

BSC SANDBOX RISK ASSESSMENT FOR CENTRICA

An assessment of the risks
to settlement of the BSC
derogation requested by
Centrica

Public

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Centrica Proposal

Centrica propose to participate in the Balancing Mechanism (BM) with Half-Hourly (HH) metered flexible assets as a Virtual Lead Party (VLP), where those assets are located at a premises with a Non Half-Hourly (NHH) boundary meter. Currently it is a requirement that a site is settled HH for a VLP to operate assets located on that site. They are working with a company providing controllable storage heaters, and believe they can deliver benefits to customers and to the electricity system by enabling participation in the BM without needing the customer's Supplier to install and settle the boundary meter on a HH basis.

The effect of the current arrangements is that customers without a HH metered and settled boundary meter cannot engage a VLP to deliver services using assets located on their premises. Market Wide Half Hourly Settlement (MHHS) will require HH settlement of customers with HH boundary meters, with implementation starting in 2023 and running through to 2025. Centrica believe they can deliver material benefit to consumers in this window, and further that a significant proportion of retail electricity consumers will remain NHH settled for a material amount of time following the implementation of MHHS due to the low penetration of HH capable meters in the market.

The proposed approach involves submitting details for the sites in question as if the sites are HH settled. Elexon would provide our service providers with the Metering System Identifiers (MSIDs) of the affected premises, such that the validation checks will not fail for the sites being NHH, and we will not send D0354 requests to the site's Data Aggregator (DA). Centrica's Half Hourly Data Aggregator (HHDA) will submit details of the asset Delivered Volumes at the site per the normal VLP process, and the BSC processes will also be carried out as if the sites were HH. Centrica's HHDA will also submit D0385 files to the Supplier Volume Allocation Agent (SVAA) with 0 volume associated, in place of the normal D0385 from the site's HHDA. We do not believe this approach will require any BSC process changes beyond removing the HH validation check and not sending the D0354 to the site's DA (which is not a HHDA). The Site's boundary Supplier will still be identified, and delivery will be calculated against the 0 volumes. Because of these arrangements, the sites must be import only and Centrica will only be able to accept bids to reduce demand for these sites. Any offers accepted will be calculated as having a delivered volume of 0, resulting in imbalance penalties.

This approach will affect the Suppliers of the sites involved. The current arrangements require sites to be HH settled so that when adjustments to Supplier positions are made, they are made against actual data rather than profiled data. This approach ensures that Supplier adjusted positions match expected positions and also enables validation of delivery. It is more difficult to validate the delivery of a HH service when the correction is made against an NHH profile, as there isn't an accurate boundary meter read for comparison.

An enduring solution is likely to involve removing the requirement for sites with VLPs to be HH settled. There could be restrictions to mitigate risk or impacts on boundary Suppliers. For example, the rules could apply only to sites up to a particular consumption/generation capacity.

Eventually, we anticipate the vast majority of sites will be HH metered and any enduring solutions will not be regularly applied.

Potential risks

Elexon have identified and considered the following potential risks when assessing this application.

1. Incorrect reconciliation of site volume adjustments

- 1.1 The proposal results on adjustments being made to customer sites on a HH basis, while the volumes at the site boundary are still being profiled. When a VLP delivers a balancing service, Central Systems apply an adjustment to the boundary Supplier to ensure their imbalance position isn't affected by the delivery of the service. Using HH delivery data and HH boundary data ensures that the adjustment is always made against the correct volumes allocated to the Supplier. In this trial, while the adjustment will be correct (as it is HH) it may not be made against the correct consumption value (as it will be derived from a profile).
- 1.2 We anticipate that the total risk to settlement or any other BSC Party from of the distortion in the case of domestic storage heaters will be low, as both storage heater load and profiles for properties using storage heaters are predictable, and impacts are distributed across multiple customers and multiple boundary Suppliers. This is in contrast to a 'typical' use case for Virtual Lead Parties operating assets, which may utilise variable loads on more complex sites.

