




BSC Modification Proposal Form		At what stage is this document in the process?
<h1>P461: Accurate Reporting of Customers Delivered Volumes to Suppliers</h1>	<div style="display: flex; flex-direction: column; align-items: flex-end;"> <div style="border: 1px solid green; background-color: #28a745; color: white; padding: 5px; margin-bottom: 5px;">01 Modification</div> <div style="border: 1px solid #17a2b8; background-color: #d9edf7; padding: 5px; margin-bottom: 5px;">02 Workgroup Report</div> <div style="border: 1px solid #c3e6cb; background-color: #d9edf7; padding: 5px; margin-bottom: 5px;">03 Draft Modification Report</div> <div style="border: 1px solid #ffc107; background-color: #d9edf7; padding: 5px;">04 Final Modification Report</div> </div>	
<p><b>Purpose of Modification:</b></p> <p>When a customer delivers a Bid Offer Acceptance (BOA) through a Virtual Lead Party (VLP), and provided the customer consents to the disclosure, their Supplier will receive details of the 'Delivered Volume' i.e. the change in the customer's Import and/or Export arising from delivery of the BOA. Currently the details reported to the Supplier are the 'raw' Delivered Volumes reported to the Supplier Volume Allocation Agent (SVAA) by the VLP, and do not reflect any adjustments made to that data in Settlement. This defeats the intended purpose of the reporting by making it impossible for Suppliers to understand the contribution made by each customer to their overall Imbalance charge.</p> <p>This Modification proposes to address this issue by amending the values reported to Suppliers to incorporate the effect of any adjustments made in Settlement.</p>		
<p><b>Is this Modification likely to impact any of the European Electricity Balancing Guideline (EBGL) Article 18 Terms and Conditions held within the BSC?</b></p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>		
	<p>The Proposer recommends that this Modification should:</p> <ul style="list-style-type: none"> <li>not be a Self-Governance Modification Proposal; and</li> <li>be sent directly into the Report Phase.</li> </ul> <p>This Modification will be presented by the Proposer to the BSC Panel on Thursday 12 October 2023. The Panel will consider the Proposer's recommendation and determine how best to progress the Modification.</p>	
	<p>High Impact:</p> <ul style="list-style-type: none"> <li>None</li> </ul>	
	<p>Medium Impact:</p> <ul style="list-style-type: none"> <li>Elexon</li> </ul>	



Low Impact:

- Suppliers

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## Timetable

### The Proposer recommends the following timetable:

Initial Written Assessment	12 October 2023
EBGL Report Phase Consultation	19 October 2023 - 20 November 2023
Draft Modification Report presented to Panel	14 December 2023
Final Modification Report submitted to Authority	20 December 2023



Any questions?

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# 1 Why Change?

## Background

BSC Modification P344 ([‘Wider Access and Project Terre’](#)) introduced arrangements for customers and generators to participate in the Balancing Mechanism (BM) through an independent aggregator (a ‘Virtual Lead Party’ or VLP) independently of their electricity Supplier. When they do this, the Supplier’s Imbalance Volume is adjusted to remove the effect of any Bid Offer Acceptances (BOAs):

- If a customer reduces their consumption (or increases their generation) of electricity, the Supplier would normally be paid for the additional energy volume through their Energy Imbalance Charge. But when this change in behaviour arises from delivering an Offer through a VLP, the Settlement process removes this volume from the Supplier’s Energy Account, so that they do not receive this additional payment.
- Conversely, if a customer increases their consumption (or decreases their generation) of electricity, the Supplier would normally pay for the additional energy volume through their Energy Imbalance Charge. But when this change in behaviour arises from delivering a Bid through a VLP, the Settlement process adds this volume to the Supplier’s Energy Account, so that they are not required to make this additional payment.

The purpose of these adjustments is to ensure a level playing field between BOAs delivered through a VLP’s Secondary BM Unit, and BOAs delivered through a Primary BM Unit (which do not give rise to Imbalance Charges).

