BSCP32/4.1 Application for a Metering Dispensation

Part A – Applicant Details

To: BSCCo	**Date Sent:** 28th March 2023
From: Requesting Applicant Details Name of Sender: (Registrant of Cambridge Arms DSCP) Contact email address: _____	
Contact Tel. No.	Contact Fax. No. N/A
Name of Applicant Company: National Grid Electricity Distribution (West Midlands) plc	
Address:	
Avonbank	
Feeder Road	
Bristol	
Post Code: BS2 0TB	Our Ref: N/A
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: **N/A** 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

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

Part B - Affected Party Details

Number of Affected parties: 5

Does this Metering Dispensation affect the metering arrangements for a generator that has applied for/obtained a CFD Agreement? ☒Yes ☐No

If Yes, you must contact the Low Carbon Contracts Company and advise them of your Metering Dispensation application and include them as an Affected Party.

Have you notified all Affected Parties? ☒Yes ☐No

Contact Name at Affected party:	
Contact email address:	
Contact Tel. No.	Contact Tel. No.
Company Name of Affected party: National Grid Electricity Transmission	
Address: National Grid House	
Warwick Technology Park	
Gallows Hill	
Warwick	
Post Code: CV34 6DA	

Contact Name at Affected party:	
Contact email address:	
Contact Tel. No.	Contact Tel. No.
Company Name of Affected party: National Grid ESO	
Address: Faraday House	
Warwick Technology Park	
Gallows Hill	
Warwick	
Post Code: CV34 6DA	

Contact Name at Affected party: (Registrant of Iron Acton GSP)	
Contact email address:	
Contact Tel. No:	Contact Tel. No.
Company Name of Affected party: National Grid Electricity Distribution (South West) plc	
Address: Avonbank, Feeder Road	
Bristol	
Post Code: BS2 0TB	

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Contact Name at Affected party: (Registrant of Berkley BESS)	
Contact email address:	
Contact Tel. No.	Contact Tel. No.
Company Name of Affected party: SMS Energy Services Limited	
Address: Prennau House	
Copse Walk	
Cardiff Gate Business Park	
Pontprennau	
Cardiff	
Wales	
Post Code: CF23 8XH	

Contact Name at Affected party:	
Contact email address:	
Contact Tel. No.	Contact Tel. No.
Company Name of Affected party: Low Carbon Contracts Company	
Address: 10 South Colonnade	
Canary Wharf	
London	
Post Code: E14 4PU	

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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.*

Describe why you require a Metering Dispensation. Include any steps you propose to limit the impact on Settlement and other Registrants:

A temporary Metering Dispensation (estimated at 3 years - a modApp has been submitted to NGESO) is required for the location of the Metering Equipment associated with the Cambridge Arms (II_CAMBR_ARM), Metering System (MSID 7294).

Background

Four 275/132kV Supergrid Transformer (SGTs) feed the Iron Acton 132kV substation. National Grid Electricity Transmission (NGET) owns the SGTs and the 132kV busbars. Off the 132kV busbars, there are four feeder circuits for National Grid Electricity Distribution (NGED) (South West) – GSP _IROA1, two feeder circuits for NGED (West Midlands) – II_IROA_E and two further feeder circuits for NGED (West Midlands) – II_CAMBR_ARM). More recently, a new BM Unit (T_LARKS-1) was connected to the NGET 132kV busbar.

GSP_IROA1 is metered (under Metering Dispensation D/36) at the low voltage side of the SGTs so all the volumes off the 132kV busbars, to NGED (West Midlands) circuits, are treated as Distribution Systems Connection Points (DSCPs) and differenced off the GSP IROA1 Aggregation Rule at the Grid Supply Point Group Take (GSPGT) level. The new BM Unit (T_LARKS-1) connected to the 132kV busbars is treated as directly connected to the Transmission System and differenced off the GSP_IROA1 Aggregation Rule directly.

