

BSCP32/4.1 Application for a Metering Dispensation

Part A – Applicant Details

To: BSCCo	Date Sent: 17 th Aug 2020
From: Requesting Applicant Details	
Name of Sender:	
Contact email address:	
Contact Tel. No.:	Contact Fax. No.:
Name of Applicant Company: Triton Knoll Offshore Wind Farm Limited	
Address: Windmill Hill Business Park,	
Whitehill way,	
Swindon,	
Post Code: SN5 6PB	Our Ref:
Name of Authorised Signatory:	
Authorised Signature:	Password:
Signature	

Confidentiality:

Does any part of this application form contain confidential information?

Request for Confidentiality: NO

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: Triton Knoll OFTO¹**Number of Affected parties: 1 ²

Contact Name at Affected party:	
Contact email address:	
Contact Tel. No:	Contact Tel. No.
Company Name of Affected party: TK OFTO (Triton Knoll Offshore Wind Farm Limited acting for and on behalf the future OFTO)	
Address:	Windmill Hill Business Park
	Whitehill Way
	Swindon
Post Code: SN5 6PB	

¹ The Triton Knoll OFTO will be selected in the Ofgem led competitive tender process (expected in 2022). Until this point Triton Knoll Offshore Wind Farm Limited is responsible for the design, construction, commissioning and operation of the offshore transmission assets

² For more than one Affected party, Part B should be completed for each, using additional copies of Part B as required.

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

As shown on the diagram ref: 2505-TKN-ENG-E-XK-2952116 the auxiliary power to each offshore substation can be provided from three different supplies:

- the OFTO owned Earthing and Auxiliary Transformer ET1 and ET2 for Triton Knoll East and Triton Knoll West offshore substations respectively or
- wind farm owned Auxiliary Transformers Aux 1 and Aux 2 or
- the OFTO owned emergency diesel generator.

All three supplies are interlocked with automatic switchover facility i.e. the auxiliary loads are normally supplied from (a), if this is not available due to forced or maintenance outage the supplies switch to (b) and if both are not available the supplies are drawn from the emergency diesel generator (c).

During the normal operation (a) the wind farm main power transfer to/from the transmission network will be metered by the main CoP1 meters and auxiliary power will be metered by COP5 meters shown on the diagram. In the contingency operation all auxiliary power to the offshore substation will be supplied by the Generator (including wind farm and OFTO auxiliary loads – supplies to the OFTO equipment will be provided free of charge). Power for the auxiliary supplies will be generated by the wind turbines or imported from the transmission system via CoP1 meters on the alternative offshore substation.

Such operation will be infrequent and for limited duration (mainly during the transformer maintenance activities) and hence the Triton Knoll Wind Farm will regard auxiliary supplies to the OFTO's equipment during this period as its own internal losses.

Installation of tariff meter at the location where the Applicant will supply some power to the OFTO (without possibility to draw any power) only in the contingency operation condition which will be infrequent and for limited duration of time was believed not to be required during the design stage. Retrofitting tariff meters at this point in time when substation is already installed offshore would require very significant effort and would have negligible impact on the amount of energy metered.

Based on the availability study completed for the project the maintenance/faults duration which would result in the wind farm operation in condition (b) is ~25h/year. With the average power consumption of about 60kW and Triton Knoll CfD energy cost of 72.5£/MWh this gives loss of circa £110/year.

The value of energy which is supplied without being metered is marginal and is being provided by Applicant to the transmission system free of charge.

Period of Metering Dispensation required

Lifetime

If temporary, indicate for how long the Metering Dispensation is required.	N/A
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Provide justified reasoning for the period of Metering Dispensation requested in the box below:

Installation of tariff meters at this point in time and for very limited power demand is not practicable / cost effective on the wind farm during construction or later during the operation.

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?

N/A

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):

N/A

What are the iron losses for this power transformer?

N/A

What are the copper losses for this power transformer?

N/A

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

N/A

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

N/A

*Delete as applicable.

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

N/A

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. cable/line manufacturer's data sheet):

What is the type of power cable/line?

What is the length of this power cable/line?

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?

N/A

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

N/A

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

N/A

*Delete as applicable.

Materiality

Please complete the following:

What is the cost of providing compliant Metering Equipment?	What does this cost entail?
<p>Installation cost approximately £500k (the expected cost is significant due to the fact that substations are installed offshore and installation of new equipment would require modification to the equipment and cable management (breaking and re-instating some fire seals).</p> <p>This figure above doesn't include costs of delays to commissioning and energisation programme of the entire wind farm project which could be caused by metering modifications – these costs are very difficult to estimate but would be significantly higher.</p>	<ul style="list-style-type: none"> - cost of retrofitting CTs - installation of the meters and associated network equipment - modification to the existing metering equipment to accommodate the new COP5 meters - install side cabling (break fire seals) - testing and commissioning offshore
What is the cost of the proposed solution?	What does this cost entail?
No additional cost	N/A
What is the impact to Settlement of your proposed solution?	Why?
No impact	
What is the impact to other Registrants of your proposed solution?	Why?
None during normal operation (or very small positive impact to the offshore transmission in the contingency condition)	During the normal operation all power will be correctly metered. In the contingency operation small amount of power generated or imported by the Generator will be provided free of charge to the TK OFTO (worth circa £110 p.a.)

Site Details (for Site Specific Metering Dispensation)

Site Name:	Triton Knoll Offshore Wind Farm
Site Address:	Wind farm located offshore

MSID(s):	7406
Registered in: CMRS / SMRS*: *Delete as applicable.	CMRS
For SMRS, please advise of SMRA in space provided.	N/A

Manufacturer Details (for Generic Metering Dispensation)

Manufacturer Name:	N/A
Metering Equipment Details:	N/A

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

Part D - Technical Details**Code of Practice details**

Metering Dispensation against Code of Practice*	CoP5
Issue of Code of Practice*:	Issue 6 (v15.0)
Capacity of Metering Circuits/Site Maximum Demand (MW/MVA):	Typical loads to the auxiliary loads on the offshore substation are 60kVA for the OFTO and 30kVA for the Generator. The respective peak loads 100kVA and 50kVA. Rating of the Auxiliary transformer is 175kVA.
(Proposed) Commissioning Date of Metering:	TBC (Nov / Dec 2020)
Accuracy at Defined Metering Point:	+/-2%
Accuracy of Proposed Solution (including loss adjustments):	+/-2% (all energy is accounted for through the CoP1 meters on the adjacent substation)
Outstanding non-compliances on Metering Systems:	none
Deviations from the Code of Practice (reference to appropriate clause):	CoP5 - all clauses as no metering is installed at the DMP

* 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

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

Signature: *Date:*

Duly authorised for and on behalf of BSCCo