

Stage 01: Code Administrator Consultation

Connection and Use of System Code (CUSC)

CMP234

‘Incorporation of Biddable Indexation of OFTO revenues in TNUoS’

What stage is this
document at?

01

Code Administrator
Consultation

02

Draft CUSC
Modification Report

03

Final CUSC
Modification Report

This proposal seeks to change the indexation of local Offshore Transmission Network Use of System tariffs to match the rate applied to each Offshore Transmission Owner’s (OFTOs) revenue under their licence instead of Retail Price Index (RPI).

Published on: 3rd September 2014
Responses by: 24th September 2014



National Grid opinion:

CMP234 should be implemented as it better facilitates
Applicable CUSC Objective (a).



Low Impact:

Offshore Generators

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Any Questions?

Contact:

Jade Clarke

Code Administrator



Jade.Clarke@nationalgrid.com



01926 653606

About this document

The purpose of this document is to consult on CMP234 with CUSC Parties and other interested industry members. Representations received in response to this consultation document will be included in the Code Administrator's CUSC Modification Report that will be furnished to the CUSC Panel for their decision.

Proposer:

Wayne Mullins

National Grid



Wayne.Mullins@nationalgrid.com



01926 653999

Document Control

Version	Date	Author	Change Reference
1.0	3 rd September 2014	Code Administrator	Version to Industry

1 Summary

- 1.1 This document describes the CMP234 Modification Proposal and seeks views from industry members relating to the proposal.
- 1.2 CMP234 was proposed by National Grid Electricity Transmission Plc (the Proposer) and was submitted to the CUSC Modifications Panel (the Panel) for their consideration on 29th August 2014. A copy of the Proposal form is provided in Annex 1 of this document. The Panel determined that CMP234 should be considered as Self-Governance and should progress directly to Code-Administrator Consultation for the standard 15 Business Days. A copy of the Self-Governance statement can be found in Annex 2.
- 1.3 CMP234 aims to change the indexation of local Offshore Transmission Network Use of System tariffs to match the rate applied to each Offshore Transmission Owner's (OFTOs) revenue under their licence instead of Retail Price Index (RPI).
- 1.4 This Code Administrator Consultation has been prepared in accordance with the Terms of the CUSC. An electronic copy can be found on the National Grid Website, <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/Current/> , along with the CUSC Modification Proposal Form.

CUSC Modification Panel's View

- 1.5 At the CUSC Modifications Panel meeting on 29th August 2014, the Panel unanimously agreed that CMP234 should be considered as Self Governance and should therefore proceed directly to Code Administrator Consultation for a period of 15 Business Days.

National Grid's Initial View

- 1.6 National Grid supports the implementation of CMP234 as it better facilitates Applicable Objectives (a), (b) and (c). National Grid's view is that the modification ensures that local Offshore TNUoS charges remain cost reflective by accounting for changes to the OFTO licence terms under Tender Round 3 (TR3). This in turn facilitates competition by ensuring that generators connecting to transmission assets subject to TR3 are charged on an equivalent basis to those connecting to assets subject to earlier tender rounds.

2 Background

- 2.1 Under Offshore Tender Rounds 1 and 2 (TR1 and TR2), the allowed revenue of each appointed Offshore Transmission Owner (OFTO) is fully indexed annually to Retail Price Index (RPI).
- 2.2 Going forward (under Tender Round 3), Ofgem have introduced the option for bidders to specify the proportion of OFTO revenue that they wish to be indexed to RPI. Under these arrangements¹, OFTOs will be able to index a fixed proportion of their annual revenue to RPI and have the remaining proportion of their revenue not indexed to RPI (remaining constant).
- 2.3 As part of the Transmission Network Use of System (TNUoS) charging methodology, generators connecting to an offshore network pay local TNUoS charges. These are based upon the level of OFTO revenue associated with each offshore transmission asset. The charges are set upon the OFTO taking ownership of the assets and are re-evaluated at the start of each onshore price control period. In all other years, the charges are fully indexed to RPI.
- 2.4 For an OFTO whose revenue is fully indexed to RPI, the local TNUoS charges associated with their assets should reflect the associated revenue year-on-year as both are indexed in the same manner. However, for an OFTO whose revenue is only partially linked to RPI, the indexation of the local TNUoS charges by RPI will result in charges to the generator that increase more rapidly than the associated revenue.

