

# Interim Report and Consultation

Second Balancing Services Charges Task Force

22<sup>nd</sup> July 2020



## Executive summary

The Second Balancing Services Task Force was launched by the ESO in January 2020, in response to Ofgem's request of 21<sup>st</sup> November 2019<sup>1</sup>, and built on the work of the First Balancing Services Task Force (Jan 2019 – May 2019)<sup>2</sup>.

The initial timelines specified by Ofgem required the Final Report to be submitted by the Task Force in June 2020. Following the disruption caused by COVID-19 Ofgem decided to pause the Task Force's work pushing the submission date of the Final Report back to September 2020. This means that implementation of the Task Force's recommendations will most likely not take place before April 2022 at the earliest.

The Task Force had two deliverables to consider:

- 1) Who should be liable for Balancing Services Charges, and;**
- 2) How these charges should be recovered.**

On Deliverable 1, who should pay, the Task Force have initially concluded that "Final Demand" should pay all Balancing Services charges, subject to sufficient notice to industry prior to implementation.

On Deliverable 2, how should the charge be levied the Task Force have initially concluded that fixing Balancing Services charges ex ante would deliver overall industry benefit, although further work and feedback from industry is required to determine an optimal length of the fix and corresponding notice period.

Fixing Balancing Services charges ex ante requires the ESO to manage the volatility risk on behalf of Balancing Services charge payees for the duration of the fix period. It is the Taskforce's view that for a period (to be decided) the tariff would be fixed so all payees know how much they will need to pay per applicable unit (whether that be MWh or Final Demand Site) and the ESO carries any cost not covered by the fixed fees as no party knows exactly how much Balancing Services expenditure will be over the period. This creates an over/under recovery risk, and associated cash-flow costs, for the ESO to manage. The Task Force provisionally recommend that Ofgem builds on the Task Force's work to determine the optimal fix and notice period durations and identify the ideal risk bearing combination for both payees and the ESO and would welcome industry views on this topic.

There was a great deal of debate about whether this ex ante fixed charge should be similar to the Transmission Demand Residual methodology established through Ofgem's Targeted Charging Review (TCR) (i.e. £/site, based on size) or volumetric (i.e. £/MWh). The Task Force discussions and recommendations are laid out in a table in the body of the report which shows an assessment of each approach against the TCR principles.

The Task Force's conclusions and the reasoning given in this accompanying report will be reviewed by Ofgem to determine the next steps for changes to the Balancing Services charging methodology. The Task Force's recommendations for further work in this area are: to revisit the CMP201 analysis to understand whether removing BSUoS charges from generators would have a short-term negative consumer impact, to determine the ideal combination of fix and notice durations and to consider the distributional impacts to specific customer groups identified in the report.



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[https://www.ofgem.gov.uk/system/files/docs/2019/11/open\\_letter\\_on\\_the\\_balancing\\_services\\_charges\\_taskforce.pdf](https://www.ofgem.gov.uk/system/files/docs/2019/11/open_letter_on_the_balancing_services_charges_taskforce.pdf)

<sup>2</sup> <http://www.chargingfutures.com/media/1348/balancing-services-charges-task-force-final-report.pdf>

## Contents

Consultation Questions .....	4
<b>Introduction .....</b>	<b>5</b>
Conclusions from the First Task Force.....	5
TCR Principles.....	6
Second Task Force Deliverables .....	7
<b>Deliverable 1: Who should pay?.....</b>	<b>10</b>
Transaction Costs and Cost Recovery Principles.....	11
Distortions between Transmission/Distribution and Interconnected Generation .....	11
Decarbonisation.....	12
Risk Premia.....	13
Preliminary Conclusion on Deliverable 1 .....	14
<b>Deliverable 2: How should the charge be recovered? .....</b>	<b>16</b>
Volumetric (£/MWh) vs Fixed (£/site) Charge.....	17
Ex Ante Fixing of BSUoS Charges .....	19
Preliminary Conclusion on Deliverable 2 .....	22
<b>Further Considerations .....</b>	<b>23</b>
Implementation .....	24
Impacts on Industrial Customers.....	25
Consumer Impacts .....	26
<b>Appendix.....</b>	<b>28</b>
Membership of the Second Task Force.....	29

## Consultation Questions

*This draft report shows the Task Force's thinking to date on the two deliverables; any and all feedback from industry is welcome. In particular, the Task Force is requesting responses to the set of Consultation Questions below.*

1. Do you agree with the Task Force's recommendations on who should pay Balancing Services Charges (Deliverable 1)? Please state your reasoning and evidence behind your answer.
2. The Task Force have discussed how the recommendation on Deliverable 1) for Final Demand only to pay Balancing Services Charges could impact on large energy users and the potential for 'grid defection'. Do you think 'grid defection' is a possibility and to what extent would the Task Force's recommendations impact on your answer?
3. Do you agree with the Task Force's recommendations that an ex ante fixed charge would deliver overall industry benefits? Please state your reasoning and evidence behind your answer.
4. How long do you think the fixed period should be and what in your opinion is the optimal notice period in advance of the fixed charge coming into effect? Please state your reasoning and evidence behind your answer.
5. Which approach discussed by the Task Force (TDR banded £/site/day or volumetric £/MWh) do you feel is most appropriate for Balancing Services Charges? Please consider your answer against the TCR principles and state your reasoning and evidence to support your answer.
6. The Task Force noted limitations of the approaches covered in Q5, what other methodologies or improvements to the ones in Q5 could you recommend to tackle them? Please consider your answer against the TCR principles and state your reasoning and evidence to support your answer.
7. Is 2 years' notice of the changes prior to an implementation date appropriate? Please state your reasoning and evidence behind your answer.
8. Should the Task Force consider any interim measures? Please provide details of any suggested interim solution including how it may deliver benefits to consumers or help to mitigate specific challenges facing market participants, whilst limiting any windfall gains or losses between industry participants.
9. Do you feel that there any interactions with the Supplier Price Cap that need to be considered? Please state your reasoning and evidence behind your answer.
10. The Task Force's initial recommendation is that Final Demand only will pay BSUoS. If this is the case, is the current RCRC mechanism is still appropriate? Please state your reasoning and evidence behind your answer.
11. Is there anything further you think the Task Force needs to consider?

## Introduction

### How are GB Balancing Services costs currently recovered? – The BSUoS Methodology

The Transmission Licence allows NGENSO to recover costs in respect of Balancing Services activity. It does this through Balancing Services Use of System Charges, otherwise known as BSUoS charges. The methodology for the recovery of these costs is set out in Section 14 of the [Connection and Use of System Code \(CUSC\)](#).

BSUoS is a charge that the ESO levies on suppliers and generators in order to recover costs incurred through system balancing actions in real time and for longer duration contracts for balancing services. A BSUoS price is calculated for every half-hour settlement period by dividing the balancing costs incurred during that settlement period by the total volume of energy imported from and exported to the NETS in that settlement period.

As of April 2021, assuming the implementation of Ofgem's TCR Direction through [CMP333](#) and following approval of modification [CMP281](#), BSUoS charges will be levied on Suppliers in respect of their gross energy import at the Grid Supply Point (GSP), on non-exemptible generators (all transmission connected and large distribution connected) on their energy exports and imports and on Storage users for imports excluding those for the purpose of operating their storage facility. CVA metered Storage users will continue to pay BSUoS on their exported volumes. Interconnector BMUs and embedded generators do not face BSUoS charges.

The ESO produces a monthly forecast of total Balancing Services spend, and historical BSUoS charges are available on the ESO website. The Task Force noted that some companies forecast HH BSUoS costs "in house".

## First Balancing Services Task Force

Ofgem launched the first Balancing Services Charges Task Force on 28th November 2018. The overall objective of the Task Force was to provide analysis to support decisions on the future direction of BSUoS, against three deliverables. These deliverables were:

1. **Does BSUoS currently provide a useful forward looking signal?**
2. **Potential Options for charging BSUoS differently, to be cost reflective and provide a useful forward looking signal**
3. **Feasibility of charging potentially cost reflective elements of BSUoS to provide a forward-looking signal**

The First Task Force was run and chaired by the ESO and included industry participants, customers who paid BSUoS charges, consumer representatives and Ofgem, providing a breadth of opinions and expertise on Balancing Services Charges. The Task Force worked collaboratively and transparently to ensure that the wider industry was informed on how the Task Force progressed and could contribute to the Task Force work programme. All the information regarding the First Task Force, including the full report and membership, is available on the [Charging Futures website](#).