NGET also own parts of the two circuits out to Cambridge Arms (II_CAMBR_ARM), up to the point where the circuits used to tee-off to the Oldbury Power Station, which has now been decommissioned and deregistered in Settlement. The Cambridge Arms circuits are metered remotely at Cambridge Arms, to Code of Practice 1, and Line Loss Factors are applied to correct the readings back to the old tee-off and the NGET/NGED (West Midlands) boundary.

NGED (West Midlands) have a requirement to add a new Customer (Berkley BESS) to one of these circuits and this will impact on the II_CAMBR_ARM aggregation in the short term because the connection is ‘above’ the existing Cambridge Arms metering but, it is planned that, longer term (estimated at 3 years), the metering be moved to Iron Acton, which will make the arrangements much simpler. As a temporary measure it is proposed that we add the new Berkley BESS site’s metered data to the Cambridge Arms

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Aggregation Rule. As a new 132kV connection, without any load history, generic Line Loss Factor (LLFs) for the voltage would be applied as per BSCP128. The same LLFs will be used for the Settlement of the new BMU and the addition to the Cambridge Arms Aggregation Rule.

Period of Metering Dispensation required

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

If temporary, indicate for how long the Metering Dispensation is required.	estimated at 3 years

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

Rationale for duration of Metering Dispensation: Time to arrange legal transfer of NGET section between Iron Acton and Oldbury and install appropriate Metering Equipment at Iron Acton.

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Part D1 - Loss Adjustments for Power Transformer and/or Cable/Line Losses

Where loss adjustments are proposed and applied (or are to be applied) to the Metering System or Asset Metering System for power transformer and/or cable/line losses, provide the following information:

Describe how do you propose to correct the Metering System, or Asset Metering System, to account for the losses of this power transformer?

Not applicable. There are no power transformers to consider.

In order to validate the loss adjustments applied (or to be applied) to the Metering System, or Asset Metering System, please provide the following information together with supporting data (e.g. power transformer test certificates):

What are the iron losses for this power transformer?

What are the copper losses for this power transformer?

Are there any other losses that have been taken into account? ~~Yes~~/No*. If Yes what are they?

Demonstrate how these elements of loss have been used in the corrections to the Metering System.

Applied as below

*Delete as applicable.

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Describe how do you propose to correct the Metering System, or Asset Metering System, to account for the losses of the power cable/line?

The existing Aggregation Rule for Cambridge Arms

II_CAMBR_ARMS =

((7294.CAMBARMS_2.AE * LLF) - (7294.CAMBARMS_2.AI * LLF))

+

((7294.CAMBARMS_1.AE * LLF) - (7294.CAMBARMS_1.AI * LLF))

Would have the new BMU added

II_CAMBR_ARMS =

((7294.CAMBARMS_2.AE * LLF) - (7294.CAMBARMS_2.AI * LLF))

+

((7294.CAMBARMS_1.AE * LLF) - (7294.CAMBARMS_1.AI * LLF))

+

((BERKLEY-BESS.AE * LLF2) – (BERKLEY-BESS.AI * LLF2))

Where LLF2 would initially be the generic loss factors for 132kV as published by NGED (West Midlands) and approved by the Panel as per BSCP128

In addition the GSP Group Take for NGED (West Midlands) would have the new site subtracted as a BMU.

where the Aggregation Rule for this will take the form:

BMU_E_ BERKLEY = (BERKLEY-BESS.AE * LLF2) – (BERKLEY-BESS.AI * LLF2)

In order to validate the loss adjustments applied (or to be applied) to the Metering System, or Asset Metering System, please provide the following information together with supporting data (e.g. cable/line manufacturer's data sheet):

What is the type of power cable/line?

Not applicable. LLF will be calculated in accordance with BSCP128.

What is the DC resistance of this power cable/line?

What is the impedance of this power cable/line?

What is the capacitance of this power cable/line?

Are there any other losses that have been taken into account? ~~Yes~~/No*. If Yes what are they?

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Demonstrate how these elements of loss have been used in the corrections to the Metering System, or Asset Metering System. *Delete as applicable.

