

Metering Dispensation D/509 – Whitelee 1 BESS

ISG236

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Summary

ScottishPower Renewables (UK) Limited has applied for a lifetime Metering Dispensation (D/509), against Code of Practice 1, for the location of the Metering Equipment associated with its Whitelee 1 Battery Energy Storage System (BESS). The Whitelee 1 BESS Metering Equipment will be to CoP2 standards and located below the Defined Metering Point, and the Whitelee 1 wind farm Metering Equipment, which are both at the point of connection to the Transmission System. We invite the ISG to approve D/509 on a lifetime basis.

1. BSC requirements

- 1.1 Section L¹ 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 under the BSC (L3.2.2); or
 - be the subject of, and comply with, a Metering Dispensation (L3.4).
- 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 [BSCP32](#)².

2. Confidentiality

- 2.1 BSCP32 allows the Metering Dispensation applicant to request confidentiality via the application form (BSCP32/4.1).
- 2.2 In this case, the applicant has noted on the application form that the application itself is not confidential. However, the applicant has requested that we keep the metering single line diagram (Attachment B), confidential. This is to prevent Elexon making these details public on the BSC Website.

3. Background to Metering Dispensation D/509

- 3.1 The Whitelee 1 wind farm (WF) is located close to East Kilbride in the South West of Scotland and was connected to the Transmission System in 2007. It comprises an installation of 140 x 2.3MW Siemens Wind Turbine Generators (WTG's) split across three Power Park Modules (PPMs), with a total of 322MW installed net capacity.
- 3.2 The Whitelee 1 WF has six Transmission System Boundary Points with [CoP1](#)³ compliant Metering Equipment located at the Defined Metering Point (DMP), which is the point of connection (PoC) to the Transmission

¹ 'Metering'

² 'Metering Dispensations'

³ 'Code of Practice for the metering of circuits with a rated capacity exceeding 100MVA for Settlement purposes'

System. The point of connection to the Transmission System is at the six Scottish Power Energy Networks (SPEN) 33kV circuit breakers which are located below SPEN's three supergrid transformers (SGTs), SGTs 1, 2 and 3 (Attachment B).

- 3.3 The Whitelee 1 WF is a single, non-standard, BM Unit (T_WHILW-1). The ISG approved it as a non-standard BM Unit on 23 October 2007 (ISG81/03).
- 3.4 ScottishPower Renewables (UK) Ltd (SPR) is proposing to install a new Battery Energy Storage System (BESS) at the Whitelee 1 WF.
- 3.5 The Whitelee 1 BESS (T_WHLWB-1) will comprise a 50MW system and will be located on a newly created compound, located adjacent to the existing Whitelee 1 WF substation building and will be connected to the existing three Whitelee 1 WF PPMs as follows:
 - BESS Module 1 - 13MW (connected to Whitelee 1 WF PPM1)
 - BESS Module 2 - 16MW (connected to Whitelee 1 WF PPM2)
 - BESS Module 3 - 21MW (connected to Whitelee 1 WF PPM3)
- 3.6 The Whitelee 1 BESS and Whitelee 1 WF will have the same PoC to the Transmission System and the same DMP.
- 3.7 SPR applied for a non-standard BM Unit for the Whitelee 1 BESS and the ISG approved this at its meeting on 3 November 2020 ([ISG235/01](#)).

4. Metering Dispensation application D/509

- 4.1 SPR has applied for a lifetime Metering Dispensation (D/509), against CoP1⁴ for the location of the Metering Equipment associated with its Whitelee 1 BESS (Attachment A).
- 4.2 SPR proposes to install [CoP2](#)⁴ compliant Metering Equipment for the three Whitelee 1 BESS Modules. The Whitelee 1 BESS Metering Equipment will be located below the Whitelee 1 WF Metering Equipment, at the Whitelee 1 BESS Module connections (EXT1, EXT2 and EXT3) to the 33kV busbars of the Whitelee 1 WF PPMs. This is non-compliant with CoP1 in two respects:
 - the Actual Metering Point (AMP) is not at the DMP; and
 - the Metering Equipment will be to CoP2 standards not CoP1 standards due to the circuit capacities of the Whitelee 1 BESS circuits.
- 4.3 SPR is not proposing to compensate the Whitelee 1 BESS Meters for the electrical losses, caused by the operation of the Whitelee 1 BESS Modules, over the short sections of Whitelee 1 WF busbar and the Whitelee 1 WF's 60-100m of 33kV cables, to the shared PoCs/DMPs. The Whitelee 1 BESS Metering System will maintain overall accuracy within CoP2 limits at the DMP.
- 4.4 SPR proposes to use difference metering with the Whitelee 1 WF Metering System to ensure the Imports and Exports related to the Whitelee 1 BESS are deducted of the Whitelee 1 WF Metering System. The Registrant of the Whitelee 1 WF Metering System will need to modify its Aggregation Rule to implement the difference metering arrangement.
- 4.5 The Registrant of the Whitelee 1 WF supports this proposal⁵ and agrees (and is supportive) that these electrical losses will be attributed to the Whitelee 1 WF Metering System due to the difference metering arrangement.

5. MDRG comments

- 5.1 We circulated the Metering Dispensation application (and attachment) to the MDRG for comments (Attachments A and B).
- 5.2 All four MDRG members responded. The MDRG members support the application on the following bases:
 - the proposal looks ok from a Settlement perspective;
 - it's a reasonable, pragmatic solution given the existing infrastructure with minimal impact on Settlement;
 - the distance between the AMP and DMP is minimal; and
 - the metering arrangements is similar with the ones we went through with another BESS site.

⁴ 'Code of Practice for the metering of circuits with a rated capacity not exceeding 100MVA for Settlement purposes'

⁵ SPR also own and operate the Whitelee 1 WF and are the Registrant of Whitelee 1 WF Metering System.

6. NETSO comments

- 6.1 We circulated the Metering Dispensation application (and attachment) to the National Electricity Transmission System Operator (NETSO) for comments.
- 6.2 The NETSO has no objection to the ISG granting a Metering Dispensation.

7. Elexon's view

7.1 Elexon supports this application as:

- overall accuracy of the Whitelee BESS Metering System will be maintained within CoP2 limits, as referred to the DMP; and
- the Registrant of the Whitelee 1 WF agrees with the proposal not to compensate the Whitelee 1 BESS Meters for the electrical losses, caused by the operation of the Whitelee 1 BESS Modules, to the shared PoCs/DMPs and supports that these electrical losses will be attributed to the Whitelee 1 WF Metering System due to difference metering that it will need to put in place.

8. Recommendation

8.1 We invite the ISG to:

- a) **APPROVE** Metering Dispensation D/509, for Whitelee 1 Battery Energy Storage System, on a lifetime basis.

Attachments

Attachment A – Metering Dispensation application (D/509)

Attachment B (CONFIDENTIAL) – Single line diagram showing metering locations at Whitelee 1 WF and Whitelee 1 BESS

For more information, please contact:

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