### What did the First Balancing Services Charges Task Force conclude against the Three Deliverables?

**Deliverable 1.** - When assessing the current BSUoS charge, the first Task Force concluded that it *"does not currently provide any useful forward-looking signal which influences user behaviour to improve the economic and efficient operation of the market"*<sup>3</sup>. In order to reach this conclusion, the Task Force collectively identified five main reasons why this is the case. Firstly, the current BSUoS charges are hard to forecast, secondly that current BSUoS charges were complex, thirdly that they were increasingly volatile, fourthly that other market signals are more material and so take precedence, and finally that the current BSUoS charge applies to all chargeable users of the transmission system on an equal basis.

<sup>3</sup> [Balancing Services Charges Task Force – Final Report](#). National Grid ESO, 31 May 2019, Page 5

The Task Force also identified two unintended effects of BSUoS on the wider market: market parties exposed to BSUoS are adding a “risk premium” to their costs to mitigate the risk of an uncertain BSUoS bill, and that some parties might react to a subtle signal particularly during lower volume periods overnight. The Task Force concluded that these impacts on the market do not “result in behaviour that is of benefit to the system or ultimately to consumers”<sup>4</sup>.

**Deliverable 2.** – When answering the issues posed by deliverable 2, the Task Force assessed whether individual elements of BSUoS had the potential “for being charged more cost-reflectively and hence could provide a forward-looking signal”<sup>5</sup>. The Task Force took four such elements for further consideration: locational transmission constraints; locational reactive and voltage constraints; response and reserve bands; and response and reserve utilisation. The Task Force discounted some other potential cost elements which were viewed to be cost-recovery.

**Deliverable 3.** - The Task Force then assessed the feasibility of these four costs being charged in a manner which provided an effective forward-looking signal. The Task Force utilised four evaluation criteria: i) the charging being cost-reflective; ii) providing said effective signal; iii) being practical and proportionate; and iv) other considerations i.e. reflecting consumer needs, facilitating competition and/or innovation and being future-proof.

The Task Force concluded that “whilst there were some theoretical advantages to all four potential options identified, the implementation of each of these would not or could not provide a cost reflective and forward-looking signal that would drive efficient and effective market behaviour”<sup>6</sup>.

There was also no evidence that the issues that exist currently in market arrangements (i.e. the charge being hard to forecast, complex, highly volatile, etc.) would cease to apply in any of the four costs that the Task Force identified. Indeed, moving elements of charges to targeted groups of users may exacerbate these issues.

### First Task Force – Overall Conclusion

The first Task Force concluded that it was not feasible to charge any of the components of BSUoS in a more cost-reflective and forward looking manner that would effectively influence user behaviour to help the system and/or lower costs to customers. As such, the Task Force members concluded that BSUoS should be treated as a cost-recovery charge. This conclusion serves as the starting point for the second Task Force, underpinning any work carried out during the second Task Force.

## TCR Principles

In November 2019, Ofgem published their final decision on the [Targeted Charging Review Significant Code Review \(TCR SCR\)](#). Alongside this decision, Ofgem set out a need for a Second Balancing Services Charges Task Force, in a letter to industry<sup>7</sup>, to build upon the work undertaken by the initial Task Force. Since launching the TCR SCR, Ofgem have clearly articulated three main principles for assessing changes to residual network charges.

These are:

- Reducing harmful distortions,
- Fairness, and
- Proportionality and practicality.

Ofgem state that “*these principles were developed and refined through consultation to incorporate stakeholder concerns, and ensuring our definitions are consistent. Ofgem has statutory duties which must be adhered to when making decisions of this nature and these principles align with those duties*”<sup>8</sup>.

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<sup>4</sup> ibid

<sup>5</sup> ibid

<sup>6</sup> ibid, Page 7

<sup>7</sup> [https://www.ofgem.gov.uk/system/files/docs/2019/11/open\\_letter\\_on\\_the\\_balancing\\_services\\_charges\\_task\\_force.pdf](https://www.ofgem.gov.uk/system/files/docs/2019/11/open_letter_on_the_balancing_services_charges_task_force.pdf)

<sup>8</sup> [Ofgem Publication on TCR Principles](#), Page 1

Ofgem published [guidance](#) on what these three principles mean and the Task Force used these principles to assess potential options for charging BSUoS. This is evidenced throughout this report.

## Deliverables for the Second Balancing Services Task Force

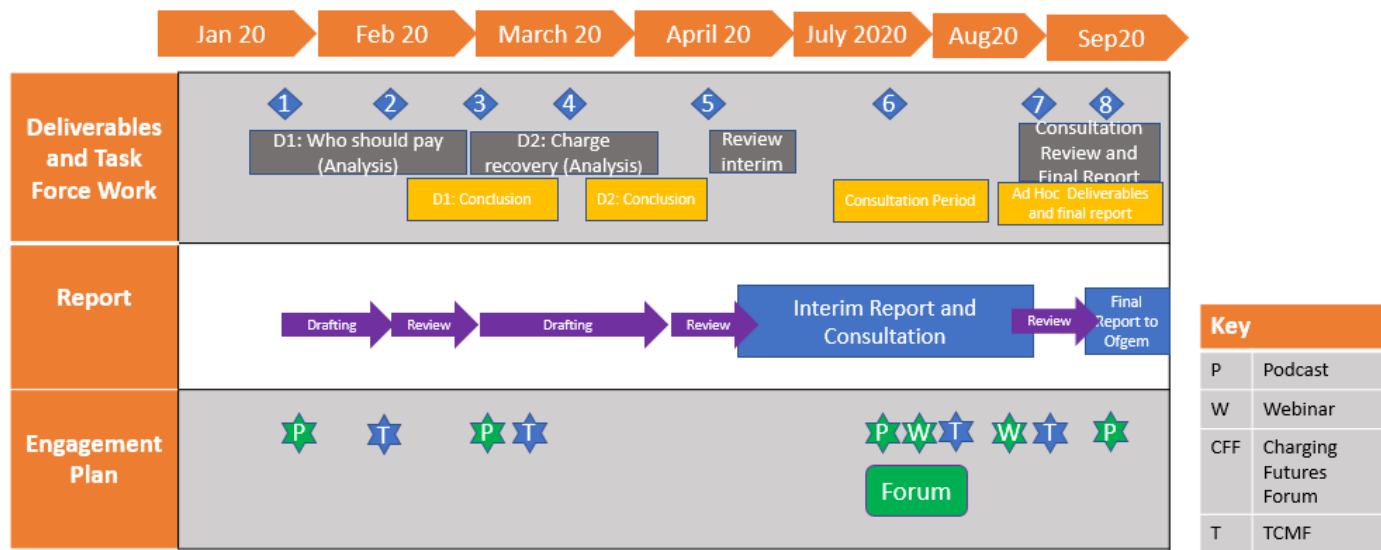
In order to further develop the conclusions of the First Task Force, Ofgem requested that a second Balancing Services Task Force, led and chaired by National Grid ESO, should focus on two additional deliverables. Ofgem agreed with the first Task Force’s conclusion and “accept that at present it is not possible to send useful forward-looking signals through balancing services charges”<sup>9</sup>. In November 2019, Ofgem also underlined that whilst they accepted the findings of the first Task Force, they felt further investigation was required into who should pay the charge if it is cost recovery, and how the charge should be recovered.

As such, the second Task Force (and this report) explored two specific questions.

1. Who should be liable for Balancing Services Charges, and;
2. How these charges should be recovered.

The second Task Force have taken a similar approach to that of the first Task Force, tackling and debating specific issues as well as undertaking qualitative and quantitative analysis to try to answer these questions. Options outlined in the report have been assessed using the TCR principles. The Task Force were also advised to remain aware of developments in other network charging areas, particularly of Ofgem’s decision that network residual charges (for TNUoS and DUoS) should be paid by Final Demand only

## The Task Force Workplan and Industry Engagement



The plan of work undertaken by the Task Force, both up to this point of interim report consultation and to deliver its final conclusions thereafter, is illustrated in the above timeline. Following the disruption caused by COVID-19 Ofgem decided to pause the Task Force’s work pushing the submission date of the Final Report back to September 2020. The Task Force have met 6 times between January 2020 and July 2020 in order to complete the initial work and analysis needed to answer the questions posed by the deliverables. A wide

<sup>9</sup> [Ofgem Open Letter on the Second Balancing Services Charges Task Force](#), 21 November 2019, Page 1

range of resources from these meetings, including slides, meeting summaries, headline reports and podcasts are available [here](#).

