BSC Modification Proposal Form	At what stage is this document in the process?

P442

Mod Title: Reporting to EMRS of chargeable volumes for SVA Metering Systems that record both exempt and licensed supply

01 Modification
02 Workgroup Report
03 Draft Modification Report
04 Final Modification Report

Purpose of Modification:

This Modification seeks to allow correct reporting to the Electricity Market Reform Settlement (EMRS) company of chargeable volumes for Supplier Volume Allocation (SVA) Metering Systems that record both exempt supply and licensed supply through the addition of a new third party role, the "Exempt Supply Calculation Agent".

Is this Modification likely to impact any of the European Electricity Balancing Guideline (EBGL) Article 18 Terms and Conditions held within the BSC?

☒ Yes ☐ No

The Proposer recommends that this Modification should:

- not be a Self-Governance Modification Proposal
- be assessed by a Workgroup and submitted into the Assessment Procedure

This Modification will be presented by the Proposer to the BSC Panel on **14 June 2022**. The Panel will consider the Proposer's recommendation and determine how best to progress the Modification.

High Impact:

Supplier Volume Allocation Agent (SVAA), Settlement Administration Agent (SAA)

Medium Impact:

Licensed Suppliers, exempt suppliers, Half Hourly Data Collectors (HHDCs)

Low Impact:

EMR Settlement Services Provider

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Timetable

The Proposer recommends the following timetable:

Initial consideration by Workgroup	08 August 2022
Assessment Procedure Consultation	07 November 2022 - 25 November 2022
Workgroup Report presented to Panel	12 January 2023
Report Phase Consultation	16 January 2023 - 10 February 2023
Draft Modification Report presented to Panel	09 March 2023
Final Modification Report submitted to Authority	13 March 2023

Any questions?

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1 Why Change?

What is the issue?

The Balancing and Settlement Code Company (BSCCo) is required to provide the Electricity Market Reform Settlement company (EMRS) with the BSC Metered Volumes it requires to accurately calculate Capacity Market (CM) and Contracts for Difference (CFD) charges. 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 exempt, and another portion should be licensable.

To further clarify the issue, licensed Suppliers are required by legislation to pay a number of charges on the electricity they supply to premises in Great Britain, including the Renewables Obligation (RO), charges to fund Contracts for Difference (CFD), and Capacity Market (CM). Energy supplied by 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 to sign up to all the industry codes that a licensed Supplier can, 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, distinguishing between exempt and non-exempt supply is not important. However, as Suppliers are only required to pay EMR charges on electricity they supply themselves, the EMR Settlement Service Provider (SSP) needs to receive volume data excluding exempt supply. As a workaround to this issue, the BSC Panel agreed on 8 November 2018 (paper 284/07[1]) 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.

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.

There is currently no process that allows for allocation of appropriate volumes where a portion should be exempt and another portion should be licensable. This issue has been discussed by the Issue 96[2] Workgroup, who developed a number of potential solutions.

[1] https://www.elexon.co.uk/meeting/bsc-panel-meeting-284/
[2] https://www.elexon.co.uk/smg-issue/issue-96/

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A further issue with the current BSC treatment of exempt supply is that there are no specific arrangements for adjusting the Energy Imbalance positions of Licensed Suppliers who have facilitated exempt supplies. This is not an issue 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). But if different Suppliers have registered the two Metering Systems, they both risk exposure to Imbalance Charges as a result of facilitating the exempt supply. There are workarounds that the affected Suppliers can currently use to address this risk, but these are not suitable for an enduring solution:

- The Licensed Suppliers could require the exempt supplier to estimate (ahead of Gate Closure) the volume that each of their customers will purchase, in order that the affected Suppliers can notify Energy Contract Volume Notifications (ECVNs). However, this approach requires the exempt supplier to forecast their customer's purchases ahead of Gate Closure (which is one of the complexities of the BSC arrangements from which the exemption regime is intended to protect them); or
- The Import Supplier could place each customer in an appropriate Additional BM Unit, depending on which Export Supplier has registered the Metering System(s) from which they will be purchasing exempt supply. This then allows the Suppliers to submit a Metered Volume Reallocation Notification (MVRN) to transfer the exempt supply volumes from Import Supplier to Export Supplier (removing the Imbalance exposure). However, this workaround only works when all the exempt supplies purchased by a given customer are facilitated by the same Export Supplier (and would therefore not cater for any trading arrangement that allowed customers a wider choice of exempt suppliers).

