4.12 BSCP15/4.13 Application for Non-Standard BM Unit

To: BSCCo	**Date Sent:** 19/11/2020
From:	
Party ID: LENCO	**Name of Sender: Kasthury Savun**
Contact email address: Kasthury.savun@edfenergy.com	
Our Ref:	**Contact Tel. No.**
	Contact Fax. No.
Name of Authorised Signatory[1]: Kasthury Savun	
Authorised Signature:	**Password:**

Confidentiality

This form, associated diagrams and BSC Panel documents will routinely be made available in the public domain unless the applicant informs BSCCo otherwise at the time of application

Request for Confidentiality Yes ***Delete as applicable**

If 'YES', what is confidential?

Confidential[2]?	**Yes/No (if only part then indicate which part)**
Application form	Yes
Diagrams	Yes
BSC Panel Documents	Yes

Justification for requesting confidentiality: Co. Name

Site Details

BM Unit Id(s) (if known):	
BM Unit Name(s) (Max 30 Characters):	
National Grid BM Unit Id(s) (if known and applicable):	

[1] If the BSCP38 Authorisations process has not been completed, this form can be signed by a registered company director and accompanied by a letter on company stationery signed by the same registered company director.

[2] BSCCo will publish all Panel determinations, though for confidential papers the details will be anonymised. BSCCo is required to keep a list of all Non-Standard BM Unit determinations which must be made available to any Party upon request.

Application:

Why are you applying for a Non-Standard BM Unit (please tick)

The Plant and Apparatus does not fall into one of the standard categories in K3.1.4	X
The Plant and Apparatus does fall into one of the standard categories in K3.1.4 but a different configuration satisfies the requirements for BM Units in K3.1.2	
The Plant and Apparatus Exports or Imports are at a CVA Boundary Point at which there are other Exports or Imports for which another person is responsible (the Plant and Apparatus may or may not be of a Standard BM Unit configuration)	

Description of Non-Standard BM Unit configuration

Cloud HQ has four distribution systems feeding off two SGTs (400kV/33kV), each feeder will have demands up to 75MVA. The design of the system is to retain the dual redundancy of power supply to the site.

The site will also have emergency generators for use if the incoming supplies are failed but it will not be exporting onto the grid.

The site is at Didcot next to the existing Power Station, consisting four switch houses A1 B1 A2 and B2. A1 and B1 feed (dual feeding) DC1, A2 and B2 feed DC2. Should an entire A or B stream fail then the max load on the remaining active circuit will jump to 150MVA max.

Settlement Metering System is located at the point of connection on the busbars between the two feeders (See attached drawings 21-MU-0058 and 21-MU-0060 SGT 3 and 4 Layouts). The DMP is at the connections of the four feeders to the Milton 33kV Substation and the above metering location is at the AMP. The distance is minimal between the two. (see drawing P1151-CHQ-DWG-1000)

Please provide electrical single line diagram(s) of the Plant and Apparatus included in the Non-Standard (and any Standard) BM Unit(s) to support your application. The diagrams need to clearly show the location of the Metering Equipment, in particular the Settlement Current and Voltage Transformers (CTs/VTs) and CT/VT ratios, all existing Boundary Points and any System Connection Points at or near the proposed Boundary Point(s) and which items of Plant and Apparatus comprise which Non-Standard (and any Standard) BM Unit(s).

List of electrical single line diagrams attached, and description of Plant and Apparatus covered by each diagram.

- Didcot 150MVA Data Centre SLD - P1151-CHQ-DWG-1000
- 21-MU-0058_P01 SGT 3 Layout CT & BOUNDARY
- 21-MU-0060_P01 SGT 4 Layout CT & BOUNDARY

Rationale

Rationale with reference to BSC Section K3.1 for the request for the Non-Standard BM Unit:

BSC Section K para 3.1.2(b) combined with 3.1.2(e) requires that a BM unit must consist of the smallest aggregation of plant or apparatus which are capable of being independently controlled.

While each feeder on this site could, theoretically, be registered as a BM Unit, we propose that 2 Non Standard BM Units, each covering the two feeders per SGT, SGT 3 feeds Switch House A1 and A2, SGT 4 feeds B1 and B2.

- more useful service to the SO when being used in the BM (who would otherwise have to issue instructions to 4 different BM Units).
- 2 BMUs instead of four has cost and operational convenience implications for our central and trading & settlements systems. This also applies to other areas where the site is represented within control systems, for example the EDT and EDL systems of National Grid. (estimate is £110,000)
- The DMP and the operational boundary are effectively at the same physical location (a few meters apart)
- If 4 BM Units were required, there would need to be 4 separate Metering Systems, located on each feeder circuit, to measure the individual BM Unit flows. It would be extremely costly to install Metering Equipment and the associated metering class CTs and VTs for separate Metering Systems for each individual feeder (estimate is ~£250,000).