Task Force members engaged various industry forums in order to deliver key messages and share updates on the direction of travel for the Task Force, including TCMF, DCMDG, Renewable UK, Energy UK and the Energy Intensive Users Group, to engage as many potentially impacted parties as possible. The Task Force has also been in regular touch with consumer groups such as Citizens Advice, who have also attended meetings to observe the progress of the work being undertaken and contribute to discussions.

An industry webinar to introduce this draft report was held on the 20<sup>th</sup> July 2020 prior to this consultation period to gather feedback on the report and the Task Force's work. This webinar was hosted through the Charging Future forum. A further webinar will be held during the consultation period to answer any questions respondents may have on the contents of this document.

A third webinar will be held to discuss the industry feedback to this consultation, and to update on any further progress ahead of submission of the final report to Ofgem in September 2020.





**Deliverable 1: Who should pay?**

## 1. Who should pay Balancing Services charges?

The First Task Force concluded that GB balancing services costs currently recovered through the *Balancing Services Use of System* (BSUoS) charge could not be charged in a forward-looking manner and did not provide useful signals to industry parties. Therefore, they should be considered a “cost recovery charge”.

This conclusion has prompted Ofgem to review the charging base for Balancing Services charges using the TCR principles: Reducing Harmful Distortions, Fairness and Practicality and Proportionality. The Task Force were also advised to remain aware of developments in other network charging areas, particularly of Ofgem’s decision that network residual charges (for TNUoS and DUoS) should be paid by Final Demand only.

### How the Task Force approached Deliverable 1 and Considered Historic Analysis

Principle based analysis was used primarily to inform the Task Force conclusions. Modelling the impacts of the Task Force recommendations was deemed too complicated and costly given the short timescales and data available. The Task Force recommend that Ofgem undertake modelling to inform their impact assessment for Final Demand only paying BSUoS. This is particularly important to determine whether the analysis originally produced for the CMP201 CUSC modification still holds.

CMP201 was a CUSC modification initially raised in 2011<sup>10</sup> which sought to move Balancing Services Charges wholly onto final demand and which was not approved by Ofgem. At that point, Ofgem concluded that ‘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’. This concern resulted from Ofgem’s view that in the short-term, increasing GB generation relative to European counterparts through removing Balancing Services obligations would increase demand for GB generation and therefore, bring more expensive, marginal plant into merit.

The Task Force postulated that despite the CMP201 assessment<sup>11</sup> concluding removing BSUoS would result in additional costs for consumer an updated assessment of the CMP201 model would conclude differently. This conclusion was based on the fact that total Balancing Services expenditure has increased significantly since this analysis was produced and differentials between GB and interconnected markets have also increased. Alongside this, the capacity and number of interconnectors between GB and continental Europe has increased. The Task Force were aware that increased BSUoS expenditure would also increase the severity of the short-term consumer impacts that had concerned Ofgem in their initial decision making on CMP201.

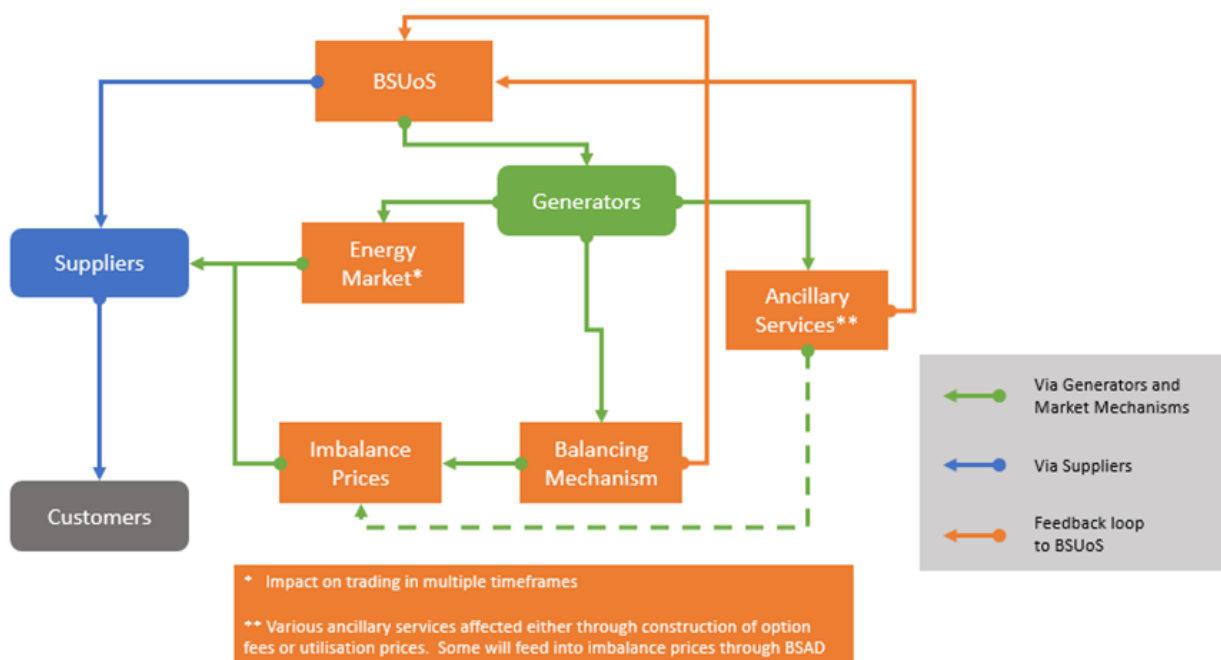
To complement the principle based analysis, the Task Force also discussed case studies from GB and European markets to understand how equivalent charges for balancing services are levied.

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<sup>10</sup> <https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp201-removal>

<sup>11</sup> <https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-cmp201-proposal-remove-balancing-charges-generators>

Transaction Costs and Cost Recovery Principles



The Task Force explored the various “pass through” routes that BSUoS charges take, when levied on generators, to reach the end consumer. The Task Force agreed that Balancing Services charges would be reflected in the wholesale market, ancillary services and BM markets. The Task Force considered that the presence of these costs could create harmful distortions particularly where the charges were not applied consistently to all participants competing in those markets. Crucially, as BSUoS should be considered as “cost recovery”, in line with TCR conclusions on residual charges, the most efficient approach is for Final Demand only to pay. This avoids the more complicated approach associated with cost passing costs through from generators, via multiple market mechanisms, to suppliers and ultimately Final Demand.

The Task Force concluded that the pass-through process generated additional transaction costs, i.e. those costs that are incurred through the process of paying BSUoS charges, than if those costs were paid by Final Demand only. Although these transaction costs are widely expected to be very small in the context of the overall Balancing Services cost recovery pot. As organisational structures differ these costs are difficult to quantify.

Presence of Harmful Distortions both between different types of GB generator and between GB and Interconnected Generators

GB generators connected to the distribution system do not pay balancing services charges on their exports. However, they may compete directly with transmission connected generators in Ancillary Services, Balancing Mechanism and wholesale markets who do. The Task Force concluded that removing BSUoS charges from transmission connected generators would correct this existing market distortion. This will improve competition, which will enable more economic and efficient outcome, thereby delivering consumer benefits.

The Task Force also noted that whilst the BSUoS charging base could be expanded to include distributed generation this would create a new distortion, as behind the meter generation would remain exempt from the charges. It is not practicable to include behind the meter generation in the charging base as there are no complete records of the assets and MWh output at behind the meter sites and no guaranteed commercial relationship between an on-site generation owner and a party liable for BSUoS. The Task Force concluded that the most appropriate way to remove any potential distortion in energy markets was to exempt all generators from BSUoS.

The Task Force also considered whether there could be a distortion between generators located in Great Britain compared to generators based in continental Europe. Comparing equivalent balancing services charges levied on generators in other European countries was not straightforward, but investigation into the countries directly connected or soon to be directly connected to the GB system via interconnectors indicated that GB was an outlier in the amount generators pay for balancing services. Most European countries included in the report this subset was drawn from<sup>12</sup>, levied some balancing services charges entirely onto demand.

Any differences in how generators and other parties competing in wholesale and balancing services markets are exposed to BSUoS charges will directly distort competition, if they do not reflect differences in costs caused by those parties. As the original Task Force established that BSUoS charges do not send meaningful market signals, it was felt that any differences in cost recovery between competing parties could create a distortion.

The Task Force agreed that removing balancing services charges from generators would contribute to reducing a harmful distortion between GB generators and interconnected generators.