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 Exempt Supply Calculation Agent (ESCA);
- The specification of the systems required from ESCAs to conduct their role (if necessary);
- The outputs required from ESCAs, 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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2 Solution

Proposed Solution

Our proposed solution to the above issues is based on 'option 3', as developed by the Issue 96 Workgroup. A new third party role, the "Exempt Supply Calculation Agent" (ESCA), is proposed, which would calculate the volumes of licensed and exempt supply, and submit them to central BSC Systems. The ESCA would perform the calculation based on Settlement metered data provided by the HHDC or Supplier. This may be one of the licensed Suppliers facilitating the exempt supply arrangement, or it may be a third party acting on their behalf (e.g. the operator of an online auction platform that facilitates the sale and purchase of exempt supply).

The ESCA would be required to undergo a qualification process to ensure compliance with settlement requirements. For the avoidance of doubt, this qualification process is required for all prospective ESCAs including those already qualified in another role such as licensed Suppliers.

In order to allow the ESCA to perform this role, the licensed Supplier(s) facilitating the exempt supply arrangement must ensure that the same ESCA is appointed to the Export MSID and the Import MSIDs to which the Export is sold. Note that the Export and Import MSIDs do not require the same HHDC to be appointed.

There is no requirement for a central register of which ESCA is appointed to which MSID. Licensed Suppliers will be responsible for ensuring that an ESCA is appointed where necessary (and that only one ESCA is appointed to a given MSID).

Metered data used by the ESCA to calculate exempt supply volumes must be sourced from the HHDC system, either directly or via the Supplier. The half hourly data from smart meters used by the ESCA must be sourced by the Supplier.

Having calculated the exempt supply volumes, each ESCA will provide the Supplier Volume Allocation Agent (SVAA) with details of the exempt supply volume purchased by each Import Metering System from each Export Metering System. The SVAA will use this data to:

- Calculate the total exempt supply volume purchased and/or sold by customers/generators in each Supplier BM Unit;
- Adjust the volumes for Line Loss Factors and GSP Group Correction Factors (so that they are treated on a comparable basis to licensed Supply volumes); and
- Report the totals to the Settlement Administration Agent (SAA), so that the SAA can adjust both the Energy Imbalance positions of the Suppliers involved, and the chargeable volumes reported to EMRS.

The BSC will specify key Settlement requirements for the ESCA role, such as ensuring that an exempt Supplier's customers are not allocated more energy than the exempt Supplier has exported or more energy than the exempt Supplier is permitted to supply. The BSC will not specify the detail of the calculations performed by the ESCA, as these will depend on the nature of the exempt supply arrangement in question.

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Benefits

Micro- to small-scale generators such as rooftop solar, small wind, or small hydro do not have competitive advantage in the current electricity retail market. Due to their intermittent behaviour and small generation volume, the price offered to them is much below the rate offered to medium and large Generators.

Moreover, different electricity consumers are willing to install distributed renewable assets to become prosumers of power (i.e., producer and consumer of power). Previously with the Feed-in-Tariff scheme, the expected return on investment of the distributed renewable installation was 25-30 years. As we move to a non-subsidised energy retail market, the distributed energy asset owners are actively looking for a solution to make their investment financially viable. Despite the recent increase in the wholesale market price and System Sell Price, the price is significantly volatile and temporary. The average expected revenue for distributed energy resources is £20/MWh in 30 years.

At the macro level, the current movements in the retail market focus on developing local energy systems and peer-to-peer exchange models, including the BEIS retail energy market reform published on July 2021, the Prospering from the Energy Revolution projects (PFER projects) supported by UK Research Institute (UKRI) between 2019 and 2022, and the Ofgem agenda around local Suppliers and local grid. In this context, local distributed energy resources play an important role in creating net-zero grids, reducing carbon emissions, reducing network losses, the security of supply and the effective competition in the generation and supply of electricity.

At the micro level, distributed energy resources as license exempt Suppliers will have impacts on the affordability of green electricity bills for consumers, specifically consumers in the same locality. With the proposed Modification, the charges associated with Capacity Market and Contracts for Difference will be alleviated on electricity consumers' bills. Simultaneously, it will create trusted dataset that can be used by Ofgem to reduce the green levies charges of Feed-in-Tariff (FiT) and Renewable Obligation (RO) on the relevant consumers' bills.

