

ISG209/06 – NON-STANDARD BM UNIT APPLICATION FOR THE GRIMSBY A POWER STATION

MEETING NAME	ISG 209
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Owner/author	Katie Wilkinson
Purpose of paper	Decision
Classification	Public
Summary	RWE Generation UK plc has applied for a non-standard BM Unit for its Grimsby A Power Station. We invite the Imbalance Settlement Group (ISG) to approve the application.

1. Background

- 1.1 Grimsby A Power Station¹ is located on Moody Lane, Grimsby and consists of ten 2MW natural gas-fuelled Generating Units (GUs), each capable of being controlled individually, but in practice run as a single 20MW unit. The electrical single line diagrams (Attachments B and C) show that the ten GUs are connected in two groups of five. The first group is connected to Feeder 3 via Generator Switchboard 1. The second group is connected to Feeder 4 via Generator Switchboard 2. A single 33kV/11kV transformer connects the 11kV Switchboard B² to the local Licensed Distribution System Operator's (LDSO) distribution system (Northern PowerGrid (YEDB)) at 33kV via a single cable.
- 1.2 Attachment B shows that the site has two connection points to the LDSO, Incomer 1 (YE10) and Incomer 2 (YE20). The Settlement Metering Equipment is located at the point of connection between the Power Station and the LDSO's distribution system which is at the Defined Metering Point (DMP). RWE inherited this configuration from when the connection supplied the Huntsman Tioxide factory (closed down in 2010). The YE10³ connection point including the 11kV Switchboard A has been de-energised and mothballed, and the bus connector has been removed from service to physically separate the two 11kV switchboards.
- 1.3 Attachment C shows that the ten GUs are connected in two groups of five. RWE have confirmed that the Points of Connection (POC1 and POC2) shown in the diagram are the commercial connections between RWE and G2 Energy, and that the three meters shown (RWE Meter 01, 02 & 03) are non-settlement meters, and that the RWE G59 Box is a protection relay. The 33kV Yarborough Road substation connection is to the 11kV/33kV connection shown as Incomer 2 (YE20) in Attachment B.
- 1.4 The electrical single line diagrams show that the auxiliary supplies for all ten GUs are fed from Generator Switchboard 1 via an 11/0.4kV transformer.

2. Non-standard BM Unit application

¹ Grimsby A Power Station is currently registered in SVA. RWE is planning to transfer the Metering Systems into CVA as per BSCP68. RWE's long term plan is to provide balancing services to National Grid.

² Please note that for technical reasons Grimsby 'A' Gas Engines are connected to the 'B' side of the 11kV Switchboard.

³ There are future plans to install a second reciprocating gas engine project (Grimsby B) which will utilise the YE10 connection. The two connection points will continue to operate as separate connections. A separate Non Standard BM Unit application for Grimsby B will be made during its construction as part of the BM Unit registration process.