Country	Do Generators pay Balancing Services charges?	How does the charge compare to GB?	Comment
France	No	n/a	French generators pay very little network charges at all.
Netherlands	No	n/a	
Belgium	Yes	£0.87/MWh (35% of the GB charge)	Balancing services costs in Belgium are fixed in advance and are purely for black start and power reserve costs.
Ireland	No	n/a	
Norway	Yes	£0.19/MWh (8% of the GB charge)	Levied based on historic 10-year output data and therefore unavoidable
Denmark	Yes	£0.46/MWh (18% of the GB charge)	Fixed charge to contribute to reserve costs

### Who pays Balancing Services charges and Decarbonisation

Impacts on decarbonisation are an essential consideration for all industry changes as work continues to decarbonise the sector in line with net-zero targets. Hence the Task Force considered the impacts on decarbonisation of two different BSUoS charging scenarios. The two scenarios considered were: 1) expanding the BSUoS charge to distributed generators and 2) the levying of BSUoS charges on 'final demand' users only.

As part of Ofgem's Targeted Charging Review, Frontier Economics undertook a sensitivity analysis to consider the impact on consumer benefits, seen through the TCR full BSUoS reforms, if there was less onshore renewable investment after the government announced these technologies would no longer be eligible for the Contracts for Difference (CfD) scheme.<sup>13</sup> The sensitivity analysis -assumed a 50% reduction in new unsubsidised onshore renewable capacity and demonstrated that there would be a reduced benefit to the consumer whilst meeting decarbonisation targets., In the analysis, this is driven by the replacement of reduced cheaper onshore renewable capacity with more expensive, subsidised offshore renewable capacity. The reduced consumer benefit is the differential in unit costs between onshore and offshore renewables.

Since this analysis concluded, the Government have announced the re-introduction of some onshore renewables into the CfD scheme. Whilst this move is widely considered to support the UK in meeting

<sup>12</sup> [https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/mc-documents/TTO\\_Synthesis\\_2018.pdf](https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/mc-documents/TTO_Synthesis_2018.pdf)

<sup>13</sup> <https://www.ofgem.gov.uk/publications-and-updates/targeted-charging-review-decision-and-impact-assessment>

decarbonisation targets and may correct some of the hypothetical disincentive identified in the TCR analysis, it is worth noting that the capacity of the CfD 'pot' for onshore renewables is yet to be announced, and that the contracts for difference only have a duration of fifteen years. In addition, the CfD is only accessible to generators of 5MW and above. This excludes many smaller generators, typically inclusive of non-energy professionals such as community groups and landowners. This would mean that, should BSUoS charges be levied on distributed renewable generation, the risk premia and transaction costs that the Task Force have identified would still need to be factored into an investors financial model for projects both within and without the CfD scheme.

Hence, although maybe not to the same extent as that hypothesized in the Frontier Economics sensitivity analysis due to the CfD support, the levying of BSUoS charges onto distributed generation is still likely to disincentivise some investment in onshore renewables and hinder progress towards decarbonisation targets.

System Costs (Carbon) - using high BEIS carbon appraisal value				
	Steady Progression		Community Renewables (Alternative FES)	
	Total to 2040	NPV to 2040 (£2016)	Total to 2040	NPV to 2040 (£2016)
Difference between Baseline and TGR & Partial BSUoS reform	£182m	£119m	£494m	£326m
Difference between Baseline and TGR & Full BSUoS reform	£455m	£294m	£1,025m	£659m
Net Impact on System Costs of Extending BSUoS to Distributed Generation	<b>+£273m</b>	<b>+£175m</b>	<b>+£531m</b>	<b>+£333m</b>

With regard to the application of BSUoS charges to 'final demand' users only, the Task Force concluded that the impact on decarbonisation was likely to be smaller, however there would likely be a reduction in imports over the interconnectors, which for the purposes of carbon accounting are treated as zero-carbon. This means that levying BSUoS charges on "final demand" only, resulting in the displacement of some interconnector import by domestic transmission connected generation, would be counted as a more carbon intensive outcome. The Task Force agreed that decarbonisation was wider than individual countries' carbon accounting methodologies and that imported electricity is not actually zero carbon when generated by conventional plant on the continent.

Application of BSUoS charges to 'final demand' users only would also avoid the associated risk premia and transaction costs being included in offshore renewable project financial models outside of the CfD scheme and aid progress towards decarbonisation targets. As a counterpoint, removing BSUoS charges from transmission connected generation will feed through to wholesale price reductions, leading to a worsened business-case for price-taking distributed renewable generators.

### Quantifying the Impact of Risk Premia

Quantitative analysis can provide evidence allowing comparisons to be made between potential options. The Task Force made use of agreed assumptions about the time horizons used to forecast BSUoS and risk premia to quantify the overall cost of BSUoS if levied on different subsets of industry parties.

Ultimately, the analysis showed that if the assumptions of Weighted Average Cost of Capital (WACC) were the same for both generators and suppliers and BSUoS was forecast over the same time horizons there was a small benefit to charging BSUoS solely on Final Demand. The Task Force agreed that generators were more likely to be concerned of the volatility in BSUoS on a half-hourly basis and that levying BSUoS on suppliers only, as seen through the model, when the forecast time horizons were the same, would reduce the scale of the risk to the market as a whole. To improve the real-world applications of the analysis, the Task Force made the assumption, using evidence collected by the Competition and Markets Authority (CMA)<sup>14</sup>

<sup>14</sup> <https://assets.publishing.service.gov.uk/media/576bcc3c40f0b66bda0000b4/appendix-9-12-the-cost-of-capital-fr.pdf>

based on the period 2007 – 2014, that suppliers had a slightly higher WACC than generators. Whilst this difference was small the Task Force acknowledged that any benefit (from a more efficient cost pass through of BSUoS) could be offset by higher costs of financing.

Consequently, it was acknowledged that assumptions around WACC had a decisive bearing on the outcome of the analysis and because the Task Force did not have recent real-world evidence to corroborate their assertions, this was agreed to be an area for further analysis. The Task Force agreed that more quantitative analysis would be desirable but short timeframes and the complexity of the analysis required did not make this possible.

### Distributional effects of charging Balancing Services charges on Final Demand only

The Task Force recognised that changing the BSUoS charging base to a smaller cohort would have additional distributional effects. Balancing Services expenditure is determined almost completely independently of who pays for it so reducing the size of the paying group will increase the burden on each individual. This means that BSUoS payees (suppliers) would face increased credit obligations with the ESO and greater commercial risks when setting tariff prices for their customers.

There will be a counterweight to the increased credit and commercial risks. Wholesale prices will fall, as generators do not include BSUoS in their pricing, creating lower credit requirements for suppliers buying energy in the wholesale market.

Some customers, particularly intensive energy users, are on BSUoS pass through contracts. Therefore, the Task Force recognised that some distributional effects may be felt by them too. However, under TCR principles, Suppliers are considered to act as a proxy for customers' interests and therefore it would not be reasonable to assume that only customers on pass through contracts would be detrimentally affected.

## Task Force conclusion on Deliverable 1 and Next Steps

**The Task Force recommends that Balancing Services Charges should be levied on Final Demand only**

The Task Force returned to the first deliverable after extensive work on the second. It was now clear that there were strong arguments for changing the way in which balancing services costs are recovered and these changes mitigated some of the impacts the Task Force explored when considering levying BSUoS as is onto "Final Demand" only. Fixing BSUoS for a given period would remove or substantially reduce some of the potentially negative distributional impacts relating to increased credit requirements and the commercial risk of pricing BSUoS correctly into competitive tariffs. The benefits of removing harmful distortions on the generation side, however, would remain. As a result of this the Task Force concluded that balancing services charges should be paid by Final Demand only via suppliers.

Notice to industry prior to implementation was a key focus for the Task Force and a recommendation focussing on essential implementation considerations has been included in this report. The Task Force agreed that at least two years' notice from the point of publication of Ofgem's decision would be required prior to implementation.

Acknowledging the uncertainty around the short-term consumer impacts, the Task Force also recommends that a quantitative assessment of consumer impact should inform Ofgem's final decision on these reforms.

The Task Force recommendation on Deliverable 1 will be reviewed by Ofgem to decide whether it should be implemented and what the implementation process will look like.



**Deliverable 2: How should the charge be recovered?**

## 2. How should Balancing Services costs be recovered?

The First Task Force concluded that it was not feasible to charge any of the elements of the BSUoS charge on a forward-looking basis to positively influence behaviour; thereby reducing the overall cost to end consumers.

This conclusion has prompted Ofgem to review how the costs are recovered.

To tackle this deliverable the Task Force created example methodologies which were then assessed against the TCR principles. These methodologies fell broadly into two camps: a volumetric charge based on metered demand and a site based charge, along similar lines to the Transmission Demand Residual (TDR) charging methodology as directed by Ofgem in its TCR Decision.