2. Errors in aggregation of sites for submission to SVAA

- 2.1 Centrica's HHDA will be required to submit a D0385 on behalf of Metering Systems not in their Volume Allocation Run. This is a manual process and could be done incorrectly, resulting in the incorrect submission of volumes for sites participating in the trial and for other sites in the Centrica HHDA Volume Allocation Run.

Scale of risks

While Centrica have proposed starting the trial with circa 1MW of assets, the scale of risk is hard to quantify because it relates to the error in the profile applied to the customer's consumption. Assuming the consumption of customers participating in the trial is the same on average as the profile of customers contributing to the consumption profile then the overall error should be close to zero. However, some individual Suppliers may be more affected than others. The effect on any individual Supplier will be smaller in scale than normal variance in profiled customer demand, as it relates only to a subset of the same customers' consumption (that of their storage heaters).

The scale should reduce over time as customers move to becoming HH settled.

Risk in respect of enduring implementation

The trial will be operating in the same way as any enduring solution would, so we don't believe there is any additional risk in respect of an enduring implementation beyond a change in scale of the potential distortion in volume adjustments. Any enduring solution only applies to NHH settled customers, if there continue to be any. In that respect any distortion should be small and continue to reduce as customers become HH settled.

Disruption to normal BSC Operation

The operation of this derogation occurs mostly within the remit of the Virtual Lead Party and the Agents appointed to act on their behalf. Elexon will need to submit a list of affected MSIDs to our service provider to ensure the validations that check that a VLP is operating on a site with a HH settled boundary meter are not carried out. We anticipate this will be a minor impact on BSC operations, taking less than one day to action. Our service provider will need to implement a new process to ensure the submitted MSIDs

Assessment against Risk Evaluation Register

BSC Sandbox risk assessment for Centrica

The Risk Evaluation Register¹ (RER) provides an overview of the Settlement Risks monitored by Elexon Performance Assurance function. It is important that any BSC Sandbox application is assessed against each of the risks present in the RER. The assessment uses a Red, Amber, Green (RAG) assessment, where Red indicates that a risk is negatively impacted by the trial and requires mitigation, Amber indicates that a risk is neutrally affected by the trial, Green indicates that a risk is reduced by the trial and White indicates that a risk is not affected by the trial.

Id Number	Risk Title - The risk that...	RAG	Commentary
001	SVA Metering Point is registered incorrectly or not at all, such that metered data is not collected or aggregated	W	The trial does not propose to make any changes to the registration of meter points nor is it more likely to cause any problems with that process.
002	SVA Metering System attributes held in the Supplier Meter Registration Service (SMRS) or by any party in the Supplier Hub are incorrect	W	The trial does not propose to make any changes to data held in or submitted to SMRS nor is it more likely to cause any problems with that process.
003	SVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all	W	The trial does not propose to make any changes to the way that SVA Metering Equipment is installed, programmed or maintained.
004	Changes to SVA Metering Equipment are not notified, such that all members of the Supplier Hub do not use the current Meter Technical Details	W	The trial does not propose to make any changes to the way that changes to SVA Metering Equipment are notified, nor alter Meter Technical Details.
005	A fault with SVA Metering Equipment is not resolved, such that metered data is recorded incorrectly or cannot be retrieved	W	The trial does not propose to make any changes to the way that faults are resolved, nor is it more likely to cause problems with that process.
006	On a change of agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do not use the latest Meter Technical Details	W	The trial does not propose to make any changes to the Change of Agent processes, nor is it more likely to cause problems with that process.
007	SVA Metered data is not retrieved, such that the proportion of estimated data being used in Settlement contributes to performance standards not being met	W	The trial does not propose to make any changes to the retrieval of SVA Metered data.
008	SVA metered data is not processed or transferred correctly, or at all	W	The trial does not propose to make any change to SVA Metered data processing.
009	The Data Aggregator does not process metered data correctly or at all, including transfer to SVAA, such that the energy volumes required for Settlement are incorrect or missing	R	The trial will require Centrica's HHDA to submit metered volumes via D0385 for meters not in their portfolio. This will be a manual process, which may introduce errors either to the D0385 submission or the rest of the HHDA's processes.
010	On change of Data Collector, meter read history is incorrect or not transferred such that sufficient history is not available for validating and estimating energy volumes	W	The trial does not propose to make any change to the Change of Agent process, nor is it more likely to cause problems with that process.
011	Unmetered Supplies volumes are calculated incorrectly or not at all	W	UMS – Not applicable
012	SVA Metering System technical details are created incorrectly	W	The trial does not propose to make any changes to the way that SVA Metering

