces the cost associated with this.

2.3.2 Figure 3 below shows in a simplified form how the market presently has to manage the unpredictability and risk associated with BSUoS. It shows that there are essentially three main points where participants may be required to do so. Firstly, suppliers have to forecast what BSUoS might be and reflect this in the prices and tariffs they set for their customers, often some considerable time in advance.

2.2.3 Secondly, generators are required to forecast what they believe BSUoS will be and reflect this in the offers they make into the energy market, as well as into the Balancing Mechanism and other balancing arrangements (such as TERRE in the future). They do so over different timescales and in different market mechanisms, so this part of the diagram actually reflects multiple market interactions. Finally, Suppliers may try to understand how energy prices and balancing related costs that they are exposed to, such as imbalance prices, will be affected by BSUoS being priced in by generators in this way.

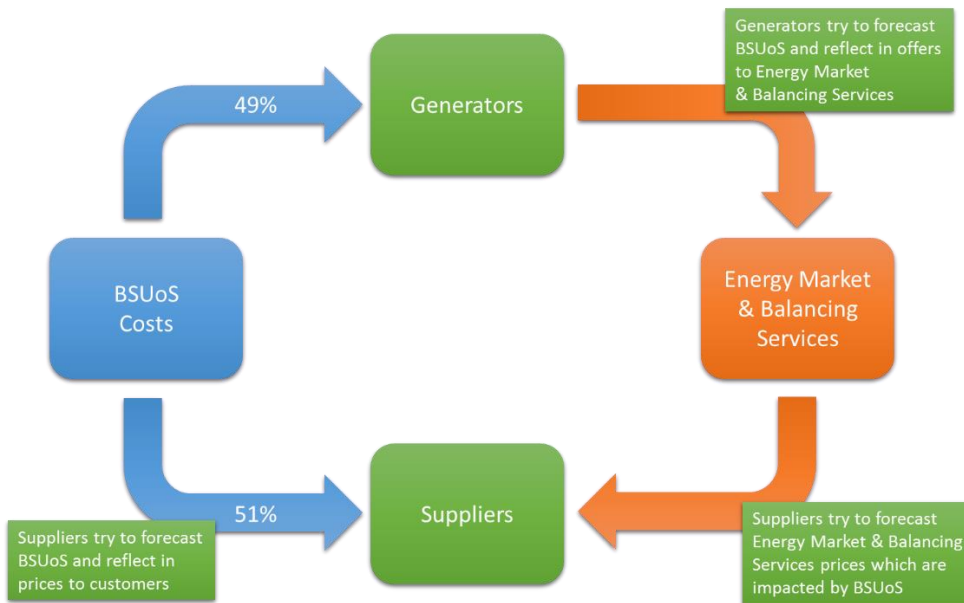


Figure 3: Present Charging of BSUoS

2.3.4 At all of these points, parties have to manage the risk associated with these transactions. This adds transaction costs as people and systems are required to carry out these functions. It should be noted, however, that feedback from supplier workgroup members suggest that some suppliers may not explicitly try to understand BSUoS impacts when forecasting energy and imbalance prices. What is clear from Figure 2, is that BSUoS costs ultimately find their way to suppliers and therefore customers, albeit some of it through a more complicated and indirect route via generators.

2.3.6 Figure 4 below shows the alternative situation should CMP308 be approved. Unsurprisingly, by charging 100 percent of the costs directly to suppliers, rather than a proportion being channelled indirectly to them through other market mechanisms, the processes are greatly simplified. Self-evidently, this should reduce overall transaction

costs which will inevitably occur through the more convoluted process needed for the current charging regime.

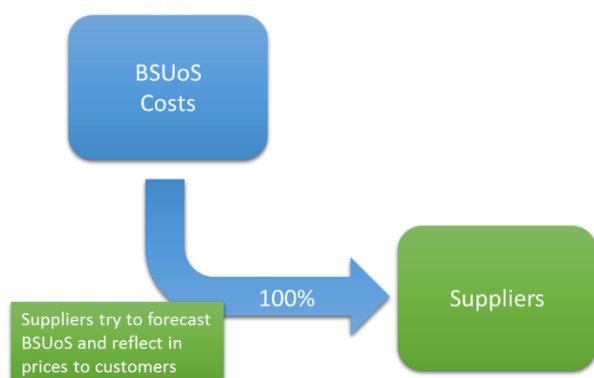


Figure 4: Charging of BSUoS under CMP308

2.3.7 The assessment process for CMP250 focussed on undertaking a quantitative analysis to estimate the savings in costs associated with lower risk premia. This proved problematic as it was difficult to obtain information on the risk premia that different parties applied in these circumstances. Given competition law restrictions and commercial confidentiality around this sort of information, or indeed that risk management processes might not actually involve choosing a defined risk premium, this is not surprising. However, the above analysis shows that on a qualitative basis CMP308 should provide cost reductions for the benefit of customers, by simplifying risk management processes across the industry as a whole. Although, some workgroup members were of the view that given the analysis only considers transaction costs associated with BSUoS forecasting (i.e. people and systems), any cost savings were likely to be negligible in the context of overall GB BSUoS costs.