### Potential for Change in How Balancing Services Charges are Levied

The Task Force were aware of the potential for the current £/MWh charge to send unhelpful signals as per the conclusions of the First Task Force.

Alongside this, there were two broad themes which the Task Force agreed were desirable attributes for change: reducing uncertainty and minimising industry financing costs.

- a) Businesses struggle with uncertainty as it makes it adds to cost and makes it more difficult to plan. A known charge can be factored into pricing plans accurately and does not attract a “risk premia” as the payee has confidence that the charge will not change. The consensus amongst Task Force members was that a 6-month fixed period was the minimum required for suppliers to begin to unlock the benefits associated with increased certainty. The ESO should be able to manage BSUoS risk more cheaply compared with suppliers or customers because the ESO could be given the regulatory authority to recover cash-flow shortfalls from suppliers, but by contrast, suppliers and customers would have to absorb unexpected BSUoS costs into their P&L.
- b) Minimising industry financing costs should reduce costs to consumers as the financing costs won't be passed through prices and tariffs. The ESO should be able to borrow money to cover payments to service providers if a fixed balancing services charge doesn't cover the costs incurred or industry parties may borrow money to pay an unexpectedly high BSUoS bill. In both of these situations a financing cost is incurred and eventually is passed through to the end consumer under the assumption that the ESO would be able to fully recover its costs.

### A Volumetric (£/MWh) Charge vs a Network Residual Style “per Site” Charge (£/site)

BSUoS is currently levied as a volumetric charge (£/MWh). There was a discussion within the Task Force about whether the charge should remain as a volumetric charge or whether a per site charge, should be introduced which would align with the approach chosen by Ofgem for the purposes of recovering network Residual charges.

From April 2022, network Residual charges (the Transmission Demand Residual (TDR) and DUoS Demand Residual (DDR)) which recover some of the Transmission Owner and Distribution Network Owner revenues, will be recovered from Final Demand Sites through a “banding” methodology. There will be a set of four charging bands for non-domestic customers at each voltage level: LV (no MIC), LV (MIC), HV and EHV. As well as a single nationwide band for all domestic connections. Transmission connected Final Demand Customers will also pay the TDR levy on a £/site basis but it is not yet determined how many Transmission Charging Bands will be created.

A single nationwide Transmission Residual tariff will be created for each Charging Band. A single Distribution Residual tariff per DNO area will be created for each Charging Band. Final Demand Sites are allocated to a Charging Band and remain in that band for the duration of the onshore Transmission Owner price control. They will pay the Residual tariff according to their band.

The purpose of these changes is to ensure that the TDR and DDR, as “cost-recovery” charges, are unavoidable and do not send behavioural signals to industry parties.



The First Balancing Services Task Force concluded that BSUoS charges were cost recovery charges. Therefore, it was a natural step for the Task Force to consider a charging methodology for recovery of BSUoS charges that aligned with the methodology for TDR/DDR charging.

Whilst the Task Force could see the logic in utilising TDR bandings in BSUoS charging, there was a significant concern that the banding methodology proposed by the TDR may not be appropriate for BSUoS. Bandings based on energy usage, which usually fluctuates slightly between years, could perform better against the TCR principles than those based on physical connection capacity. This would allow more frequent re-banding to take place capturing changes in the site’s operation more effectively than a disputes/exceptions process. This seems fairer because the costs of BSUoS relate to the operation of balancing markets and ancillary services contracts not the installed capacity of a physical network. The Task Force, considering all these points, felt that bandings based on energy use, either peak or annual, may be more appropriate for BSUoS.

The Task Force assessed the merits of the volumetric methodology and TDR banded per site methodology against the TCR principles, the Task Force did not consider alterations to a banding methodology (like re-banding every year or using consumption rather than capacity to band) in this pros and cons exercise.

<b>TCR Principles</b>	<b>Fixed Volumetric Charges (£/MWh)</b>	<b>Fixed Banded per Site Charges (£/site/day)</b>	<b>Pros/Cons</b>
<b>Reducing Harmful Distortions</b>	Flat volumetric charge would reduce harmful Time of Day distortion Reduced Behavioural Signalling	Harder to Avoid than a volumetric charge, so Reduces Inefficient Avoidance Action No Behavioural Signalling	<b>Positives</b>
	Encourages potentially “out of merit” BtM generation	Charging Bands can Create Distortions	<b>Negatives</b>
<b>Fairness</b>	Energy Services should be billed in relation to Energy Volume	Benefit from a Stable System whether small or large user Reduces Incentives for Partial Grid Defection	<b>Positives</b>
	Some Users Find it Easier to Avoid Than Others	Grid Defection Impacts All Remaining Users Impact on those in fuel poverty	<b>Negatives</b>
<b>Practicality and Proportionality</b>	Frameworks Exist for Easy Implementation Simpler than Banding Approach Low distributional impact on end consumers as maintains status quo	Frameworks Exist for Easy Implementation contingent on Final Demand only paying	<b>Positives</b>
		Risk of Overloading Industry Parties An Untested Methodology could have Unintended Consequences May require a Disputes process (like the TCR) Large distributional impact across end consumers	<b>Negatives</b>

Term	Explanation
<b>Risk of Overloading Industry Parties</b>	Per site charges are exposing certain industry parties to higher costs which they previously took action to avoid. The Task Force were concerned that adding more costs, levied in the same manner, to these parties would create such a huge cost burden that they may collapse. This is a particular concern for energy intensive users operating in international markets where their competitors don't face the same network charges.
<b>Harder to Avoid than a volumetric charge</b>	The TCR has determined that cost recovery charges should be unavoidable and not send any behavioural signals to industry parties. A banded, per site charge is unavoidable unless the site goes completely "off-grid". Partial grid defection can lead to economically inefficient generation to avoid network charges.
<b>No Behavioural Signalling</b>	The TCR has determined that cost recovery charges should be unavoidable and not send any behavioural signals to industry parties. A banded, per site charge won't send signals to industry parties to alter their consumption patterns. There may be a good reason to try and signal to users to alter their offtake, notably over summer, as that would reduce balancing costs to all customers, although it would be more efficient to provide this signal via ancillary services contracts and the Balancing Mechanism.
<b>Equal Benefit from a Stable System</b>	Balancing Services Charges recover costs expended in ensuring stable and secure system operation. All connections benefit equally from these system features whether they are large or small volume users, therefore, the charge should not be based on consumption/export volume.
<b>Some Users Find it Easier to Avoid Than Others</b>	Reducing energy consumption by reducing load or installing behind the meter generation will reduce the overall Balancing Services Charges bill if a volumetric approach to charging is taken. Some users will find it easier than others to avoid this charge but as with the "Equal Benefit" point retain the same benefit.
<b>Grid Defection Impacts All Remaining Users</b>	Complete "Grid Defection", where a user completely gives up their connection, which would be incentivised if a customer could self-supply their own energy, capacity and security cheaper than sourcing this from the network. The Task Force agreed that this was difficult and expensive to achieve, so is quite unlikely, but could have a high impact on the system if it did occur. The impact is to increase revenue recovery charges for all remaining users which is an undesirable outcome.
<b>Reduces incentives for partial grid defection</b>	"Partial grid defection" occurs where a customer can source some, or all of their energy requirements from self-supply, but they retain a network connection as a backup. Fixed charges reduce the incentive for partial grid defection compared with volumetric charges preventing costs landing disproportionately on those least able to avoid them.
<b>Encourages Carbon Intensive BtM generation</b>	Revenue collection levies applied on a £/MWh commodity create a distortion which incentivises BtM generation to dispatch out of economic merit. Most behind the meter generation that is installed to protect the site from volumetric peak charges will be carbon intensive. Small diesel and gas generators with limited running times <sup>15</sup> are subject to less stringent environmental regulations than larger plants. This move would work against the UK's decarbonisation objectives.
<b>Frameworks Exist for Easy Implementation</b>	As a result of the TCR, changes to the network residual charges system and process changes have been undertaken to enable both a volumetric and a banding methodology to be easily implemented. Neither would introduce a new methodology for industry to spend time understanding and managing.
<b>Simpler than Banding Approach</b>	The Task Force felt that the volumetric charge was simpler to understand and to implement than a banding approach.

<sup>15</sup> For fuel burning generators between 1 and 50MW operating more than 50 hours per year compliance with the [Medium Combustion Plant Directive \(MCPD\)](#) air quality standards is required by 2025. Large combustion plants had to meet these standards by 2015.