In order to correctly bill their customers, Suppliers will generally want to know the Delivered Volume that each of their customers has provided through a VLP. The exact use to which each Supplier puts this information may vary depending on the terms of their contract with the customer, but typical use cases would include:

- Adjusting payments from (or to) the customer for the energy they use (or generate). For example, if a customer increases their consumption to deliver a Bid, the Supplier is credited with this energy volume through an adjustment to their Energy Account, and therefore does not need to charge the customer for the energy. Note that Modification Proposal P444 ([‘Compensation for Virtual Lead Party actions in the Balancing Mechanism’](#)), if approved, may affect this use case by introducing new payments from and to Suppliers for volumes delivered by their customers; and
- Passing on other costs or charges to customers. For example, some Power Purchase Agreements (PPAs) may require generators to forecast their output, with any deviations from the forecast being settled at the Imbalance Price. The Supplier will need to take any Delivered Volumes into account to avoid unfairly penalising the generator for delivering Bid Offer Acceptances.

In order to facilitate these processes, BSC Modification P344 introduced a requirement (in paragraphs 7.1.7 and 7.2.7 of BSC Annex S-2) for the Supplier Volume Allocation Agent (SVAA) to provide these Delivered Volumes to Suppliers, subject to the VLP having indicated that the customer consents to the disclosure. This information is sent to Suppliers on the ‘Metering System Half Hourly Volume Adjustments’ (P0287) data flow, following each Volume Allocation Run. Where the customer has not consented to SVAA disclosing this data, the Supplier may have to obtain Delivered Volume data elsewhere e.g. directly from the customer.

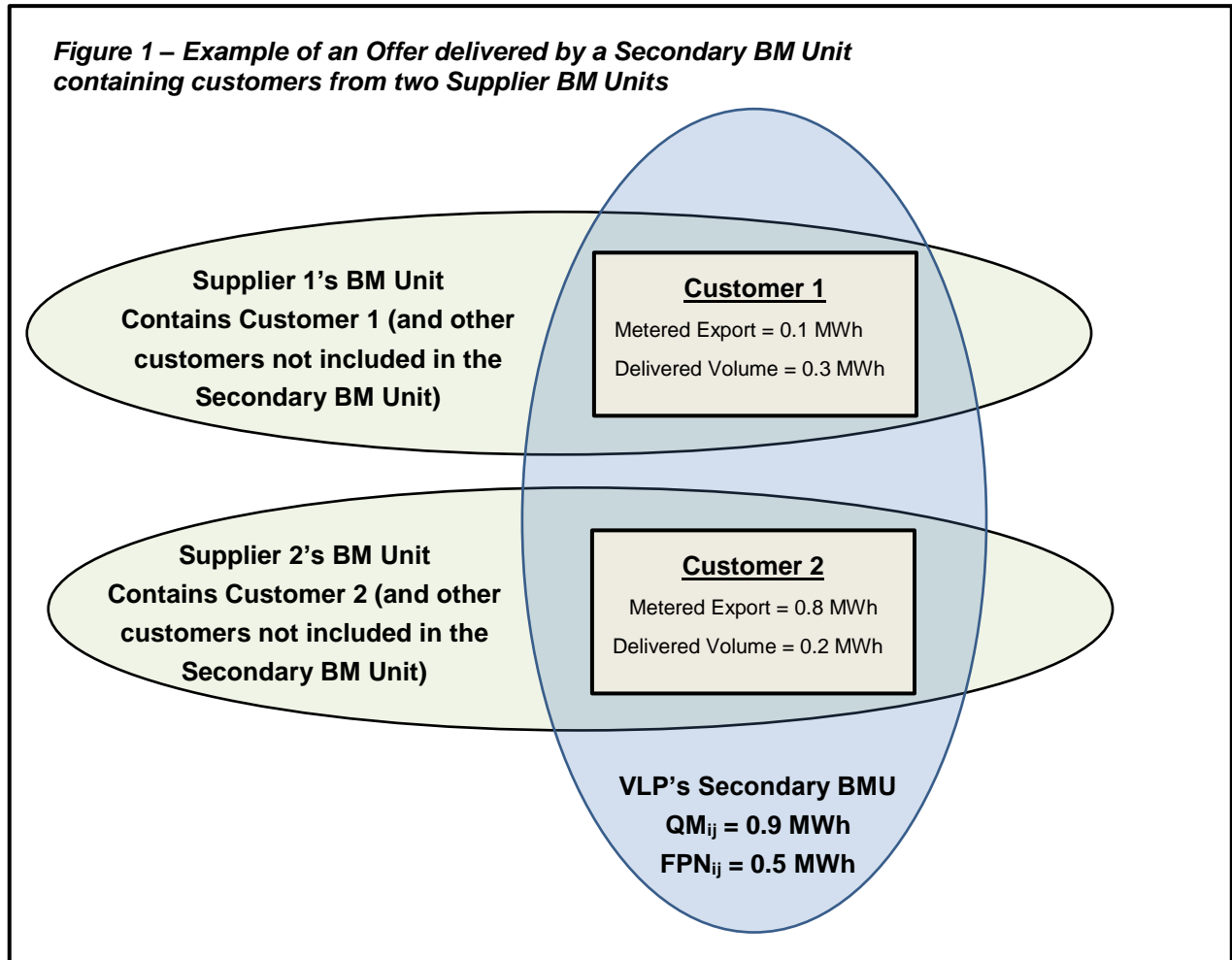
## What is the issue?

