

Issue Title

Obligation to estimate missing or correct defective Reactive Energy measurements from CVA metering systems

Issue Description

The existing requirements in respect of data provided from Central Volume Allocation (CVA) metering systems requires only the estimation of missing or substitution of defective Active Energy measurements from CVA metering systems. Section 1.1.2(f) of [BSCP03 'Data Estimation and Substitution for Central Volume Allocation'](#) explicitly excludes the estimation of Reactive Energy measurements from the scope of Data Estimation and Substitution for CVA.

Licensed Electricity Distributors, in order to comply with their approved charging methodologies for Distribution Use of System (DUoS) charges, require the provision of accurate actual or estimated data in respect of both Active Energy and Reactive Energy. Common use of system charging methodologies, governed by the Distribution Connection and Use of System Agreement (DCUSA) and approved by Ofgem, are a licence obligation under electricity distribution standard licence condition 12. Charging in accordance with these methodologies requires accurate measurements data to be provided by the User, as specified by those methodologies, in the case of this Issue specifically Embedded CVA Users connected directly to the Licensed Electricity Distributor's system.

The requirement for the connected distribution system user to provide both Active and Reactive Energy measurements on a half hourly basis is common to both the HV/LV oriented Common Distribution Charging Methodology (CDCM) and the EHV oriented EHV Common Distribution Charging Methodology (EDCM). Most customers have their electricity traded with SVA metered connections via Electricity Suppliers and the existing BSC obligations have already been amended to require the provision of estimated or corrected Reactive Energy measurements.

Most customers with Embedded CVA metered connections to a licensed Electricity Distributor fall under EDCM obligations but a smaller number of HV CVA traded connections would fall under CDCM obligations. In either case the obligation to provide Reactive Energy readings for half hourly traded metering systems applies.

Without the provision of correct actual or estimated corrections of Reactive Energy data the Licensed Electricity Distributor is unable to accurately determine the maximum usage of the CVA metered connection (CDCM and EDCM maximum usage is calculated in kVA) and is also unable to correctly determine any excess reactive power usage. Both aspects are relevant for use of system charging and both are relevant for accurate determination of compliance or breach of the Licensed Electricity Distributor's connection terms by the CVA metered customer.

We have also observed in some cases that electrical interference on EHV sites can, and has, interfered with the correct passing of error checked measurements to data concentrators prior to collection by the Data Collector, leading to exceptional anomalous Active and Reactive Energy period readings. The CVA parties concerned generally estimate and correct the Active Energy measurements but cannot or do not correct the related Reactive Energy reading. Currently, with no correction of Reactive Energy readings being undertaken, the Licensed Electricity Distributor is obliged to levy DUoS charges, in accordance with its licence obligated charging methodology, sometimes upon spurious data leading to anomalous DUoS charges being levied to the relevant customer.

Whilst this proposal is aimed primarily at CVA metering positions of users embedded within distribution systems that are subject to distributor's DUoS charges, we do believe there may be benefit in enhancing the accuracy of data available to National Grid as the Total System becomes more actively managed at all levels. It may also be beneficial to consider estimation and correction of Reactive Energy measurements at other CVA metering points between, into and out of electricity distribution systems and transmission systems more generally. We have therefore refrained from confining the proposal to solely embedded distribution system CVA metered customers so that further debate may be conducted as part of this Issue Group.

Justification for Examining Issue

All Licenced Electricity Distributors are obligated to comply with the aforementioned EDCM and CDCM charging methodologies in respect of DUoS charges. Their ability to do so is predicated on complete and accurate provision of Reactive Energy measurements in addition to Active Energy measurements.

Without the change proposed under this proposal all Licenced Electricity Distributors with embedded CVA metered connections to their distribution systems are unable to fully and accurately comply with the requirements of the EDCM and CDCM for all Settlement Periods.

A change is required to BSCP03 to enable the Licenced Electricity Distributors to better comply with their licence obligation under electricity distribution standard licence condition 12.

This matter has been previously addressed within [BSCP502 'Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'](#) for the provision and estimation of Reactive Energy measurements for Supplier Volume Allocation (SVA) metering systems under [CP1303 'Requirement on Half Hourly Data Collectors to Estimate Missing Reactive Power Demand Values'](#) (implemented from version 19 of BSCP502 on 25/02/2010). We are proposing that similar amendments be made for CVA metering systems.

Potential Solution(s)

To enable the Licenced Distributors to fully comply with its approved charging methodology obligations we propose that the CVA Data Collectors be obligated to estimate Reactive Energy on a half hourly basis where no actual Reactive Energy readings are available and to estimate accurate values of Reactive Energy on a half hourly basis where the actual Reactive Energy are proven or strongly suspected as being in error.

We propose;

- the exclusion of Reactive Meters in BSCP03 – 1.1.2(f) is removed.
“(f) Data Estimations for ~~Reactive Meters and~~ Check Channels.”
- the insertion of Reactive Energy into section 1.1 of BSCP03

"1.1 Purpose and Scope of the Procedure

This procedure describes the process for agreeing the appropriate metered data values associated with Active Energy and Reactive Energy meters to be used for CVA when there is a problem with the values obtained via the normal metered data collection process.”

- the insertion of Reactive Energy into section 1.7 of BSCP03
“1.7.1 Where there is missing or suspect metered data the following are a set of guidance rules for estimating the Active Energy and Reactive Energy metered data.
- the addition of MVArh columns to the specimen forms in section 4.2 of BSCP03.

We propose that similar or equivalent amendments are made to BSCP03 as have been made to BSCP502, if required, although the four aspects set out above appear to be the only alterations requiring to be made. We propose that any related barriers to preventing the transmission of replacement Reactive Energy measurements in respect of CVA metering systems are removed so as to fully align with estimation requirements for Active Energy.

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