

Metering Dispensation D/512 – Willington GSP

ISG236

Date of meeting	1 December 2020	Paper number	ISG236/07
Owner/author	Mike Smith	Purpose of paper	Decision
Classification	Public	Document version	v1.0

Summary **Western Power Distribution (East Midlands) plc (WPD) has applied for a lifetime Metering Dispensation (D/512), against Code of Practice 1, for the use of existing Metering Equipment associated at its Willington Grid Supply Point (GSP). D/512 replaces an existing Metering Dispensation (D/083). We invite the ISG to approve D/512 on a lifetime basis and note that, if the ISG approves D/512, Elexon will remind WPD to withdraw the existing Metering Dispensation, D/083.**

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, where applicable,
 - comply with the requirements set out in the relevant CoP applicable to the Metering System under the Pooling and Settlement Agreement (P&SA) immediately before the Go-live Date of the BSC (L3.2.3 (a)); or
 - be the subject of, and comply with, a Metering Dispensation (L3.4)².
- 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](#)³.

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.

¹ 'Metering'

² Metering Dispensations agreed under the P&SA continue to apply unless there is a material change to the Metering Equipment (L3.4.7).

³ 'Metering Dispensations'

3. Background to Metering Dispensation D/083 for Willington GSP

- 3.1 In June 1992 East Midlands Electricity plc applied for a Metering Dispensation (D/083) for Willington Grid Supply Point (GSP).
- 3.2 At the time Willington GSP consisted of three 120MVA 275/132kV supergrid transformers (SGTs) and one 240MVA 400/132kV SGT. The SGTs supplied nine unmetered 132kV feeders to the East Midlands distribution network and seven metered 132kV feeders to the Power Station owned and operated by National Power.
- 3.3 The Metering Dispensation permitted the GSP Metering Equipment, to [CoPB](#)⁴ standards, to be located on the lower voltage side (132kV) of the SGTs (the Actual Metering Point (AMP)), whereas the Defined Metering Point (DMP) was the outgoing circuit breakers located in the 132kV switching station. The supplies to the East Midlands network were calculated by differencing off the supplies to the Power Station.
- 3.4 The Metering Sub-Committee (MSC) approved Metering Dispensation D/083 on 29 October 1992.

4. Metering Dispensation application D/512

- 4.1 Western Power Distribution (East Midlands) plc (WPD) has applied for a lifetime Metering Dispensation (D/512), against [CoP1](#)⁵ Issue 2 (v13.0) for the use of existing Metering Equipment associated with its Willington GSP (Attachment A).
- 4.2 Since the MSC granted Metering Dispensation D/083 in 1992, the Power Station supplies have all been decommissioned (circa 2000) leaving the East Midlands distribution network as sole user of Willington GSP.
- 4.3 The Willington 132kV GSP substation was recently fed by three SGTs supplied from National Grid Electricity Transmission's (NGET's) 400kV substation (SGTs 1, 6 and 7) plus, two SGTs supplied from NGET's 275kV substation (SGTs 4 and 5) (Attachment B):
- SGT1 has its CoPB standard High Accuracy Metering (HAM) Units located on the lower voltage side of SGT1, within the 132kV substation, on the incoming feeder to the 132kV busbars.
 - SGTs 6 and 7 were installed in 2011 and 2013 with CoP1 standard HAM Units (at the time) and are also located within the 132kV substation on the incoming feeder. This is non-compliant with the DMP in CoP1 at the time (i.e. at the lower voltage side of the SGT for a non-shared busbar) and is therefore not covered by any Metering Dispensation.
 - SGT5 has already been decommissioned and will be removed at some point in the near future.
 - SGT4 has been decommissioned and replaced with a 240MVA 400/132kV SGT (SGT2) and SGT2 is to be energised in November 2020. The CoPB/1 compliant SGT4 HAM Units⁶ have been moved⁷ from the 275kV substation, at the lower voltage side of SGT4, down to the 132kV substation and are located within the 132kV substation on the incoming feeder to the SGT bay where SGT4 used to connect. These are to be reused for SGT2. The CoP1 compliant Artech brand HAM Unit on the red phase would no longer comply with the legacy CoP DMP (i.e. at the lower voltage side of the SGT).
- 4.4 The planned final arrangement will consist of four 240MVA 400/132kV SGTs (SGTs 1, 2, 6 and 7) supplying the nine unmetered 132kV feeders to the East Midlands network. Although there is no longer a requirement to difference off any third party supplies, the 132kV switching station remains the property of the NGET. In all cases the AMP is within 100m of the DMP however, the metering is legacy hence the requirement for this Metering Dispensation.
- 4.5 The reason for the new application is that, with all the changes that have occurred since D/083 was granted, WPD wishes to register all the existing legacy Metering Equipment against the latest version of CoP1 and needs a Metering Dispensation to do so.
- 4.6 The HAM Units on each SGT circuit comply with legacy standards, as described in Attachment A, but are all located within 100m of the DMP for a single Licensed Distribution System Operator Party connected to the Transmission System. This would be compliant with the current version of CoP1 which requires the AMP to be within 100m of the DMP (i.e. the WPD circuit connection to the 132kV busbars).