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- 2.1 In accordance with Section K3.1.5 and 3.1.6, RWE is seeking the ISG's approval to register a non-standard BM Unit for Grimsby A Power Station.
- 2.2 In accordance with the conditions of BSC Section K3.1.2 and the standard configurations described in K3.1.4, the standard BM Unit configuration for this site would be to register each GU as a separate BM Unit.
- 2.3 Where the configuration of Plant and Apparatus does not fall into a category of standard BM Unit configuration set out in BSC Section K3.1.4 (and summarised in Appendix 1 – BM Unit Configurations) or where the responsible Party considers a different configuration would satisfy the requirements of paragraph K3.1.2, the ISG, under authority delegated from the BSC Panel, must determine the outcome for an application for a non-standard BM Unit configuration (in accordance with Section K3.1.6).
- 2.4 RWE wants to register all ten GUs and the associated plant auxiliary supplies within a single BM Unit. As this would not satisfy the requirements for a standard BM Unit, RWE is seeking approval for a non-standard BM Unit in accordance with Section K3.1.6.
- 2.5 RWE believes that, should a BM Unit be required for each GU, this will be troublesome for the Transmission Company (TC), reduce system efficiency, cause unreasonable and unnecessary costs to RWE, and be an administrative burden for all parties involved. A single BM unit would be a more useful service to the TC when being used in the Balancing Mechanism (who would otherwise have to issue instructions to ten different BM Units).
- 2.6 The applicant has stated that there are recurring costs associated with maintaining CVA BM Units and the associated CVA Metering Systems; these would be much higher than otherwise necessary, if each GU was registered individually, with no identifiable benefit. In line with Section D Annex-3 3.1 (b) and (c), assuming ten BM Units (and two MSIDs⁴) were required, RWE would be incurring an annual charge of £13,200⁵ as opposed to £2,400, if only one BM Unit (and two MSIDs) were registered.
- 2.7 If ten BM Units were required, there would need to be ten 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 ~£200,000).
- 2.8 Under Section K, paragraph 3.1.2(a), responsibility must lie with one Party. RWE has confirmed that it will be the Lead Party of this BM Unit.
- 2.9 Under Section K, paragraph 3.1.2(b), a BM Unit must be controlled independently of any other. RWE has confirmed that the Grimsby A Power Station BM Unit will be controlled independently of any other.
- 2.10 Under Section K, paragraph 3.1.2(c), a BM Unit must have Metering Equipment which is installed pursuant to Section L and conforming to the appropriate Code of Practice (CoP). RWE has confirmed that CoP2 compliant Metering Equipment will be installed at the DMP.
- 2.11 Under Section K, paragraph 3.1.2(d) the BM Unit shall not comprise Plant and Apparatus whose Imports and Exports are measured by both CVA Metering System(s) and SVA Metering System(s). RWE has confirmed that this BM Unit is only measured by CVA Metering Systems.

⁴ Where different Line Loss Factors are required for the Import and Export Metering System by the LDSO, limitations in the Central Data Collection Agent's (CDCA) system mean 2 Metering System Identifiers are required.

⁵ (10 BMUs x 12 months x £100 (£12,000) + 2 MSIDs x 12 months x £50 (£1,200))

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2.12 Under Section K, paragraph 3.1.2(e) a BM Unit must be the smallest aggregation of Plant and/or Apparatus that satisfies paragraphs K3.1.2 (a), (b) and (c). Although in theory each GU can be individually controlled and therefore would be the smallest aggregation of Plant and Apparatus to satisfy paragraph K3.1.2 (a), (b) and (c), in practise there is only one control system.

3. Transmission Company and ELEXON comments

3.1 The Transmission Company has reviewed the non-standard BM Unit application and has no issues with, or objections to, it.

3.2 ELEXON recommends that the ISG agree this application on the basis that:

- the responsibility for the flows of electricity associated with the BM Unit lie with one Party (Section K 3.1.2 (a));
- even though the GUs within the BM Unit are capable of being independently controlled, RWE has confirmed that they will operate the Power Station as a single unit, and that the Plant and Apparatus associated with Grimsby A Power Station is 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 Systems 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 the BM Unit would not be the smallest aggregation of Plant and Apparatus that satisfies K3.1.2 (a)-(c) it would be inefficient and unnecessary to register ten BM Units for the ten GUs (Section K3.1.2(e)).

4. Recommendations

4.1 We invite you to:

- a) **APPROVE** the non-standard BM Unit for the Grimsby A Power Station.

Appendices

Appendix 1 – BM Unit Configurations

Attachments

Attachment A – Grimsby A Non Standard BM Unit Application form BSCP15/4.13

Attachment B (CONFIDENTIAL) – Grimsby Single Line Diagram Meter Configuration

Attachment C (CONFIDENTIAL) – Grimsby Genset Single Line Diagram

For more information, please contact:

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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
- it would be the smallest aggregation of Plant and Apparatus that satisfies the first three bullet points above.

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

- a single Generating Unit (GU), Combined Cycle Gas Turbine (CCGT) or Power Park Module (PPM),
- a Combined BM Unit,
- the Imports through the station transformers of a Generating Plant or premises, which are directly connected to the Transmission System, at a single Boundary Point.
- directly connected premises which are connected at one boundary point only

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.