The issue is that the Delivered Volumes reported to the Supplier (in accordance with paragraphs 7.1.7 and 7.2.7 of BSC Annex S-2) are frequently inconsistent with the adjustments made to the Supplier's Imbalance Volume in Settlement. This is a consequence of the data pipeline used to submit Delivered Volume data into Settlement:

1. The VLP reports Delivered Volumes to the SVAA (based on their own assessment of how much energy was delivered through each MSID Pair);
2. SVAA allocates the Delivered Volume between the Import and Export Metering Systems, and reports them to the Settlement Administration Agent (SAA) and (subject to customer consent) the relevant Suppliers. At this stage the Delivered Volumes are still those self-reported by the VLP, and have not been independently verified;
3. The SAA compares the total Delivered Volumes for each Secondary BM Unit to the Period Secondary BM Unit Delivered Volume ( $QSD_{ij}$ ) calculated in Settlement. Where there is a difference, the Delivered Volume for each Supplier with customers in that Secondary BM Unit will be scaled up or down, so that the total matches the calculated value of  $QSD_{ij}$ . As a result, the values of Period Secondary BM Unit Supplier Delivered Volume ( $QSD_{ij2}$ ) calculated for each Supplier BM Unit 'i' and Secondary BM Unit 'i2' may not be consistent with the data on the P0287 data flow.
4. The  $QSD_{ij2}$  values are aggregated to produce the Period Supplier BM Unit Delivered Volume ( $QBSD_{ij}$ ) for each Supplier BM Unit. This value (which is reported to Suppliers on the SAA-I014 Settlement Report) may therefore be inconsistent with the MSID-level data on the P0287 data flow.

For example, consider a Secondary BM Unit containing two customers, each with a different electricity Supplier (as illustrated in Figure 1 overleaf).

In Figure 1, the blue oval represents the Secondary BM Unit, and the green ovals represent the Supplier BM Units. The Secondary BM Unit was instructed to deliver an Offer Volume of 0.5 MWh, and the VLP has indicated that Customer 1 delivered 0.3 MWh of this, and Customer 2 delivered 0.2 MWh. However, the data available to SAA shows that the Secondary BM Unit only delivered 0.4 MWh, as the BM Unit Metered Volume ( $QM_{ij}$ ) was 0.4 MWh greater than the Final Physical Notification ( $FPN_{ij}$ ):



In this example, the Settlement process will be as follows:

1. SVAA will (subject to customer consent) report to the Suppliers that customers 1 and 2 delivered 0.3 and 0.2 MWh respectively.
2. Similarly, SVAA will report to SAA that Suppliers 1 and 2 delivered 0.3 and 0.2 MWh respectively.
3. SAA will calculate the Expected Metered Volume ( $QME_{ij}$ ) that the Secondary BM Unit was expected to deliver as 1.0 MWh (i.e. 0.5 MWh FPN plus 0.5 MWh Offer Volume). But the Metered Volume ( $QM_{ij}$ ) was only 0.9 MWh, implying that the Secondary BM Unit only delivered 0.4 MWh of the intended 0.5 MWh. This could have been because one or both of the customers didn't deliver the expected response, or because the VLP's submitted FPN did not accurately estimate what the customers would have done (in the absence of a BOA).

