4.3 CP Form

Change Proposal – BSCP40/02	**CP No: zzzz** *Version No: 0.1* *(mandatory by BSCCo)*

Title (mandatory by originator)

Removal of the requirement to calculate reactive data in BSCP520 – unmetered supplies

Description of Problem/Issue (mandatory by originator)

BSCP520 defines a requirement to calculate reactive data to potentially support DUoS billing. This data has not been used in over ten years and there are no future plans to use this data. The BSC requirement is therefore redundant and should be removed.

Proposed Solution (mandatory by originator)

BSCP520 currently requires the Meter Administrator to calculate reactive energy data. The proposal is to remove this requirement

The impact is on the Meter Administrator with minor impact through data no longer being provided to the HHDC, Supplier & Distributor. This will only require system changes by the Meter Administrator.

Justification for Change (mandatory by originator)

The BSC arrangements include requirements to support Licensed Distribution System Operators (LDSOs), aka Distributors, in calculating Distribution Use of System (DUoS) charges. This information is not required by the BSC but is included in the BSC to support the LDSOs.

BSCP520 puts obligations on parties to provide reactive data to stakeholders at the request of LDSOs for DUoS billing purposes. To facilitate provision of reactive data, whether the LDSOs actually request it or not, there are several underpinning requirements in the BSC, including:

- Charge codes – watt and var data is captured for all new unmetered equipment during unmetered approval process
- ELEXON charge code spreadsheet records & publishes the watt, VAr and VA values
- Meter Administrators maintain the charge code's watt and var data in their systems
- When Meter Administrators calculate HH data for unmetered customers they calculate kWh and kVArh (reactive lag) data for each half hour
- The half hourly kWh & kVArh data is submitted to the Half Hourly Data Collector (HHDC) who stores the data and transmits it to the respective Supplier & Distributor in DTC dataflows D0036 or D0275

The unmetered calculation of reactive data is not an accurate calculation due to:

- missing or inaccurate reactive values in the charge code spreadsheet for many items of equipment

- use of generic LED charge codes, where it has been agreed to apply a default unity power factor
- the impact of dimming (variable and CMS) which assumes the reactive value declines in the same proportion to active energy, and
- some unmetered equipment under test has a leading power factor, but the BSC does not require the accurate calculation of leading reactive data, so this is treated as a unity power factor.

In common with other electrical equipment over the past ten years the use of newer lamp types, particularly LED with electronic drivers, has replaced older lamp types using transformer ballasts. As a result, there has been a general improvement in the power factor of street furniture.

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code? (mandatory by originator)

BSC Section S:

2.5.1 The principal functions of a Meter Administrator are, in accordance with this Section S, BSCP520 and Party Service Line 100:

(a) to calculate deemed metered volumes (estimated energy consumption) for half hourly unmetered supplies (known as Equivalent Unmetered Supplies) relating to SVA Customers; and

(b) to provide the relevant data to the relevant Half Hourly Data Collector.

BSCP520 then describes the file format to satisfy the data provision requirement of Section S 2.5.1

Estimated Implementation Costs (mandatory by BSCCo)

Configurable Items Affected by Proposed Solution(s) (mandatory by originator)

BSCP520 – amendment to reactive data calculation requirements

Impact on Core Industry Documents or System Operator-Transmission Owner Code (mandatory by originator)

The Distribution Connection and Use of System Agreement (DCUSA) sets out the methodology for determining DUoS charges in the Common Distribution Charges Methodology (CDCM). The CDCM does not, and never has, determined any DUoS reactive charges for unmetered supplies, either kVArh or supply capacity in kVA. As a result, the existing BSC requirements are adding no value, but adding additional cost, effort, unnecessary and probably misleading dataflows.

DUoS charging considerations:

- reactive charges are not charged for metered whole current customers
- unmetered customers are all whole current network connection points, so for consistency the unmetered customer should not be charged

- individual connection points are typically small, a few 10's of watts so neither good nor poor power factors are likely to have any engineering impact on the local distribution network
- the unmetered reactive calculation is already inaccurate for the reasons stated above, and
- the BSC only requires the calculation of the reactive data for Half Hourly unmetered customers, there is no similar requirement for Non Half Hourly unmetered customers, which is inconsistent.

The National Terms of Connection[1] for unmetered supplies already require any equipment to have power factor to be maintained as near to unity as possible and not less than 0.95 leading or 0.85 lagging through each connection point. This will not change.

As the BSC requirement is intended to support DUoS charging the issue was raised with the Distribution Charging Methodologies Development Group (DCMDG)[2] at the 5th July 2018 meeting. The group includes Distribution and Supplier representatives involved in determining DUoS charges through the CDCM. Ofgem also attend. The view of the group was that as there have never been reactive power charges for unmetered supplies in the CDCM and there is no expectation that any will be forthcoming, they cannot see any reason why the BSC should not remove the requirement. It is recognised that a proposed BSC CP will give a formal opportunity for BSC Parties (Supplier and Distributors) to support (or not) any change to the BSC.

The purpose of seeking the DCMDG view was to identify any impending consideration that the reactive data would be used in DUoS charging, prior to raising the issue with the BSC. The DCMDG confirmed there is no known activity which would suggest a barrier removing the requirement in the BSC.

Related Changes and/or Projects (mandatory by BSCCo)

A separate change proposal exists (CPxxxx) to amend the BSCP520 requirement for the data flow from the Meter Administrator to the HHDC. The proposed dataflow in CPxxxx can support reactive data. So, this proposal is not dependent on CPxxxx approval, or vice versa, although if both are approved this would allow a benefit of co-incident system development.

Requested Implementation Date (mandatory by originator)

February 2020 release

Reason:

The change is required to allow for removal of a current BSC requirement which is not required by stakeholders and is adding unnecessary cost.

Version History (mandatory by BSCCo)

[1] www.connectionterms.org.uk

[2] www.dcusa.co.uk/Lists/DCUSA%20Calendar/DispForm.aspx?ID=2835&Source=https%3A%2F%2Fwww%2Edcusa%2Eco%2Euk%2FLists%2FCommittees%20%20Groups%20List%2FDisplayCGForm%2Easpx%3FID%3D237&ContentTypeId=0x01020027E750AFC0265645A3CB533F29B9DE0700F3667BAAA396764DBF60F04C812E5889

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