⁴ 'Code of Practice for the Metering of Electricity Transfers between The National Grid Company plc and Public Electricity Suppliers using the National Metering System at Commercial Boundaries (known as the "Final Metering Scheme")'

⁵ 'Code of Practice for the metering of circuits with a rated capacity exceeding 100MVA for Settlement purposes'

⁶ The original Ritz brand Red phase HAM Unit, which complied with CoPB, was replaced with an Artech brand HAM Unit, which complied with CoP1 Issue 2 v8.0, in 2011.

⁷ Elexon has recently concluded that moving the HAM Units is not captured by the CoPs themselves or under the BSC itself as a material change to Metering Equipment (Section L3.3).

- 4.7 To be fully compliant with the current version of CoP1 all 12 HAM Units would need to be replaced at a cost of £500k.
- 4.8 All the Meters comply with CoP1 standards in the current version as they were replaced during 2013-15 when NGET changed all the GSP Meters and the Meter standards in CoP1 have not changed since February 2006, i.e. they are all class 0.2s main and check Active Energy Meters to BS EN/IEC 62053-22 and class 2.0 main and check Reactive Energy Meters to BS EN/IEC 62053-23.
- 4.9 As such, overall accuracy of the Willington GSP Metering Systems will be maintained at the DMP, within CoP1 limits, without any need to compensate the Meters for losses from the AMP to the DMP.
- 4.10 For future administrative simplicity, rather than create an additional Metering Dispensation, WPD wishes to withdraw Metering Dispensation D/083 and replace it with a new consolidated Metering Dispensation (D/512).

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. One MDRG member declined to comment as they are the Meter Operator Agent for the Willington GSP Metering System. The three MDRG members who support the application do so on the following bases:
- One MDRG member views the application as straightforward and they support the removal of the old Metering Dispensation and replacement with the proposed Metering Dispensation;
 - the second MDRG member says this replacement Metering Dispensation is a pragmatic solution that has virtually no impact on Settlement; and
 - the third MDRG member supports the replacement of the previous Metering Dispensation with this one - they are similar in construction, so they see no Settlement issues.

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 Willington GSP Metering Systems will be maintained within CoP1 limits, as referred to the DMP, using the existing HAM Units located within 10-20m of the DMP.
- 7.2 If the ISG approves D/512, Elexon will remind Western Power Distribution (East Midlands) plc to withdraw D/083.

8. Recommendation

- 8.1 We invite the ISG to:
- a) **APPROVE** Metering Dispensation D/512, for Willington GSP, on a lifetime basis; and
 - b) **NOTE** that, if the ISG approves D/512, Elexon will remind Western Power Distribution (East Midlands) plc to withdraw the existing Metering Dispensation, D/083.

Attachments

Attachment A – Metering Dispensation application (D/512)

Attachment B (CONFIDENTIAL) – Single line diagram showing connections at Willington 132kV substation

For more information, please contact:

Mike Smith, Metering Analyst

mike.smith@elexon.co.uk

