

BSCP32/4.1 Application for a Metering Dispensation

Part A – Applicant Details

To: BSCCo	Date Sent: 07/01/2021
From: Requesting Applicant Details	
Name of Sender: <i>Paul Mewse</i>	
Contact email address:	
Contact Tel. No.	Contact Fax. No. _____
Name of Applicant Company: <i>Moray Offshore Windfarm (East) Ltd</i>	
Address: <i>C/O Shepherd And Wedderburn Llp, Condor House, 10 St. Paul's Churchyard, London</i>	
Post Code: <i>EC4M 8A</i>	Our Ref: _____
Name of Authorised Signatory:	
<i>Paul Mewse</i>	
Authorised Signature: _____	Password:

Confidentiality:

Does any part of this application form contain confidential information?

Request for Confidentiality **YES**

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

The applicant would request that the Single Line Diagram provided is kept confidential.

Reasons for requesting confidentiality:

This document contains information that could be potentially commercially sensitive

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: 3¹

Contact Name at Affected party: <i>Thomas McCormack</i>	
Contact email address:	
Contact Tel. No.	Contact Tel. No.
Company Name of Affected party: <i>SHETL</i>	
Address:	
<i>Inveralmond House, 200 Dunkeld Road, Perth</i>	
Post Code: <i>PH1 3AQ</i>	

Contact Name at Affected party: <i>T.B.C.</i>	
Contact email address: <i>T.B.C.</i>	
Contact Tel. No. <i>T.B.C.</i>	Contact Tel. No.
Company Name of Affected party: <i>Future OFTO - T.B.C.</i>	
Address:	
<i>T.B.C.</i>	
Post Code: <i>T.B.C.</i>	

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: <i>Sharif Dawoud</i>	
Contact email address:	
Contact Tel. No.	Contact Tel. No.
Company Name of Affected party: <i>Low Carbon Contracts Company</i>	
Address: <i>Fleetbank House</i> <i>2-6 Salisbury Square, London</i>	
Post Code: <i>EC4Y 8JX</i>	

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

Part C – Reason for Application

An oversight in the design of the offshore platform (OSP) LV electrical system, has led to an un-metered boundary point between the wind farm and the offshore transmission system (OTS), on each of the 3 OSPs that comprise Moray East Offshore Wind Farm.

The boundary point is located between the wind farm owned 175kVA 66/0.4kV auxiliary transformer, AT1, and an OFTO owned 400V distribution board which supplies small, LV rated loads.

AT1 is included as a backup, the main supply to this distribution board is from the OFTO owned 175kVA 66/0.4kV auxiliary transformer, ET1. AT1 and ET1 are interlocked electrically, in such a way that AT1 can only operate if ET1 is not connected.

See the attached drawing (8460001-TEB0030-MWE-DRW-011 and reference drawings) for an illustration of these boundary points.

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:

Without a dispensation, the commissioning of the wind farm and the start of its commercial operation might be delayed. This will have a significant impact on the anticipated revenue of this project.

	Energisation (EON)	WTG Generation (ION B)
MOWEO-2	18 March 21	9 April 21
MOWEO-3	9 April 21	11 May 21
MOWEO-1	1 May 21	7 June 21

The cost of retrofitting tariff meters now when the substations are already installed offshore, would require very significant effort, and would have negligible impact on the amount of energy metered. This cost is estimated to be ~£750,000.

In normal operation the OFTO will feed these LV auxiliary loads from its own auxiliary transformer, ET1.

Should ET1 be out of service, AT1 will provide the power to 400V distribution board and thus the LV auxiliary supplies.

As AT1 is fed directly from the wind farm's 66kV busbar, the power consumed by the LV auxiliary supplies will be from the wind farm's own generation, when there is sufficient power available at that PPM.

If, during this contingency, the PPM is unable to meet the demand from LV auxiliary load from its own generation, power will be imported from NETS via the OFTO and these volumes will be measured as imports on the CoP1 meter at the HV boundary point.

As a result of the above, Moray East Offshore Wind Farm Limited does not wish to measure the LV auxiliary supplies to OFTO assets through its own auxiliary transformers on the offshore platforms, at the Moray East Offshore Wind Farm, under contingency operation.

Period of Metering Dispensation required

Lifetime Dispensation

If temporary, indicate for how long the Metering Dispensation is required.	<i>not relevant, Lifetime Dispensation required</i>
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Provide justified reasoning for the period of Metering Dispensation requested in the box below:

Rationale for duration of Metering Dispensation:

This boundary point is not in use during normal operation and is only required in the unlikely event of a transformer outage. Additionally, the loss of revenue associated with the worst-case outcome is relatively small.

It is very likely that due to the high cost associated with retrofitting a meter at the LV boundary point, it will not be cost effective to do so at any point during the operational lifetime of the wind farm.

For these reasons, we are applying for a Lifetime Metering Dispensation.

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 for power transformer and/or cable/line losses, provide the following information:

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

not relevant, DMP is unmetered

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

not relevant, DMP is unmetered

What are the iron losses for this power transformer?

not relevant, DMP is unmetered

What are the copper losses for this power transformer?

not relevant, DMP is unmetered

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

not relevant, DMP is unmetered

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

not relevant, DMP is unmetered

*Delete as applicable.

