

4 Appendices

4.1 Application for a Metering Dispensation

Form, BSCP32/4.1 should be used by the Applicant when applying for a Metering Dispensation. It is also used by the BSCCo to acknowledge receipt of the application.

4.2 Form BSCP32/4.2 is no longer used.

4.3 Form BSCP32/4.3 is no longer used.

4.4 Notification of Panel Ruling on Metering Dispensation Application

Form, BSCP32/4.4 should be used by the BSCCo to communicate the Panel decision with regard to a particular Metering Dispensation application to the TAA and the Applicant. It should also be used by the Applicant when acknowledging and accepting the Panel determination.

4.5 Application to Withdraw a Metering Dispensation

Form BSCP32/4.5 should be used by the Applicant when withdrawing a proposed or approved Metering Dispensation. Such a withdrawal implies that the Applicant will now meet the requirements of the Code of Practice from which he may previously have held a Metering Dispensation. The BSCCo will also use the form to acknowledge receipt of the withdrawal both to the Applicant and to the TAA.

4.6 Form BSCP32/4.6 is no longer used.

4.7 Forms

All the forms for use in this BSCP are shown below.

BSCP32/4.1 Application for a Metering Dispensation**D/488**

Part A – Applicant Details

| | |
|--|---|
| To: BSCCo | Date Sent: 06/08/2018 (updated)___ |
| From: Requesting Applicant Details | |
| Name of Sender: _____ | |
| Contact email address: _____ | |
| Contact Tel. No. _____ | Contact Fax. No. _____ |
| Name of Applicant Company: _____SSE_____ | |
| Address: SSE, Grampian House, 200 Dunkeld Road, Perth, | |
| | |
| | |
| Post Code: __ PH1 3GH _____ | Our Ref: _____ |
| Name of Authorised Signatory: _____ | |
| Authorised Signature: _____ | Password: _____ |

Confidentiality:

Does any part of this application form contain confidential information?

Request for Confidentiality ~~YES~~/NO***Delete as applicable*

If 'YES', please state the parts of the application form that are considered confidential, including justification below. Information that is considered confidential:

Reasons for requesting confidentiality:

.....

number, site name, expiry date (if any) and BSC Panel determinations will routinely be made available in the public domain unless the applicant informs BSCCo otherwise at the time of application

BSCP32/4.1 Application for a Metering Dispensation (Cont.)**Part B - Affected Party Details**Number of Affected parties _____¹

| | |
|--|------------------|
| Contact Name at Affected party: | |
| Contact email address: | |
| Contact Tel. No. | Contact Tel. No. |
| Company Name of Affected party: SSE Generation Ltd | |
| Address: SSE, Grampian House, 200 Dunkeld Road, Perth, | |
| | |
| | |
| Post Code: PH1 3GH | |

| | |
|--|------------------|
| Contact Name at Affected party: | |
| Contact email address: | |
| Contact Tel. No: | Contact Tel. No. |
| Company Name of Affected party: SSE Networks | |
| Address: 200 Dunkeld Road, Inveralmond House, Perth, | |
| | |
| | |
| | |
| Post Code: PH1 3AQ | |

¹ For more than one Affected party, Part B should be completed for each, using additional copies of Part B as required.

| | |
|---|------------------|
| Contact Name at Affected party: Adam Bain | |
| Contact email address: Adam.bain@sse.com | |
| Contact Tel. No. | Contact Tel. No. |
| Company Name of Affected party: | |
| Address: | |
| | |
| | |
| | |
| | |
| Post Code: | |

BSCP32/4.1 Application for a Metering Dispensation (Cont.)

Part C – Reason for Application

If the application is an extension or update for an existing Metering Dispensation, enter existing ref: D/.....

Site Specific / ~~Generic~~* *Delete as applicable.

SHETL have undertaken transmission reinforcement work on the 132 kV network near to Grudie Bridge Hydro Power Station which has resulted in a new 132 / 33 kV substation being built next to Grudie Bridge Power Station.