<b>An Untested Methodology could have Unintended Consequences</b>	The banding approach has yet to be tested in a practical setting. There may be unintended consequences to this new way of charging which are yet to be encountered. The Balancing Services Charges bill would add into the mix between £1.5-3billion more per year to recover using this methodology. The impact of the unintended consequences would be more severe with higher costs involved.
<b>Charging Bands can create distortions</b>	Distortions are found either side of a band boundary where relatively similar users are paying different fixed charges and
<b>Energy Services should be billed in relation to Energy Volume</b>	The Task Force felt that Balancing Services charges were specifically related to energy services rather than asset infrastructure cost (like network TNUoS/DUoS charges) and as such should be billed in relation to energy volumes. This way those that consumed more energy would pay more in Balancing Services charges than those that consumed less.

### Fixing Balancing Services Charges for a Set Period

The Task Force explored options for fixing Balancing Services charges ahead of time. This is a major change from the current methodology where there is a new £/MWh charge calculated for every half hour settlement period on an ex-post basis.

The Task Force agreed that it was difficult to identify a point of maximum benefit for the industry as a whole. Broadly, suppliers were assumed to prefer longer fixed periods with significant notice period to remove the uncertainty around Balancing Services Charges bills. This would allow them to offer some supply contracts to customers with no “risk premia” related to Balancing Services Charges. The ESO, on the other hand, would be likely to over or under recover Balancing Services revenue by a larger margin the further away from “real-time” the tariffs are set. This would lead to potential risks for the ESO financial position and create a temporal dissonance as costs from some time before are recovered through a “K factor” adjustment.

Over or under-recovery of TNUoS revenue is currently made during the financial year two years later than the year in which the over or under-recovery took place. This recovery period could be utilised for correction of over or under-recovery of a fixed BSUoS charge or a different recovery period could be dictated by Ofgem if it added more consumer benefit.

### Impact on Suppliers of Fixed Charge

There was widespread agreement that fixing charges would provide a much greater degree of certainty over the Balancing Services Charges bill that suppliers will expect to face for the duration of the fixed period. This would benefit customers as supply tariffs could be created that accurately reflect the Balancing Services bill and a risk margin would not need to be factored in. The Supplier price cap may also be easier for Ofgem to set as there would be greater certainty over the Balancing Services charges component of a consumer’s bill.

The length of the fixed period was a key topic of discussion. If contracted periods cover more than one fixed period there will be a change in the charge part way through a contracted period which Suppliers would have to manage in their agreements with customers. This led to a discussion on a related topic: that of the notice period in which industry parties would be informed of the Balancing Services tariff prior to the start of the fixed period.

### Impact on the ESO

Balancing Services Charges revenue enables the ESO to fund the costs incurred from balancing the system. If under-recovering this revenue, the ESO (like all companies in such a position) would borrow to finance the shortfall. The Task Force expected that the ESO would have recourse to comparatively cheaper costs of borrowing compared to some industry parties, providing the ability to recover the shortfall at a later date was covered in the regulatory framework.

The ESO finance team confirmed that under-recovery of BSUoS must be reported as a loss on the group P&L reporting. A statement from the ESO Technical Finance team explained that:

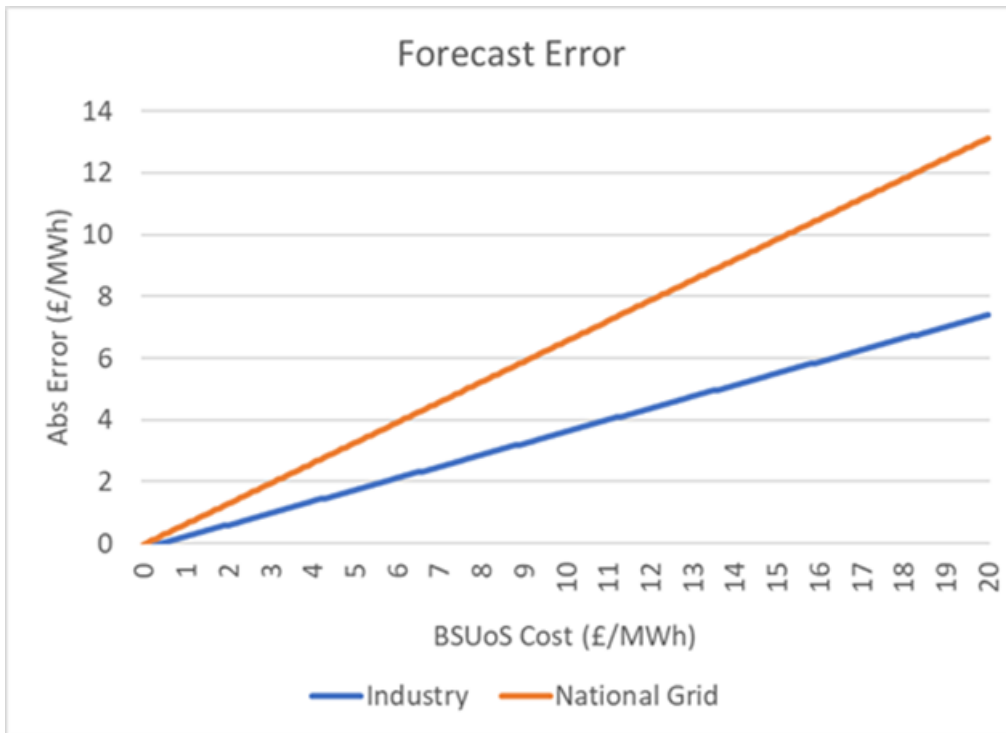
“An entity is subject to rate-regulation where it is party to a framework for establishing the prices that can be charged to customers for goods or services and that framework is subject to oversight and/or approval by a rate regulator.

For such entities, where an amount of income or expense is included, or is expected to be included, by a rate regulator in establishing the price(s) that an entity can charge to customers, this is referred to as a rate-regulated activity. Such activity cannot (currently) be recognised under the IFRS framework (unless an entity is able to apply IFRS 14: Regulatory Deferral Accounts; the entity has to be a first-time adopter of IFRSs in order to apply this standard) as it does not meet the framework’s definition of an asset or liability.”

This means that, as the ESO did not initially choose to apply IFRS 14 deferrals when first adopting IFRS financial reporting, under-recovery of BSUoS is not compensated for in that year’s final accounts by the prospect to recover it through “K-Factor”. Essentially, the fact that ESO revenue is overseen by a regulator means that the IFRS template considers there to be uncertainty around the revenue as decisions around regulatory recovery could be reversed or subject to legal challenge.

This causes concern for ESO as it impacts National Grid Group shareholder dividends for that year despite the assurance of being able to make up the under-recovery through a “K-Factor” at a later date. Ofgem’s finance team confirmed that typically a “K-Factor” adjustment to correct for over or under recovery has approximately a two-year delay from the time of over or under recovery.

The Task Force discussed whether fixing the charge might incentivise the ESO to improve their BSUoS forecast accuracy. It was agreed that currently the forecast is not very accurate and has a greater absolute error than some comparable forecasts<sup>16</sup>.



The Task Force compared the ESO BSUoS forecast accuracy with an alternative forecast produced by Catalyst Commodities. The Catalyst Commodities forecast has almost half the average error of the ESO forecast see graph above.

The ESO believe that it is important not to place pressure on control room engineers to “hit” forecasted spend costs for different instructions as this may impact their decision making required to ensure safe and secure system operation. The ESO also noted that under the BSIS scheme the modelling used to determine the “optimal spend” was outperformed by Control Room engineers on a consistent basis. This was due to an engineer’s ability to use experience and advice to mitigate the cost impact of simultaneous actions in many parts of the network which were too complex for the model (PLEXOS). Ofgem’s regulatory finance team noted that changes to the recovery of costs through BSUoS charges may require additional financing measures.

<sup>16</sup> <https://www.catalystcommodities.co.uk/>

However, the Task Force ultimately believed that fixing the charge would result in an improved accuracy in forecasting from the ESO and therefore have a lower impact than might otherwise be felt. In principle, this conclusion appears valid but requires further operational expenditure allowance for the ESO to allow it to effectively forecast and manage the cost base of the external factors that influence the BSUoS charge in addition to its system balancing role.