Materiality

Please complete the following:

What is the cost of providing compliant Metering Equipment?	What does this cost entail?
£750,000	<ul style="list-style-type: none"> • Re – work of platform LV electrical design; • Meter and associated metering equipment; • commissioning and installation; • transportation to offshore location.
What is the cost of the proposed solution?	What does this cost entail?
£0	Not Applicable
What is the impact to Settlement of your proposed solution?	Why?
For each of the 3 PPMs that comprise Moray East Offshore Wind Farm, there is a very low probability that energy consumed by some of the auxiliary loads owned by the OFTO will not be metered.	<p>There are multiple ways of supplying these loads, which are interlocked with each other.</p> <ul style="list-style-type: none"> • Via OFTO owned transformer, ET1; • Via wind farm during owned transformer, AT1, during ET1 outage; • Via OFTO owned diesel generator, as emergency backup. <p>The wind farm owned supply via AT1 is not metered.</p>
What is the impact to other Registrants of your proposed solution?	Why?
There is no impact on other Registrants	Unmetered volumes are exclusively generated by the wind farm.

Site Details (for Site Specific Metering Dispensation)

Site Name:	<i>Moray East 220/66kV Offshore Substation Platforms 1 (ME-OSP1), 2 (ME-OSP2) & 3 (ME-OSP3).</i>
Site Address:	<i>ME-OSP1 (355107.34, 915454.81), ME-OSP2 (356805.18, 925571.21) & ME-OSP3 (361363.28, 919809.44). NOTE: Address given as OS Grid Reference (X_OSBNG36, Y_OSBNG36)</i>
MSID(s):	<i>8762</i>
Registered in: CMRS / SMRS*: *Delete as applicable.	<i>CMRS</i>

Manufacturer Details (for Generic Metering Dispensation)

Manufacturer Name:	<i>not relevant</i>
Metering Equipment Details:	<i>not relevant</i>

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Part D - Technical Details

Code of Practice details

Metering Dispensation against Code of Practice*	<i>Code of Practice 5: The Metering of Energy Transfers with Max Demand of up to (and including) 1MW for Settlement Purposes. Version 15.0, Issue 6.</i>																										
Issue of Code of Practice*:	<i>Version 15.0, Issue 6.</i>																										
Capacity of Metering Circuits/Site Maximum Demand (MW/MVA):	175kVA																										
(Proposed) Commissioning Date of Metering:	<i>Not relevant</i>																										
Accuracy at Defined Metering Point:	<p><i>As per Accuracy Requirements of Code of Practice 5, Version 15.0, Issue 6.</i></p> <p>(i) Active Energy</p> <table border="1"> <thead> <tr> <th rowspan="2">CONDITION</th> <th colspan="2">LIMIT OF ERRORS AT STATED SYSTEM POWER FACTOR</th> </tr> <tr> <th>Power Factor</th> <th>Limits of Error</th> </tr> </thead> <tbody> <tr> <td>100% to 20% inclusive</td> <td>1</td> <td>± 1.5%</td> </tr> <tr> <td>Below 20% to 5%</td> <td>1</td> <td>± 2.5%</td> </tr> <tr> <td>100% to 20% inclusive</td> <td>0.5 lag and 0.8 lead</td> <td>± 2.5%</td> </tr> </tbody> </table> <p>* for whole current metering percentage relates to I_{max}.</p> <p>(ii) Reactive Energy</p> <table border="1"> <thead> <tr> <th rowspan="2">CONDITION</th> <th colspan="2">LIMIT OF ERRORS AT STATED SYSTEM POWER FACTOR</th> </tr> <tr> <th>Power Factor</th> <th>Limits of Error</th> </tr> </thead> <tbody> <tr> <td>100% to 20% inclusive</td> <td>Zero</td> <td>± 4.0%</td> </tr> <tr> <td>100% to 20% inclusive</td> <td>0.866 lag and 0.866 lead</td> <td>± 5.0%</td> </tr> </tbody> </table> <p>* for whole current metering percentage relates to I_{max}.</p>		CONDITION	LIMIT OF ERRORS AT STATED SYSTEM POWER FACTOR		Power Factor	Limits of Error	100% to 20% inclusive	1	± 1.5%	Below 20% to 5%	1	± 2.5%	100% to 20% inclusive	0.5 lag and 0.8 lead	± 2.5%	CONDITION	LIMIT OF ERRORS AT STATED SYSTEM POWER FACTOR		Power Factor	Limits of Error	100% to 20% inclusive	Zero	± 4.0%	100% to 20% inclusive	0.866 lag and 0.866 lead	± 5.0%
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Accuracy of Proposed Solution (including loss adjustments):	<i>Not applicable – proposed solution is to leave boundary point unmetered</i>																										
Outstanding non-compliances on Metering Systems:	<i>No non-compliances</i>																										
Deviations from the Code of Practice (reference to appropriate clause):	<i>Moray Wind Farm (East) are proposing to leave the Defined Metering Point unmetered</i>																										

* insert Code of Practice number and issue

Any Other Technical Information

No other technical information is being provided

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:* 07/01/2021

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: CDay *Date:* 12 Jan 2021

Duly authorised for and on behalf of BSCCo