4. As SAA does not know the reason for the VLP's failure to deliver the full Offer volume, it cannot attribute the shortfall to the customer(s) responsible. Instead, in accordance with BSC Section T4.3B, it will scale down the Imbalance Adjustments for each Supplier so that, in total, they match the 0.4 MWh delivered by the BM Unit. In effect the shortfall in the Delivered Volume is shared out *pro rata* between the Suppliers:

	<b>Delivered Volume claimed by VLP and reported on P0287</b>	<b>Delivered Volume QSD<sub>ij</sub> after adjustment by SAA</b>
<b>Customer 1</b>	0.3 MWh	0.24 MWh
<b>Customer 2</b>	0.2 MWh	0.16 MWh
<b>Total</b>	0.5 MWh	0.4 MWh

As a result, the Suppliers will not be able to reconcile the data reported on the P0287 with the adjustments to their Imbalance Volume reported to them by the SAA. For example, Supplier 1 would find that the volume reported on the P0287 was 0.3 MWh, while that reported to them on their Settlement Report was 0.24 MWh. This means they will be unable to accurately adjust customers' bills to reflect actions taken in the Balancing Mechanism, or pass through Imbalance Charges to the customers causing them.

### Desired outcomes

The desired outcome is that (subject to customer consent) Suppliers are provided with the information required to accurately allocate values of Period Supplier BM Unit Delivered Volume (QBSD<sub>ij</sub>) calculated by SAA to the individual Metering Systems causing them.

## 2 Solution

### Proposed Solution

The Proposed Solution is that values reported to Suppliers on the P0287 data flow should incorporate any adjustments made by the SAA. In the example described above, SVAA would report adjusted values (0.24 and 0.16 MWh) to the Suppliers, rather than unadjusted values (0.3 and 0.2 MWh). The changes to the BSC legal text required to achieve this are as follows:

1. Include a new requirement in BSC Section T4.3B for SAA to calculate explicitly the ‘adjustment factor’ applied to each Secondary BM Unit in each Settlement Period. This data item – the Period Secondary BM Unit Adjustment Factor ( $SBMUAF_{i2j}$ ) – should be calculated as:

$$SBMUAF_{i2j} = QSD_{i2j} / \sum_i VBMUSDV_{ij2}$$

where  $\sum_i$  represents the summation over all Supplier BM Units ‘i’.

In the example described above, the value of  $SBMUAF_{i2j}$  for the VLP’s Secondary BM Unit would be  $0.4 / 0.5 = 0.8$ . This indicates that all of the  $VBMUSDV_{ij2}$  values submitted to SAA for that Secondary BM Unit ‘i2’ were adjusted by a factor of 0.8, in order to match the overall volume delivered by the BM Unit;

2. Include a new requirement in BSC Section T for SAA to report to SVAA the values of  $SBMUAF_{i2j}$  for each Secondary BM Unit ‘i2’ and Settlement Period ‘j’; and
3. Amend paragraphs 7.1.7 and 7.2.7 of BSC Annex S-2 to state that values of Secondary Half Hourly Delivered (Non Losses) ( $VD_{i2NKji}$ ) and Secondary Half Hourly Delivered (Losses) ( $VDLOSS_{i2NKji}$ ) reported to Suppliers should first be multiplied by the value of  $SBMUAF_{i2j}$  (for Secondary BM Unit ‘i2’ and Settlement Period ‘j’).

### Benefits

This change will allow Suppliers to accurately attribute to individual customers any Imbalance adjustments that arise from those customers participating in the Balancing Mechanism through a VLP. This will ensure that Suppliers have the data required to accurately bill customers (in accordance with the terms of their contracts), and minimise cross-subsidies from customers who use a VLP to those who don’t (or vice versa).

### 3 Relevant Objectives

Impact of the Modification on the Relevant Objectives:	
Relevant Objective	Identified impact
a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence	Neutral
(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System	Neutral
(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity	<b>Positive</b>
(d) Promoting efficiency in the implementation of the balancing and settlement arrangements	Neutral
(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]	Neutral
(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation	Neutral
(g) Compliance with the Transmission Losses Principle	Neutral

#### Applicable BSC Objective (c)

This change will positively impact competition in the sale and purchase of electricity, by providing Suppliers with more accurate information on the actions taken by their customers through VLPs, and allowing them to charge those customers in a way that is cost-reflective and consistent with agreed contractual terms.



