Assessment Procedure Consultation

P442 'Reporting to EMRS of chargeable volumes for SVA Metering Systems that record both exempt and licensed supply'

ELEXON

Phase

- Initial Written Assessment
- Definition Procedure
- Assessment Procedure
- Report Phase
- Implementation

This Modification seeks to allow correct reporting of chargeable volumes to the Electricity Market Reform (EMR) Settlement Services Provider (SSP) for Supplier Volume Allocation (SVA) Metering Systems that record both exempt supply and licensed supply through the addition of a new Party Agent role, the "Exempt Supply Notification Agent".

This Assessment Procedure Consultation for P442 closes:

5pm on **Friday 20 October 2023**

The Workgroup may not be able to consider late responses.

The P442 Workgroup initially recommends **approval** of P442

The P442 Workgroup **does not** believe P442 impacts the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC

This Modification is expected to impact:

- Licenced Suppliers;
- Exempt suppliers;
- Half Hourly Data Collectors (HHDCs);
- EMR SSP.

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Contents

1	Summary	3
2	Why Change?	5
3	Solution	9
4	Impacts Costs & Benefits	13
5	Implementation	20
6	Workgroup's Discussions	21
7	Workgroup's Initial Conclusions	29
Appendix 1: Workgroup Details		31
Appendix 2: Losses Worked Examples		33

About This Document

You can find the definitions of the terms and acronyms used in this document in the BSC Glossary[1].

The purpose of this P442 Assessment Procedure Consultation (APC) is to invite BSC Parties and other interested parties to provide their views on the merits of P442. The P442 Workgroup will then discuss the consultation responses, before making a recommendation to the BSC Panel at its meeting on 12 November 2023 on whether or not to approve P442.

There are six parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A contains the P442 Proposal Form.
- Attachment B contains the draft redlined changes to the BSC for P442.
- Attachment C contains the draft redlined changes to the Code Subsidiary Documents (CSDs) for P442.
- Attachment D contains a detailed process diagram for the P442 Proposed Solution.
- Attachment E contains the specific questions on which the Workgroup seeks your views. Please use this form to provide your response to these questions, and to record any further views or comments you wish the Workgroup to consider.

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Not sure where to start?

We suggest reading the following sections:

- Have 5 minutes? Read section 1
- Have 15 minutes? Read sections 1 and 7
- Have 30 minutes? Read all except section 6
- Have longer? Read all sections and the annexes and attachments.

[1] https://www.elexon.co.uk/glossary/?show=all

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1 Summary

Why Change?

Licensed Suppliers are required to pay charges on the electricity they supply, Final Demand, but energy supplied by an exempt supplier should not be subject to these charges. Licence exempt suppliers are not able to sign up to all the industry codes that a licensed Supplier can, and are therefore required to obtain certain services (including registration of their customers' Metering Systems) from a licensed Supplier. As a result, the portfolio of Metering Systems registered by a licensed Supplier may include both licenced and exempt supply. A Licensed Supplier should therefore be charged based on its total supply minus any exempt supply.

There is a limited interim solution in place, but there is currently no process that allows for the correct allocation of appropriate chargeable volumes for Metering Systems where a portion should be exempt, and another portion should be licensable.

What is Final Demand?

Final Demand is demand at the point of energy consumption for purposes not related to energy generation or storage e.g. energy used to boil a kettle or power a smelting plant.

Solution

The proposed solution is for a new Party Agent role, the "Exempt Supply Notification Agent" (ESNA), to be defined. The ESNA would calculate the volumes of licensed and exempt supply, and submit them to BSC central Systems, based on metered data provided by the HHDC or Supplier. The ESNA would be required to undergo a Qualification process to ensure compliance with Settlement requirements.

What is a Party Agent?

A Party Agent is appointed by a Party for the purposes of carrying out BSC functions or performing obligations of or on behalf of that Party.

Impacts & Costs

P442 is expected to impact:

- Licenced Suppliers who facilitate exempt supply arrangements, as P442 will offer a mechanism to provide Settlement with details of their exempt supply volumes and pay Electricity Market Reform (EMR) charges (Contracts for Difference and Capacity Market) based on Final Demand;
- Exempt suppliers, as the solution would reduce instances where Licensed Suppliers pass incorrect charges through to the exempt suppliers' customers;
- Half Hourly Data Collectors (HHDCs), as they will have the option to provide Settlement metered data to ESNAs;
- EMR Settlement Services Provider (SSP), as process changes will be required and, after a transition period, they will not have to support the interim solution.

Costs Estimates			
Organisation	Implementation (£)	On-going (£)	Impacts
Elexon	M	L	Settlement Administration Agent (SAA) system changes, document updates, Qualification process development, and ongoing costs for Qualification and Audit
Industry	TBC	0	There will be no mandated system or process changes for industry, costs to be confirmed during consultation

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Implementation

The Workgroup recommends an Implementation Date for P442 of:

- **7 November 2024** as part of the Standard November 2024 BSC Release, if a decision is received by 8 March 2024; or
- **27 February 2025** as part of the Standard February 2025 BSC Release if a decision is received after 8 March 2024 but before 10 May 2024.

Recommendation

The P442 Workgroup unanimously agree that **P442 should be approved**. There was unanimous agreement that the Modification better facilitates Applicable BSC Objectives (d), and (f), and a majority view that it better facilitates Objective (c). The Workgroup believe that P442 does not impact the EBGL provisions within the BSC. There was also agreement that P442 should not be considered as a Self-Governance Modification and should be submitted to Ofgem for decision.

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2 Why Change?

What is the issue?

The Balancing and Settlement Code Company (BSCCo) is required by BSC Section V5 ' Reporting' to provide the Electricity Market Reform Settlement Services Provider, EMR Settlement Ltd (EMRS), with the BSC Metered Volumes it requires to accurately calculate Contracts for Difference (CFD) and Capacity Market (CM) charges.

The interim solution currently operated by the Supplier Volume Allocation Group (SVG) and EMRS is very limited in when it can be applied and is time consuming for Parties and the SVG Committee. There is currently no process that allows for correct allocation of appropriate chargeable volumes for Supplier Volume Allocation (SVA) Metering Systems where a portion should be treated as exempt supply (and therefore not subject to such chanrges), and another portion should be treated as licensed (and therefore subject to such charges).

Background

Licensed Suppliers are required by legislation to pay a number of charges on the electricity they supply to premises in Great Britain, including the Feed in Tariff (FIT), Renewables Obligation (RO), charges to fund Contracts for Difference (CFD), and Capacity Market (CM). Energy supplied by a supplier that is exempt from having to hold an electricity supply licence (known as an exempt supplier) should not be subject to these charges, even though it may be recorded on a Supplier Volume Allocation (SVA) Metering System registered by a Licensed Supplier. A Licensed Supplier should therefore be charged based on its total supply minus any exempt supply.

In the case of CFD and CM charges it is BSC Systems (not the individual Suppliers) that calculate the chargeable volumes for each Licensed Supplier and report them as “gross demand data” to EMRS. These systems cannot currently net off exempt supply volumes from each Supplier’s gross demand. licence exempt suppliers are not able or expected to sign up to all the industry codes that a licensed Supplier is obligated to and are therefore required to obtain certain services from a licensed Supplier. As a result, the portfolio of Metering Systems registered by a licensed Supplier may include their own customers as well as customers supplied by an exempt supplier, where the licenced Supplier is providing metering services.

For other charges, for example relating to trading or network charging, distinguishing between exempt and non-exempt supply is not important. However, as Suppliers are only required to pay EMR charges on the licenced volumes of electricity that they supply themselves, the EMR SSP needs to receive volume data excluding exempt supply.

Interim Solution

As a workaround to this issue, the BSC Panel agreed on 8 November 2018 (paper 284/07[2]) to delegate to the Supplier Volume Allocation Group (SVG) the power to agree that SVA Metering Systems should be treated as recording exempt supply. Where the SVG makes such a decision, the SVA Metering System will be treated as non-chargeable for CFD and CM purposes using similar interim processes to those established by EMRS for SVA registered licensed Generation.

