

## 4.12 BSCP15/4.13 Application for Non-Standard BM Unit

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<b>From: Participant Details</b>	
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### 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									
<b>Request for Confidentiality</b>	<b>YES/NO*</b> <b>*Delete as applicable</b>								
If 'YES', what is confidential?									
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Application form									
Diagrams									
BSC Panel Documents									
Justification for requesting confidentiality:									

### Site Details

BM Unit Id(s) (if known):	TBC
BM Unit Name(s) (Max 30 Characters):	Cheshire OCGT, Cheshire East and Cheshire West
National Grid BM Unit Id(s) (if known and applicable):	TBC

<sup>1</sup>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.

<sup>2</sup> 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

Cheshire Power Station is located on North Road, Ellesmere Port and consists of one 44MW OCGT (Cheshire OCGT), a bank of six 1.1MW reciprocation gas engine generators (Cheshire East) and a bank of twelve 1.1MW reciprocation gas engine generators (Cheshire West). All generators are natural gas-fuelled. Each generating unit (GU) is capable of being controlled individually, but in practice run as three distinct units, Cheshire OCGT 44MW, Cheshire East 6.6MW and Cheshire West 13.2MW.

The power station is currently registered in SVA and RWE are planning to transfer the metering system into CVA. The long term plan is to provide services to National Grid within the Balancing Market.

The Cheshire OCGT is a single GU, and will be classed as a standard BM unit as it will be operated and controlled as an individual generator. It is connected to a single 11 kV Switchboard (103) and then connects to the 33kV Switchboard (Green) via a single 11/33kV transformer (102TX).

Cheshire East six GUs are connected to a single 11 kV Switchboard (105) and then connects to the 33kV Switchboard (Red) via a single 11/33kV transformer (104TX). The six GUs are identical units and are dispatched as a collective unit.

Cheshire West twelve GUs are connected to a single 11/33kV transformer (TX6). This transformer in turn is connected to the 33kV Switchboard (Red). The twelve GUs are identical units and are dispatched as a collective unit.

The 33kV Switchboards (Green and Red) are connected to the local Licensed Distribution System Operator's (LDSO) distribution system (SP Manweb (##)) at 33kV via two cables. The Settlement Metering System is currently located at the point of connection between the Power Station and the LDSO's distribution system which is at the Defined Metering Point (DMP). With the proposed BM configuration, the metering systems will be relocated to the 33kV Switchboard as marked in the Cheshire SLD Meter Configuration.pdf prior to formal registration in CVA. A Metering Dispensation will be required – this has been forwarded to ELEXON for approval.

The auxiliary supply for Cheshire OCGT (Site Load 107AA LV Supply) is supplied by a 400V/11kV transformer from the 11kV Switchboard 103. There is a backup auxiliary supply from the 400V/11kV transformer connected to the 11kV Switchboard 105 (Site Load 107BA LV Supply).

All eighteen GUs for Cheshire East and Cheshire West are designed to self-supply any auxiliary power requirements when the GU is in operation. A small auxiliary supply for Cheshire East and Cheshire West is connected to the Site Load 107AA LV Supply for light and heating, approx. 20-30kW load.

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).

Three electrical single line diagrams are attached:

1. High level drawing detailing the meter configuration ref: Cheshire SLD Meter Configuration.pdf / Drawing Number: CGD/BPC/0105/API
2. Details electrical drawing of the Cheshire East Generating Units ref: Cheshire East\_HVTST16062\_SLD\_002\_A1.pdf / AGGREKO HVTST16062\_SLD\_002\_A1
3. Details electrical drawing of the Cheshire West Generating Units ref: Cheshire West\_HVTST17025\_SLD\_003.pdf / HVTST17025\_SLD\_003

### 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 genset on this site could, theoretically, be registered as a BM Unit, we propose that a 2 single BM Units (one covering all six engines for Cheshire East, the other covering all twelve engines for Cheshire West) would provide several benefits

- more useful service to the SO when being used in the BM (who would otherwise have to issue instructions to eighteen different BM Units)
- There are recurring costs associated with maintaining CVA BM Units, these would be 16 times higher than otherwise necessary if each generator was metered individually (£24, 000<sup>3</sup> vs £4, 800 per year), with no identifiable benefit
- eighteen BMUs instead of one has cost and convenience implications for our 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.
- If eighteen BM Units were required, there would need to be eighteen separate Metering Systems, located on each GU 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 GU (estimate is ~£285,000).

<sup>3</sup> (16 BMUs x 12 months x £100 + 48 MSIDs x 12 months x £50)