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Materiality

Please complete the following:

<table>
<tr><td>What is the cost of providing compliant Metering Equipment or Asset Metering Equipment?</td><td>What does this cost entail?</td></tr>
<tr><td>£260,000</td><td>Approx. cost of metering at Iron Acton<table><tr><td>Item</td><td>£k</td></tr><tr><td>Metering Equipment</td><td>140</td></tr><tr><td>Installation contract</td><td>100</td></tr><tr><td>Loose items</td><td>15</td></tr><tr><td>tools</td><td>5</td></tr><tr><td>Total</td><td>260</td></tr></table></td></tr>
<tr><td>What is the cost of the proposed solution?</td><td>What does this cost entail?</td></tr>
<tr><td>Estimated at less than £5,000.</td><td>No Metering Equipment costs. Admin cost for the progression of a Metering Dispensation (including time determining the costs of a fully compliant solution) and updating the Cambridge Arms Aggregation Rule. Data for Berkley will be collected by the CDCA for the E_BM Unit and be pulled into the updated II_CAMBR_ARM Aggregation Rule. SMS, the Registrant of Berkley BESS, have been consulted on this Metering Dispensation and have given their permission for their metered data to be used in the revised Aggregation Rule for Cambridge Arms.</td></tr>
<tr><td>What is the impact to Settlement of your proposed solution?</td><td>Why?</td></tr>
<tr><td>Neutral</td><td>Because the revised Aggregation Rule will take account of all the units and losses.</td></tr>
<tr><td>What is the impact to other Registrants of your proposed solution?</td><td>Why?</td></tr>
<tr><td>Neutral.</td><td>As the metered data and LLF for Berkley BESS will be netted off in the DSCP Aggregation Rule. Acknowledging the fact that using generic LLFs initially will not be as accurate as the final LLF that will be used, as</td></tr>
</table>

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	this is a standard method under BSCP128 until a site specific LLF is determined.

Site Details (for Site Specific Metering Dispensation)

Site Name:	**Cambridge Arms 132kv Switching Station**
Site Address:	Ryalls Lane Slimbridge Adj Glos and Sharpness Canal Gloucestershire GL2 7AU
MSID(s) / ~~AMSID(s)~~: *Delete as applicable.	7294 (MSID for Berkley BESS TBC)
Registered in: CMRS / ~~SMRS / AMRS*:~~ *Delete as applicable.	Yes
For SMRS, please advise of SMRA in space provided.	N/A

Manufacturer Details (for Generic Metering Dispensation)

Manufacturer Name:	Not applicable
Metering Equipment / Asset Metering Equipment Details*: *Delete as applicable	

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Part D - Technical Details

Code of Practice details

Metering Dispensation against Code of Practice*	CoP1
Accuracy of Proposed Solution (including loss adjustments):	CoP1 (Cambridge Arms, including LLF) CoP2 (Berkley BESS, including LLF)
Outstanding non-compliances on Metering Systems *: *Delete as applicable	Actual Metering Points do not coincide with the Defined Metering Point
Deviations from the Code of Practice (reference to appropriate clause):	Cambridge Arms and Berkley BESS: 4.3.3 Compensation for Power Transformer and Line Losses "Subject to Appendix A paragraph 5(ii) where the Actual Metering Point and the Defined Metering Point do not coincide then a Metering Dispensation shall be applied for and, where necessary, accuracy compensation for power transformer and/or line losses shall be provided to meet the overall accuracy at the Defined Metering Point. Where Appendix A paragraph 5(ii) applies a Metering Dispensation shall not be required and accuracy compensation for power transformer and/or line losses (for the purpose of Section K1.1.6 of the Code) shall be provided or applied to meet the overall accuracy required at the Defined Metering Point. The accuracy compensation may be achieved either within the Metering Equipment or within the Data Collector's software. Where accuracy compensation is provided or applied the values used shall be recorded and supporting evidence to justify the accuracy compensation criteria shall be available for inspection by the Panel or Technical Assurance Agent." Appendix A: "3. For transfers between the Transmission System and more than one Distribution System operated by a Licensed Distribution System Operator connected to the same busbar, the DMP shall be at the circuit