2.4 Impact of Supplier BSUoS Charge Increase under the Price Cap

2.4.1 Suppliers currently operate under two price cap regimes. For domestic customers with credit meters, Ofgem implemented the Default Tariff Cap from the 1st January 2019. For prepayment customers the Prepayment Price Cap came into effect on the 1st April 2017. At the beginning of every February and August, Ofgem publish the details of the cap for the forthcoming charge restriction period. The caps will provide allowances for wholesale costs and network costs (including BSUoS), as well as for other costs.

2.4.2 It is assumed that with the implementation of this modification and the subsequent removal of BSUoS charges from generators an immediate fall in forward wholesale prices would be felt. However, there can be no certainty that the wholesale prices will drop and remain at a level proportionate to the increase Suppliers will be subject to; and so, in the event the expected fall in wholesale prices does not occur there would be significant additional financial strain on Suppliers.

2.4.3 The BSUoS element of the Price Cap methodologies uses historical BSUoS charges to forecast the costs to Suppliers for the period ahead, and as such; should this

modification be implemented there will be a lag period of more than one year before the current methodology would allow Suppliers to reflect the increase in their tariff prices.

2.4.4 Like any increase in wholesale, network, policy or other operating costs Suppliers react by revising their tariff prices to reflect the increase, but the current price cap methodologies do not allow for this. If the price cap calculation methodology remains unchanged any fall in forward wholesale prices will be reflected immediately in the Price Caps, but the increase in supplier BSUoS costs will not. This will create a clear disconnect between the costs that Suppliers face and the tariffs they are allowed to charge customers to recover those costs.

2.4.5 To summarise the material issue for Suppliers; any change in wholesale prices will be reflected in the retail price, and as such this would have no effect on a supplier whose hedging strategy mimics the wholesale price indexation in the caps. It does not matter how wholesale prices change in response to this modification, as any changes would be included in the price cap methodology. The point is that BSUoS costs for Suppliers would increase immediately following implementation, but the allowance for BSUoS costs will not increase immediately.

The influence of the cap would result in a suppression of retail prices, setting them below an economically efficient level that will force losses on efficient suppliers.

2.4.6 It would seem appropriate, following acceptance of this modification, and in advance of its implementation that Ofgem revise the methodology for the price caps to fairly reflect the inclusion of the increase in BSUoS charges Suppliers will be subject to. Should no such modification to the BSUoS methodology for the price cap be apparent prior to the Authority decision on this modification, the potential detrimental impacts on suppliers described above will need to be fully considered before approval or rejection.

2.4.6 The prepayment price cap is temporary, and is due to expire at the end of 2020 when the smart meter rollout is expected to complete. However, should this date be pushed back then the prepayment price cap may be extended and similar logic to above should be applied.

2.5 Analysis of Behind the Meter and Distributed Connected Generation Impacts of CMP308

2.5.1 One workgroup member undertook analysis in regards to the behind the meter impacts of CMP308, after discussion was held during the first working group. The CMP308 proposal will significantly increase the BSUoS charge faced by suppliers. Since CMP308 is based on net supplier demand, embedded generation and demand side response will reduce the liability for this charge, by reducing the overall metered demand of suppliers. In addition, some embedded generation and demand side response may be able to access BSUoS embedded benefits directly from the ESO based on the current BSUoS charging arrangements.

2.5.2 The workgroup discussed the potential impact of CMP308 on the incentives for parties to operate embedded generation and demand side response on sites connected to the distribution system. Such sites include generation that is effectively “behind the settlement meter” whereby the effect of the generator output or demand side response is seen on a net basis at the settlement meter. While CMP308 will increase the overall

BSUoS offset for suppliers, the incentive to generate will be driven by the power price that is avoided by the supplier (the avoided cost for the supplier).

2.5.3 Since BSUoS is a half hourly charge it is expected that in an efficient market the power price will reduce as a direct consequence of the increase in BSUoS charge for suppliers for each half hour. Therefore, a reduction in the power price will offset any increase in the BSUoS liability of a supplier. Consequently the workgroup concluded that CMP308 would have a neutral impact on the incentives for parties to operate embedded generation and demand side response on sites connected to the distribution system.