## 4 Potential Impacts

### Impacts on Core Industry Documents

Impacted Core Industry Documents			
<input type="checkbox"/> Ancillary Services Document	<input type="checkbox"/> Connection and Use of System Code	<input type="checkbox"/> Data Transfer Services Agreement	<input type="checkbox"/> Use of Interconnector Agreement
<input type="checkbox"/> Retail Energy Code	<input type="checkbox"/> Transmission License	<input type="checkbox"/> System Operator Transmission Owner Code	<input type="checkbox"/> Supplemental Agreements
<input type="checkbox"/> Distribution Code	<input type="checkbox"/> Grid Code	<input type="checkbox"/> Other (please specify)	<input checked="" type="checkbox"/> None

This Modification is not anticipated to impact any other industry codes.

### Impacts on BSC Systems

Impacted Systems				
<input type="checkbox"/> CRA	<input type="checkbox"/> CDCA	<input type="checkbox"/> PARMS	<input checked="" type="checkbox"/> SAA	<input type="checkbox"/> BMRS
<input type="checkbox"/> EAC/AA	<input type="checkbox"/> FAA	<input type="checkbox"/> TAAMT	<input type="checkbox"/> NHHDA	<input type="checkbox"/> SVAA
<input type="checkbox"/> ECVAA	<input type="checkbox"/> ECVAA Web Service	<input type="checkbox"/> Elexon Portal	<input checked="" type="checkbox"/> Other (Please specify)	

This Modification will require changes to the SAA system and the Data and Calculations Platform (DCP). DCP is one of the IT systems used by the Supplier Volume Allocation Agent (SVAA) to implement the calculations described in Annex S-2 of the BSC:

1. Amend the SAA system to calculate and store values of Period Secondary BM Unit Adjustment Factor ( $SBMUAF_{i2j}$ ). This new calculation would be carried out by the part of the SAA system that calculates Period Delivered Volumes for Supplier BM Units;
2. Introduce a new interface for the SAA system to send values of  $SBMUAF_{i2j}$  to the Data and Calculations Platform (DCP), and for DCP to validate and load them;
3. Amend the DCP system to include a process that calculates adjusted values of the MSID-level Delivered Volumes and associated losses (by multiplying the unadjusted values  $VD_{i2NKji}$  and  $VDLOSS_{i2NKji}$  by the adjustment factor  $SBMUAF_{i2j}$ ); and
4. Amending the DCP system to report the adjusted values (rather than the unadjusted values) on the P0287 data flow sent to Suppliers. Note that this change will require production of the P0287 data flow to be delayed until after the SAA has completed the Settlement Run, and reported  $SBMUAF_{i2j}$  values to DCP.

## Impacts on BSC Parties

Impacted Parties			
<input checked="" type="checkbox"/> Supplier	<input type="checkbox"/> Interconnector User	<input type="checkbox"/> Non Physical Trader	<input type="checkbox"/> Generator
<input type="checkbox"/> Licensed Distribution System Operator	<input type="checkbox"/> National Electricity Transmission System Operator	<input type="checkbox"/> Virtual Lead Party	<input type="checkbox"/> Other (Please specify)

This Modification will positively impact Suppliers by providing them with more accurate data in the 'Metering System Half Hourly Volume Adjustments' (P0287) data flow. There will be no change to the format of the P0287 data flow, but Suppliers will receive it later (because DCP will now not be able to produce the report until after SAA has performed the Settlement Run to calculate SBMUAF<sub>12j</sub> values).

## Impacts on consumers and the environment

Impact of the Modification on consumer benefit areas:	
Consumer benefit area	Identified impact
Improved safety and reliability  None identified	Neutral
Lower bills than would otherwise be the case  None identified	Neutral
Reduced environmental damage  None identified	Neutral
Improved quality of service  The Modification will allow accurate billing to customers which the current solution does not provide.	<b>Positive</b>
Benefits for society as a whole  None identified	Neutral

## Legal Text Changes

See the Proposed Solution section above for details of the required changes to Annex S-2, Section T and Section X-2 of the BSC.