¹ <https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/performance-assurance-risk-evaluation-register/>

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			System technical details are created, nor is it more likely to cause problems with that process.
013	Manual adjustments to Metered Data are not completed correctly, or at all	W	The trial does not propose to make any changes to manual adjustments of Metered Data.
014	Agents are not appointed or de-appointed correctly, such that SMRS is not complete or up to date, members of the Supplier Hub do not hold the correct MPID of other Hub members or the appropriate agents are not appointed	W	The trial does not propose to make any changes to the Change of Agent process, nor is it more likely to cause problems with that process.
015	SVA reference data is not created or transferred correctly, or at all	W	The trial does not propose to make any changes to the SVA reference data processes, nor is it more likely to cause problems with that process.
016	The energisation status held in SMRS or by any party in the Supplier Hub does not match the physical energisation status of the SVA Metering System	W	The trial does not propose to make any changes to the energisation process, nor is it more likely to cause problems with that process.
017	Exception reports are not sufficiently managed, such that material exceptions are not addressed at all or in a timely manner	W	The trial does not propose to make any changes to the exception reporting process, nor is it more likely to cause problems with that process.
018	Revenue protection processes are not managed sufficiently, such that unrecorded energy volumes are excluded from Settlement	W	The trial does not propose to make any changes to revenue protection processes, nor is it more likely to cause problems with those processes.
019	A Volume Allocation Unit is registered incorrectly or not at all, such that the CDCA does not collect any or the relevant data	W	CVA – Not applicable
020	CVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all	W	CVA – Not applicable
021	CVA Metered Data is not retrieved, or processed correctly, or at all, by the CDCA	W	CVA – Not applicable
022	Changes to CVA Metering Equipment are not notified to CDCA	W	CVA – Not applicable
023	A fault with CVA Metering Equipment is not resolved, such that Metered Data is recorded incorrectly or cannot be retrieved	W	CVA – Not applicable
024	CVA reference data is not created or transferred correctly, or at all	W	CVA – Not applicable
025	Balancing Services provided by Virtual Lead Parties allow error to enter Settlement, such that the energy volumes required for Settlement are incorrect or missing	R	The trial requires the submission of boundary metered volumes for settlement adjustment purposes by Centrica's HHDA. This may result in errors entering the process for allocating adjustments to Suppliers.
026	Aggregation Rules in CDCA are incorrect such that CVA Metered Data is not correctly aggregated and the energy volumes required for Settlement are incorrect or missing	W	CVA – Not applicable

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027	Trading Parties do not or are unable to pay Trading Charges fully or at all, such that it triggers an Event of Default	W	Not applicable
028	NETSO does not submit or submits incorrect Settlement data	W	NETSO – Not applicable
029	The SAA's calculations and processing are incorrect or use incorrect data	W	BSC Agent – Not applicable
A030	The ECVAAs do not carry out processes correctly, such that output files are inaccurate	W	BSC Agent – Not applicable
031	The FAA does not accurately process Trading Charges or calculate ad-hoc charges correctly, such that Advice Notes are incorrect	W	BSC Agent – Not applicable
032	Manual adjustments to CVA Metered Data are not completed correctly, or at all	W	CVA – Not applicable
033	An Interconnector Administrator does not submit, or submits inaccurate BM Unit Metered Volume data	W	IA – Not applicable
034	The SVAA does not process or transfer the correct data or does not use approved default data.	W	BSC Agent – Not applicable