ELEXON

Issue 96: Strawman Solutions for Options 2B, 2C and 3

Date	**1 June 2022**	Classification	**Public**
Document owner	**Lorna Lewin / John Lucas**	Document version	**V1.0**

1. Introduction and Background

1.1 The Issue 96 Workgroup considered enduring solutions for distinguishing exempt supply from licensed supply, in order that BSC Systems can correctly report the volume of licensed supply for purposes of Capacity Market (CM) and Contract for Difference (CFD) charging.

1.2 During the initial meeting on 10 September 2021, the Workgroup requested that Elexon create more detailed strawman solutions for:

- **Option 2B**: Half Hourly Data Collector (HHDC) submits separate volumes for licensed and exempt supply into Settlement using Shared SVA Metering Arrangements. Information about the exempt supply arrangements is provided to the HHDC (by the licensed Suppliers involved) as a new type of Allocation Schedule. BSC Procedure BSCP550 'Shared SVA Metering Arrangement of Half Hourly Import and Export Active Energy' would be amended to allow for this new form of Allocation Schedule.
- **Option 3**: A new third party role, the "**Exempt Supply Calculation Agent**" (ESCA), calculates the volumes of licensed and exempt supply, and submits them to central BSC Systems. The ESCA would perform the calculation based on Settlement metered data provided by the HHDC or Supplier.

1.3 Options 2B and 3 were discussed at the second Workgroup meeting on 16 March 2022. The workgroup requested that Elexon develop a further strawman solution for:

- **Option 2C**: HHDC provides metered data to the ESCA. ESCA calculates the volumes of licenced and exempt supply. Half Hour Data Collector (HHDC) submits separate volumes for licensed and exempt supply into Settlement using Shared SVA Metering Arrangements. Information about the exempt supply arrangements is provided to the HHDC and ESCA (by the licensed Suppliers involved) as a new type of Allocation Schedule. BSC Procedure BSCP550 would be amended to allow for this new form of Allocation Schedule.

1.4 This document contains the detail of the strawman solutions, as discussed by the Workgroup.

2. Key Assumptions

2.1 Key assumptions underlying all of the strawman solutions are as follows:

2.1.1 **The solution is only needed for exempt supply across licensed networks**. Like the interim solution that it replaces, the Issue 96 solution is intended to settle exempt supply that is exported onto the Distribution System, then transported across Distribution System(s) (and possibly the Transmission System) before being imported by a customer. Exempt supply within a private network, not involving the Distribution System, will naturally fall outside the scope of CFD and CM charges.

2.1.2 **The solution is intended for use by customers and exempt suppliers registered in the Supplier Volume Arrangements (SVA)**. Exempt suppliers whose Export Metering Systems are registered in CVA would not be able to use the solution, due to the different data collection and aggregation arrangements for these Metering Systems.

2.1.3 **Exempt supply volumes settled under the solution must be verified against Half Hourly Import and Export metered data.** The solution must ensure that volumes of exempt supply notified into Settlement do not exceed the energy Exported and Imported by the parties involved. For example, an exempt Supplier wishes to

sell 2 MWh of power to a customer in a given Settlement Period. If the exempt Supplier Exports less than 2 MWh or the customer Imports less than 2 MWh in that Settlement Period, the volume of exempt supply must be reduced accordingly.

We further assume that this process of 'matching' Import and Export volumes will not make adjustments for losses on the Distribution System or Transmission System (so a customer who has Imported 2 MWh can purchase it from an exempt Supplier who has Exported 2 MWh, and does not need to buy any additional energy to cover losses in transit). Note that:

- In the case where the exempt Supplier and customer have the same Line Loss Factor (LLF) this is entirely consistent with the treatment of licensed Suppliers, who can also buy the 2 MWh of Export and sell it the customer, without needing to buy any additional energy to cover losses;
- In the case where the exempt Supplier and customer have different LLFs, the proposed treatment of exempt Suppliers is simpler than that of licensed Suppliers (for whom the 2 MWh of Export would not exactly match the 2 MWh of Import due to the difference in the LLFs applied to them). We believe this is appropriate because the exemption regime is intended to allow small-scale supply without having to deal with all the complexities of codes and licences.

2.1.4 **The solution must be able to enforce limits on the volume of exempt supply sold by each exempt supplier**. For example, the Class A (Small Suppliers) exemption does not allow supply of more than 5 MW (2.5 MW to Domestic consumers). This equates to 2.5 MWh (1.25 MWh to Domestic consumers) in any half hour Settlement Period.

2.1.5 **The solution must support a variety of different exempt supply arrangements.** Different exempt suppliers will have different contractual arrangements with their customers, ranging from the simple (e.g. always selling their Export to the same customer) to the complex (e.g. selling their Export to a wide range of customers as decided by an automated online auction process with access to sophisticated tools for forecasting Import and Export). The solution should not unnecessarily constrain the types of exempt supply arrangement that can be correctly settled. Appendix 1 includes an example to illustrate this in more detail.