2.5.4 The provider of this analysis stated their belief that this conclusion is based on the assumption that the market operates efficiently and that the reduction in the half hourly power price will always offset the increase in the supplier's liability for BSUoS. The workgroup discussed whether there was any evidence that the market would not operate efficiently in this case. A number of issues that could impact efficiency include

- the contracting strategy of the suppliers (hedged over different timescales which will include an averaging of the costs associated with BSUoS);
- the access to the power market for embedded generation and demand side response on customer sites; and
- the visibility of half hourly prices.

2.5.5 Most embedded generation and demand side response is contracted through Suppliers. At some sites, Suppliers may provide for half hourly spill or top up costs so it is difficult to identify any systematic impact of the proposed change. At other sites BSUoS costs will be forecast by Suppliers and passed through on average to customer sites. Consequently, CMP308 may create gains in some half hours for embedded generation and demand side response and losses in other half hours. However, the impact is likely to be neutral overall having taken into account these effects.

2.5.6 The increase in BSUoS embedded payments to £4.80/MWh leads to an assumed offset by a wholesale market price decrease. These figures supported the Proposer's idea that the embedded credit increase would be mitigated by the wholesale market decrease if the change was to be implemented into BSUoS charging arrangements,

2.5.7 The BSUoS Embedded Benefit is the difference between BSUoS paid by transmission-connected generators and credited to distribution-connected generators as BSUoS is charged on net volume. This credit received by embedded generators is usually equal and opposite to the charge paid by transmission-connected generators. Whilst BSUoS payments to embedded generators will increase, it will be by the same amount that the payments from transmission-connected generators reduce. The BSUoS Embedded benefit, which is in scope of the Targeted Charging Review, is reduced by £0.15/MWh so is largely unchanged, based off analysis by the proposer.

2.5.8 The workgroup noted that the TCR is consulting on a minded to position which may impact on costs and benefits for behind the meter and embedded generation. The workgroup agreed that regardless of the outcome of the TCR that the proceeding analysis is still valid.

2.6 CMP308 Impact on Day/Night Shape

2.6.1 Another Workgroup Member completed analysis on the impact on Day/Night Shape the modification would have. The provider of this analysis hypothesised that the proposal will potentially increase the increase the relative cost of energy overnight compared to the baseline today, impacting BSUoS cost for storage providers and other overnight demand users.

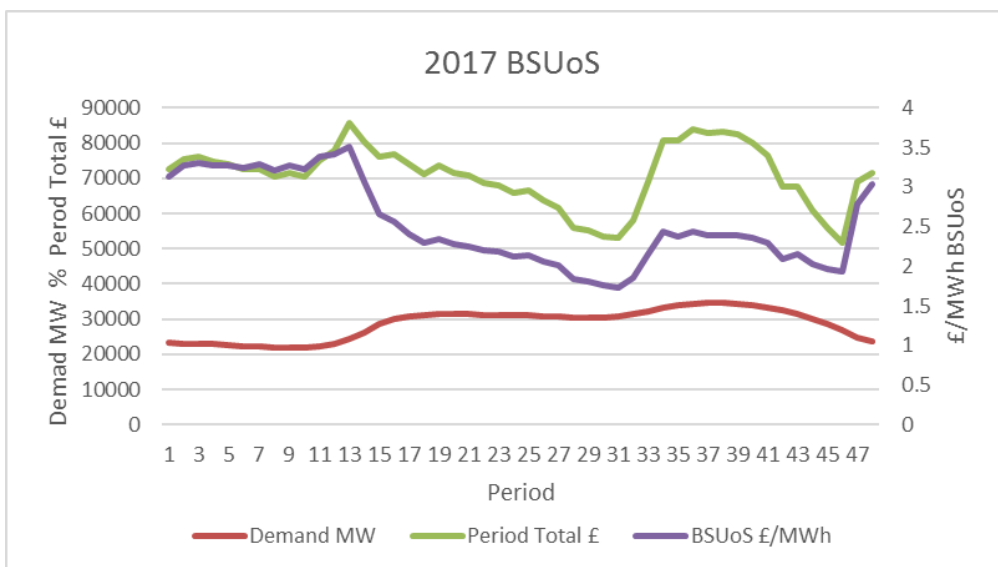
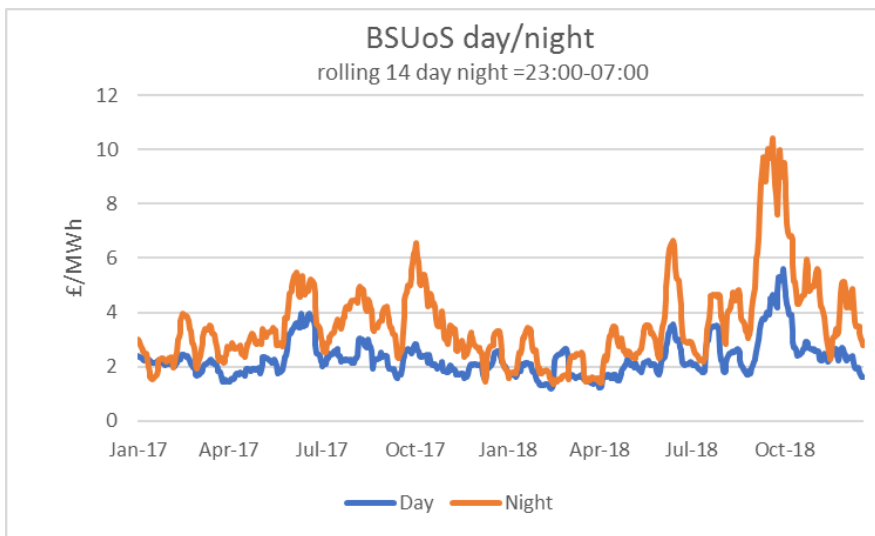
2.6.2 In theory power prices should adjust as BSUoS rates vary, so power prices should reduce under CMP308 as this removes BSUoS from generation. The CMA in their 2016 Energy Markets Investigation: Final Report⁸ stated that “*We have considered a range of aspects of electricity wholesale market design and operation. Generally we have found that the wholesale electricity market appears to be working well*” and “*generating plant appears to be dispatched in merit order, minimising short-term generating costs*”. Other than this there is little evidence to show what will occur in the short-term markets (especially in the spot markets) although the workgroup believes that over the longer term this is correct. It is likely that storage will be in a less competitive position going forward given the current design of BSUoS leads to a “non-cost reflective charge” being applied to overnight demand, absent changes envisaged by CMP281. The two issues associated with this are: -

