

Application for a Non-Standard BM Unit for – the Didcot Data Centre

ISG237

Date of meeting **5 January 2021**

Paper number **ISG237/01**

Owner/author **Katie Wilkinson**

Purpose of paper **Decision**

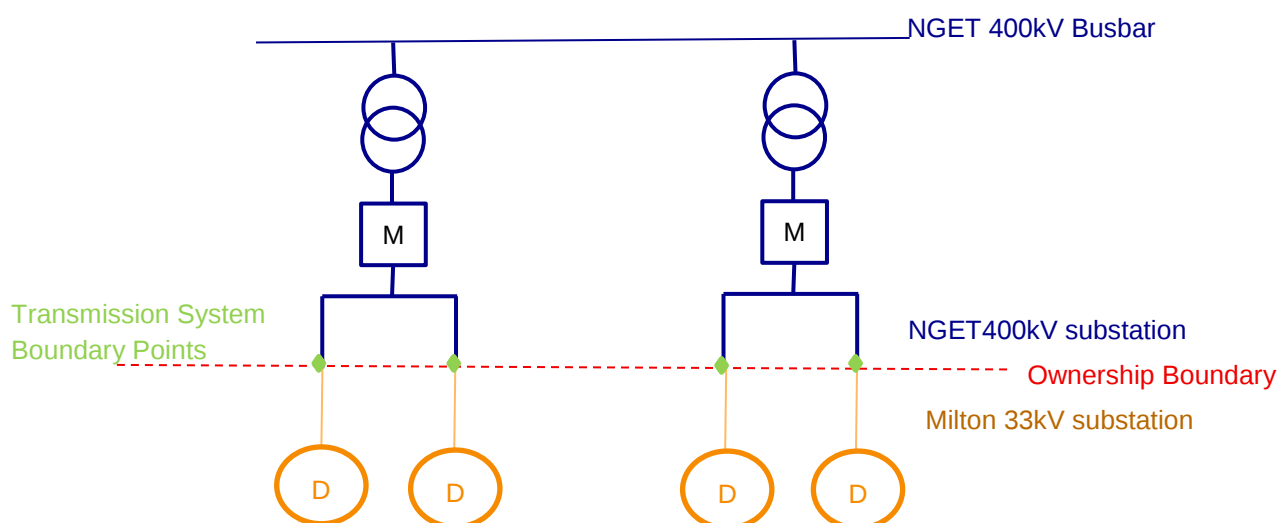
Classification **Public**

Document version **v1.0**

Summary **EDF Energy Customers Limited has applied for two non-standard BM Units for the Didcot Data Centre. We invite the ISG to approve the application.**

1. Background

- 1.1 EDF Energy Customers Limited (the applicant) is applying for two non-standard BM Units for the Didcot Data Centre on behalf of its customer, Cloud HQ. The Didcot Data Centre (Cloud HQ) will be a Directly Connected Demand Site.
- 1.2 Didcot Data Centre has two Super Grid Transformers (SGT) connected to the Transmission System at 400kV/33kV within the existing Didcot 400kV substation. These feeders are Metered with Code of Practice (CoP) 1 Meters below the SGTs. The feeders then both split into two below the Meters. The ownership Boundary and therefore Transmission System Boundary Points are on the four feeders below the Meters. This is shown in the simplified diagram below. The distance between the Transmission System Boundary Points and the Metering Systems is minimal but this is covered by Metering Dispensation D/513. (Single line diagrams in Attachments B and C)
- 1.3 Each of the four feeders will have demands up to 75MVA. The design of the system is to retain the dual redundancy of power supply to the site.



- 1.4 The site will also have emergency generators for use if the incoming supplies fail but these generators will not export onto the grid.

- 1.5 The applicant wishes to register two non-standard BM Units, each BM Unit covering the two feeders per SGT.
- 1.6 Under the Balancing & Settlement Code Section K3.1.2 (b) combined with K3.1.2 (e) requires that a BM Unit must consist of the smallest aggregation of Plant or Apparatus which is capable of being independently controlled up to the import size being equivalent to a Small Power Station (for England and Wales this is less than 50MW).

2. Non-standard BM Unit application

- 2.1 EDF Energy Customers Limited is seeking approval for two non-standard BM Units for all four feeders (two feeders per BM Unit (Attachment A)).
- 2.2 EDF Energy Customers Limited believes that registering four standard BM Units would mean higher costs of operation. The applicant states that the whole site will be operated as one individual site for both mandatory and commercial ancillary services. The applicant's view is that registering Cloud HQ as two BM Units would better facilitate the operating plan, and the size and configuration of the site. Additionally, EDF Energy Customers states that it has agreed the proposed connection and metering arrangement at Cloud HQ with the National Electricity Transmission System Operator (NETSO).