From a Settlement viewpoint, the need to handle a variety of different exempt supply arrangements is potentially more challenging under Option 2B than Options 2C and 3:

- In Option 2C and Option 3, the task of calculating exempt supply volumes is handled by the ESCA, working on behalf of the parties involved. It is therefore a matter for the parties and the ESCA to ensure that the ESCA has the correct systems to handle their specific arrangement. From a BSC viewpoint we need only ensure that Settlement arrangements (such as verifying the volumes against metered data as described in 2.1.3) are met.
- In Option 2B, the process for calculating exempt supply volumes based on an Allocation Schedule provided by the licensed Suppliers will be codified in BSCP550. This raises the question of whether the BSCP550 process should be prescriptive (e.g. prescribing a structure and format for the Allocation Schedule), or leave some questions open to be agreed between Suppliers and HHDCs or the ESCA.

2.1.6 **Exempt supply volumes must be adjusted for network losses**. In the above example, where a customer has bought 2 MWh from an exempt supplier, the 2 MWh will be adjusted for the appropriate Import LLF and Transmission Loss Multiplier (TLM) before being netted off the Import Supplier's gross demand. This ensures that the Import Supplier is not charged for EMR levies on the network losses associated with the exempt supply.

3. Strawman Solution for Option 2B

3.1 The basis of Option 2B is that each customer purchasing exempt supply will have a Shared SVA Metering Arrangement, to provide them with an additional MSID (referred to in BSCP550 as a pseudo MSID or Secondary MSID). This Secondary MSID will be used for their exempt supply purchases (and their primary MSID for licensed Supply).

3.2 For example, if an exempt Supplier was selling power from their generating unit to two customers, each customer would have a Shared SVA Metering Arrangement[1] (and hence a separate Metering System for exempt supply). Optionally a third Shared SVA Metering Arrangement could be used to provide a separate

[1] The reason for treating the two customers as having separate Shared SVA Metering Arrangements, rather than forming part of a single larger Shared SVA Metering Arrangement, is for consistency with the current definition of Shared SVA Meter Arrangement in Annex X-1 of the BSC.

Export Metering System for the exempt Supplier (this is not needed for Settlement purposes, but could be of use to facilitate billing between the exempt Supplier and their licensed Supplier).

3.3 Although the two customers in this example each have their own Shared SVA Metering Arrangements, they are not entirely independent of each other. For example, if the exempt Supplier is operating under the Class A (Small Suppliers) exemption they will only be able to sell 2.5 MWh to both customers combined in any one Settlement Period, and therefore if one customer takes more exempt supply it may reduce the amount available to the other. As a result, a single Allocation Schedule document is required for both Shared SVA Metering Arrangements.

3.4 Key assumptions underlying the strawman solution for Option 2B are as follows:

3.4.1 **Each Import Metering System will be assigned an additional MSID**. Using the existing BSC processes for Shared SVA Meter Arrangements (described in BSCP550), each Metering System that Imports exempt supply will be assigned a Secondary MSID for their exempt supplies (with the Primary MSID used for their licensed supplies).

3.4.2 **HHDC will split Import into exempt and licensed supply.** The HHDC will use information provided in the Allocation Schedule to split each customer's Import into licensed and exempt. In doing this the HHDC must ensure that an exempt supplier's customers are not allocated more energy than the exempt supplier has Exported (see 2.1.3) or more energy than the exempt supplier is permitted to supply (see 2.1.4).

3.4.3 **Import and Export MSIDs must have the same appointed HHDC**. In order to allow the HHDC to perform this role, the licensed Supplier(s) facilitating the exempt supply arrangement must ensure that the same HHDC is appointed to the Export MSID and the Import MSIDs to which the Export is sold.

3.4.4 **Optionally, HHDC may split Export into exempt supply and other Export.** If required by the Export Supplier, a Shared SVA Metering Arrangement may also be used at the Export MSID (as well as the Import MSID). This is not necessary for EMR purposes, but provides a mechanism for the Export Supplier to distinguish exempt supply from other Exports.

3.4.5 **Unless the BSC is changed, a single licensed Supplier must register the Import Metering System for all of an exempt Supplier's customers.** In principle, Option 2B could allow different Suppliers to register these Import Metering Systems. But this would require a BSC change to allow an Allocation Schedule to be submitted to the HHDC by someone other than the Primary Supplier (because, as explained in 3.3 above, a single Allocation Schedule document is required for the Shared SVA Metering Arrangements used by all the exempt Supplier's customers).

3.4.6 In order to allow the Settlement Administration Agent (SAA) to identify which Import is exempt supply (and hence not subject to EMR levies), **the Import Supplier must separate the exempt supply Secondary MSIDs into special-purpose BM Units (containing only exempt supply).** This could be done by allocating these MSIDs to an Additional BM Unit, and/or using a different Supplier ID for exempt supply[2].

3.4.7 **The Import Supplier will register with CRA the BM Units used for exempt supply.** This will allow the Settlement Administration Agent (SAA) to report a zero (chargeable) gross demand to EMRS for these BM Units. The process for doing this would likely be similar to that for declaring CVA BM Units as non-chargeable which is proposed by BSC Modification P395 ('Aligning BSC Reporting with EMR Regulations').

3.5 Appendix 1 contains a strawman proposal for the new form of Allocation Schedule required under Option 2B and 2C.

Appendix 2 contains a summary of the required process steps.