1. BSUoS is higher overnight than during the daytime driven by a number of factors but principally the lower demand levels over night that are used as a denominator for BSUoS and the significant actions that the ESO needs to take to manage lower demand periods to create foot room and provide dynamic response and inertia. CMP 308 will lead to a doubling of the current effect that will materially affect parties that take power over night.
2. The HH volatility of BSUoS is currently not identifiably reflected in power price. It would be expected that power price would rise in the short term on high BSUoS days but this is not observed. Whilst the long run average BSUoS is reflected in power the HH volatility is not. Applying BSUoS to generation (as now) effectively smooths BSUoS during the overnight periods; this effect will be removed if BSUoS is applied to only to demand.

2.6.3 CMP281, that is currently processing through the CUSC process and will resolve this position for storage but as the proposal is assessed against the current baseline CMP308 will make the position worse for storage and demand users that take power overnight. This note explains the situation against the current base line and provides examples for discussion by the group.

2.6.4 The charts below shows the average shape of BSUoS for 2017/18 split into day night whilst the second chart shows this on an aggregated basis.

⁸ <https://assets.publishing.service.gov.uk/media/5773de34e5274a0da3000113/final-report-energy-market-investigation.pdf>



As can be seen, lower demand periods correspond in general to periods of higher BSUoS - this is driven by the requirement to recover a period total BSUoS (£) over a lower demand volume leading to a higher BSUoS cost where costs are fixed (e.g. constraints and the significant actions that the ESO needs to take to manage lower demand periods to create foot room and provide dynamic response and inertia). Removing the generation portion of BSUoS would be expected to lead to a reduction in the power price and any “risk premium” associated with it. The workgroup member believes that in the current market the average long run BSUoS price is factored into the long-term energy price but the short-term (Half Hourly to Week Ahead) does not appear to be factored in.

2.6.5 Power prices are traded in a predominately number of standard products.

Typically in baseload, peak, and extended peak there is little liquidity for overnight products. Baseload has an estimate of the value of generation BSUoS included by the seller as will the other products.

2.6.6 There are number of supplemental products available in the shorter term such as a daily shape auction and in close to real time APX trades. The volume of APX half hourly trades (where BSUoS can be reflected in a single Half Hourly price) is small, thus the majority of traded products effectively “smooth” BSUoS over a multiple time periods,

over a number of weeks and months as such current exposure to individual Half Hourly BSUoS is small.

2.6.7 One workgroup member provided analysis of an additional benefit to GB tax payers of circa £14m pa due to higher CPRS revenues to HM Treasury from higher volumes of GB generation.

