ELEXON

Metering Dispensations D/549 – Redbridge

Imbalance Settlement Group (ISG)

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Owner/author	**Lee Walker**	Purpose of paper	**Decision**
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Summary

EDF Energy Ltd has applied for a lifetime Metering Dispensation (D/549) from Code of Practice (CoP) 2. The application relates to the location of the CoP2 Metering Equipment for three Customers (Tesla, Oxford City Council and Fastned Charging). The three Customers are connected, via a private wire network, to the existing Cowley Battery Energy Storage System (BESS) at Redbridge. The Customers will be metered to CoP2 standards 7.2km away from the Boundary Point (BP)/Defined Metering Point (DMP) at Redbridge. Loss compensation will be applied to each Customer's Meter for the losses in the cables from their sites to the BP/DMP. We invite the ISG to approve Metering Dispensation D/549 on a lifetime basis subject to a condition regarding any changes to the loss compensations either as a result of a review based on actual demand or when any new Customer joins, or an existing Customer leaves, the private wire network.

1. BSC requirements

1.1 Section L[1] 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 asked for certain information in the application form (and certain attachments) to be kept confidential. The areas to remain confidential are:

- Part D1 - Loss Adjustments for Power Transformer and/or Cable/Line Losses
- Materiality
- Site details
- Technical details

[1] 'Metering'
[2] 'Metering Dispensations'

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2.3 The reason for the above to remain confidential is due to the Customers connected to the private wire and commercial values of installed assets.

3. Background to Metering Dispensation D/549

3.1 The Cowley Battery Energy Storage System (BESS) (T_COWB-1) is connected directly to the 33kV Transmission System at Redbridge. Its Metering Equipment is to CoP2[3] standards and is located at the Boundary Point (BP)/Defined Metering Point (DMP) (Attachment B).

3.2 Pivoted Power, now part of EDF Renewables Energy, has built a new private wire network to, initially, connect three Customers to the Cowley BESS network and, therefore, the Transmission System. These are:

- Tesla (MSID 7465);
- Oxford City Council (MSID 7466); and
- Fastned Charging (MSID 7467).

3.3 The three 33kV Customers connect via an intermediary substation where additional Customers will/could connect in the future. One additional Customer is due to connect in September 2023 and another potential Customer is due to connect in July 2024.

4. Metering Dispensation D/549 – Redbridge

4.1 EDF Energy Ltd has applied for a lifetime Metering Dispensation from CoP2 because the Metering Equipment for the three Customers at Redbridge is not located at the Defined Metering Point (DMP) and it is financially unviable to locate the metering for the private wire at the DMP (Attachment A).

4.2 The three Customers' circuits are:

- located 7.2km from the DMP
- metered to CoP2 standards at 33kV, upstream of their own power transformers, and supplied from the same switch panel in the local switch room, which incorporates the measurement transformers and Meters.

4.3 The losses between the Customers' Actual Metering Points (AMPs) and the DMP have been calculated by independent HV contractor, Power Systems UK, who was responsible for the design and installation of the entire private wire network (Attachments C and D).

4.4 Each Customer will have loss correction factors applied to account for losses on the private wire network, based on their consumption. These loss correction factors will be applied as Meter scaling factor.

5. MDRG comments

5.1 We circulated the Metering Dispensation application and its supporting documentation to the Metering Dispensation Review Group (MDRG) for comments (Attachments A - D).

5.2 Two MDRG Members responded and both support the Metering Dispensation application following clarification that the circuits should be metered to CoP2 standards, not CoP3[4] standards, as originally suggested, as the circuit breakers for each Customer are actually rated at 22MVA not 7.5MVA. One of these MDRG Members supports the application subject to the ELVA confirming the loss compensation factors are suitable.

6. NETSO comments

6.1 We circulated Metering Dispensation application and its supporting documentation to the National Electricity Transmission System Operator (NETSO) for comments (Attachments A - D).

6.2 The NETSO confirmed that it has no concerns with this application as it will not directly impact the accuracy of COWB-1.

7. ELVA comments

7.1 We circulated the Metering Dispensation application and its supporting documentation to the Electrical Loss Validation Agent (ELVA) for comments (Attachments A - D).

7.2 The ELVA has confirmed that the proposed compensation factor for combined cable losses, of 0.61%, is suitable.

[3] 'Code of Practice for the metering of circuits with a rated capacity not exceeding 100 MVA for Settlement purposes'
[4] 'Code of Practice for the metering of circuits with a rated capacity not exceeding 10 MVA for Settlement purposes'

8. Elexon's view

8.1 Elexon supports this lifetime Metering Dispensation application as CoP2 overall accuracy limits will be maintained at the DMP for the three embedded Customers at Redbridge. Any errors in the compensation applied to the Customers' Meters will be captured through the difference metering in place and assigned to the Cowley BESS Metering System.

8.2 Because the existing compensation factors could be changed, as a result of a review based on the actual demand of the existing Customers on the private wire network, or when any new Customer joins, or an existing Customer leaves, the private wire network, we recommend a condition is added to the approval of D/549 that the ELVA should review any new compensation factors for suitability.

9. Recommendation

9.1 We invite the ISG to:

a) APPROVE Metering Dispensation D/549, from CoP2, for the location of the Metering Equipment associated with the Telsa, Oxford City Council and Fastned Charging at the Redbridge site, on a lifetime basis. This is subject to the Registrant submitting, for the Electrical Loss Validation Agent to review their suitability, any changes to loss correction factors applied, as a result of a review based on the actual demand of the existing Customers on the private wire network, or when any new Customer joins, or an existing Customer leaves, the private wire network.

Attachments

Attachment A – Metering Dispensation application D/549 – Redbridge

Attachment B – Single line diagram (SLD) for Redbridge

Attachment C – Compensation calculations for Redbridge Customers

Attachment D – Cable parameters (combined pdf)

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