4. Points for Workgroup Consideration (Option 2B)

4.1 Key questions which the Workgroup considered in relation to Option 2B include:

4.1.1 **Allocation Schedule**: Is the strawman proposal for the Allocation Schedule (Appendix 2) appropriate? Is it too complex (leading to disproportionate cost and expense for HHDCs)? Conversely, is it too simple (and therefore not capable of supporting some types of exempt supply arrangement)?

[2] Note that, under current BSC rules, the Supplier would have to use a different Supplier ID for exempt supply, as it is not possible for a single Supplier ID to establish a Shared SVA Meter Arrangement. However, this will potentially change as a result of BSC Modification P425 ('Amendment to the definition of Shared SVA Metering Arrangement'). If approved, this Modification would allow Option 2B to work with a single Supplier ID (but with the exempt MSIDs allocated to an Additional BM Unit owned by that Supplier ID).

The view from the workgroup was that the allocation schedule is too prescriptive and reduces flexibility.

4.1.2 **Percentage Allocations**: The strawman proposal (Appendix 2) does not allow for percentage allocations (e.g. a customer wishing to buy 50% of their energy from one exempt Supplier and 50% from another). Should it be amended to do so?

4.1.3 **Prescriptiveness of Allocation Schedule**: Should BSCP550 require a particular structure for the Allocation Schedule (such as that in Appendix 2)? Or should it allow Suppliers and HHDCs to agree a different structure?

The view from the workgroup was that the allocation schedule doesn't need to be prescriptive and the main information required are the parties involved in the exempt arrangements and any information relevant for HHDCs.

4.1.4 **Requirement for BM Units**: We have assumed (see 3.4.6) that specific BM Units will be required for exempt supply – is this an appropriate assumption? Our basis for making this proposal is that some Suppliers we have spoken to already use specific BM Units for exempt supply, and requiring this would significantly reduce the need for central system changes (compared to an alternative in which exempt supply MSIDs were in the same BM Units as licensed Supply).

4.1.5 **Assurance of BM Units**: The solution relies on Suppliers using certain BM Units for exempt supply only (see 3.4.6). Are any specific measures needed to provide assurance that Suppliers do this correctly (or will the normal risk management processes built into the Performance Assurance Framework suffice)?

4.1.6 **Central system changes**: We have assumed that Suppliers will register with CRA details of which BM Units contain exempt supply (so that SAA can treat them as non-chargeable). There is a risk that system changes needed to deliver this could take some time (as the change pipeline for BSC central systems already contains a high volume of major change). If necessary, Option 2B could potentially go live without these system changes, but then EMRS would need a process to treat the exempt supply BM Units as non-chargeable. Would that be appropriate?

5. Strawman Solution for Option 2C

5.1 The basis of Option 2C is that each customer purchasing exempt supply will have a Shared SVA Metering Arrangement, to provide them with an additional MSID (referred to in BSCP550 as a pseudo MSID or Secondary MSID). This Secondary MSID will be used for their exempt supply purchases (and their primary MSID for licensed Supply). However, the process of calculating exempt supply volumes will be performed by a third party (as in Option 3), rather than the HHDC.

5.2 Key assumptions underlying the strawman solution for Option 2C are as follows:

5.2.1 **Each Import Metering System will be assigned an additional MSID**. Using the existing BSC processes for Shared SVA Meter Arrangements (described in BSCP550), each Metering System that Imports exempt supply will be assigned a Secondary MSID for their exempt supplies (with the Primary MSID used for their licensed supplies).

5.2.2 **Third Party will split Import into exempt and licensed supply.** A third party (either a Licensed Supplier or a third party acting on their behalf) will use information provided by the Licensed Suppliers (and metered data for customers and generators) to split each customer's Import into licensed and exempt. In doing this the third party must ensure that an exempt supplier's customers are not allocated more energy than the exempt supplier has Exported (see 2.1.3) or more energy than the exempt supplier is permitted to supply (see 2.1.4).

5.2.3 **Use of Metered Data**: Metered data used by the third party to calculate exempt supply volumes must be sourced from the HHDC system, either directly or via the Supplier.

5.2.4 **Import and Export MSIDs must have the same appointed HHDC**. In order to allow the ESCA to perform this role, the licensed Supplier(s) facilitating the exempt supply arrangement must ensure that the same HHDC is appointed to the Export MSID and the Import MSIDs to which the Export is sold.

For Option 2C there is no need for the same appointed HHDC as the HHDC doesn't need to match the Import and Export volumes as this will be done by the ESCA.

5.2.5 **Optionally, the Third Party may split Export into exempt supply and other Export.** If required by the Export Supplier, a Shared SVA Metering Arrangement may also be used at the Export MSID (as well as the Import MSID). This is not necessary for EMR purposes, but provides a mechanism for the Export Supplier to distinguish exempt supply from other Exports.