What is Electricity Market Reform?

The UK Government committed to a series of reforms in 2010-2015 in order to ‘ensure that our future electricity supply is secure, low-carbon and affordable.’ These reforms were known collectively as Electricity Market Reform (EMR).

EMR is intended to deliver the low carbon energy and reliable supplies that the UK needs, while minimising costs to consumers. The reforms introduced two key mechanisms to provide incentives for the investment required in our energy infrastructure – Contracts for Difference (CFD) and Capacity Market (CM).

What is EMRS?

The EMR Settlement Ltd (EMRS) is a subsidiary of Elexon. It is the Settlement Services Provider on behalf of the Low Carbon Contracts Company (LCCC) in relation to CFD and on behalf of the Electricity Settlements Company in relation to CM.

[2] https://www.elexon.co.uk/documents/groups/panel/2018-meetings/284-november/284-07-aligning-bsc-reporting-with-emr-regulations/

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The Interim Solution currently operated by SVG assesses applications from Parties to have a supply considered as exempt and therefore the volume associated with that Metering System Identifier (MSID) removed from reporting for the purposes of EMR charging. The Interim Process operates on the basis that an application can only be approved if it relates to:

- An Import Metering System with accompanying evidence that, under normal circumstances, the exempt supplier would always be generating enough electricity to meet the demand; or
- An Export Metering System with accompanying evidence that, under normal circumstances, the exempt supplier would have enough customers to use the generation.

This means that the interim process is only applicable to Metering Systems where the entire volume is exempt, and would not allow for volumes where a portion should be exempt and another portion should be subject to EMR levies. These limitations were introduced for practical reasons but mean the interim solution cannot endure.

EMR Charges

Contracts for Difference Charges

Contracts for Difference (CFD) is a long-term contract between an electricity generator and Low Carbon Contracts Company (LCCC). The contract enables the generator to stabilise its revenues at a pre-agreed level for the duration of the contract. Under the CFD, payments can flow from LCCC to the generator, and vice versa. The Contracts for Difference (Electricity Supplier Obligations) Regulations 2014[3], as amended, specify payments to be made by licensed Suppliers to LCCC, in order to fund payments to CFD generators (and the costs of administering the CFD scheme).

Capacity Market Charges

The Capacity Market (CM) Supplier charge funds the payments made by the Electricity Settlements Company (ESC). It is invoiced monthly based on a supplier's share of net demand for periods of high demand in the delivery year multiplied by Total Annual Capacity Provider Payments. The Electricity Capacity (Supplier Payment etc.) Regulations 2014[4], as amended, specify payments to be made by licensed Suppliers to ESC, in order to fund payments to capacity providers (and the costs of administering the CM scheme).

Related Changes

Issue 96 'Assessing the reporting to EMRS of chargeable volumes for SVA Metering Systems that record both exempt and licensed supply'

Issue 96[5] was raised to develop an enduring solution to allow correct reporting to EMRS of chargeable volumes for SVA Metering Systems that record both exempt supply and licensed supply. The P442 solution was considered during Issue 96, as Option 3, and the Workgroup recommended that this Modification should be raised.

[3] https://www.legislation.gov.uk/uksi/2014/2014/made
[4] https://www.legislation.gov.uk/uksi/2014/3354/made
[5] https://www.elexon.co.uk/smg-issue/issue-96/

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During Issue 96 the benefits and drawbacks of several different solutions were discussed, and the Workgroup selected which solutions should be considered further. Strawman solutions were developed for these shortlisted options, which were then refined by the Workgroup through the exploration of specific questions. These discussions helped to refine the solution presented here. For example, the Workgroup discussed assurance of the ESNA role, considering the benefits of validation vs Qualification. A majority agreed that Qualification for anyone wishing to undertake this role would be required, even if they held Qualification for an existing role.

P395 'Aligning BSC Reporting with EMR Regulations - an enduring solution'

P395[6] addresses the related issue of ensuring that Imports to sites with licensed Generation are correctly reported to the EMR SSP, but does not address the issue of exempt supply. P395 will be implemented as part of the November 2023 BSC Release.

Issue 88 'Clarification of BSC Arrangements relating to Complex Sites'

Issue 88[7] was raised with a view to discussing a number of issues and ambiguities relating to the complex site arrangements. Elexon proposed a set of principles, which may have addressed some issues relating to exempt supply by allowing a solution based on netting Imports and Exports. However, these solutions did not address an enduring solution for comparing generators' metered data with customers' metered data in order to calculate volumes of exempt supply. The recommendations of the Issue 88 group only consider very local supplies and schemes, therefore do not deal with the broader issues.

P441 'Creation of Complex Site Classes'

P441[8] looks to progress a recommendation of the Issue 88 WG to introduce Complex Site classes. These classes would categorise the types of Complex Site, each having clearly defined criteria within the BSC. A new type of Complex Site, a Class 6 Complex Site, would also be introduced to allow approval of non-standard complex sites. This Modification would also clarify when the netting of Imports from Exports for multiple Metering Systems registered in SVA is permitted. This would facilitate consistency across the market and as Local Energy Schemes become more popular.

Department for Energy Security and Net Zero (DESNZ) and Department for Business, Energy & Industrial Strategy (BEIS) call for evidence

From 30 October 2020 to 8 March 2021 BEIS ran a call for evidence regarding exemptions from the requirement for an electricity licence. The purpose of the call for evidence was to increase government's knowledge of the exempt sector and provide a better understanding of what changes might be required to align the exemptions regime with current and future market features and broader policy goals.

On 24 July 2023 DESNZ published the responses[9], indicating that views would be taken into account when developing possible options in the future. 77 responses were received from a wide range of stakeholders, including energy companies, trade associations and local authorities. The summary does not indicate what the plans for the exemption

[6] https://www.elexon.co.uk/mod-proposal/p395/
[7] https://www.elexon.co.uk/smg-issue/issue-88/
[8] https://www.elexon.co.uk/mod-proposal/p441/
[9] https://www.gov.uk/government/calls-for-evidence/exemptions-from-the-requirement-for-an-electricity-licence-call-for-evidence

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arrangements may be, though some respondents believed that generation thresholds for renewable technologies should increase to facilitate investment.

The BSC Panel were concerned that the review resulting from the call for evidence could alter the exempt arrangements significantly, and potentially mean that any work done to develop the P442 solution would become pointless. However, there has been no indication of the timeline for a future review of the exempt arrangements. Elexon continues to monitor and engage with DESNZ on this matter.

Desired outcomes

The desired outcome is a sustainable enduring solution which allows correct reporting to EMRS of chargeable volumes for Supplier Volume Allocation (SVA) Metering Systems that record both exempt supply and licensed supply via:

- The detailed Qualification process to become an ESNA;
- The specification of the systems required from ESNAs to conduct their role;
- The outputs required from ESNAs, their formats, and the submission process to the BSC system;
- The details of monitoring process (if required) of data submitted to the BSC system;
- The relevant changes required in the BSC based on the above actions.

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3 Solution

In this section we detail the agreed solution. In section 6 we detail the rationale for the agreed solution and other options considered.

Proposed solution

The proposed solution involves a new Party Agent role, the “Exempt Supply Notification Agent” (ESNA), which would calculate the volumes of licensed and exempt supply and submit them to central BSC Systems. The ESNA would perform the calculation based on Settlement metered data provided by the HHDC or Supplier.

The ESNA will be a Party Agent role, which could be fulfilled by any organisation, so long as they successfully complete Qualification. However, in practice it is expected that the ESNA role will likely be fulfilled by a Supplier facilitating the exempt supply arrangement, a HHDC, or a third party, such as the operator of an online auction platform that facilitates the sale and purchase of exempt supply. The ESNA would be required to undergo a Qualification process to ensure compliance with Settlement requirements. Qualification would be required for all prospective ESNAs including those already Qualified in another role such as licensed Suppliers.

There is no requirement for a central register of which ESNA is appointed to which MSID. Licensed Suppliers will be responsible for ensuring that an ESNA is appointed where necessary.