Considering above points, this Modification will create the following benefits:

- Distributed electricity generators are an important part of the peer-to-peer exchange models. Per their contribution to lower consumers' bills, the consumers are willing to pay competitive prices for the distributed power resources. The higher fixed price rate for distributed energy resources will give a shorter return on their investment, creating a micro finance environment for the micro- to small-scale renewable generators.
- In the local energy systems, distributed generators are matched with consumers based on their proximity. For example, the excess power of rooftop solar on a warehouse is sold initially to local businesses and households. The more consumption can be covered by local generation, the lower distribution/transmission network losses will be.
- There are a number of electricity consumers with properties that are not suitable for the installation of distributed renewable assets, despite their interest in generating their own power. For instance, a listed property or a town house facing north. With this Modification, they will be able to install distributed generators at the local level and sell their own power to themselves. The ability to offset consumption with self-generation volume (internal peer-to-peer) has proved to be a popular model for many businesses to reduce the risk of high electricity costs in the wholesale market, and to achieve their net-zero carbon target with true green electricity bill.
- This Modification will remove the risk of intermittent behaviour of micro- to small-scale renewable generators for Suppliers, enabling them to provide higher price to the distributed generators.
- Increased new forms of micro electricity resources are planned to be installed across the network for consumers, such as highly efficient batteries, Combined Heat and Power (CHP) technology,

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Electric Vehicles (EVs), and vehicle-to-grid technology. The impact of this Modification on the financial viability of these micro generators will accelerate our net zero target by 2030/2050.

- This Modification is a critical step towards upgrading the BSC system for the new forms of supply and generation, creating an exemplar system at the international scale.

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

This Modification will enable an efficient peer-to-peer exchange between local micro- to small-scale generators and local consumers in the local energy markets, reducing the losses on the National Electricity Transmission System. It will also stimulate a micro finance environment for independent distributed electricity generators and prosumers (consumers with their own generation assets) to develop more renewable assets at the distribution level.

The data recorded from distributed generation assets following this Modification will provide significant insight into different locality for the National Electricity Transmission System.

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.

Applicable BSC Objective (d)

The most efficient balancing and settlement happens at the local level. This Modification will provide the highest benefit to the peer-to-peer exchange between generators and consumers at the same locality.

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The solution will also improve the administrative efficiency of the BSC arrangements by removing the need for the interim solution for exempt supply operated by 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 application, and referred it upwards to the BSC Panel).

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4 Potential Impacts

Impacts on Core Industry Documents

Impacted Core Industry Documents			
☐Ancillary Services Document	☐Connection and Use of System Code	☐Data Transfer Services Agreement	☐Use of Interconnector Agreement
☐Retail Energy Code	☐Transmission License	☐System Operator Transmission Owner Code	☐Supplemental Agreements
☐Distribution Code	☐Grid Code	☐Other (please specify)	

No impact on Core Industry Documents identified.

Impacts on BSC Systems

Impacted Systems				
☐CRA	☐CDCA	☐PARMS	☒SAA	☐BMRS
☐EAC/AA	☐FAA	☐TAAMT	☐NHHDA	☒SVAA
☐ECVAA	☐ECVAA Web Service	☐Elexon Portal	☐Other (Please specify)	

There will be an impact on the Data and Calculations Platform (DCP), which is the IT system used by the SVAA to aggregate data relating to SVA Metering Systems.

There will also be an impact on the SAA system, which calculates chargeable supply volumes for reporting to EMRS, and Energy Imbalance charges for licensed Suppliers.

Impacts on BSC Parties

Impacted Parties			
☒Supplier	☐Interconnector User	☐Non Physical Trader	☐Generator
☐Licensed Distribution System Operator	☐National Electricity Transmission System Operator	☐Virtual Lead Party	☐Other (Please specify)

There will be a positive impact on those 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.

Similarly, there will be a positive impact on distributed generators who wish to act as exempt suppliers. The solution should resolve current issues where Licensed Suppliers pass incorrect charges through to the exempt suppliers' customers, reducing the attractiveness of their exempt supply proposition.