5.2.6 For Option 2C there is no need for all of an exempt supplier's customers to have the same licensed supplier, because data will be provided to HHDC's by the ESCA rather than the supplier. And therefore, the issue about multiple suppliers sending Allocation schedules that arises under Option 2B is not relevant. **The Import Supplier must separate the exempt supply Secondary MSIDs into special-purpose BM Units (containing only exempt supply).** This could be done by allocating these MSIDs to an Additional BM Unit, and/or using a different Supplier ID for exempt supply. Note that currently a Shared SVA Meter Arrangement can only be used with a different Supplier ID, although this will potentially change as a result of BSC Modification Proposal P425 ('Amendment to the definition of Shared SVA Metering Arrangement')

5.2.7 **The Import Supplier will register with CRA the BM Units used for exempt supply.** This will allow the Settlement Administration Agent (SAA) to report a zero (chargeable) gross demand to EMRS for these BM Units.

6. Points for Workgroup Consideration (Option 2C)

6.1 Key questions which the Workgroup considered in relation to Option 2C include:

6.1.1 **Validation of exempt supply volumes by HHDC**. In Option 2C, the role of the HHDC is to submit into Settlement exempt supply volumes which have been calculated by a third party. The question therefore arises of how much validation of these volumes the HHDC should perform. For example:

a) Should the HHDC be required to check that the exempt supply volume notified by the third party does not exceed the total Import for that customer?

b) Should the HHDC be required to check that the total exempt supply volumes notified for a given exempt supplier do not exceed the maximum permitted by their licence exemption?

The workgroup agreed that mandated validation by HHDCs would not be necessary, but that HHDCs would likely implement some checks, such as flagging and questioning very large values.

6.1.2 **Allocation Schedule.** In Option 2C, the Allocation Schedule (provided to the HHDC by the Licensed Supplier) should be able to contain less information than for Option 2B (because it is not the HHDC who is required to calculate exempt supply volumes). This will depend on how much validation the HHDC is required to perform (see 6.1.1 above). Appendix 1 discusses this further.

The workgroup agreed that there is not much detail required in the allocation schedule as there is a lack of validation required by the HHDCs.

6.1.3 **Ability of HHDCs to implement system changes**. One of the potential advantages of Option 2C (over Option 3) is that it requires far fewer changes to BSC Agent systems, and therefore could potentially be implemented more quickly. This is because our ability quickly to change BSC Agent systems is limited, due to the volume of other changes already underway e.g. BSC Modifications and Market-Wide Half Hourly Settlement (MHHS). However, this does depend on the ability and willingness of HHDCs to implement system changes, particularly as they are also impacted by industry changes such as MHHS.

The workgroup agreed that the best way to ascertain the views of HHDC's will be to put it out for consultation which will form part of the change or modification process. It was also noted that some HHDC's have direct contracts with customers, and using Option 2C will be problematic where HHDC's are not offering the service.

7. Strawman Solution for Option 3

7.1 Key assumptions underlying the strawman solution for Option 3 are as follows:

7.1.1 **Exempt Supply Calculation Agent**: In Option 3, the role of calculating exempt supply volumes is carried out by an "Exempt Supply Calculation Agent". 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).

7.1.2 **Import and Export MSIDs must have the same appointed ESCA**. 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.

7.1.3 **No central register of ESCA appointments**: We assume that 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).

7.1.4 **Use of Metered Data**: Metered data used by the ESCA to calculate exempt supply volumes must be sourced from the HHDC system, either directly or via the Supplier.

7.1.5 **Definition of ESCA role**: 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 (see 2.1.3) or more energy than the exempt supplier is permitted to supply (see 2.1.4). But 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.

8. Points for Workgroup Consideration (Option 3)

8.1 Key questions which the Workgroup considered in relation to Option 3 include:

8.1.1 **Assurance of the ESCA role:** What is the appropriate framework for providing parties with assurance that ESCAs are complying with Settlement requirements? Should they be required to undergo a Qualification process? Should they be subject to assurance processes? Is a different process appropriate if the ESCA is also a Licensed Supplier and/or does it depend on the nature or complexity of the activity?

The majority of the workgroup agreed that there needs to be assurance of the ESCA role and that everyone has to qualify for the ESCA role including Suppliers. Some workgroup members were concerned that the assurance of the ESCA role might be disproportionate.

8.1.2 **Supplier Assurance:** is additional Supplier assurance required (in the case where the Supplier and the ESCA are separate)?

8.1.3 **Source of Metered Data:** Is the requirement to use data from the HHDC system (see 7.1.4) always appropriate? Are there any circumstances in which a Supplier should be able to provide data that is not sourced from the HHDC (e.g. smart meters)?

The workgroup supported the use of data from HHDC systems.

Appendix 1 – Strawman Format for Allocation Schedule (Option 2B)

Option 2B relies upon the licensed Supplier(s) providing the HHDC with an Allocation Schedule which (together with the metered data) allows them to split each customer's Import into exempt supply and licensed supply. This Appendix describes our strawman proposal for the structure and format of the Allocation Schedule (and some examples to illustrate how it could be used in practice).