Grudie Bridge (and Achanalt) hydro Power Station were built in 1950 and are connected to the grid by means of a common 11 kV switchboard located within the Grudie Bridge hydro station building which was paid for and installed by SSE Generation in 1993 but transferred to SHEPD post-BETTA since there were customers also directly connected to the 11 kV switchboard. These customers have now been relocated to the new 132 / 33 kV substation leaving only the Grudie Bridge and Achanalt generators (all owned by SSE Generation) connected to the 11 kV switchboard.

SSE Generation wish to retake ownership of the generator circuit breakers and bus-coupler to facilitate future station refurbishment, improve operational flexibility by having full control of the bus-coupler and improve site safety by reducing the need for SHEPD networks staff to enter the hydro station building to maintain and operate the 1S0 circuit breaker.

The DMPs for each generator are currently located at each generator's 11 kV HV circuit breaker which is also the current ownership boundary. SSE Generation wish to take full ownership of the 11 kV busbar and 1S0 bus coupler, which are now redundant for distribution purposes, but to comply with the COP2 metering standard would require moving the ownership boundaries from the DMP to new commercial boundary points, these being the *bus-bar side* of the 11 kV breakers on the two *incomers*. (see diagram)

Whilst it may be possible to re-use the metering CTs below T3 and T4 (that it's believed were previously used as private metering for the DNO), because two generators (Achanalt and Grudie No.1) connect to one busbar section, we would not want to use those CTs for boundary point metering as it would prevent each generator being able to be traded separately which can be done if the Actual Metering Points are left where they currently are.

Period of Metering Dispensation required

Lifetime / ~~Temporary~~* *Delete as applicable.

| | |
|--|--|
| If temporary, indicate for how long the Metering Dispensation is required. | |
|--|--|

Provide justified reasoning for the period of Metering Dispensation requested in the box below:

Rationale for duration of Metering Dispensation:

A dispensation is sought to retain the metering existing DMPs because:

- No physical work has taken place on the 11 kV switchboard (other than removal of the cables by SHEPD for customers who are being transferred to another substation) that would have provided an opportunity to install new metering at the new boundary points

Moving the metering from each generator's circuit breaker to the new ownership boundary would incur significant cost for no benefit since the unmetered power losses in the approximately 1m of 11 kV bus-bar between the old and new ownership boundary points will be negligible;

- We will always continue to need to trade the three generators (Grudie 1, Grudie 2 and Achanalt) separately for water management reasons which could not be done if the metering was moved to the new boundary point; and
- It is possible the 11 kV switchboard bus-coupler could be run closed at times and if the new 33 KV bus section was opened, for short periods power could flow in through one 33/11 transformer through the 11 kV board and back up through the other 33/11 transformer. If the DMP is moved to be at the new ownership boundary point then the Meters would incorrectly record this power flow through the switchboard as production.

Furthermore, whilst preparing this dispensation it was noted that the existing metering CTs are accuracy Class 0.2 on all three generator connections whereas the COP2 standard requires class 0.2S for circuit capacities between 10 MVA and 100 MVA. The affected circuit capacities are:

- Grudie Bridge G1 Generator Rating: 7.4 MVA, Circuit rating: **15.4 MVA***
- Grudie Bridge G2 Generator Rating: 13.37 MVA, Circuit rating: **15.4 MVA***
- Achanalt Generator Rating: 3.75 MVA, cable specification not currently available so circuit capacity is unable to be currently confirmed.

*based on 11 kV 500mm² 1c per phase, 810A continuous capacity.

We therefore also seek a dispensation against the COP2 requirement for Class 0.2S to retain use of the existing class 0.2 CTs, justified by the fact that:

1. The generators will almost always be operating close to their maximum output as this is when they will have the highest operating efficiency and at 100% of rating there is no accuracy difference between the Class 0.2 and 0.2s CTs.
2. There will be no continuous power import through the actual metering points as the station has a separate common services low voltage switchboard which is metered by a dedicated MPAN. There would only be a very transient power import (less than a few seconds) when the generators are energised during start-up.