**How long should the Fixed Period be and How much Notice should be given to Industry?**

Some examples discussed by the Task Force are contained in the table below. They lean on a 6-month or 12-month fixed period with a 2 – 12 month notice period. The dates given in the right-hand column align with the popular contracting windows of April and October. The 8 month notice option is given for the 6 month fixes only as it enables a supplier to have certainty over the BSUoS price for the entire duration of a 12-month contract despite a step change in the tariff part way through the term. These options would all also provide a level of certainty on the BSUoS component of their charge to customers on BSUoS pass through contracts. Consumers of all sizes would benefit from reduced risk premia being added into their contracts and most options would enable suppliers to offer a 12-month fixed term contract with full certainty over the BSUoS price.

Notice Period	Length of Fixed Period	Dates
2 months	6 months*	BSUoS Tariff published 1 <sup>st</sup> February 2023 Effective from 1st April 2023 until 30th September 2023
8 months	6 months*	BSUoS Tariff published 1 <sup>st</sup> February 2023 Effective from 1st October 2023 until 31st March 2024
12 months	6 months*	BSUoS Tariff published 1 <sup>st</sup> April 2022 Effective from 1st April 2023 until 30th September 2023
2 months	12 months	BSUoS Tariff published 1 <sup>st</sup> February 2023 Effective from 1st April 2023 until 31 <sup>st</sup> March 2024
6 months	12 months	BSUoS Tariff published 1 <sup>st</sup> February 2023 Effective from 1st August 2023 until 31 <sup>st</sup> July 2024

\*Note that for these options a second round of tariff publications and effective from dates would be required to complete a full year’s tariffs and revenue collection. For simplicity, only one round is given as an example.

## Task Force conclusion on Deliverable 2 and Next Steps

**The Task Force recommends that Balancing Services Charges should be recovered through a charge which is fixed ex ante. The Task Force are yet to recommend whether the charge should be volumetric (£/MWh) or per site (£/site).**

The Task Force weighed up the pros and cons of both a volumetric (£/MWh) charge and a banded site based charge (£/site). The pros and cons table specifically considered a banded charge with the same methodology as will be used for the TDR from April 2022. Whilst the Task Force were aware that Ofgem had developed this methodology for network residual charging which is another cost recovery charge like BSUoS there were concerns that the banded methodology would introduce some new distortions and inequitable outcomes. The Task Force were, on the other hand, aware that a volumetric fixed charge can be avoided more easily than a per site charge by installing behind the meter generation and making efforts to reduce consumption. There are also opportunities to develop hybrids of either of the two main methodologies discussed in this report. Consequently, the Task Force were keen to seek the views of industry to support their recommendation on Deliverable 2 in the final report.

The Task Force agreed that fixing the Balancing Services charges would have benefits for industry as a whole. The exact combination of fix and notice periods which would deliver the greatest industry benefits was not conclusively identified. Further work to understand the ability of the ESO to set fixed tariffs would be required to understand the potential for over/under recovery and therefore the wider consumer benefits that may result.

The Task Force recommendation on Balancing Services charges will be reviewed by Ofgem to decide whether it should be implemented.



# Further Considerations

## Implementation of the Task Force's Conclusions

Notice to industry prior to implementation was a key focus for the Task Force and a recommendation focussing on essential implementation considerations has been included in this report. The Task Force agreed that two years' notice from the point of publication of Ofgem's response to the Task Force report would be sensible prior to implementation. This was due to the fact that many supplier contracts for purchase of power from the wholesale market were up to two years in duration and fixed price contracts with customers were typically no longer than two years. BSUoS methodology reform of some description should be expected by industry given the conclusions from the first Task Force and Ofgem's expressed views on TCR charging. The recommended implementation timeframe would therefore allow the market to avoid the majority of windfall gains and losses as the majority of fixed contracts would expire in the two years between publication of Ofgem's response and implementation.

The Task Force recommendation for Deliverable 2 is for the ESO to fix Balancing Services charges ex ante and to have a given notice period of this fixed charge to industry. The interaction between the suggested two-year notice of implementation and an as yet undefined notice period of the first fixed charge should not unduly delay implementation. The Task Force propose that the notice period of the first fixed charge is included within the two-year notice of implementation such that the implementation date is the same as the date from which the first fixed Balancing Services charge is applied.

The COVID-19 pandemic and lockdown which began in April 2020 has led to significant demand reductions across GB. Periods of very low demand that have coincided with high wind and/ or solar generation led to increases in BSUoS charges from April to June. BSUoS forecasts for the rest of this summer are also very high.

SSE raised CUSC modification CMP345 in response to this situation, which proposed to defer a portion of the increased BSUoS charges from May – August 2020 to the 2021/22 charging year. Ofgem approved WACM2 of the modification, which caps BSUoS charges for a period at £15/MWh from 25 June to 31 August. Charges in excess of the cap will be recovered from all users in 2021/22.

The workgroup process and consultation for CMP345 has highlighted the difficulty facing industry in managing the risk of unexpected events that significantly suppress demand and increase BSUoS charges. In the short term, until 31 August 2020, the £15/MWh cap will shift some of this risk from market participants to the ESO. The Task Force recommendations will include how this risk should be managed in the longer term. Until a new charging structure is in place, market participants will continue to face the risk of periods of unexpected, very high BSUoS charges.

Delaying implementation would continue the existing harmful distortions between generators who pay BSUoS and those who do not. The Task Force acknowledged that it is important to find a balance between providing sufficient notice to help avoid windfall gains and losses with the need to unlock the potential benefits from regime change.

Given the 2-year notice prior to implementation recommendation and the awareness of continuing market distortions the Task Force discussed the feasibility of an interim solution. Feasibility very much depends on the nature of the interim solution and the extent of system and process changes required but broadly the Task Force felt that a partial change would add to the implementation cost of the enduring solution and create confusion and uncertainty for industry without necessarily correcting the market distortions. Additionally, there were concerns that a change which materially altered the generation demand split of the total BSUoS pot would undermine the requirement for 2 years notice agreed by the Task Force. The Task Force decided to include a specific consultation question on interim solutions for respondents to bring forward their views on interim solutions for a further discussion before the Final Report was submitted to Ofgem.

## Implementation and RCRC

For all Settlement Periods, the Total Residual Cashflow (TRC) is calculated as being the sum of all energy imbalance charges across all parties and accounts. This value represents the total amount of money to be redistributed (or collected) via the Residual Cashflow Reallocation Cashflow (RCRC). RCRC and BSUoS are closely interlinked as periods with high imbalance tend to have high Balancing Services expenditure which leads to both a high BSUoS price and large RCRC debits or credits. The RCRC methodology should be considered as part of the resulting industry code modification processes due to its close relationship to BSUoS. If BSUoS is recovered from a different cohort of industry there may be unintended consequences if RCRC is not also reviewed. In particular, energy imbalance action costs recovered through BSUoS and



charged onto Final Demand could trigger a credit to all parties capable of imbalance through RCRC; only a subset of whom would be liable for BSUoS.

## Implementation and ESO Pathfinder Projects

The ESO pathfinder projects are an innovative process designed to find the most economic and efficient solution to some of the system's security needs that have traditionally been met through the TOs. They introduce tenders in which traditional TO built solutions compete against market based solutions to introduce competition and maximize savings for UK consumers. Cost reductions of £125.5m per year from 22/23 are expected to be achieved through the introduction of competition to network asset built. Market based solutions regularly include assets traditionally provided by TOs, such as sync compensators or reactors. These import a small amount of active power to provide the service (such as reactive power or voltage) they have successfully tendered for.

Through the development of the CUSC modifications for the Transmission Demand Residual (TDR) two definitions of Final Demand have been proposed, one which would specifically exclude voltage pathfinder projects from being categorised as Final Demand (sites that exclusively provide reactive power services) and the other that would consider all these sites to be Final Demand and therefore liable for Final Demand network charges. Further work and discussions with Ofgem are planned, as if only some pathfinder participants are required to pay the TDR, this creates a discrepancy to fair competition which may result in suboptimal consumer outcomes and savings of the Pathfinder tender exercise.

The Task Force considered how these sites should be charged in light of their preliminary conclusion on Deliverable 1 that Final Demand only should pay BSUoS. The Task Force believed that a "level playing field" was important for the consumer benefit of these tenders. The Task Force's initial conclusion is that sites which provide market based solutions for transmission system services shouldn't be eligible for BSUoS charges if BSUoS charges are levied on Final Demand only. The Task Force were of the view that an enduring charging solution should be found for these sites and any balancing services charges they should attract.