3. The NETSO and Elexon comments

- 3.1 We circulated the non-standard BMU application to the NETSO for comments independently but they have not responded.
- 3.2 Elexon recommends that the ISG agree this application on the basis that:
- the responsibility for the flows of electricity associated with each BM Unit lie with one Party (EDF Energy Customers Limited), Section K 3.1.2 (a));
 - the Plant and Apparatus associated with each of the non-standard BM Units for Cloud HQ are capable of independent control from any other Plant and Apparatus (Section K3.1.2 (b));
 - all volumes flowing from and to the BM Units will be captured by compliant Metering Systems¹ and these volumes will be determined separately from volumes to and from other BM Units (Section K 3.1.2 (c));
 - the BM Unit does not comprise Central Volume Allocation (CVA) and Supplier Volume Allocation (SVA) Metering Systems that measure the same Imports or Exports at any one time (Section K 3.1.2 (d)); and
 - Although there are smaller aggregations of the Plant and Apparatus that satisfies K3.1.2 (a)-(c), Cloud HQ is designed to operate as two units (Section K 3.1.2 (e)).

4. Recommendation

- 4.1 We invite the ISG to:
- a) **APPROVE** two single non-standard BM Units for Cloud HQ.

Appendices

Appendix 1 – BM Unit Configurations

Attachments

Attachment A – BSCP15/4.13 Application for Non-standard Primary BM Unit

Attachment B (CONFIDENTIAL) – Single line diagram for Cloud HQ SGT3

Attachment C (CONFIDENTIAL) – Single line diagram for Cloud HQ SGT4

¹ Subject to Metering Dispensation D/513 as the Cloud HQ Metering Systems Actual Metering Point (AMP) is not at the Defined Metering Point (DMP).

For more information, please contact:

Katie Wilkinson, Senior Product Analyst

Katie.wilkinson@elexon.co.uk

020 7380 4376

Appendix 1 – BM Unit Configurations

The BSC states that a BM Unit shall comprise Plant and/or Apparatus for who's Exports and / or Imports a Party is responsible (Section K3.1.1).

A BM Unit must satisfy the following conditions (K3.1.2):

- responsibility for the BM Unit would lie with one Party;
- it would be capable of independent control;
- it would be visible to the Settlement Administration Agent (SAA) as a metered quantity separately from anything that is not included in the BM Unit;
- the BM Unit does not comprise of CVA and SVA Metering Systems that measure the same Imports or Exports, except where the SVA connection is for backup purposes and less than 415V; and
- for Plant and Apparatus greater than the size of a Small Power Station² it would be the smallest aggregation of Plant and Apparatus that satisfies the first three bullet points above. Smaller Plant and Aggregation can be aggregated up to the size of a Small Power Station.

The BSC also sets out a number of standard configurations of BM Units (Section K3.1.4), including:

- Closed Cycle Generating Turbine (CCGT) Module;
- Power Park Module (PPM);
- Power Station Transformers (Station Transformers);
- Directly Connected Demand at a single Boundary Point;
- Combined Offshore BM Unit (COBMU)³;
- Directly connected Demand at more than one Boundary Point provided that the total Imports are less than 50MW in England and Wales, 30MW in South Scotland and 10MW in North Scotland;
- Supplier (Base or Additional) Primary BM Unit;
- Interconnector Primary BM Unit;
- Any BM Units that were determined as part of the transitional arrangements for the implementation of the British Electricity Trading and Transmission Arrangements (BETTA);
- An Offshore PPM or COBMU³ and its associated Low Voltage Assets;
- Combination of Generating Units connected to the Total system provided that the total Exports are less than 50MW in England and Wales, 30MW in South Scotland and 10MW in North Scotland ;
- Electricity Storage Module provided that the total Exports are less than 50MW in England and Wales, 30MW in South Scotland and 10MW in North Scotland; and
- Hybrid Plant – PPM or combination of Generating Units plus Storage Module provided that the total Exports are less than 50MW in England and Wales, 30MW in South Scotland and 10MW in North Scotland.

The BSC states that a Registrant and/or Central Data Collection Agent (CDCA) / Central Registration Agent (CRA) can apply to the Panel for a non-standard BM Unit configuration in the following circumstances (K3.1.5):

- the Plant / Apparatus does not fall into a category listed in section K3.1.4 or the CDCA / CRA considers that there is reasonable doubt that this is the case;
- the Plant / Apparatus does fall into a category listed in K3.1.4 but the responsible Party considers that a different configuration would satisfy the requirements set out in K3.1.2; or
- there is more than one set of Exports / Imports at a CVA boundary Point and more than one Party is responsible for these.

² Small Power Station is defined in the Grid Code as less than 50MW in England and Wales, less than 30MW in South Scotland and less than 10MW in North Scotland.

³ The NETSO must agree that two or more Power Park Modules can be combined into a COBMU.