Proposed Structure for Allocation Schedule

Option 2B will amend BSCP550 to recognise a new type of Allocation Schedule, used for identifying exempt supply. Each row of such an Allocation Schedule will include the following data items. The rightmost column discusses whether the data item would also need to be included in the Allocation Schedule for Option 2C:

Data Item	Mandatory for Option 2B?	Description	Needed for Option 2C?
Export MSID	Yes	MSID recording the exempt Supplier's Export	Only if the HHDC is expected to validate which Export MSID the customer is taking exempt supply from
Exempt Supplier ID	Yes	A code identifying the exempt Supplier. This does not have to be registered in any central system, but is necessary so that the HHDC can verify that the total exempt supply from a given exempt Supplier (across all their MSIDs) does not exceed that permitted under their exemption.	Only if the HHDC is expected to validate that each exempt supplier is not exceeding the allowed maximum.
Import MSID	Yes	MSID recording the customer's Import	Required for context if any of the other data items are required
Domestic Indicator	Yes	Indicates whether the Import MSID is Domestic or Non-Domestic	Only if the HHDC is expected to validate that each exempt supplier is not exceeding the allowed maximum.
Maximum Total Supply	No	The maximum volume (MWh) that the exempt supplier is permitted to supply in total (in any one Settlement Period). If omitted this will default to 2.5 MWh (which is the maximum permitted under the Class A exemption as referenced in 2.1.4).	Only if the HHDC is expected to validate that each exempt supplier is not exceeding the allowed maximum.
Maximum Domestic Supply	No	The maximum volume (MWh) that the exempt supplier is permitted to supply in total. If omitted this will default to 1.25 MWh (which is the maximum permitted under the Class A exemption as referenced in 2.1.4).	Only if the HHDC is expected to validate that each exempt supplier is not exceeding the allowed maximum.
Agreed Exempt Supply Volume	No	The volume which the customer has agreed to purchase from the exempt supplier in that Settlement Period. If omitted it means the customer has agreed to purchase all their Import from the exempt supplier (subject to them being able to provide it).	No

To use the Allocation Schedule the HHDC must process the rows in the order specified by the Supplier, calculating the additional volume of Import that can now be treated as exempt supply. This volume is the **minimum** of:

- The remaining licensed supply on the Import MSID (i.e. the total Import recorded on the Import MSID, less any Import from that MSID that has already been allocated to exempt supply while processing a previous row);
- The remaining volume that the exempt supplier is allowed to supply (i.e. the Maximum Total Supply, less any exempt supply previously allocated to Export MSIDs with the same Exempt Supplier ID);

- If the Domestic Indicator is True, the remaining volume that the exempt supplier is allowed to supply to Domestic customers (i.e. the Maximum Domestic Supply, less any exempt supply previously allocated to Export MSIDs with the same Exempt Supplier ID and Import MSIDs with the Domestic Indicator True); and
- The Agreed Exempt Supply Volume (if specified).

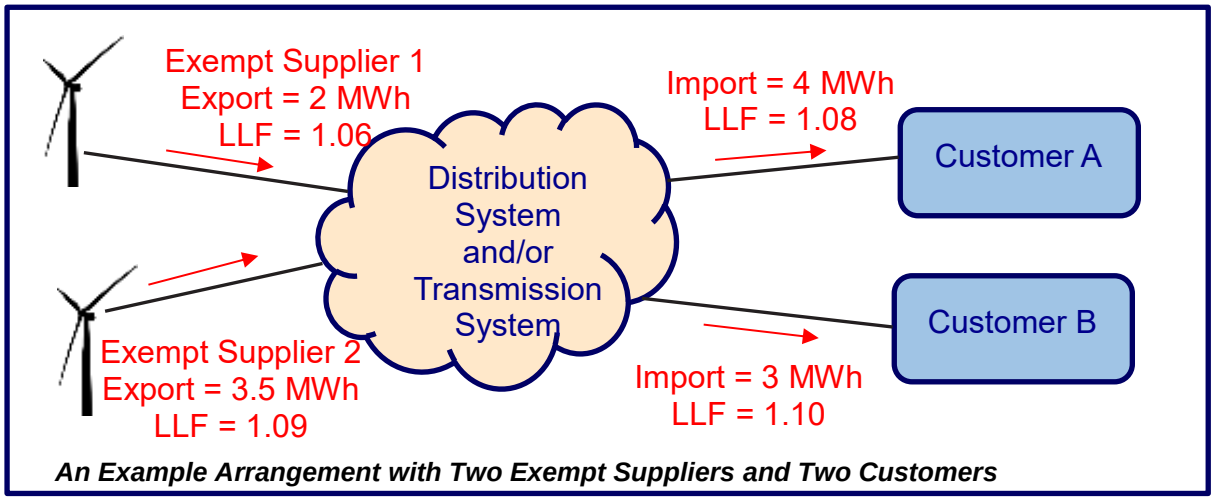
The nature of this process is that – in the more complex scenarios - receiving a corrected meter reading for one Metering System may have a ripple effect on the exempt supply allocated at many other Metering Systems. For example, if the Half Hourly meter reading at an Import Metering System increases that customer may be able to buy more power from their exempt Supplier(s), which means those exempt Suppliers may have less power to sell to other customers, which means those customers can buy more power from other exempt Suppliers, and so on …

An Example to Illustrate the Use of the Allocation Schedule

For the purpose of illustrating the proposed Allocation Schedule, consider the following example with two exempt suppliers and two customers:

- Exempt Supplier 1 is operating under the Class A (Small Suppliers) exemption, and has an exempt supply contract with Customer A (Non-Domestic) and Customer B (Domestic)
- Exempt Supplier 2 is also operating under the Class A (Small Suppliers) exemption, and has an exempt supply contract with Customer B only.

