ISG224/01 - METERING DISPENSATIONS D/498 and D/499 - AIKENGALL II and IIA

MEETING NAME	ISG 224

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Owner/author	Mike Smith
Purpose of paper	Decision
Classification	Public
Summary	Aikengall II Community Wind Company Ltd and Aikengall IIa Community Wind Company Ltd have applied for Metering Dispensations from Code of Practice (CoP) 1 for the location of Metering Equipment for the Aikengall II and Aikengall IIa wind farms (D/498 and D/499, respectively). The Actual Metering Points (AMPs) for the new CoP1 Metering Equipment will be 20m from the Defined Metering Point (DMP). We invite the ISG to approve Metering Dispensations D/498 and D/499 on a lifetime basis.

1. BSC requirements

1.1 Section L 'Metering' of the Balancing and Settlement Code (BSC) requires all Metering Equipment to either:

- comply with the requirements set out in the relevant Code of Practice (CoP) at the time the Metering System is first registered for Settlement; or
- be the subject of, and comply with, a Metering Dispensation.

1.2 Section L allows the Registrant of a Metering System to apply for a Metering Dispensation if, for financial or practical reasons, Metering Equipment will not or does not comply with some or all the requirements of a CoP.

1.3 The process for applying for a Metering Dispensation is set out in BSC Procedure (BSCP) 32 'Metering Dispensations'.

2. Background to Metering Dispensation applications D/498 and D/499

2.1 The Aikengall II Community wind farm (Aikengall II) is located in East Lothian, six kilometres (km) south of Innerwick and 11 km southeast of Dunbar.

2.2 Aikengall II is currently metered to Code of Practice (CoP) 1 'Code of Practice for the metering of circuits with a rated capacity exceeding 100MVA for Settlement purposes' standard at the Defined Metering Point (DMP). The DMP is the point of connection (PoC) to Scottish Power Transmission plc's (SPT's) Transmission network at the Wester Dod 132kV substation.

2.3 Aikengall II comprises 19 turbines currently and utilises 63.8MW of its 145MW Transmission Entry Capacity (TEC). Aikengall IIa Community Wind Company Ltd proposes to construct an additional 19 turbine wind farm known as Aikengall IIa on the site. Aikengall IIa will utilise the remaining 81.2MW of TEC.

2.4 For a number of technical and commercial reasons the two wind farms should be metered separately. These reasons include, but are not limited to:

- potentially different generator suppliers between the two wind farms;
- requirement to ensure Grid Code compliance of both sites separately;

- requirement to control output of both sites independently;
- potentially different power purchase agreement (PPA) providers;
- one project is Ofgem Renewable Obligation (RO) accredited, the other will not be; and
- the requirement to participate in the Balancing Mechanism as two separate sites, each site having different short run marginal costs.

2.5 In light of these reasons National Grid Electricity System Operator (NGESO) and Scottish Power Transmission Ltd (SPT) have both agreed to vary the existing 145MW 132kV Bilateral Connection Agreement (BCA) to provide for separate metering at the respective wind farms.

2.6 However, because there will continue to be only one PoC, with two CoP1 Metering Systems sitting beneath, this will present two non-compliant measurement locations (Attachment C).

2.7 Alternative, compliant solutions, have been evaluated but following discussions with NGESO and SPT those have been proven to be non-viable both from a financial and technical point of view ('Materiality' section in Attachments A and B).

3. Metering Dispensation application D/498 – Aikengall II

3.1 Aikengall II Community Wind Company Ltd has applied for a lifetime Metering Dispensation (D/498) from CoP1 for Aikengall II (Attachment A).

3.2 As part of a variation to the existing BCA, the applicant for D/498 requires a Metering Dispensation to install new CoP1 Metering Equipment 20m away from the DMP. If approved, the existing CoP1 Metering Equipment at the DMP will be de-registered and the new CoP1 Metering Equipment will be registered in Settlement in its place.

3.3 The applicant has calculated the electrical losses from the location of the proposed new Aikengall II Metering Equipment (the Actual Metering Point (AMP)) to the DMP, and does not propose to compensate the new Aikengall II Meters for the electrical losses (Attachment D). This is because:

- the distance between the AMP and DMP is minimal (20m);
- the losses will be un-compensatable (0.0001707%); and
- overall accuracy will be maintained at the DMP, within CoP1 error limits (e.g. ±0.5% at unity power factor), without applying compensation for the electrical losses.

3.4 A separate application (D/499) has been made for the related non-standard location of the Aikengall IIa Metering Equipment.

4. Metering Dispensation application D/499 – Aikengall II

4.1 Aikengall IIa Community Wind Company Ltd has applied for a lifetime Metering Dispensation (D/499) from CoP1 for Aikengall IIa (Attachment B).

4.2 As part of a variation to the existing BCA, the applicant for D/499 requires a Metering Dispensation to install new CoP1 Metering Equipment 20m away from the DMP (i.e. the shared PoC).

4.3 The applicant has calculated the electrical losses from the location of the proposed new Aikengall IIa Metering Equipment (AMP) to the DMP and does not propose to compensate the new Aikengall IIa Meters for the electrical losses (Attachment D). This is because:

- the distance between the AMP and DMP is minimal (20m);
- the losses will be un-compensatable (0.0001881%); and

- overall accuracy will be maintained at the DMP, within CoP1 error limits (e.g. ±0.5% at unity power factor), without applying compensation for the electrical losses.

5. MDRG comments

5.1 We circulated the Metering Dispensation applications to the Metering Dispensation Review Group (MDRG) for comments.

5.2 All four MDRG members responded. All four MDRG members support the Metering Dispensation applications as there is minimal impact on the overall accuracy of the Metering Systems.

5.3 One member questioned whether:

- the wind farms were connected at 33kV (i.e. below their individual power transformers); and
- SPT is an Affected party (and therefore should be included in the application form as such).

5.4 The applicants confirmed the wind farms are not connected at 33kV and submitted updated application forms listing SPT as an Affected party.

6. NETSO comments

6.1 We circulated the Metering Dispensation applications to the National Electricity Transmission System Operator (NETSO) for comments.

6.2 The NETSO confirmed it supports the applications as it doesn't believe the configuration would have any adverse impact, yet are more economic than reconfiguring the Metering Systems to make them compliant.

7. ELEXON's view

7.1 ELEXON supports both lifetime Metering Dispensation applications as overall accuracy will be maintained at the DMP, for both wind farms, within CoP1 error limits. The electrical losses between the relevant AMP and the DMP are very small and the materiality associated with not compensating for the individual wind farm contributions is very low.

8. Recommendations

8.1 We invite you to:

a) **APPROVE** Metering Dispensation D/498 for Aikengall II Community wind farm on a lifetime basis; and

b) **APPROVE** Metering Dispensation D/499 for Aikengall IIa Community wind farm on a lifetime basis.

Attachments

Attachment A – Metering Dispensation application D/498 – Aikengall II

Attachment B – Metering Dispensation application D/499 – Aikengall IIa

Attachment C – Electrical single line diagram – Aikengall II and IIa

Attachment D – Electrical losses from AMPs to DMP

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