## Industrial Impacts of the Task Force's Conclusions

The Task Force noted that the increase in direct costs to customers, notably the large and intensive users operating in international markets, may create incentives which may have unintended consequences. For this type of customer there are a number of increasing energy costs that may influence their energy usage, such as the Final Consumption Levies (FCLs), changes to the distribution and transmission charging regimes, and carbon taxes. In order to avoid some, or all of these costs, the customers may be able to reduce their energy usage and/or their reliance on public electricity supplies, allowing them to reduce the size of their connection and charges related to electricity imports. In the most extreme cases customers may be able to move their businesses offshore or may have to shut as they become uncompetitive.

The Task Force considered whether the charging of Balancing Services Charges on a volumetric (£/MWh) basis or as a fixed capacity charge (£/site) would incentivise customers to change their behaviour to avoid the charge. Evidence shows that the existing volumetric BSUoS charge is currently avoided by some customers who reduce or move their energy usage between times of high and low BSUoS charges. Customers also are observed acting to avoid volume based Network Charges. The ESO estimates some 600MW of demand reduction occurs over the Triads. The Task Force, therefore, felt that load shifting in response to the charge was a risk, as while electricity demand is inelastic for most types of customers, for those where electricity is a high proportion of their total cost it is more elastic. Some of the Task Force therefore felt this potential change in consumption should be considered as the Task Force had already agreed that balancing services costs should be treated as "cost recovery". Allowing customers to "avoid" cost recovery charges is not in line with Ofgem's wider TCR conclusions and therefore the incentives and the ability to avoid the charge should be minimised.

The use of a fixed capacity based charge also has its challenges, especially when constructed as in Ofgem's TCR work, most notably in how to set charging bands. A fixed period charging methodology also carries the potential risk of greater over/under-recovery between years. The existence of the "k factor" in price controls is a means to manage this risk, but can create significant variation in charges between years. There were concerns that industrial and commercial customers, faced with not just a high, unavoidable balancing services charge but also other, increasingly onerous charges, may go "off-grid" or shut down completely, taking production offshore. The Task Force made no research into where a tipping point to that decision may be and

recognised it would differ for different customers. However, the Task Force noted that the Government's Energy Intensive Industries (EII) scheme and Climate Change Agreements<sup>17</sup> were a clear recognition that the UK Government were concerned that internationally competitive industries faced an undue competitive disadvantage from the UK's various FCLs and carbon policies.

The Task Force did not think it would be appropriate to give larger energy users any form of discount on the same type of basis that the EII scheme works, as size of demand may not be an indication of energy intensity. It was also noted that the TCR seemed to also charge larger customers proportionally more than smaller customers. Though banding for BSUoS could be different from that used for DUoS/TNUoS, it would be administratively simpler to use the same bands. Many of these companies will be international businesses and therefore there is a real risk that they could shut UK operations and move them to other countries. The Task Force did not believe that it would be Balancing Services costs on its own that would trigger such behaviour, but the cumulative effect of the various charges would impact some customers' ability to remain competitive in their own markets. The Task Force believed it was vital for Ofgem to fully assess the cumulative impact of all of its proposed policy changes.

The Task Force observed that going off-grid is difficult, but it may be possible for parties who can use grid back up to run safety systems only and rely on on-site generation for the vast majority of their energy needs. Where customers "self-supply", relying on their own generation rather than imports, they avoid many costs, like the FCLs, and reduced connection sizes would also lower network related costs, but the number and size of customers who may be able to take this course of action was unknown. It was further noted that the customers who could install on-site generation may also be able to put such plant in the capacity market (CM) as a means to fund such new build, though under the CM Rules they would need to maintain a connection for export.

The movement of operations offshore or installation of on-site generation was likely to have a negative effect on greenhouse gas emissions. The EII scheme was in part set up to stop "carbon leakage", a common concern when industries move production to countries with lower environmental standards, less renewable energy within the generation mix, etc., to keep their costs down. The Task Force also thought on-site generation was far more likely to be gas fired generation to enable consistent, electricity supplies. Again, these effects could not be quantified, but the Task Force believed that Ofgem should consider them in reaching a decision.

## Consumer Impacts of the Task Force's Conclusions

### Deliverable 1

The Task Force noted the TCR principles and their conclusions regarding the treatment of "cost recovery" costs. Consideration was also paid to a previous modification, CMP201<sup>18</sup> raised in 2014, which sought to move Balancing Services Charges wholly onto final demand and which was not approved by Ofgem. At that point, Ofgem concluded that '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'. This concern resulted from Ofgem's view that in the short-term, increasing GB generation relative to European counterparts through removing Balancing Services obligations would increase demand for GB generation and therefore, bring more expensive, marginal plant into merit. As a result, wholesale prices in GB would increase in the short-term, offsetting around 50% of the direct reduction in wholesale price brought about by the removal of BSUoS. In the longer-term, this should create consumer benefits as higher short-term revenue would lead to increased investment in GB generation and bring down the wholesale price once more.

In 2014, Ofgem considered this long-term benefit sufficiently uncertain that it rejected the modification.

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<sup>17</sup> Widening eligibility for renewable electricity cost relief schemes – June 2018

<https://www.gov.uk/government/consultations/widening-eligibility-for-renewable-electricity-cost-relief-schemes#history>

Climate Change Agreements scheme extension and reforms for any future scheme – April 2020

<https://www.gov.uk/government/consultations/climate-change-agreements-scheme-extension-and-reforms-for-any-future-scheme>

<sup>18</sup> <https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp201-removal>

CMP308, which proposes the same solution as its predecessor CMP201, brought forward a theory that the market had evolved somewhat from 2014 to reduce these short-term consumer impacts. The most recent analysis for CMP308 showed a positive short-term impact for consumers as long as the differential was less than 15p/MWh between the base case marginal plant and the prices submitted by the marginal plant post BSUoS reform. It is not possible given the short timescales for the Balancing Services Charges taskforce to undertake modelling and a broader impact assessment.. Acknowledging this uncertainty around the short-term consumer impacts, the Task Force recommend that a quantitative assessment of this should inform Ofgem's final decision on these reforms.

## Deliverable 2

When considering the structure of Balancing Services Charges for the second deliverable, the Task Force considered analysis undertaken through the TCR which focussed on the distributional impacts of moving to a fixed charge. In the TCR, this was particularly pertinent for energy intensives and domestic consumers potentially in fuel poverty. For the latter, this focused on whether or not those in fuel poverty would be disproportionately impacted by the shift from a volumetric to a fixed charge.

A report by 'Grid Edge Policy' and supported by consumer group Citizen's Advice<sup>19</sup> raised concerns that the movement to a fixed charge for the TDR and DDR would disadvantage those in fuel poverty who on average "use less energy and hence will pay more while those on high incomes will on average pay less, in some cases significantly less". BSUoS costs are currently smaller than the network Residual charges (Distribution Residual and Transmission Residuals combined) considered within the TCR. However, it is still expected that some of these distributional impacts will continue to be relevant. The distributional impact, including these considerations, should be assessed as part of any impact assessment ahead of Ofgem's final decision on these reforms.

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<sup>19</sup> [https://b13f0e05-ddc3-484d-ab4f-7e31f496e1c8.filesusr.com/ugd/140d4b\\_d97aba68981041978c5367c405c1eca1.pdf](https://b13f0e05-ddc3-484d-ab4f-7e31f496e1c8.filesusr.com/ugd/140d4b_d97aba68981041978c5367c405c1eca1.pdf)



# Appendix

## Membership of the Task Force

As with the First Balancing Services Charges Task Force, an application process was opened to join the second iteration. Members were selected representing a broad range of expertise within the industry.

A full list of Task Force members is contained below:

Attendees	Company	Position
Colm Murphy	National Grid ESO	Chair
Joseph Henry	National Grid ESO	Technical Secretary
Jon Wisdom	National Grid ESO	Taskforce Member
Eleanor Horn	National Grid ESO	Secretariat
Andrew Rimmer	Engie	Taskforce Member
Lisa Waters	Waters Wye Associates	Taskforce Member
Tom Edwards	Cornwall Energy	Taskforce Member
Caroline Bragg	ADE	Taskforce Member
Olaf Islei	Shell Energy	Taskforce Member
Tom Steward	Good Energy	Taskforce Member
Joshua Logan	Drax Group	Taskforce Member
John Tindal	SSE Plc.	Taskforce Member
George Moran	Centrica	Taskforce Member
Simon Cowdroy	RES	Taskforce Member
George Douthwaite	Npower	Taskforce Member
Keith Munday	Bryte Energy	Taskforce Member
Paul Jones	Uniper	Taskforce Member
Joseph Underwood	Energy UK	Taskforce Member
Grace March	Sembcorp	Taskforce Member
Kayt Button/Lynda Carroll	Ofgem	Taskforce Member
Eleanor Wood	Ofgem	Observer



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