The ESNA will be responsible for applying Distribution Losses via Line Loss Factors (LLFs) and the Seasonal Zonal Transmission Losses (TLFA). In order to do this, the ESNA must obtain relevant losses data from the Elexon Portal via the D0265 ‘LLF Data File’ and the TLFA Files, in preparation to apply the losses when the metered data is received.

The ESNA will use the loss-adjusted Metering System Half Hourly Metered Data and details of the exempt supply arrangements to determine loss-adjusted volumes of energy. The ESNA will ensure that:

- It only identifies Eligible Exempt Supply Volumes that relate to exempt supply arrangements notified by the relevant Supplier(s);
- Each Eligible Exempt Supply Volume relates to both an Import Metering System and an Export Metering System for which the ESNA has received Metering System Half Hourly Metered Data for that Settlement Period; and
- The total volume of Eligible Exempt Supply Volumes identified in relation to a given Metering System and Settlement Period does not exceed the value of the loss-adjusted Metering System Half Hourly Metered Data for that Metering System and Settlement Period

The ESNA will aggregate the Eligible Exempt Supply Volumes to BM Unit level, in order to calculate the BM Unit Eligible Exempt Supply Volumes. The BSC will not specify the detail of the calculations performed by the ESNA, as P442 is intended to support a wide variety of arrangements, and the calculations will vary depending on the nature of each exempt supply arrangement. THE ESNA will then send values of BM Unit Eligible Exempt Supply Volume to the Settlement Administration Agent (SAA) using a new data flow [SAA-I0aa] in time for each Settlement Run. The Variable Transmission Losses will then be applied by the SAA using the Transmission Losses Adjustment (TLMO) values.

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The SAA will report the chargeable volumes to EMRS to facilitate the correct charging of CM and CFD charges.

A high level process flow diagram is shown below, but a more detailed process flow diagram which includes the potential interactions with HHDCs can be found in Attachment D.

Assurance

The ESNA will be a Party Agent, and any market participant wishing to operate in this role will be required to follow the Qualification process. This process will mirror that of the current SVA Qualification process. As part of Qualification, the Qualification Service Provider (QSP) will check:

- The Eligible Exempt Supply Volumes the ESNA submits to the SAA relates to the exempt supply arrangements notified by the relevant Supplier(s);
- The total volume of Eligible Exempt Supply Volumes submitted to the SAA in relation to a given Metering System and Settlement Period does not exceed the value of the loss-adjusted Metering System Half Hourly Metered Data for that Metering System and Settlement Period; and
- The ESNA has applied the correct Distribution and Transmission losses to the HH Metered Data for the relevant Metering Systems.

The ESNA role will also be considered for inclusion in the BSC Audit, as a Performance Assurance Party, performed by the BSC Auditor as part of the annual Process Assessment Audit. The Process Assessment Audit is used to ensure compliance and does not require a Risk to Settlement. The scope of the BSC Audit Process Assessment is determined for each year by Elexon and the Performance Assurance Board (PAB).

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A number of factors for inclusion in the BSC Audit will be considered when deciding if this role is included in a particular year. These are (but not limited to):

- Impact to Settlement;
- When the role was last included in the Audit;
- Performance of an individual Party for the related process;
- The number of Parties applicable for an ESNA Audit work paper in a given year; and
- Other Party roles and work papers that may take priority over this one.

Reporting

Elexon will publish and maintain a public record of Exempt Metered Volumes on the BSC website on a monthly basis. The data for the report will be the total Import and Export Exempt Metered Volume (in MW), Settlement Day and Settlement Period. Elexon should ensure not to publish data that may be attributed to a single Supplier to maintain anonymity.

Transition from the Interim Solution to the P442 solution

P442 would remove the need for the current interim solution facilitated by SVG and EMRS. It is proposed that once the first ESNAs have qualified and begun operation, at a time agreed by SVG, the Committee should cease approvals for SVA Metering Systems to be treated as recording exempt supply. At least six months should then be allowed for those using the interim system to migrate to an ESNA facilitated arrangement before the interim solution is ended.

The BSC Panel agreed that the interim process should be delivered and that authority to approve SVA Metering Systems as recording exempt supply should be delegated to the SVG, but it was never codified. This means there will be no BSC Change required to end the interim solution.

Assessment Consultation Question
Do you agree with the high level transition approach for moving from the interim solution to the P442 enduring solution? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

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Alternative solution

The P442 Workgroup has not yet formally raised any alternative solutions (Alternative Modification Proposals), but has considered a number of alternative solutions, which could be formally raised and taken forward following the Assessment Consultation.

The Workgroup is considering:

- A solution which includes Imbalance adjustments to licenced Suppliers to enable arrangements where the generator and consumer are with different Suppliers (i.e. the generator sells any excess to one Supplier and the customer receives any top up from a different Supplier). Further information on this can be found in the Workgroup discussion section of this report.

Depending on industry consultation responses, it is possible that the Proposed Solution could change, and an Alternative solution could be raised at that point.

Assessment Consultation Question
Do you agree with the Workgroup that there are no other potential Alternative Modifications within the scope of P442 which would better facilitate the Applicable BSC Objectives? *Please provide your rationale and, if 'No', please provide full details of your Alternative Modification(s) and your rationale as to why it/they better facilitate the Applicable BSC Objectives.*
The Workgroup invites you to give your views using the response form in Attachment E

Legal text

The proposed redlined changes to the BSC and its subsidiary documents to deliver P442 can be found in Attachments B and C.

Assessment Consultation Question
Do you agree with the Workgroup that the draft legal text in Attachment B delivers the intention of P442? *Please provide your rationale.*
Do you agree with the Workgroup that the draft amendments to the CSDs in Attachment C deliver the intention of P442? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

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Estimated costs of P442

Costs will be assessed during this consultation. However, for those roles the Workgroup believe will be impacted, the Workgroup have indicated whether it believes the costs are likely to be high, medium or low based on the following categories. We invite you to validate and refine these estimates via this consultation:

- High (H): >£1 million
- Medium – High (M–H): £500k - £1 million
- Medium (M): £100k-500k
- Low – Medium (L–M): £50k - £100k
- Low (L): <£50k

Implementation costs estimates			
Organisation	Item	Implementation costs (£)	Comment
Elexon	Systems	M	SAA system updates and Qualification process development
	Documents	L	Updates and implementation of six BSC Sections and seven CSDs
Industry	Systems & processes	TBC	There will be no mandated system or process changes for industry, costs to be confirmed during consultation
	Total		

On-going costs estimates		
Organisation	On-going costs (£)	Comment
Elexon	L	Qualification and audit
Industry	0	No anticipated ongoing costs for industry, costs to be confirmed during consultation
Total		

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P442 impacts

Impact on BSC Parties and Party Agents		
Party/Party Agent	Impact	Estimated cost
Suppliers	Positive impact on Suppliers who facilitate exempt supply arrangements, as the solution will provide them with a mechanism that they can use to provide Settlement with details of their exempt supply volumes, and hence avoid erroneous CFD and CM charges. There will be optional system and process changes, but only required for those who wish to facilitate exempt supply arrangements.	M
Half Hourly Data Collectors (HHDCs)	There will be optional system and process changes to provide Settlement metered data to ESNAs, but these will only be required for those who wish to facilitate exempt supply arrangements and agree that they will provide data to the ESNA.	M
Exempt Supply Notification Agent (ESNA)	System development to meet role requirements and undergo Qualification.	M

Impact on the NETSO	
Impact	Estimated cost
None identified	None

Impact on BSCCo		
Area of Elexon	Impact	Estimated cost
Settlement & Invoicing	Updates to the SAA	L
Participant Management Product	Development and management of the new Qualification process for ESNA	L
Assurance	Development and management of the new Audit process for ESNA	L
Analysis & Insight	Development and management of reporting mechanism.	L

Impact on EMR SSP
Positive impact on EMRS as they will not have to support the interim solution any longer. Limited process and system changes required to enable the solution, purely to receive and load the revised data. There is no requirement to publish the data.