The following diagram shows the physical power flows (Exports from each exempt supplier and Imports to each customer) in an example Settlement Period:



An Example Arrangement with Two Exempt Suppliers and Two Customers

The volume of exempt supply allocated to each customer will depend upon the Allocation Schedule submitted to the HHDC by the Licensed Supplier(s). For example, they might submit the following Allocation Schedule, which (because the HHDC is required to process the rows in order) gives customer B access to exempt Supplier 1's Export ahead of customer A:

Allocation Schedule Example 1 – Customer B has first access to exempt Supplier 1						
Export MSID	**Exempt Supplier ID**	**Import MSID**	**Domestic**	**Maximum Total Supply**	**Maximum Domestic Supply**	**Agreed Exempt Supply Volume**
Export MSID 1	ExSupp1	Import MSID B	True			
Export MSID 1	ExSupp1	Import MSID A	False			
Export MSID 2	ExSupp2	Import MSID B	True			

Processing this Allocation Schedule (and the accompanying metered data) would lead to the following outcomes:

	Customer A	**Customer B**
Purchased from exempt Supplier 1	0.75 MWh	1.25 MWh

Purchased from exempt Supplier 2		1.25 MWh
Total exempt supply purchases	0.75 MWh	2.5 MWh
Top-up required from Licensed Supplier	3.25 MWh	0.5 MWh

Alternatively, the Suppliers might submit this Allocation Schedule, which swaps the order to give Customer A first access to exempt Supplier 2:

Allocation Schedule Example 2 – Customer A has first access to exempt Supplier 1						
Export MSID	**Exempt Supplier ID**	**Import MSID**	**Domestic**	**Maximum Total Supply**	**Maximum Domestic Supply**	**Agreed Exempt Supply Volume**
Export MSID 1	ExSupp1	Import MSID A	False			
Export MSID 1	ExSupp1	Import MSID B	True			
Export MSID 2	ExSupp2	Import MSID B	True			

Processing this Allocation Schedule (and the accompanying metered data) would lead to the following outcomes:

	Customer A	**Customer B**
Purchased from exempt Supplier 1	2 MWh	-
Purchased from exempt Supplier 2		1.25 MWh
Total exempt supply purchases	2 MWh	1.25 MWh
Top-up required from Licensed Supplier	2 MWh	1.75 MWh

Or, alternatively, the Suppliers could provide an Allocation Schedule that specified specific exempt supply volumes (e.g. determined through an automated auction process using forecasts of Import and Export):

Allocation Schedule Example 3 – Exempt Supply Volumes Specified						
Export MSID	**Exempt Supplier ID**	**Import MSID**	**Domestic**	**Maximum Total Supply**	**Maximum Domestic Supply**	**Agreed Exempt Supply Volume**
Export MSID 1	ExSupp1	Import MSID A	False			2
Export MSID 1	ExSupp1	Import MSID B	True			1.25
Export MSID 2	ExSupp2	Import MSID B	True			1.25

However, in this case the Allocation Schedule specified sales for Exempt Supplier 1 that exceeded the 2 MWh they actually Exported. The HHDC would allocate volumes in the order specified, leading to the following outcome:

	Customer A	**Customer B**
Purchased from exempt Supplier 1	2 MWh	-
Purchased from exempt Supplier 2		1.25 MWh
Total exempt supply purchases	2 MWh	1.25 MWh
Top-up required from Licensed Supplier	2 MWh	1.75 MWh

Appendix 2 – Strawman Process (Option 2B)

Option 2B uses the existing process for Shared SVA Metering Arrangements, as set out in BSCP550. This table summarises the key process steps. For the avoidance of doubt, the majority of these steps are the existing elements of the BSCP550 process, rather than new processes introduced for Option 2B:

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.1	As required	Exempt and Licensed Suppliers agree exempt arrangements[3].	Suppliers			Internal process
1.2	As required	Licensed Suppliers agree which Supplier will submit the Allocation Schedule for all the Shared SVA Meter Arrangements relating to this exempt supply[4].	Suppliers			Internal process
1.3	At least 15 WD before required start date (as required by BSCP550)	For each Import MSID (and optionally each Export MSID), notify LDSO that Shared SVA Meter Arrangement being initiated and that Primary and pseudo Secondary MSID will be required	Suppliers	LDSO	Provide details of intended Supplier IDs and MSIDs required for Shared SVA Meter Arrangement.	Current process
1.4	Within 2 WD of step 1.3	Designate original MSID as Primary MSID, allocate pseudo Secondary MSID(s), record association and ensure no duplication.	LDSO	SMRA	As per BSCP01	Current process
1.5	Within 2 WD of step 1.3	Send secondary MSIDs to Suppliers	LDSO	Suppliers	As per BSCP01	Current process
1.6	At least 11 WD before required start date (as required by BSCP550)	Complete Supplier and Party Agents registration details for pseudo MSIDs in SMRS	Suppliers	SMRA	As per BSCP01	Current process

[3] Note that cooperation is needed from the complete set of parties trading with each other e.g. an exempt Supplier, and the licensed Suppliers of all the customers they sell to, and any other exempt Suppliers those customers buy from, and so on. This is required to ensure that the HHDC can validate that an exempt supplier's customers are not allocated more energy than the exempt supplier has Exported (see 2.1.3) or more energy than the exempt supplier is permitted to supply (see 2.1.4).