## 5 Governance

### Self-Governance

<input checked="" type="checkbox"/> <b>Not Self-Governance</b> – A Modification that, if implemented:	
<input type="checkbox"/> materially impacts the Code’s governance or modification procedures	<input type="checkbox"/> materially impacts sustainable development, safety or security of supply, or management of market or network emergencies
<input type="checkbox"/> materially impacts competition	<input type="checkbox"/> materially impacts existing or future electricity consumers
<input type="checkbox"/> materially impacts the operation of national electricity Transmission System	<input type="checkbox"/> is likely to discriminate between different classes of Parties
<input checked="" type="checkbox"/> involves any amendments to the EBGL Article 18 Terms and Conditions related to Balancing; except to the extent required to correct an error or as a result of a factual change	
<input type="checkbox"/> <b>Self-Governance</b> – A Modification that, if implemented:	
Does not materially impact on any of the Self-Governance criteria provided above	

Due to the impact on the EBGL Article 18 Terms and Conditions this Modification is not a candidate for Self-Governance.

### Progression route

<input type="checkbox"/> <b>Submit to assessment by a Workgroup</b> –:A Modification Proposal which:	
does not meet any criteria to progress via any other route.	
<input checked="" type="checkbox"/> <b>Direct to Report Phase</b> – A Modification Proposal whose solution is typically:	
<input type="checkbox"/> of a minor or inconsequential nature	<input checked="" type="checkbox"/> deemed self-evident
<input type="checkbox"/> <b>Fast Track Self-Governance</b> – A Modification Proposal which meets the Self-Governance Criteria and:	
is required to correct an error in the Code as a result of a factual change including but not limited to:	
<input type="checkbox"/> updating names or addresses listed in the Code	<input type="checkbox"/> correcting minor typographical errors
<input type="checkbox"/> correcting formatting and consistency errors, such as paragraph numbering	<input type="checkbox"/> updating out of date references to other documents or paragraphs
<input type="checkbox"/> <b>Urgent</b> – A Modification Proposal which is linked to an imminent issue or current issue that if not urgently addressed may cause:	
<input type="checkbox"/> a significant commercial impact on Parties, Consumers or stakeholder(s)	<input type="checkbox"/> a Party to be in breach of any relevant legal requirements.
<input type="checkbox"/> a significant impact on the safety and security of the electricity and/or gas systems	

This Modification should be progressed straight to report phase as we believe it is self-evident to ensure data on the P0287 is as accurate as possible and consistent with that used in Settlement. Furthermore, the solution designed by Elexon is focused on changes needed to Elexon Settlement systems. The Report Phase Consultation should confirm with Suppliers that the solution provides them with the data they need and there are no better alternative solutions.

It is also felt it may prove difficult to attract members to achieve quoracy for this change should it be passed through to assessment via workgroup.

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

No. We do not believe this Proposal impacts any open SCRs and believe it should be treated as a SCR Exempt Modification Proposal.

### Does this Modification impact any of the EBGL Article 18 Terms and Conditions held within the BSC?

Yes. As described in the Proposed Solution section above, this Modification requires a change to Section T4 of the BSC, which forms part of the EBGL Terms and Conditions listed in Section F Annex F-2 of the BSC. As a result of this a 1 month consultation period has been factored into the Modification timetable.

However, we do not believe this proposal has a direct or material impact on the EBGL provisions and is therefore neutral and consistent against the EBGL objectives.

EBGL Article 18 Terms and Conditions	BSC Section Updated by Modification
<b>18.4.d</b> require that each balancing energy bid from a balancing service provider is assigned to one or more balance responsible parties to enable the calculation of an imbalance adjustment pursuant to Article 49.	T4
<b>18.5.e</b> the rules and conditions for the assignment of each balancing energy bid from a balancing service provider to one or more balance responsible parties pursuant to paragraph 4 (d);	T4
<b>18.6.c</b> the requirement that all balance responsible parties shall be financially responsible for their imbalances, and that the imbalances shall be settled with the connecting TSO;	T4
<b>18.6.f</b> the rules for the settlement of balance responsible parties defined pursuant to Chapter 4 of Title V;	T4

<b>18.6.k</b> the settlement rules pursuant to Articles 52, 53, 54 and 55;	T4
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### Implementation approach

P461 is proposed for implementation on 7 November 2024 as part of the Standard BSC Release. Given the requirement for a one month consultation to assess EBGL impacts and the necessary lead times to deliver P461, this will allow sufficient time post Ofgem decision to implement the required BSC System changes