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Impact on BSC Settlement Risks
P442 may impact 029 CVA Risk 'SAA Calculations and processing', but no new mitigating actions required.

Impact on BSC Systems and process	
BSC System/Process	Impact
SAA	Implementation of system update to receive data from ESNA, apply TLMO values, and to exclude exempt volumes from the data sent to EMRS. This will involve acquisition and technical validation, business validation rules, amending existing calculations for Gross Demand Volumes, reporting new calculated volumes in S0421 Gross Demand Report, and testing of new S0421.
Qualification	Development and management of the new Qualification process for ESNA
BSC Audit	Development and management of the new Audit process for ESNA
Insights Solution	Updates to allow Insights Solution to ingest new data, either through a new data source or through a change to the SAA-IO14 data, expose this data through a new set of APIs, and present this data on the Insights website

Impact on BSC Agent/service provider contractual arrangements	
BSC Agent/service provider contract	Impact
None identified	There are no impacts to contractual arrangements anticipated

Impact on Code	
Code Section	Impact
Section J 'Party Agents and Qualification Under the Code'	Amendments to define the new ESNA role, and associated requirements for Qualification.
Section S 'Supplier Volume Allocation'	Amendments to define the Settlement requirements that ESNAs must meet.
Section T 'Settlement and Trading Charges'	Amendments to define the adjustments to Suppliers' Energy Imbalance positions arising from exempt supply volumes.
Annex X-1 'General Glossary'	Amendments to include appropriate definitions.
Annex X-2 'Technical Glossary'	Amendments to include appropriate definitions.
Section Z 'Performance Assurance'	Amendments to include ESNA as a Performance Assurance Party.

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Impact on Market Wide Half Hourly Settlement (MHHS)
There are no impacts to MHHS anticipated, particularly now that the involvement of HHDCs is not mandated. Following implementation of MHHS there may be a desire to raise a separate Change Request to add the ESNA as a new Data Integration Platform (DIP) User, so that the DIP can be used by ESNAs, HHDCs and SAA to send and receive the metered data.

What is the Data Integration Platform?
The Data Integration Platform (DIP) is the new message orientated event-driven middleware component that will support the flow of events and messages between industry participants after Market Wide Half Hourly implementation.

Impact on EBGL Article 18 terms and conditions
This Modification is not expected to impact the EBGL Article 18 terms and conditions as specified in the mapping given in Section F Annex F-2[10], nor is it expected to expand them. P442 does not impact balancing. The potential alternate solution being considered would impact upon the EBGL Article 18 terms and conditions, as it would impact the Imbalance calculation.

Impact on Code Subsidiary Documents	
CSD	Impact
BSCP01 'Overview of Trading Arrangements'	Amendments to update the Trading Arrangements to include the new ESNA role.
BSCP70 'CVA Qualification Testing for Parties and Party Agents'	Amendments to update the Qualification process to include the new ESNA role.
BSCP502 'Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'	Amendments to include the optional interactions between the HHDC and ESNA.
BSCP507 'Supplier Volume Allocation Standing Data Changes'	Amendments to update the Supplier Volume Allocation standing data changes.
BSCP537 'Qualification Process for SVA Parties, SVA Party Agents and CVA Meter Operators'	Amendments to update the Qualification process to include the new ESNA role.
BSCPXXX 'BM Unit Eligible Exempt Supply Volumes for Exempt Supply Notification Agents'	New BSCP created to define the process by which the SAA receives BM Unit Metered data for Suppliers from the ESNA. The BSCP number will be allocated in the implementation phase, subject to approval.

Impact on other Configurable Items	
Configurable Item	Impact
Self Assessment Document	Update to include self assessment for the ESNA role.

[10] https://www.elexon.co.uk/the-bsc/bsc-section-f-modification-procedures/

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Impact on Core Industry Documents and other documents	
Document	Impact
Ancillary Services Agreements	No impacts identified
Connection and Use of System Code	
Data Transfer Services Agreement	
Distribution Code	
Grid Code	
Retail Energy Code	
Supplemental Agreements	
System Operator-Transmission Owner Code	
Transmission Licence	
Use of Interconnector Agreement	

Impact on a Significant Code Review (SCR) or other significant industry change projects
No impacts identified. On 14 July 2022 at the BSC Panel meeting Ofgem confirmed that this Proposal should be treated as an SCR Exempt Modification Proposal.

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Assessment Consultation Question
Do you agree with the Workgroup's assessment of the impact on the BSC Settlement Risks? *Please provide your rationale.*
Will P442 impact your organisation? *If it will impact, please provide a description of the impact(s) and any activities which you will need to undertake between approval and implementation (including any necessary changes to your systems, documents and processes) and any on-going operational impacts. Where applicable, please state any difference in impacts between the Workgroup's proposed solution and the alternative they are considering.*
How much will it cost your organisation to implement P442? *If any, please provide details of these costs, how they arise. Please also state whether it makes any difference to these costs whether implemented as part of or outside of a normal BSC Systems Release. Where applicable, please state any difference in costs between the Workgroup's proposed solution and the alternative they are considering.*
What will the ongoing cost of P442 be to your organisation? *If any, please provide details of these costs, how they arise. Please also state whether it makes any difference to these costs whether P442 is implemented as part of or outside of a normal BSC Systems Release. Where applicable, please state any difference in costs between the Workgroup's proposed solution and the alternative they are considering.*
How long (from the point of approval) would you need to implement P442? *Please provide an explanation of your required lead time, and which activities are the key drivers behind the timescale. Please also state whether it makes any difference to this lead time whether implemented as part of or outside of a normal BSC Systems Release. Where applicable, please state any difference in lead times between the Workgroup's proposed solution and the alternative they are considering.*
The Workgroup invites you to give your views using the response form in Attachment E

Benefits

The implementation of P442 would allow for exempt supply to be treated correctly in terms of EMR levies. Currently Suppliers are only required to pay EMR charges on electricity they supply themselves, which means the EMR SSP needs to receive volume data excluding exempt supply. This would bring the BSC in line with existing regulations, which are clear that exempt supply should not be part of Final Demand and subject to EMR levies.

The Proposer believes that P442 could have wider benefits, through encouraging renewable generation. Distributed generators such as rooftop solar, wind, or hydro do not have competitive advantage in the current electricity retail market due to their low generation volumes and intermittent nature. Assurance that exempt supply will not incorrectly charge EMR levies will improve the financial viability of distributed generation.

The Proposer also believes that this Modification is a critical step towards upgrading BSC systems for new forms of supply and generation, allowing for efficient peer-to-peer trading, and creating an exemplar system at the international scale.

What are distributed generators?

Distributed generators refer to those using a variety of technologies that generate electricity at or near where it will be used, such as solar panels and combined heat and power. These small scale generators may act as exempt suppliers, but are not generally registered as a BSC Party.

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Impact of the Modification on the environment and consumer benefit areas:	
Consumer benefit area	Identified impact
1) Improved safety and reliability As P442 will allow for the correct reporting of exempt supply, including renewable generation, which will reduce the costs associated with generation as erroneous EMR charges will be avoided. For this reason P442 could be seen as encouraging renewable generation. Increased renewable generation would improve security of supply as fossil fuel resources are depleted. However, the P442 Workgroup believed that this Modification would not necessarily improve security of supply, as the Modification is not specifically related to renewable generation.	**Positive**
2) Lower bills than would otherwise be the case The correct charging of EMR charges on bills for exempt supply would reduce bills for some, but as the cost of the levies is redistributed this will mean higher charges for other customers.	Neutral
3) Reduced environmental damage The Proposer believes that this Modification is a crucial step towards the journey toward statutory net-zero targets. The more renewable distributed generation there is, the lower the greenhouse gases from energy consumption will be, and P442 will remove an error discouraging entry into renewable generation. However, a Workgroup Member commented that this Modification is technology agnostic and therefore does not necessarily encourage renewable generation.	**Positive**
4) Improved quality of service P442 will improve quality of service for the exempt generators by facilitating exempt supply arrangements. More end consumers will be able to benefit from distributed generation assets for their own consumption needs without facing incorrect EMR charges.	**Positive**
5) Benefits for society as a whole If P442 encourages renewable generation, through removing incorrect EMR charges, and thus helps to decarbonise the energy supply of Great Britain, then it will have benefits for society as a whole.	**Positive**

What are the consumer benefit areas?