Materiality

Please complete the following:

| | |
|--|---|
| What is the cost of providing compliant Metering Equipment? | What does this cost entail? |
| Greater than £10k | <ul style="list-style-type: none"> ➤ Retesting of the existing CTs below T3 and T4 to prove they have suitable accuracy. ➤ Connection of new Meters to the existing CTs on incomers at new the boundary points ➤ Commissioning and registering of new Meters ➤ Retesting and possible replacement of existing class 0.2 CTs |
| What is the cost of the proposed solution? | What does this cost entail? |
| No cost | - |
| What is the impact to Settlement of your proposed solution? | Why? |
| No impact | Whilst the metering is remaining in the existing positions, the accuracy at the DMP will also be maintained within COP2 limits. |
| What is the impact to other Registrants of your proposed solution? | Why? |
| No impact | No other Registrants are affected |

Site Details (for Site Specific Metering Dispensation)

| | |
|---------------|--|
| Site Name: | Grudie Bridge Power Station |
| Site Address: | Loch Luichart, Garve, Ross-shire, IV23 2QB |
| MSID(s): | <p>The following MPAN meters will remain in their present locations:</p> <p>Achanalt Hydro Generator:</p> <ul style="list-style-type: none"> • Import: xxxxx51768672 • Export; xxxxx51768663 |

| | |
|--|---|
| | <p>Grudie G1 Generator:</p> <ul style="list-style-type: none"> • Import: xxxxx51768575 • Export; xxxxx51768566 <p>Grudie G2 Generator:</p> <ul style="list-style-type: none"> • Import: xxxxx51768636 • Export; xxxxx51768618 |
| Registered in: CMRS / SMRS*: *Delete as applicable. | SMRS |
| For SMRS, please advise of SMRA in space provided. | Scottish Hydro Electric Power Distribution plc |

Manufacturer Details (for Generic Metering Dispensation)

| | |
|-----------------------------|--|
| Manufacturer Name: | |
| Metering Equipment Details: | |

BSCP32/4.1 Application for a Metering Dispensation (Cont.)
Part D - Technical Details
Code of Practice details

| | | | | |
|---|---|----------|-----------|-----------|
| Metering Dispensation against Code of Practice* | COP2 | | | |
| Issue of Code of Practice*: | COP2 Issue 4 v13 | | | |
| Capacity of Metering Circuits/Site Maximum Demand (MW/MVA): | | Achanalt | Grudie G1 | Grudie G2 |
| | Generator Rating / MVA | 3.75 | 7.4 | 13.37 |
| | Circuit Rating / MVA | TBD | 15.4 | 15.4 |
| (Proposed) Commissioning Date of Metering: | N/A (meters are already operational) | | | |
| Accuracy at Defined Metering Point: | As per CoP2 accuracy limits | | | |
| Accuracy of Proposed Solution (including loss adjustments): | <p>Within CoP2 accuracy limits (no loss adjustments used)</p> <p>The accuracy at the DMP will be maintained within COP2 limits since the unmetered losses within the approximately 1m of copper bus-bar of the 11kV switchboard between the AMP and DMP are negligible.</p> | | | |
| Outstanding non-compliances on Metering Systems: | None | | | |
| | | | | |
| Deviations from the Code of Practice (reference to appropriate clause): | <p>1. Metering will remain at the Actual Metering Point rather than move to the new boundary point. (Section 4.3.3 and Appendix A paragraph 7)</p> <p>2. Retain use of existing Class 0.2 CTs. (Section 5.1.1)</p> | | | |
| | | | | |

* insert Code of Practice number and issue

Any Other Technical Information

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Declaration

We declare that other than as set out above we are in all other respects, in compliance with the requirements of the relevant Code of Practice and the BSC. A schematic is attached to this application for clarification of the metering points involved.

Signature: *Date:*

Password:

Duly authorised for and on behalf of Applicant Company

Confirmation of Receipt and Reference

The BSCCo acknowledges receipt of this document and has assigned the reference number as indicated on the first page.

Signature: M Smith..... *Date:* 07/08/2018.....

Duly authorised for and on behalf of the BSCCo