

# Application for Non-Standard BM Units for Doggerbank A & B Wind Farm BMUs 4 & 5

## ISG252

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**Summary** **Two BSC Parties Doggerbank Offshore Wind Farm Project 1 Projco Limited and 2 Projco Limited have applied for non-standard BM Unit for BM Units for Doggerbank A and B Wind Farms. We invite the ISG to approve the applications.**

## 1. Background

- 1.1 Doggerbank Offshore Wind Farm Project 1 Projco Limited and Doggerbank Offshore Wind Farm Project 2 Projco Limited (collectively referred to as Doggerbank) are developing the Doggerbank A Offshore Wind Farm and the Doggerbank B Offshore Wind Farm, each consisting of 95 Wind Turbine Generators (WTGs) and each providing a capacity of 1200MW. Each Windfarm has a single Offshore platform with two grid transformers and 66kV double busbars.
- 1.2 Each Windfarm contains four Power Park Modules (PPMs). The Measurement Transformers that feed the Meters and the control points are fitted to each Power Park String (PPS). The configuration of the generation BM Units and PPM for Doggerbank A and B wind farms are the same (Attachments B-H).
- 1.3 Each of the wind farms has three Contracts for Difference (CfDs) agreements with the Low Carbon Contracts Company (LCCC). Each contract will apply to an individual construction phase within each wind farm. The CfD phase split for each wind farm is aligned with the site layout and construction plan as follows:

CfD Contract	Phase 1	Phase 2	Phase 3
BSC Registration	PPM 1 - BM Unit 1	PPM 3 - BM Unit 3 Strings J and K of PPM 4 - BM Unit 5	PPM 2 - BM Unit 2 Strings M and R of PPM 4 - BM Unit 4

## 2. Non-Standard BM Unit application

- 2.1 Doggerbank is applying for two non-standard BM Units for each of its Offshore Windfarm (BM Units 4 and 5 of Doggerbank A and B) (Attachment A). Each Windfarm will also have three standard BM Units (BM Units 1, 2 and 3).

- 2.2 The BSC K3.1.8 states that;

*“A BM Unit comprised of CFD Assets shall be comprised solely of the CFD Assets specified in the Contract for Difference relating to that BM Unit and shall not include any other Plant or Apparatus”*

This means that PPM 4 for each Windfarm must be split into separate BM Units to align with each Contract for Difference.

- 2.3 The BSC classifies a PPM<sup>1</sup> as a standard BM Unit (Section K3.1.4). PPM 4 will be split across two BM Units, 4 and 5, which means that these BM Units do not meet the definition of a standard PPM BM Unit.

### 3. The NETSO and Elexon comments

- 3.1 We circulated the non-standard BMU application to the NETSO for comments. The NETSO do not have any concerns or objections to this request.
- 3.2 Elexon notes that in order for PPM 4 to comply with BSC Section K3.1.8, BM Units 4 and 5 cannot be registered as standard BM Units unless they are split up so that each PPS is metered and registered as an individual BM Unit.
- 3.3 Elexon recommends that the ISG agree these non-standard BM Unit applications on the basis that:
- the responsibility for the flows of electricity associated with each proposed non-standard BM Unit lie with one Party (Section K 3.1.2 (a));
  - The Plant and Apparatus associated with each proposed non-standard BM Unit are capable of independent control from any other Plant and Apparatus not in the proposed BM Unit, as the control point is on each PPS (Section K3.1.2 (b));
  - all volumes flowing from and to the BM Units will be captured by compliant Metering Equipment/Systems and these volumes will be determined separately from volumes to and from other BM Units as the Meters are on each PPS (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) (i.e. registering each PPS as an individual BM Unit, registering PPM 4 as two BM Units, 4 and 5, is the most practical solution that also satisfies K3.1.8 (Section K 3.1.2 (e)).
- 3.4 Elexon also notes that the ISG has approved a similar non-standard BM Unit configuration at the Beatrice Offshore Wind Farm (ISG Paper 194/03).

### 4. Recommendation

- 4.1 We invite the ISG to:
- a) **APPROVE** two non-standard BM Units for BM Units 4 and 5 at Doggerbank A Offshore Wind Farm; and
  - b) **APPROVE** two non-standard BM Units for BM Units 4 and 5 at Doggerbank B Offshore Wind Farm.

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## Appendices

Appendix 1 – BM Unit Configurations

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## Attachments

Attachment A (CONFIDENTIAL) – BSCP15/4.13 Application for non-standard Primary BM Unit

Attachment B (CONFIDENTIAL) – Dogger Bank A – Phasing, PPM & BMU rev01.pptx

Attachment C (CONFIDENTIAL) – Dogger Bank B – Phasing, PPM & BMU rev01.pptx

Attachment D (CONFIDENTIAL) – Main Circuit SLD Offshore DBA.pdf

Attachment E (CONFIDENTIAL) – Main Circuit SLD Offshore DBB.pdf

Attachment F (CONFIDENTIAL) – Typical 66kV Array Feeder Key Line Diagram DBA.pdf

Attachment G (CONFIDENTIAL) – Typical 66kV Array Feeder Key Line Diagram DBB.pdf

Attachment H (CONFIDENTIAL) – Dogger Bank A & B CoP2 & Offshore Boundary.pdf

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<sup>1</sup> Offshore PPM is defined in the Grid Code as “A collection of one or more Offshore Power Park Strings...[which] connect to the same busbar that cannot be electrically split”

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**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, 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 Station<sup>2</sup> 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:

- Combined Cycle Gas 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)<sup>3</sup>;
- 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 COBMU<sup>3</sup> 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.

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<sup>2</sup> 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.

<sup>3</sup> The NETSO must agree that two or more PPMs can be combined into a COBMU.