3.0 Wider Industry Developments

3.1 Balancing Services Charges Task Force

3.1.1 Ofgem has asked the Electricity System Operator (ESO) to launch a Balancing Services Charges Task Force under the Charging Futures arrangements to provide analysis to support decisions on the future direction of Balancing Services Use of System charges (BSUoS). In particular, it will examine the potential for and feasibility of some elements of balancing services charges being made more cost-reflective and hence provide stronger forward-looking signals. The Task Force was launched in January 2019 and is due to report its findings in May 2019.

3.1.2 At the time of writing, this Task Force is currently ongoing. There have currently been Four Task Force meetings and a Webinar up to and including 12 March 2019. The workgroup for CMP308 were advised to keep a close eye on the outputs of the Balancing Services Charges Task Force. There are some members of this workgroup who are also Task Force members.

3.1.3 The workgroup have been updated at Workgroups 2 and 3 of the progress of the Task Force. The proposer has frequently reiterated his wish that this modification be considered in a similar timeframe by the Authority as the outputs of the Task Force. However, the distinction between the two pieces of work are quite clear: the scope of the Task Force is looking at separate elements of the BSUoS cost and whether there can be a forward-looking signal, whereas the modification addresses the defect of uncompetitive charging between GB and European generators.

3.2 CMP281 – 'Removal of BSUoS Charges From Energy Taken From the National Grid System by Storage Facilities'

3.2.1 CMP281 was raised by Scottish Power in July 2017 and aims to remove liability from storage facilities for Balancing Services Use of System (BSUoS) charges on imports. This modification was relinquished by Scottish Power in November 2018 and adopted by Engie. Both the previous and current proposer of this modification sit on the workgroup for CMP308.

3.2.2 In terms of progress of the modification, the Industry were consulted on CMP281 in October 2019. The workgroup is well developed and has been ongoing for some time. The question as to whether the solution should encompass Supplier Volume Allocation as well as Central Volume Allocation had proved somewhat problematic. However, after discussions within the workgroup, a SVA solution is also being developed to complement the CVA allocation, following discussions with the Authority.

3.2.3 In their open letter on storage and charging reform, Ofgem stated that CMP281 "would appear to broadly align with our stated principles, insofar as BSUoS is a cost recovery charge. But we expect the workgroup to monitor the outcomes of the BSUoS

Task Force closely”⁹. As such, the CUSC Panel in January 2019 stated that the report from the Workgroup should not come back before the Task Force concludes. The workgroup for CMP308 will be aware of developments in CMP281, and would expect Ofgem to make a decision on the modifications in line with the ongoing work of the Task Force as outlined in paragraph 3.1 of section 4 of this report.

3.3 Targeted Charging Review

3.3.1 The Targeted Charging Review (TCR): Significant Code Review (SCR) is an Ofgem-led project that assesses how residual network charges should be set and recovered in Great Britain, including BSUoS “Embedded Benefits” received by distribution-connected generators. In August 2017, Ofgem launched the TCR to address their concerns that the existing framework for residual network charges could lead to inefficient use of the network, leading to adverse impacts on consumers. Ofgem have confirmed that CMP308 does not fall into the scope of this work.

3.3.2 When this modification was raised by EDF Energy, concerns were expressed in industry as to whether this modification would have an overlap with the work within both the TCR and the then upcoming Balancing Services Task Force. Ofgem wrote to the CUSC Panel chair on 24 November 2018 advising that they believed the CUSC Panel and the proposer should consider discontinuing work on CMP308 until the outcome of the Balancing Services Task Force, the report of which would be considered closely within the work of the TCR¹⁰.

3.3.3 When the CUSC Panel considered this letter from the Authority at its meeting in November, it was made clear that they could not advise the proposer to withdraw and there was support from Panel members to continue work on CMP308, albeit not unanimously. As such, the workgroup has convened and progressed. The workgroup have considered the TCR throughout its workings.

5 Workgroup Consultation how to respond

The CMP308 Workgroup is seeking the views of CUSC Parties and other interested parties in relation to the issues noted in this document and specifically in response to the questions highlighted in the report and summarised below:

Standard Workgroup Consultation questions:

- Q1:** Do you believe that CMP308 Original proposal better facilitates the Applicable CUSC Objectives?
- Q2:** Do you support the proposed implementation approach?
- Q3:** Do you have any other comments?

⁹ https://www.ofgem.gov.uk/system/files/docs/2019/01/storage_and_charging_reform_2201f.pdf

¹⁰ https://www.ofgem.gov.uk/system/files/docs/2018/11/cmp308_letter_on_continuation_of_the_mod.pdf

Q4: Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

Specific CMP308 Workgroup Consultations Questions:

Q5: Do you feel it is more efficient for BSUoS to be handled by customers / suppliers rather than customers / suppliers and generators?