1) Will this change mean that the energy system can operate more safely and reliably now and in the future in a way that benefits end consumers?
2) Will this change lower consumers' bills by controlling, reducing, and optimising spend, for example on balancing and operating the system?
3) Will this proposal support:
i) new providers and technologies?
ii) a move to hydrogen or lower greenhouse gases?
iii) the journey toward statutory net-zero targets?
iv) decarbonisation?
4) Will this change improve the quality of service for some or all end consumers. Improved service quality ultimately benefits the end consumer due to interactions in the value chains across the industry being more seamless, efficient and effective.
5) Are there any other identified changes to society, such as jobs or the economy.

Assessment Consultation Question
Do you agree with the Workgroup's initial view on the benefits of P442? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

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5 Implementation

Recommended Implementation Date

The Workgroup recommends an Implementation Date for PP442 of:

- **7 November 2024** as part of the standard November 2024 BSC Release, if an Authority decision is received on or before 8 March 2024; or
- **27 February 2025** as part of the standard February 2024 BSC Release, if an Authority decision is received after 8 March 2024 but on or before 10 May 2024.

The Workgroup also welcome views on an alternative Implementation approach, where the amendments to the BSC could be implemented prior to completion of the BSC system changes, to allow the ESNA Qualification process to begin earlier. The Workgroup considered this as the usual implementation approach, where the BSC document changes and system changes go live on the same date, would mean a significant delay between Implementation and use of the P442 solution, as ESNAs would then have to qualify.

The P442 Workgroup considered whether a staggered Implementation approach would speed up the implementation of P442 and enable Qualification to start earlier (although it still could not finish until BSC systems were live and ready for testing with the ESNAs). This approach has been used previously, such as for P344, where sections of the legal text came into effect from the date of the Implementation Notice rather than from the Implementation Date itself.

Assessment Consultation Question
Do you agree with the Workgroup's recommended Implementation Date? *Please provide your rationale.*
Do you have any views on the potential alternate Implementation approach where the legal text and associated subsidiary documents would be Implemented prior to the BSC system changes? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

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6 Workgroup's Discussions

The Workgroup met over three meetings to discuss the Terms of Reference for P442, develop the solution and provide initial views on the proposal.

Inclusion of CVA systems

While considering the proposed solution, a Workgroup Member highlighted that Central Volume Allocation (CVA) systems are not included and questioned whether this should be considered. The Workgroup felt that there could be CVA customers and generators excluded by this solution, though they noted that the majority of exempt supply is SVA. The Proposer was keen for the P442 solution to be as inclusive as possible and was happy to include CVA in the P442 solution.

After developing a potential solution including CVA systems, Elexon presented process diagrams for SVA and CVA systems to the Workgroup. The majority of the Workgroup felt that the inclusion of CVA would add additional complexity with minimal benefit due to its limited applicability. As such, the Workgroup did not feel that the solution should be expanded to include CVA systems. The Proposer agreed with the majority decision and kept the P442 Proposed Solution applicable to only SVA systems. The Workgroup noted that another Modification could be raise to tackle CVA if there was appetite.

Assessment Consultation Question
Do you agree with the Workgroup's view that CVA systems should not be included in the P442 solution? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

Role of HHDCs

The P442 Proposed Solution puts the burden of development on the ESNA rather than on HHDCs. The intention of this was to address potential priority differences and to clearly separate out the new calculations, which were sufficient enough to warrant the creation of a new role. Additionally, there are many different forms that the commercial arrangements for exempt supply could take, many of which do not exist yet and have not been tried. The Proposer and Workgroup were keen for the P442 solution to support a wide variety of arrangements, and did not think it necessary for the innovation to be tied to a Qualified HHDC.

The initial proposed solution did still have some reliance on HHDCs, as the data going to the ESNA had to be validated data from a HHDC. The P442 Workgroup considered whether it should be mandated for HHDCs to share data with the ESNA, or if it should be a value added service that not all HHDCs have to support. Data could instead come from the Supplier, which would remove the reliance on HHDCs. The Proposer felt that it would be easy for the ESNA to get data from a Supplier, as they would be working closely with the Suppliers.

A Workgroup Member worried that HHDC involvement may be necessary, as otherwise the metered data would be entered into Settlement twice, by both the HHDC and ESNA. Elexon confirmed that this was not a concern, as the HHDC will enter all data into Settlement and the ESNA will have a separate input simply to indicate the volumes that were exempt for the purposes of Final Demand calculations, outside of Settlement.

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Elexon highlighted that another advantage of not making HHDC involvement mandatory was that it would remove an impact on the MHHS Programme. If P442 were to include a requirement for HHDCs to send metered data to the ESNA, then this would be a new requirement for the Advanced Data Services (ADS) and Smart Data Services (SDS) in MHHS. This would impact upon the MHHS Programme and require an MHHS Change Request (CR) to include these requirements.

Following these discussions, the Workgroup decided that there was no benefit to mandating HHDC involvement. The Proposed Solution allows for the Supplier to provide the data to the ESNA, or for HHDC to supply the data if agreed between the Supplier and HHDC. HHDCs would be able to become an ESNA and form a commercial arrangement with Suppliers if desired.

Limit on Exempt Supply

The Class A exemption[11] applies to suppliers who supply of up to 5MW of self-generated electricity, but no more than 2.5MW to domestic premises. The Workgroup discussed who has responsibility for ensuring the limit on exempt supply is adhered to, as it is a legal requirement. There was agreement that this should not be for Elexon to police, but should be part of the assurance and Qualification considerations. It is important that the ESNA is not breaking the law on behalf of the exempt suppliers, but this will be the responsibility of the exempt supplier, as they will only be considered exempt if they comply with the Class A exemption.

A Workgroup Member pointed out that the responsibility for ensuring the exempt supply limit is not exceeded falls on the exempt supplier. This is not a national Settlement issue, so does not have to be part of the P442 solution under the BSC. Another Workgroup Member retorted that the ESNA should have the capability to help in meeting the exempt supplier's obligations. If the exempt supplier is generating more than can be exempt, then there needs to be a process to ensure only the allowed portion can be supplied via the ESNA.

Clear allocation rules should be agreed between the exempt supplier, licensed Supplier, and ESNA during set up of each exempt supply arrangement. The limit on exempt supply should be considered during creation of the allocation rules, and as part of the ESNA process when matching supply with customers, and the ability to correctly ensure that the exempt supply limit is not exceeded will included in the SAD.

Applicable Meters

A Workgroup Member questioned whether the P442 solution would only apply to HH settled meters. Elexon confirmed that, due to the exemption criteria which limits exempt supply to 5MW, exempt supply must be considered on a HH basis. The Proposer stated that when they queried this with Ofgem and they were told the same thing. The Workgroup agreed that the P442 solution should be applicable to HH settled meters. In the current world, this means DCC smart meters and Advanced Meters. Post-MHHS this means the smart and Advanced segments.

[11] https://www.legislation.gov.uk/uksi/2001/3270/schedule/4/made

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ESNA Role

A Workgroup Member questioned whether the ESNA should become a BSC Party. Elexon explained that the initial assumption was that the ESNA would be a Party Agent, which would mean they would not be signed up as a BSC Party but could still undergo BSC Qualification and assurance.

A Workgroup Member warned that they have found that it can be difficult for central assurance to force the right behaviour from Party Agents, as they are not directly signed up to the BSC. They felt that, as the ESNA role would be instrumental in ensuring that the exempt supply law is not broken, the role should be carried out by a BSC Party. However, as discussed above, the responsibility for exempt supply limit lies with the exempt supplier and is not a Settlement issue, so responsibility does not need to sit under the BSC.