[4] This step will only be needed if the Option 2B solution amends the BSC to allow someone other than the Primary Supplier to send the Allocation Schedule for an SVA Metering Arrangement to the HHDC (see section (3.4.5 above).

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.7	At least 5 WD before required start date	Send Party Agent appointment details for the pseudo Secondary MSID(s). Same HHDC must be appointed to all.	Suppliers	SVA MOA, HHDC, HHDA		Current process
1.8	Prior to required start date	Ensure that pseudo Secondary MSIDs have been allocated to an MPID or Additional BM Unit used only for exempt supply.	Suppliers		May involve registering with a specific MPID in step 1.6, or instructing the HHDA to place the MSID in an Additional BM Unit.	
1.9	Prior to required start date	Inform HHDC and Secondary Suppliers of initial Allocation Schedule	Supplier	HHDC Secondary Suppliers	Allocation Schedule	Current process
1.10	As required (prior to Gate Closure)	Inform HHDC and Secondary Suppliers of updated Allocation Schedule	Supplier	HHDC Secondary Suppliers	Allocation Schedule	Current process
1.11	After collecting metered data for the Metering Systems referred to in the Allocation Schedule	Calculate exempt supply to each Import Metering System, and allocate to the appropriate Secondary MSID volumes	HHDC		Allocation Schedule	Internal process
1.12	After step 1.11	Send validated metered data to relevant Suppliers, and HHDA and LDSO.	HHDC	Primary & Secondary HHDAs, Primary & Secondary Suppliers and LDSO	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix. D0275 Validated Half Hourly Advances.	Current process

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.13	As agreed with LDSO	Send validated raw metered data to LDSO. HHDC LDSO Email	HHDC	LDSO	Validated raw meter data (based on D0010 Meter Reading and / or D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix, as agreed between the HHDC and the LDSO).	Current process
1.14	In each Volume Allocation Run, in accordance with SVAA Timetable	Send aggregated data	HHDA	SVAA	D0040 Aggregated Half Hour Data File; or D0298 BM Unit Aggregated Half Hour Data File	Current process
1.15	In each Volume Allocation Run, in accordance with SVAA Timetable	Send aggregated data	SVAA	SAA	SAA-I007 BM Unit Allocated Demand Volume	Current process
1.16	In each Settlement Run, in accordance with SVAA Timetable	Send Gross Data to EMRS, with zero values for exempt supply BM Units	SAA	EMRS	SAA-I042 BM Unit Gross Demand Report	

Appendix 3 – Strawman Process (Option 3)

Modification to allow allocation carried out ex-post by a third party. Third party has been named 'Exempt Supply Calculation Agent' (ESCA). The process of matching Import and Export data ex post is carried out by Supplier (or third party acting for them), not by the HHDC (and does not make use of Shared SVA Meter Arrangement processes).

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.1	As required	Exempt and License Suppliers agree exempt arrangements	Suppliers			Internal process
1.2	As required	Suppliers inform ESCA of the exempt arrangements (Arrangements will be unique between parties. For example, a Supplier might provide trading arrangements or Peer to Peer Trading platform)	Suppliers	ESCA	• Export MPANs and associated Import MPANS (exact nature of this data depends on how complex the supply arrangement is) • Export Max. quantity	As agreed between parties
1.3	Following 1.1 & 1.2 (If HHDC is providing metered data)	License Supplier(s) to inform HHDC to provide metered data to ESCA	Suppliers	ESCA	Import and export HH metered data	To be agreed by workgroup
1.4	Ex post (when meter is read)	Metered data sent to ESCA	Supplier or HHDC	ESCA		To be agreed by workgroup
1.5	Ex post (in time for II run, and subsequently if metered data changes)	ESCA will use metered data and trades to split exempt and licensed volumes	ESCA			Internal process
1.6	Ex post (in time for II run, and subsequently if metered data changes)	ESCA sends exempt and licensed volumes to SVAA	ESCA	SVAA	• Import MPAN • Exempt volume • License volume	To be agreed by workgroup

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.7	In each Volume Allocation Run, in accordance with SVAA Timetable	SVAA calculates LLFs	SVAA		SVAA to apply LLF's	Internal process
1.8	In each Volume Allocation Run, in accordance with SVAA Timetable	SVAA aggregates exempt supply volume to BM Unit and sends to SAA	SVAA	SAA		Current process
1.9	In each Settlement Run, in accordance with Settlement Timetable	SAA to subtract exempt volume from licensed supplier's gross demand data	SAA			Internal process
1.10	In each Settlement Run, in accordance with Settlement Timetable	SAA sends gross demand data to EMRS	SAA	EMRS		Current process

Appendix 4 – Strawman Process (Option 2C)