Q6: If CMP308 were to be implemented, what would your thoughts be in regards to combined/net risk premia?

Q7: What do you feel would be a sufficient lead time for the implementation of this modification? Would you support a non-April (i.e. October) implementation date in any given year? Please provide an explanation for your response

Q8: Has the Analysis comprehensively considered consumer/system benefits, or can you identify any area which may need more consideration by the workgroup?

Q9: Are there any thoughts on the impact of CMP308 on the generation mix, be that short or long term?

Q10: Are there any unintended consequences of CMP308 which have not as yet been considered by the workgroup?

Q11: Will there be any specific impact on renewable or distributed generation, be that long or short term?

Q12: Will there be any significant IT costs to change your systems as a result of CMP308? If so please give detail.

Please send your response using the response proforma which can be found on the National Grid website via the following link:

Add link

In accordance with Section 8 of the CUSC, CUSC Parties, BSC Parties, the Citizens Advice and the Citizens Advice Scotland may also raise a Workgroup Consultation Alternative Request. If you wish to raise such a request, please use the relevant form available at the weblink below:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/forms_guidance/

Views are invited upon the proposals outlined in this report, which should be received by **5pm on 8 May 2019**

Your formal responses may be emailed to: cusc.team@nationalgrideso.com

If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential"

6 CMP308 Relevant Objectives

Impact of the modification on the Applicable CUSC Objectives (Charging):

Relevant Objective	Identified impact
(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	<p>Positive.</p> <p>Better aligning the GB market arrangements and the charges faced by GB generation with those prevalent in other interconnected countries, where generation is typically not subject to such charges, allows GB and continental generation to compete on a more equitable basis and removes the potential for BSUoS to distort cross border trade.</p>
(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);	<p>None</p> <p>However, note a beneficial effect in cost allocation: total BSUoS charges will still recover the same underlying costs, but will do so in a way that does not distort competition, by better taking account of cost recovery practice in relation to these costs in the rest of Europe (where generators do not pay), thus ensuring that generation in GB has a comparable cost base in this respect, to that in the EU.</p>
(c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is	<p>Positive The growth in interconnectors, which</p>

<p>reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;</p>	<p>are licensed, is a strong driver of the need to update the arrangements. Interconnectors are treated as transmission for the purpose of the Third Package; an interconnector licence can thus be viewed as a form of transmission licence.</p>
<p>(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1*; and</p>	<p>Positive. Whilst the EU Third Package arrangements recognise that different types of market organisation will exist within the wider internal market in electricity, they also acknowledge the need to reduce market distortions to deliver the full benefits of a competitive internal market in electricity. This change is critical in the context of GB interconnection growth which is set to significantly increase (4GW today, 8GW by 2021 and, with Ofgem's approved pipeline, potentially up to 18GW by early 2020s) which represents almost a third of GB peak demand.</p>
<p>(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.</p>	<p>Positive. This change will simplify the charging and billing arrangements, thus simplifying administration. In the short term there should</p>

be no adverse effects for GB end consumers, subject to implementation taking account of existing contractual commitments. In the longer term, aligning the GB market arrangements with our European trading partners and other interconnected countries, will better facilitate an efficient functioning internal market in electricity. GB consumers will then benefit from more competitive arrangements delivered through a wider fully-functioning competitive market in generation.

*Objective (d) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

7 Implementation

There should be sufficient lead time after a decision is made to ensure:

- wholesale market adjusts to the removal of BSUoS from generation
- time for the ESO, consumers and suppliers to adjust for change.

The proposer considers that implementation 2 years after a decision is made, would be appropriate.

8 LegalText

14.29.4 All CUSC Parties acting as Generators and Suppliers (for the avoidance of doubt excluding all BMUs and Trading Units associated with Interconnectors) are liable for Balancing Services Use of System charges based on their energy taken from ~~or supplied to~~ the National Grid system in each half-hour Settlement Period.

14.30.2 A customer's charge is based on their proportion of BM Unit Metered Volume for each Settlement Period relative to the total BM Unit Metered Volume for each Settlement Period, adjusted for transmission losses by the application of the relevant Transmission Losses Multiplier.