After further consideration of the P442 solution, Elexon and the Proposer still felt that the ESNA should be a Party Agent. Usually only those trading within the BSC accede to it, which would not apply to an ESNA. This would be consistent with how similar roles are handled, such as Energy Contract Volume Notification Agent (ECVNA) and Metered Volume Reallocation Notification Agent (MVRNA). Additionally, Party Agents can still be controlled through Performance Assurance, including Qualification. After presenting this rationale to the Workgroup, there were no objections and the Proposer agreed.

Application of Losses

Elexon initially presented a draft solution to the Workgroup in which ESNAs would provide exempt supply data for individual Metering Systems to the Supplier Volume Allocation Agent (SVAA). The SVAA would then apply Line Loss Factors (LLFs) to adjust the data for losses on the Distribution System, before passing aggregated data to the Settlement Administration Agent (SAA). This methodology is utilised in other Modifications such as P376 and P383, possibly because it had been seen as more efficient if new LLF-related processes were developed centrally, rather than requiring individual Half Hourly Data Collectors or Data Aggregators to develop them.

A Workgroup Member questioned whether the ESNA could apply the LLFs instead. This could simplify the solution and would likely reduce the implementation timescale. However, this solution would require the ESNA to collect and/or receive LLFs and apply them, including mid-year revisions, requiring additional assurance. Initially, several Workgroup Members, including the Proposer, felt that the ESNA should be matching with LLFs applied and should thus be applying the losses. This would avoid the possibility of the ESNA notifying exempt supply volumes which appeared to be matched by generation from the exempt supplier, but which didn't quite match after losses were applied (due to differences in the applicable LLFs), leading to an unanticipated Imbalance exposure for the Supplier who appointed the ESNA.

After further developing the solution, Elexon presented process diagrams showing two options, one where the SVAA would apply losses, and one where the ESNA would apply losses. The Proposer and Workgroup both felt that the ESNA should apply losses, as this would require fewer changes to central BSC systems and would allow allocation of loss-adjusted volumes.

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Elexon then explained the different types of losses, and asked the Workgroup to consider the extent to which the network losses should be taken into account in the P442 solution: The types of losses considered were:

- Distribution Losses – Line Loss Factors (LLFs);
- Locational Transmission Losses – Transmission Loss Factor (TLF);
- Variable Transmission Losses – Transmission Losses Adjustment (TLMO).

The Proposer and Workgroup felt that all losses should be accounted for if possible and applied by the ESNA. As a design principle the solution should seek to calculate volumes as accurately as possible, taking into consideration complexity and costs.

It was noted that TLMO values would not be available in the appropriate timeframe for the ESNA to apply them, as they are only available after the first Settlement Run and the ESNA has to make its submission before the first Run.

After further consideration, Elexon presented four options for the handling of TLMO:

- Option 1 – use actual TLMO values (problematic because they are not available until Settlement produces them);
- Option 2 – use estimated offtaking TLMOs (published in advance per Season, but still problematic, because some GSP Groups in North of UK 'flip' from offtaking to delivering in certain Settlement Periods);
- Option 3 – do not apply TLMOs (inaccurate in all scenarios);
- Option 4 – SAA applies TLMOs in Settlement (requires central system change).

Elexon explained that, while distribution loses could be up to 10%, the TLMO would increase or reduce volumes by only 1%. The Workgroup debated the preferred options, with some Members feeling that some inaccuracy was preferable to complexity, while others felt that the purpose of the Modification, to get the correct volumes to EMR, should not be compromised. Option 3 would have the least administrative burden but would be inaccurate. Under Option 3, the Licenced Supplier would be exposed to the levy on the variable transmission losses for the exempt supply.

The Workgroup considered worked examples for the options under different scenarios to highlight the pros and cons of each (see Appendix 2). The Proposer and the Workgroup preferred Option 4. This Option resulted in the least inaccuracy, as the correct TLMO values would be applied once they have been produced. One Member stated that a benefit of the SAA applying TLMOs is that the data will then be the same as other data in Settlement.

Energy Imbalance adjustments

Elexon explained to the Workgroup that, even though this Modification is about making sure that Licensed Suppliers are not charged by EMRS, there is also an adjustment to Energy Imbalance that could be made, which would enable further use cases. In the situation where a single Licensed Supplier has facilitated the exempt supply (registering both the customer's Import Metering System and the exempt supplier's Export Metering System) there will be no impact on Imbalance as a result of the exempt arrangements. However, if different Suppliers have registered the two Metering Systems, they both risk exposure to Imbalance Charges as a result of facilitating the exempt supply.

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As an example, consider a scenario with a renewable generator wanting to make an exempt supply to local households, an ESNA, multiple Suppliers who have agreed to work with the ESNA and provide top-up supply, and customers of those Suppliers who wish to buy their energy from the generator as an exempt supply. In this scenario the customer can change their top-up Supplier, without impacting the generator's offtaking arrangements, providing the new Supplier is one of those working with the ESNA.

If we do not adjust the imbalance positions, the Suppliers involved will incur Imbalance Charges as a result of facilitating the exempt supply, and have to pass those costs on to customers:

- Generator's Supplier will be long 6 kWh;
- Customer 1's Supplier will be short 3 kWh;
- Customer 2's Supplier will be short 3 kWh.

To avoid this we would need to reflect the ESNA allocations in Imbalance Settlement.

Worked example with multiple licensed Suppliers		
Customer	Exempt Supply	Licensed (top-up) supply
Customer 1	3 kWh	0kWh
Customer 2	3 kWh	1kWh
Customer 3	0kWh	3kWh

The Proposer felt that arrangements where the generator and consumer are with different Suppliers should be enabled, as it would encourage competition and avoid monopolies. Initially, a Workgroup Member strongly felt this should not be included in P442, as it requires additional central system changes and is not necessary for correct reporting to EMRS. The Workgroup were concerned about the credit implications and the impact it could have on balancing the system.

Elexon presented worked examples for a single licenced Supplier and multiple licenced Suppliers, to demonstrate the impact on cash flow and Imbalance. The Workgroup concerns about credit were shown to be unfounded. Elexon concluded that not including Imbalance adjustments would require slightly less change to central BSC systems (~8-12% additional cost), but would result in the solution not supporting multiple Supplier arrangements, which could limit the exempt supply arrangements and reduce supply competition.

Several Workgroup Members expressed concern about the practicalities of supporting exempt supply arrangements in which customers can have a different licensed Supplier to that used by the exempt supplier. One Member explained that where one Supplier is involved in the exempt arrangements, meaning that the exempt supplier and all customers would be working with the same Supplier, it would be very clear who is responsible for those customers. Where multiple Suppliers are involved there is a risk that each party

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blames another if anything goes wrong, leaving customers unsupported. This issue could be addressed through the agreements set up between the parties, but many of the Workgroup Members agreed with this concern.

There was also concern expressed that the inclusion of the Imbalance adjustment could risk the Modification being approved, as it is not directly related to the central issue of getting the correct data to EMRS and facilitating exempt supply. The Workgroup were keen for evolution, not revolution, explaining that the multiple Supplier model could be revisited once P442 was implemented and single Supplier arrangements were running smoothly.

While some Members agreed intellectually that allowing the multiple Supplier arrangements would be the ideal, the majority view was that it would not be practical. The majority of the Workgroup also did not see the issue with restricting exempt supply arrangements to being facilitated by a single licensed Supplier, as customers could simply switch providers.

Due to the concerns raised over multiple Supplier arrangements, the Workgroup briefly considered whether they should be prohibited. After some discussion, it was realised that this is not something that could be prohibited in the BSC, and the P442 solution could only prohibit the ESCA from facilitating the correct reporting of these types of arrangements to EMRS. A change that supports the incorrect reporting to EMRS would not better facilitate the Applicable BSC Objectives.