Option 2C uses the existing process for Shared SVA Metering Arrangements, as set out in BSCP550. This table summarises the key process steps. For the avoidance of doubt, the majority of these steps are the existing elements of the BSCP550 process, rather than new processes introduced for Option 2C:

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.1	As required	Exempt and Licensed Suppliers agree exempt arrangements[5].	Suppliers			Internal process
1.2	As required	Suppliers inform ESCA of the exempt arrangements	Suppliers	ESCA	• Export MPANs and associated Import MPANS (exact nature of this data depends on how complex the supply arrangement is) • Export Max. quantity	As agreed between parties
1.3	Following 1.1 & 1.2	License Supplier(s) to inform HHDC to provide metered data to ESCA	Suppliers	HHDC	Import and export HH metered data	Allocation Schedule, D0148 or as agreed by Parties
1.4	As required	Licensed Supplier(s) agree which Supplier will submit the Allocation Schedule for all the Shared SVA Meter Arrangements relating to this exempt supply[6].	Suppliers			Internal process

[5] Note that cooperation is needed from the complete set of parties trading with each other e.g. an exempt Supplier, and the licensed Suppliers of all the customers they sell to, and any other exempt Suppliers those customers buy from, and so on. This is required to ensure that the HHDC or ESCA can validate that an exempt supplier's customers are not allocated more energy than the exempt supplier has Exported (see 2.1.3) or more energy than the exempt supplier is permitted to supply (see 2.1.4).

[6] This step will only be needed if the Option 2C solution amends the BSC to allow someone other than the Primary Supplier to send the Allocation Schedule for an SVA Metering Arrangement to the HHDC (see section 3.4.5 above).

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.5	At least 15 WD before required start date (as required by BSCP550)	For each Import MSID (and optionally each Export MSID), notify LDSO that Shared SVA Meter Arrangement being initiated and that Primary and pseudo Secondary MSID will be required	Suppliers	LDSO	Provide details of intended Supplier IDs and MSIDs required for Shared SVA Meter Arrangement.	Current process
1.6	Within 2 WD of step 1.5	Designate original MSID as Primary MSID, allocate pseudo Secondary MSID(s), record association and ensure no duplication.	LDSO	SMRA	As per BSCP01	Current process
1.7	Within 2 WD of step 1.5	Send secondary MSIDs to Suppliers	LDSO	Suppliers	As per BSCP01	Current process
1.8	At least 11 WD before required start date (as required by BSCP550)	Complete Supplier and Party Agents registration details for pseudo MSIDs in SMRS	Suppliers	SMRA	As per BSCP01	Current process
1.9	At least 5 WD before required start date	Send Party Agent appointment details for the pseudo Secondary MSID(s). Same HHDC must be appointed to all.	Suppliers	SVA MOA, HHDC, HHDA		Current process
1.10	Prior to required start date	Ensure that pseudo Secondary MSIDs have been allocated to an MPID or Additional BM Unit used only for exempt supply.	Suppliers		May involve registering with a specific MPID in step 1.6, or instructing the HHDA to place the MSID in an Additional BM Unit.	
1.11	Prior to required start date	Inform HHDC, ESCA and Secondary Suppliers of initial Allocation Schedule	Supplier	HHDC Secondary Suppliers	Allocation Schedule	Current process
1.12	As required (prior to Gate Closure)	Inform HHDC, ESCA and Secondary Suppliers of updated Allocation Schedule	Supplier	HHDC Secondary Suppliers	Allocation Schedule	Current process

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.13	Ex post (when meter is read)	Metered data sent to ESCA	HHDC	ESCA	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix. D0275 Validated Half Hourly Advances.	Current process or as agreed between parties
1.14	After receiving metered data for the Metering Systems referred to in the Allocation Schedule	Calculate exempt supply to each Import Metering System, and allocate to the appropriate Secondary MSID volumes	ESCA		Allocation Schedule	Internal process
1.15	After step 1.14	Send calculated exempt and licenced volumes to the HHDC	ESCA	HHDC	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix. D0275 Validated Half Hourly Advances.	Use existing data flows or as agreed between parties
1.16	After step 1.15	Send validated metered data to relevant Suppliers, and HHDA and LDSO.	HHDC	Primary & Secondary HHDAs, Primary & Secondary Suppliers and LDSO	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix. D0275 Validated Half Hourly Advances.	Current process
1.17	As agreed with LDSO	Send validated raw metered data to LDSO. HHDC LDSO Email	HHDC	LDSO	Validated raw meter data (based on D0010 Meter Reading and / or D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix, as agreed between the HHDC and the LDSO).	Current process

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.18	In each Volume Allocation Run, in accordance with SVAA Timetable	Send aggregated data	HHDA	SVAA	D0040 Aggregated Half Hour Data File; or D0298 BM Unit Aggregated Half Hour Data File	Current process
1.19	In each Volume Allocation Run, in accordance with SVAA Timetable	Send aggregated data	SVAA	SAA	SAA-I007 BM Unit Allocated Demand Volume	Current process
1.20	In each Settlement Run, in accordance with SVAA Timetable	Send Gross Data to EMRS, with zero values for exempt supply BM Units	SAA	EMRS	SAA-I042 BM Unit Gross Demand Report	