
Metering Dispensation D/522 – Carland Cross Solar

Imbalance Settlement Group (ISG)

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Summary

Scottish Power Renewables has applied for a lifetime Metering Dispensation (D/522), from Code of Practice (CoP) 2. The application relates to the location of the Metering Equipment associated with proposed new Solar PV at the existing Carland Cross Wind Farm (WF). Carland Cross WF is metered to CoP2 standards at the Defined Metering Point (DMP) and the Carland Cross Solar PV will be metered to CoP2 standards (excluding the CTs which are of class 0.5S as opposed to 0.2S) 30m below the DMP. The Registrant considers the electrical losses as negligible and does not propose to compensate for them. The Registrant of the Carland Cross WF Metering System will put in place a difference metering arrangement to determine the Metered Volumes for Carland Cross WF separately from the Metered Volumes for the Carland Cross Solar PV.

At its meeting 3 August 2021 ISG deferred decision on Metering Dispensation application D/522. ISG requested further information on the installation of class 0.5S as opposed to 0.2S required by CoP2. The applicant has provided responses to ISG's specific queries detailed in Section 6 of this paper.

We invite the ISG to approve Metering Dispensation D/522 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.

¹ 'Metering'

² 'Metering Dispersations'

2. Background to Metering Dispensation D/522

- 2.1 Scottish Power Renewables (SPR) plans to connect a new Solar PV Power Plant to the existing 20MW Carland Cross Windfarm (WF). The Carland Cross PV will be connected below the shared Defined Metering Point (DMP). The DMP is the point of connection to the Distribution System.
- 2.2 The export capacity at the DMP will not be increased above the existing 20 MW and the energy export from the wind farm will have priority over the solar PV.
- 2.3 SPR is the Registrant for both the Carland Cross WF and the proposed new Solar PV Power Plant. SPR will put in place a difference metering arrangement, via a Complex Site Rule, to determine the Metered Volumes for the Carland Cross PV separately from the Metered Volumes for the Carland Cross WF.
- 2.4 SPR requires a Metering Dispensation for the Actual Metering Point (AMP) for the Carland Cross PV Metering System as it will not be located at the shared DMP. The CTs associated with the Carland Cross PV Metering System are of class 0.5S as opposed to 0.2S required by CoP2. Aside from location and the class of CTs the Carland Cross PV Metering System is compliant to CoP2.

3. Metering Dispensation application D/522

- 3.1 SPR has applied for a lifetime Metering Dispensation (D/522), against CoP2.
- 3.2 The Metering Dispensation application is for the location of the Metering Equipment; and class of CTs associated with a proposed new Solar PV Power Plant.
- 3.3 The Registrant has stated that the Metering Dispensation is required on a lifetime basis as it considers there is no practical solution that will allow the Metering Equipment associated with the Carland Cross Solar PV to be installed at the DMP throughout the lifetime of the new Power Plant.
- 3.4 The Metering Equipment associated with the Carland Cross WF is metered to CoP2 standards and is located at the DMP. The Metering Equipment for the proposed new Solar PV windfarm will be located 30m below the DMP.
- 3.5 The switchgear located at the DMP does not have room to accommodate the new Metering Equipment associated with the Carland Cross Solar PV.
- 3.6 The CTs associated with the Carland Cross Solar PV windfarm are of class 0.5S as opposed to the 0.2S required by CoP2. The applicant stated that as the capacity of the Solar PV power plant is below 10MVA they believed the 0.5S class CTs were compliant.
- 3.7 The Metering Equipment associated with the WF and located at the DMP will record for the metered volumes for both the WF and the Solar PV. The Metering Equipment associated with the Solar PV (located at the AMP) will record the metered volumes for the Solar PV only. Therefore the Registrant proposes to implement a differencing solution via a Complex Site rule to subtract the metered volumes associated with the PV from the Carland Cross WF Metering System.
- 3.8 SPR is the Registrant for both the Carland Cross WF and the proposed new Carland Cross Solar PV Power Plant.
- 3.9 SPR considers the electrical losses, as negligible and does not propose to compensate for them. As SPR is the Registrant for both Metering Systems, the proposed solution will have no impact on any other Registrants.
- 3.10 The Registrant has stated that to install compliant Metering Equipment associated with the Carland Cross Solar PV would cost circa £1.5 million and would require a new connection including DNO and User connection apparatus with a tee connection into existing 33kV network.
- 3.11 The proposed solution will cost circa £20k and includes the installation of new CoP2 Metering Equipment associated with the Carland Cross Solar PV Power Plant.
- 3.12 As the losses are negligible (and will have no impact on the Overall Accuracy of the Metering Systems) the Registrant does not believe that the proposed solution will have any adverse impact on Settlement.

4. MDRG comments

- 4.1 We circulated the Metering Dispensation application to the Metering Dispensation Review Group (MDRG) for comments.

4.2 Two out of four MDRG members responded. Both MDRG members support the application on the following bases (however did state their disappointment that the Registrant had installed the wrong class CTs):

- the distance between AMP & DMP is short and they are at the same voltage
- the arrangement is a simple one and the losses are negligible.

5. Distributor comments

5.1 We circulated the Metering Dispensation application and its attachments to the Licensed Distribution System Operator (WPD) for comment.

5.2 WPD stated that they support the Metering Dispensation application for the same reasons specified by Elexon.

6. ISG Deferral

6.1 At its meeting on 3 August 2021 ISG deferred decision on Metering Dispensation application D/522. ISG requested more information of the installation of 0.5S class CTs as opposed to the 0.2S CTs required by CoP2.

6.2 The applicant stated that to replace the 0.5S class CTs with 0.2S CTs would cost circa £13,000. SPR also stated that the lead time for ordering replacement CTs would be 14-16 weeks.

6.3 The target for energisation of the Carland Cross Solar PV is “mid/late September” and so SPR have stated that the 14-16 week lead time would be impractical.

6.4 The Applicant has provided the CT Calibration Certificates for the 0.5S class CTs associated with the Solar PV circuit (Attachment E). Elexon have confirmed that the errors associated with the CTs associated with the Solar PV circuit are good enough to meet the accuracy requirements for Class 0.2S CTs.

6.5 As the errors associated with the installed CTs are good enough to meet the accuracy requirements required by class 0.2S CTs, SPR are not proposing to compensate the Meters for the errors associated with the CTs.

7. Elexon's view

7.1 Elexon supports this application as overall accuracy of the Carland Cross Solar PV Power Plant Metering System will be maintained within CoP2 limits, as referred to the DMP.

8. Recommendation

8.1 We invite the ISG to:

- a) **APPROVE** Metering Dispensation D/522, for the Carland Cross Solar PV Power Plant Metering System, on a lifetime basis.

Attachments

Attachment A – Metering Dispensation application D/522 – Carland Cross Solar PV

Attachment B – Metering Dispensation D/522 – Carland Cross Solar PV Metering Diagram

Attachment C – Metering Dispensation D/522 – “R1_Panel H01”

Attachment D – Metering Dispensation D/522 – “R1_Panel H04”

Attachment E – Metering Dispensation D/522 – 0.5S CT Calibration Certificates.

For more information, please contact:

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