After the Workgroup discussion, the Proposer still felt that it was important for the solution to be as open and inclusive as possible. However, they ultimately agreed that it was not necessary to include the Imbalance adjustment, for the reasons raised by the Workgroup. The Workgroup and Proposer agreed that Imbalance adjustments would not be included within the Proposed P442 solution, meaning that multiple Supplier arrangements would not be facilitated, but that they would not be explicitly prohibited. However, the Proposer remains open to adopting the multiple Supplier arrangements, subject to consultation feedback, particularly if the Workgroup adopt the current Proposed solution, as this would allow for both options to be presented to Ofgem for decision.

Assessment Consultation Question
Do you agree with the Workgroup's initial view that the P442 solution should not facilitate exempt supply arrangements in which customers can have a different licensed Supplier to that used by the exempt supplier? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

Assurance

The Workgroup showed a preference for Assurance of the ESNA, rather than monitoring by a Qualified Party such as a HHDC. After consideration of the P442 solution, Elexon presented the proposed assurance requirements, which included the Qualification Performance Assurance Technique (PAT), and the BSC Audit. The ESNA will be made a Performance Assurance Party and the Audit will be used to ensure compliance. The Workgroup and Proposer agreed with the proposal as detailed in Section 3 of this report.

The Workgroup discussed whether Qualification could begin once the Modification was approved but before Implementation. Elexon confirmed that usually Qualification only takes place after Implementation, as part of the Qualification involves checking that parties can interface with the BSC systems.

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Elexon also explained that other PATs could be applied in the future if any issues are identified during the BSC Audit, but that these two had been selected as the most appropriate for now.

Central register of ESNA appointments

A Workgroup Member suggested that it could be useful to have a central register of ESNA appointments, particularly if something went wrong. Some other Workgroup Members agreed in principle. However, there would be a cost to maintain a central register, which may not be proportional to the benefit. The responsibility to assign an ESNA is with the Supplier, and not every Supplier would need an ESNA. A Workgroup Member also questioned why anyone would need to know which ESNA is working with a Supplier, and no likely scenarios were conceived envisaged.

Change of Supplier considerations

A Workgroup Member wondered, if there was no central register, what would happen if a customer switched Supplier without informing them of an exempt supply arrangement. Elexon explained that the exempt supply arrangement would be broken, as the arrangement requires cooperation between the Supplier and the exempt supplier. This is the case for other similar arrangements where the customer should be strongly incentivised to keep Suppliers informed of the need for exempt supply arrangements. It was agreed that any issues around interoperability would be more efficiently dealt with under a separate Modification Proposal.

Data sharing

The Workgroup discussed how the ESNA should receive data, considering the possibility of data sharing via the Data Transfer Network (DTN), the Data Integration Platform (DIP), or by a method agreed with the Supplier. There was a desire to create a solution that would work prior to MHHS and DIP implementation, in order to not delay the Modification. However, the relevant DTN data flows will be replaced by DIP flows following MHHS implementation, so it was not viewed as cost efficient to mandate a DTN solution.

The Workgroup felt there was no need for the ESNA to be signed up to both the DTN and DIP, which would double the development required and necessitate a change be raised to make the ESNA a DTN user. The Workgroup also considered that the ESNA may send or receive data via a newly defined P-flow, which is a BSC defined flow that would list the data items required to be sent, but not necessarily the format or structure.

The Workgroup asked if any HHDC representatives present had a view of whether they could provide data via a separate process, or if they would prefer for it to be over the DTN. A HHDC Member stated that they would be happy to accommodate via a bilateral agreement with data shared as agreed, given the likely short lifetime of a DTN solution. This could be via email rather than over the DTN. The Workgroup liked the idea of this flexibility and showed a preference for the data sharing method to be left open.

Following further development of the solution, the Workgroup agreed that the ESNA should receive valid consumption data from the Supplier or HHDC by any agreed method via the D0036 ‘Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix’ and/or D0275 ‘Validated Half Hourly Advances’. The ESNA would not be mandated as a DTN user due to the reasons laid out above. The ESNA output will be BM Unit Eligible Exempt Supply Volumes in a Supplier BM Unit via SAA-I0aa ‘BM Unit Eligible Exempt Supply Volume Notification’.

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Published data

The Panel requested that the Workgroup consider what data will be made publicly available, and Elexon proposed that exempt supply volumes be published by GSP group either daily or Half-Hourly. A Workgroup Member commented that reporting data on exempt supply would be useful for the Capacity Market, and another commented that it would be useful for Supplier forecasting. They felt that publishing this data Half-Hourly would be required as CM and CFD both use data for specific Half-Hours.

The Workgroup agreed that BSCCo should publish on the BSC website on a monthly basis and maintain a public record of anonymised Exempt Metered Volumes. The data for the report will be the total Import and Export Exempt Metered Volume (in MW) per Settlement Day and Settlement Period.

Retrospection

The Panel asked the Workgroup to consider whether the solution should be applied retrospectively. There is an argument for retrospection, given that the regulations have always been clear that exempt supply should not be part of Final Demand and subject to EMR levies. However, Elexon highlighted that this would invite uncertainty for industry on what charges would be due, the added complexities and costs this would bring to the solution development. Additionally, there has been an interim solution in place since 2018. Ofgem typically set the bar high for approving retrospection, and the norm is to apply solutions prospectively from a future agreed Implementation Date. After some consideration, the Workgroup could not make a case for retrospection that they felt would overcome the additional costs involved, especially as there has been an interim (partial) solution in place.

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7 Workgroup's Initial Conclusions

The Workgroup Members believe that P442 would **better facilitate** the Applicable BSC Objectives (c), (d), and (f), and so **should be approved**. The minority of the Workgroup also believe Objective (b) would be better facilitated, whereas the remainder of the Workgroup believe P442 is neutral (not better than the current baseline) against Objective (b). The Workgroup believes that P442 would be neutral against all other Objectives.

Does P442 better facilitate the Applicable BSC Objectives?		
Obj	Proposer's Views	Other Workgroup Members' Views
(a)	• Neutral	• Neutral
(b)	• **Positive**	• Neutral (majority), Positive (minority)
(c)	• **Positive**	• **Positive** (majority), Neutral (minority)
(d)	• **Positive**	• **Positive** (unanimous)
(e)	• Neutral	• Neutral
(f)	• **Positive**	• **Positive** (unanimous)
(g)	• Neutral	• Neutral

Applicable BSC Objective (b)

The Proposer and a minority of the Workgroup believe that this Modification will better facilitate the efficient operation of the National Electricity Transmission System. P442 will encourage independent distributed electricity generators and consumers with their own generation assets to develop more renewable assets at the distribution level. The proposer also believes that data recorded from distributed generation assets following this Modification could provide significant insight into different localities for the National Electricity Transmission System. The majority of the Workgroup did not think that P442 would have an impact on the efficient operation of the National Electricity Transmission System.

Applicable BSC Objective (c)

The Proposer and a majority of the Workgroup believe that P442 will promote effective competition, **better facilitating Applicable BSC Objective (c)**. The provision of an environment where distributed electricity generators can secure higher fixed rates for their micro- to small-scale renewable assets will promote effective competition in the sale and purchase of electricity. It will also promote effective competition in the installation of different distributed generators of electricity by various consumers in order to offset their consumption volume with their self-generation volume. A minority of the Workgroup do not think P442 will impact competition, as the Modification would be improving upon the interim solution already in place, and any impact on competition has already been realised.

Applicable BSC Objective (d)

The Proposer and the Workgroup unanimously agree that this Modification will promote efficiency in the implementation of the balancing and settlement arrangements, **better facilitating Applicable BSC Objective (d)**. The solution will improve the administrative efficiency of the BSC arrangements by removing the need for the interim solution for exempt supply operated by the SVG, which is time-consuming for applicants, for SVG, and also for the BSC Panel (as SVG has on more than one occasion been unable to agree an

What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(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

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(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]

(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

(g) Compliance with the Transmission Losses Principle

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application, and referred it upwards to the BSC Panel). The enduring P442 solution also better addresses the issue that the interim solution, as the interim solution is only applicable where the whole volume from an SVA metering system is exempt.