~~For all liable importing and exporting BM Units in delivering Trading Units in a Settlement Period:~~

$$\text{BSUoS}_{\text{TOT}j} = \frac{\text{BSUoS}_{\text{TOT}j} * \text{QMBSUoS}_{ij} * \text{TLM}_{ij}}{\{[\sum^+ (\text{QMBSUoS}_{ij} * \text{TLM}_{ij})] + [\sum^- (\text{QMBSUoS}_{ij} * \text{TLM}_{ij})]\}}$$

For all liable importing and exporting BM Units in offtaking Trading Units in a Settlement Period:

$$\text{BSUoS}_{\text{TOT}j} = \frac{-1 * \text{BSUoS}_{\text{TOT}j} * \text{QMBSUoS}_{ij} * \text{TLM}_{ij}}{\{[\sum^+ (\text{QMBSUoS}_{ij} * \text{TLM}_{ij})] + [\sum^- (\text{QMBSUoS}_{ij} * \text{TLM}_{ij})]\}}$$

Where:

BSUoS_{TOTj} Total BSUoS Charge applicable for Settlement Period j

QMBSUoS_{ij} BM Unit Metered Volume (QM_{ij})** for BSUoS Liable BM Units

TLM_{ij} Transmission Loss Multiplier

\sum^+ - refers to the sum over all BM Units that are in delivering Trading Units in Settlement Period 'j'

\sum^- - refers to the sum over all BM Units that are in offtaking Trading Units in Settlement Period 'j'

~~'delivering'~~ and 'offtaking' in relation to Trading Units ~~have~~ has the meaning set out in the Balancing and Settlement Code (excluding all Interconnector BMUs and Trading Units)

Text Commentary

The proposed changes to the Section 14 legal text are to

- remove references to Generators in relation to BSUoS payments/charges
- change "Users" to "Suppliers" in relations to BSUoS payments/charges
- remove references to exporting BM Units in relation to BSUoS payments/charges

9 Annex 1: CMP308 Terms of Reference

CMP308 seeks to modify the CUSC to better align GB market arrangements with those prevalent within other EU member states. This will deliver more effective competition and trade across the EU and so deliver benefits to all end consumers.

It is proposed that liability to pay Balancing Services Use of System (BSUoS) charges, which are currently charged to all liable CUSC parties on a non-locational MWh basis, is removed from GB Generators. This will effectively better align the GB 'generation cost stack' with those in other EU markets where generators do not pay the equivalent of BSUoS charges, thus better facilitating competition between GB generators and generation in those markets which are not subject to such charges.

There should be no adverse effects for GB end consumers, subject to implementation taking account of existing contractual commitments. Aligning the GB market arrangements with our European trading partners and other interconnected countries better facilitates an efficient functioning internal market in electricity. To that end, GB consumers will benefit from more competitive arrangements delivered through a wider fully functioning competitive market in generation.

Whilst the EU Third Package arrangements recognise that different types of market organisation will exist within the wider internal market in electricity, they also acknowledge the need to reduce market distortions to deliver the full benefits of a competitive internal market in electricity.

This is critical in the context of growth in GB interconnection capacity which is set to significantly increase (4GW today, 8GW by 2021 and, with Ofgem's approved pipeline, potentially up to 18GW by the early 2020s), which represents almost a third of peak GB demand.

Responsibilities

1. The Workgroup is responsible for assisting the CUSC Modifications Panel in the evaluation of CUSC Modification Proposal CMP308 Remove BSUoS charges from Generation

2. The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable CUSC Objectives. These can be summarised as follows:

Non-Standard (Charging) 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;
 - (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);
 - (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;
 - (d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1 *; and
 - (e) Promoting efficiency in the implementation and administration of the CUSC arrangements.
3. It should be noted that additional provisions apply where it is proposed to modify the CUSC Modification provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

Scope of work

4. The Workgroup must consider the issues raised by the Modification Proposal and consider if the proposal identified better facilitates achievement of the Applicable CUSC Objectives.

5. In addition to the overriding requirement of paragraph 4, the Workgroup shall consider and report on the following specific issues:
 - **Impacts on wider aspects of demand and generation**
 - **Identifying the impacts on Storage**
 - **Identifying the impact on distribution connected parties**
 - **Identifying the potential changes to the shape and distributional impacts of BSUoS**
6. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative CUSC Modifications (WACMs) arising from Group discussions which would, as compared with the Modification Proposal or the current version of the CUSC, better facilitate achieving the Applicable CUSC Objectives in relation to the issue or defect identified.
7. The Workgroup should become conversant with the definition of Workgroup Alternative CUSC Modification which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual member of the Workgroup to put forward a WACM if the member(s) genuinely believes the WACM would better facilitate the achievement of the Applicable CUSC Objectives, as compared with the Modification Proposal or the current version of the CUSC. The extent of the support for the Modification Proposal or any WACM arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the CUSC Modifications Panel.
8. Workgroup members should be mindful of efficiency and propose the fewest number of WACMs possible.
9. All proposed WACMs should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WACMs which are proposed by the entire Workgroup or subset of members.
10. There is an obligation on the Workgroup to undertake a period of Consultation in accordance with CUSC 8.20. The Workgroup Consultation period shall be for a period of **15 working days** as determined by the Modifications Panel.
11. Following the Consultation period the Workgroup is required to consider all responses including any WG Consultation Alternative Requests. In undertaking an assessment of any WG Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Applicable CUSC Objectives than the current version of the CUSC.