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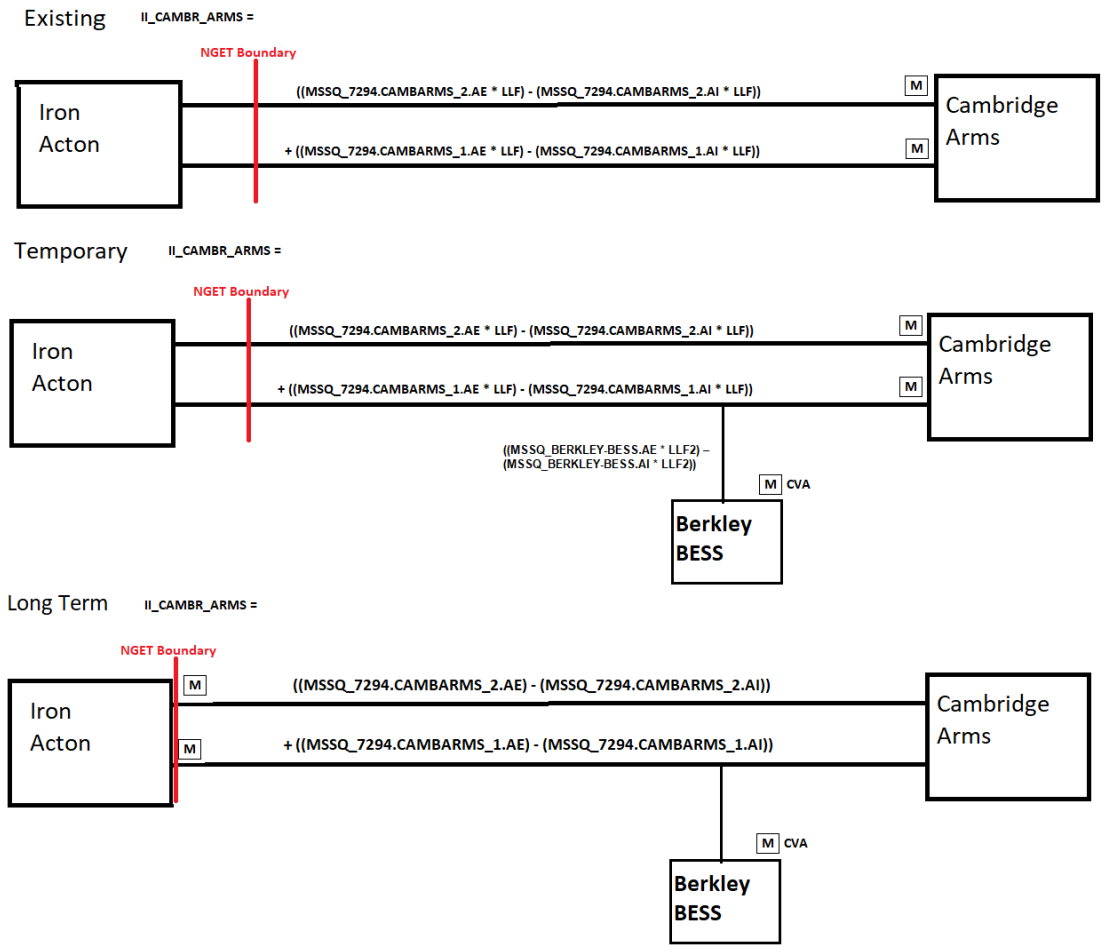
	connections of each Distribution System operated by a Licensed Distribution System Operator to such busbar." In addition, because we want to avoid duplicate metering at the BESS circuit connection to the DSCP, we propose to utilise the BESS metered data instead. Berkley BESS: All relevant clauses of CoP1 in order to meter to CoP2 standards because of the BESS's circuit capacity being <100MVA.

* insert Code of Practice number and issue

Any Other Technical Information

Schematic Line Diagram



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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

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

Signature: *Date: 29 March 2023*

Duly authorised for and on behalf of BSCCo

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