Applicable BSC Objective (f)

The Proposer and the Workgroup unanimously agree that this Modification will improve the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market, **better facilitating Applicable BSC Objective (f)**. P442 will allow for the correct calculation of CM and CFD charges.

Self-Governance

The Proposer and Workgroup agree that P442 should not be progressed under Self-Governance. P442 may have a material effect on existing or future electricity consumers (Self Governance Criteria (b)(i)) as high uptake could increase bills to cover the reduction in CM and CFD charges being paid. Additionally, it would have a material impact on competition (Self Governance Criteria (b)(ii)) and is likely to discriminate between different classes of Parties (Self Governance Criteria (c)), namely between exempt and non-exempt customers. P442 should therefore be submitted to Ofgem for decision.

EBGL Article 18 Terms and Conditions

The Proposer and Workgroup agree that P442 will not impact the European Balancing Guideline (EBGL) Article 18 Terms and Conditions, as listed in BSC Section F, Annex F-2 under the current proposed solution. However, the potential alternate solution would impact the EBGL Article 18 Terms and Conditions as it would include an amendment to the Imbalance Calculation.

Assessment Consultation Questions
Do you agree with the Workgroup's initial unanimous view that P442 does better facilitate the Applicable BSC Objectives than the current baseline? *Please provide your rationale with reference to the Applicable BSC Objectives.*
Do you agree with the Workgroup's assessment that P442 does not impact the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment E

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Appendix 1: Workgroup Details

Workgroup's Terms of Reference

Specific areas set by the BSC Panel in the P442 Terms of Reference	Conclusion
What are the specific requirements of the ESNA role, including system requirements?	ESNA must be able to receive and process data from Supplier and/or HHDC, apply LLFs and TLMs, and send the data to SAA.
What outputs are required from ESNAs, including formats and submission process?	ESNA output will be BM Unit Eligible Exempt Supply Volumes in a Supplier BM Unit via SAA-I0aa BM Unit Eligible Exempt Supply Volume Notification.
Is any monitoring required for data submitted to the BSC systems by an ESNA?	Qualification and assurance for ESNA, rather than monitoring by a Qualified Party e.g. HHDC.
What assurance requirements should there be for the ESNA role?	Qualification and assurance for ESNA role as part of the BSC Audit.
What arrangements are appropriate for adjusting the Energy Imbalance positions of Licensed Suppliers?	Energy Imbalance adjustment is not included in the P442 solution, due to concerns over the practicalities of multiple Supplier arrangements.
What data will be made publicly available?	BSCCo to publish on the BSC website on a monthly basis and maintain a public record of anonymised Exempt Metered Volumes. The data for the report will be the total Import and Export Exempt Metered Volume (in MW), Settlement Day and Settlement Period.
Should the arrangements be retrospectively applied?	Solution should not be applied retrospectively, due to added complexities/costs and uncertainty for industry.

Assessment Procedure timetable

P442 Assessment Timetable	
Event	Date
Panel submits P442 to Assessment Procedure	14 July 2022
Workgroup Meeting 1	15 February 2023
Workgroup Meeting 2	24 May 2023
Workgroup Meeting 3	15 September 2023
Assessment Procedure Consultation	2 October– 20 October 2023
Workgroup Meeting 4	25 October 2023
Panel considers Workgroup's Assessment Report	12 November 2023

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We note that there is a risk that the Assessment Report may miss the November 2023 Panel meeting as it is subject to the responses received in the Assessment Consultation and the discussions at the final Workgroup meeting (assuming no further meetings beyond this are required).

Workgroup membership and attendance

P442 Workgroup Attendance				
Name	Organisation	15 Feb 2023	24 May 2023	15 Sep 2023
Members				
Lawrence Jones	Elexon *(Chair)*	✓	✗	✓
Ivar Macsween	Elexon *(Chair)*	✗	✓	✗
Jenny Sarsfield	Elexon *(Lead Analyst)*	✓	✓	✓
Somayeh Tehari	UC Energy Ltd (Proposer)	✓	✓	✓
Andrew Colley	Scottish and Southern	✓	✓	✓
John Bone	Energis Consulting	✓	✗	✓
Joseph Henry	National Grid ESO	✓	✓	✓
Lyndsey Antrobus	BPG Energy	✓	✓	✓
Mark Bygraves	Sitigrid	✓	✗	✓
Mary Gillie	Energy Local	✓	✓	✓
Mike Jarman	IM Serv	✗	✓	✓
Nik Wills	Stark	✓	✓	✓
Paul Bedford	Drax	✓	✓	✓
Phil Russell	Consultant	✓	✓	✓
Sophie Payne	Drax / Opus Energy	✓	✓	✓
Attendees				
Lorna Lewin	Elexon (Market Design)	✓	✓	✓
John Lucas	Elexon (Market Design)	✓	✓	✓
Nick Brown	Elexon (Lead Lawyer)	✓	✗	✗
Robert Holmes	Elexon (Lead Lawyer)	✗	✗	✓
Beth Proctor	Elexon (Subject Matter Expert)	✗	✗	✓
Harrison Clark	BPG Energy	✗	✓	✗
James Hall	BPG Energy	✓	✓	✓
James Orme	Juno Energy	✓	✓	✓
Steve Hoy	Enosi	✗	✗	✓

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Appendix 2: Losses Worked Examples

Consider an exempt supplier selling 1 kWh to a customer (and taking losses into account). For the sake of a simple example, we will assume the following:

- LLF and TLF are the same;
- Offtaking TLMO = +0.01;
- Delivering TLMO = –0.01.

Losses Worked Examples			
Option	Customer and supplier both offtaking (normal situation)	Customer offtaking, supplier delivering	Customer delivering, supplier offtaking
Option1: Actual TLMO	Exempt supplier must Export 1 kWh (to supply 1 kWh) Whole volume supplied (including losses) is non-chargeable No Supplier imbalance	Exempt supplier must Export 1.02 kWh (to supply 1 kWh) EMR levy 'rebate' correct as ESNA notifies 1.01 kWh which matches Settlement No Supplier imbalance	Exempt supplier must Export 0.98 kWh (to supply 1 kWh) EMR levy 'rebate' correct as ESNA notifies 0.99 kWh which matches Settlement No Supplier imbalance
Option 2: Offtaking ETLMO	Exempt supplier must Export 1 kWh (to supply 1 kWh) Whole volume supplied (including losses) is non-chargeable Small Supplier imbalance (due to errors in ETLMO)	Exempt supplier must Export 1 kWh (to supply 1 kWh) EMR levy 'rebate' correct as ESNA notifies 1.01 kWh which matches Settlement Supplier pays Imbalance on 2% difference in TLMOs	Exempt supplier must Export 1 kWh (to supply 1 kWh) EMR levy 'rebate' too high, as ESNA notifies 1.01 kWh, vs 0.99 kWh in Settlement Supplier receives Imbalance on 2% difference in TLMOs
Option 3: Do not apply TLMO	Exempt supplier must Export 1 kWh (to supply 1 kWh) Variable transmission losses are charged on EMR levies No Supplier imbalance	Exempt supplier must Export 1 kWh (to supply 1 kWh) EMR levy 'rebate' too small as ESNA notifies 1 kWh vs 1.01 kWh in Settlement Supplier pays Imbalance on 2% difference in TLMOs	Exempt supplier must Export 1 kWh (to supply 1 kWh) EMR levy 'rebate' too large as ESNA notifies 1 kWh vs 0.99 kWh in Settlement Supplier receives Imbalance on 2% difference in TLMOs
Option 4: SAA applies TLMO	Exempt supplier must Export 1 kWh (to supply 1 kWh) Whole volume supplied (including losses) is non-chargeable No Supplier imbalance	Exempt supplier must Export 1 kWh (to supply 1 kWh) EMR levy 'rebate' correct Supplier pays Imbalance on 2% difference in TLMOs	Exempt supplier must Export 1 kWh (to supply 1 kWh) EMR levy 'rebate' correct Supplier receives Imbalance on 2% difference in TLMOs

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