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Impacts on consumers and the environment

Impact of the Modification on consumer benefit areas:	
Consumer benefit area	Identified impact
Improved safety and reliability Being able to offset consumers' electricity needs with micro- to small-scale generators developed by the consumers themselves will improve safety of supply and security of electricity bills compared to the current retail market.	**Positive**
Lower bills than would otherwise be the case The reduction of social and green levies (£45-£60/MWh) on consumers' bills will result in true green electricity bills that are affordable for all. Additionally, the maximum benefit will be realised at the local energy system where local distributed generators are matched with local consumers (£7-£40/MWh), reducing network losses and optimising balancing and operating the grid.	**Positive**
Reduced environmental damage This Modification is a crucial step towards the journey toward statutory net-zero targets. It will stimulate a micro finance environment for distributed electricity generators such as batteries, electric vehicles, and CHP. It will also support the ambition of many consumers who wish to install distributed generation assets for themselves where they are unable to install the generation assets behind their import meters. The more distributed energy resources there are, the lower the greenhouse gases from energy consumption will be. This Modification proposal will have significant impact on the decarbonisation of electricity by enabling micro- to small-scale generators to significantly contribute to green electricity bills of consumers, as well as the decarbonisation of heat by enabling electrified heating systems to provide energy to consumer.	**Positive**
Improved quality of service With this proposal, more end consumers will have the ability to install distributed generation assets for their own consumption need. This will have a significant impact on the affordability of green electricity bills for all end consumers.	**Positive**

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Impact of the Modification on consumer benefit areas:	
Consumer benefit area	Identified impact
Benefits for society as a whole Distributed energy resources have significant impact on creating local energy systems and peer-to-peer markets, which have been shown to have significant impacts on the local prosperity. For instance, based on Oldham Council's Green New Deal Strategy 2020-25 the current power purchase agreement for community energies and the un-contracted excess volume of micro generators, as well as the procurement of energy for various properties located in the Oldham Borough result in the flow of £500million a year outside of the Borough. While a local peer-to-peer market between local generators and consumers will redirect a significant portion of this flow inward. In another feasibility study for a county council in Wales, the local peer-to-peer market would create 1,500-2,000 jobs in five years.	**Positive**

Legal Text Changes

Changes will be required to the following BSC Sections:

- Section J 'Party Agents and Qualification Under the Code'[3], to define the new ESCA role, and associated requirements for Qualification;
- Section S 'Supplier Volume Allocation'[4], to define the Settlement requirements that ESCAs must meet;
- Annex S-2 'Supplier Volume Allocation Rules'[5], to define the calculations performed by SVAA with exempt supply volumes provided by ESCAs;
- Section T 'Settlement and Trading Charges'[6], to define the adjustments to Suppliers' Energy Imbalance positions arising from exempt supply volumes; and
- Annex X-1 'General Glossary'[7] and Annex X-2 'Technical Glossary'[8], to include appropriate definitions.

[3] https://www.elexon.co.uk/the-bsc/bsc-section-j-party-agents-and-qualification-under-the-code/
[4] https://www.elexon.co.uk/the-bsc/bsc-section-s-supplier-volume-allocation/
[5] https://www.elexon.co.uk/the-bsc/bsc-section-s-annex-s-2-supplier-volume-allocation-rules/
[6] https://www.elexon.co.uk/the-bsc/bsc-section-t-settlement-and-trading-charges/
[7] https://www.elexon.co.uk/the-bsc/bsc-section-x-annex-x-1-general-glossary/
[8] https://www.elexon.co.uk/the-bsc/bsc-section-x-annex-x-2-technical-glossary/

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5 Governance

Self-Governance

☒ **Not Self-Governance –** A Modification that, if implemented:	
☐ materially impacts the Code's governance or Modification procedures	☐ materially impacts sustainable development, safety or security of supply, or management of market or network emergencies
☒ materially impacts competition	☐ materially impacts existing or future electricity consumers
☐ materially impacts the operation of national electricity Transmission System	☐ is likely to discriminate between different classes of Parties
☒ 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	
☐ **Self-Governance –** A Modification that, if implemented:	
Does not materially impact on any of the Self-Governance criteria provided above	

This should not be progressed under Self-Governance as enabling efficient peer-to-peer exchange would materially impact competition. This Modification would stimulate the development of more renewable assets and allow distributed electricity generators to secure higher fixed rates for their renewable assets.

Progression route

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

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

No impacts on any active SCR have been identified by the Proposer.

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

This Modification is expected to impact the EBGL Article 18 terms and conditions as specified in the mapping given in Section F Annex F-2[9]. Specifically, it will impact the Settlement calculations. However, it is not anticipated to extend the terms or conditions.

Implementation approach

This Modification should be implemented as soon as reasonably possible so that the benefits can be realised, subject to the time required for any system changes.

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

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