As appropriate, the Workgroup will be required to undertake any further analysis and update the original Modification Proposal and/or WACMs. All responses including any WG Consultation Alternative Requests shall be included within the final report including a summary of the Workgroup's deliberations and conclusions. The report should make it clear where and why the Workgroup chairman has exercised his right under the CUSC to progress a WG Consultation Alternative Request or a WACM against the majority views of Workgroup members. It should also be explicitly stated where, under these circumstances, the Workgroup chairman is employed by the same organisation who submitted the WG Consultation Alternative Request.

12. The Workgroup is to submit its final report to the Modifications Panel Secretary on 22 June 2019 for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting on 29 June 2019.

Membership

13. It is recommended that the Workgroup has the following members:

Role	Name	Representing
Chair	Rachel Hinsley	National Grid ESO Code Administrator
National Grid Representative	Jon Wisdom	National Grid ESO
Industry Representatives	Simon Vicary	EDF Energy (Proposer)
	Grace Smith	UK Power Reserve
	Bill Reed	RWE
	John Tindal	SSE
	Paul Jones	Uniper
	Laurence Barrett	E.On
	James Anderson	Scottish Power
	Kate Garth	Innogy
	Lindsay Biginton	Utilita
	Simon Lord	Engie
	Christopher Granby	Fred Olsen Renewables

	George Douthwaite George Moran Joshua Logan Robert Selbie Kyran Hanks Robert Longden	Npower Centrica Drax Electralink Waters Wye Cornwall Insight
Authority Representatives	Tim Aldridge	OFGEM
Technical secretary	Joseph Henry	National Grid ESO Code Administrator

NB: A Workgroup must comprise at least 5 members (who may be Panel Members). The roles identified with an asterisk in the table above contribute toward the required quorum, determined in accordance with paragraph 14 below.

14. The chairman of the Workgroup and the Modifications Panel Chairman must agree a number that will be quorum for each Workgroup meeting. The agreed figure for CMP302 is that at least 5 Workgroup members must participate in a meeting for quorum to be met.

15. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WACM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise]. There may be up to three rounds of voting, as follows:
 - Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives;
 - Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the original Modification Proposal;
 - Vote 3: which option is considered to BEST facilitate achievement of the Applicable CUSC Objectives. For the avoidance of doubt, this vote should include the existing CUSC baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.

16. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should

raise these with the Workgroup chairman at the earliest possible opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.

17. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.
18. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.
19. The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

Annex 2: Attendance Log

Name	Company/role	Role	18/12/2018	30/10/2019	01/03/2019	28/03/2010
Rachel Hinsley	National Grid ESO (Chair)	Chair	A	A	A	A/D
Joseph Henry	National Grid ESO (Technical Secretary))	Tec Sec	A	A	A	A/D
Jon Wisdom	National Grid ESO	NG Rep	A	A	Alternate	Alternate
Simon Vicary	EDF	Proposer	A	A	A	A/D
Grace Smith	UKPR	WG Member	A	A	A	A/D

James Anderson	Scottish Power	WG Member	A	A	A	A/D
Robert Longden	Cornwall	WG Member	A	A	X	A/D
Bill Reed	RWE	WG Member	A	A	X	X
John Tindal	SSE	WG Member	X	A	A	Alternate
Paul Jones	Uniper	WG Alternate	A	A	A	A/D
Laurence Barret	Eon	WG Member	A	A	A	A/D
Kate Garth	Innogy	WG Alternate	x	A	A/D	A/D
Lindsay Biginton	Utilita	WG Member	A	A	A/D	A/D
Simon Lord	Engie	WG Member	A	A	A/D	X
Christopher Granby	Fred Olsen Renewables	WG Member	A	A	A/D	A/D
George Douthwaite	RWE	WG Member	X	A	A	A/D
George Moran	Centica	WG Member	A	A	X	A/D
Joshua Logan	Drax	WG Member	X	A	X	A/D
Robert Selbie	Electralink	WG Member	X	A	A/D	A/D
Kyran Hanks	Waters Wye	WG Member	A	A	X	A/D
Tim Aldridge	Ofgem	Observer/info only	A	A	X	X