¹ <http://www.ofgem.gov.uk/ofgem-publications/86475/decisionlettertr3licence.pdf>

3 Modification Proposal

- 3.1 CMP234 aims to adjust the indexation of Local TNUoS charges relating to Offshore transmission assets within the TNUoS charging methodology to match that applied to the revenue of the associated OFTO. This would ensure that the link between OFTO revenue and TNUoS charges established for offshore projects forming part of Tender Rounds 1 and 2 would be maintained for those under Tender Round 3.
- 3.2 For Local Substation tariffs, the solution would be to simply change the existing reference to RPI indexation of the tariff to refer to the rate of indexation applied to the OFTO's revenue under the terms of their Licence.
- 3.3 For Local Circuit tariffs, the solution is slightly more complex. For each generator connecting to Local Offshore assets the Local Circuit tariff is currently calculated as follows;

Local Circuit Tariff = Marginal MWkm * Expansion Constant * Local Security Factor * Expansion Factor

Marginal MWkm: the additional amount of network required to facilitate an additional 1MW of generation from the site concerned (in MWkm);

Expansion Constant: the unit cost of 400kV overhead line (in £/MWkm);

Local Security Factor: a number representing the additional amount of capacity installed on the local network to provide additional security (a number up to 1.8); and

Expansion Factor: the ratio of the unit cost of a circuit to the unit cost of 400kV overhead line.

- 3.4 The tariff is effectively indexed to RPI through the indexation of the expansion constant. As this is a global variable that is used in the calculation of all Local Circuit and Wider Zonal tariffs, it is not possible to apply a different indexation rate direct to this variable without affecting the calculation of other tariffs. Instead, it is proposed that the indexation is adjusted through the expansion factor.
- 3.5 The first step would be to divide the expansion factor by the indexation rate that has been applied to the expansion constant to effectively undo the RPI indexation. The second step is to index the result by the indexation rate applied to the OFTO's revenue under the terms of its licence.
- 3.6 The level of indexation applied to each OFTO's revenue (and hence tariffs under the Proposal) will be published as part of their Statement of Basis of Transmission Charges. This document is published under the terms of each OFTO's licence and states parameters used to calculate their annual revenue, including annual indexation rates. In addition, to ensure that such information can be found in a single location, National Grid has indicated that it intends to publish this information as part of its charging documentation (although such publication does not form part of the Proposal).

4 Proposed Implementation and Transition

- 4.1 It is proposed that if CMP234 is approved for implementation by the CUSC Panel, there will be a 15 day appeals window commencing on 31st October 2014 and closing on 21st November 2014. Subject to any appeals, CMP234 will be implemented at the start of the following charging period on 1st April 2015.

Impact on the CUSC

- 5.1 CMP234 seeks to change CUSC Section 14, paragraphs;
 - 14.15.63
 - 14.15.87
- 5.2 The CMP234 draft legal text can be found in Annex 3.

Impact on Greenhouse Gas Emissions

- 5.3 None identified.

Impact on Core Industry Documents

- 5.4 None identified.

Impact on other Industry Documents

- 5.5 None identified.

Assessment against the Applicable CUSC Objectives

- 6.1 For reference, the Applicable CUSC Objectives, as defined in the Transmission Licence are:
- (a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
 - (b) That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage connection);
 - (c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses.
 - (d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

National Grid's Initial View

- 6.2 National Grid supports the implementation of CMP234 as it meets Applicable CUSC Objective (a), (b) and (c).
- 6.3 The proposed changes will maintain the link between local TNUoS charges for offshore assets and the associated OFTO revenues following the introduction of biddable indexation. As the OFTO revenue is linked to asset value and associated costs such as financing and maintenance costs, the proposal will maintain cost reflectivity of the associated charges, better achieving applicable objective (b).
- 6.4 In addition, this change will facilitate competition by ensuring that local TNUoS charges for offshore generation associated with tender round 3 reflect the associated OFTO revenues in an equivalent manner to those under tender rounds 1 & 2. This better facilitates applicable objective (a).
- 6.5 Finally, the proposed solution aims to take account of changes implemented to the manner in which OFTO revenues are calculated under the terms of their licence, properly taking account of these developments in OFTO's transmission businesses, better facilitating applicable objective (c).

7 How to Respond

7.1 If you wish to respond to this Code Administrator Consultation, please use the response pro forma which can be found under CMP234 at the following link;

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP234/>

7.2 Responses are invited to the following questions;

1. **Do you believe that CMP234 better facilitates the Applicable CUSC Objectives set out in paragraph 6.1? Please include your reasoning.**
2. **Do you support the proposed implementation approach?**
3. **Do you agree with the decision to progress CMP234 through the Self-Governance route?**
4. **Do you have any other comments?**

7.3 Views are invited on the proposals outlined in this consultation, which should be received by **5pm** on **24th September 2014**. Please email your formal response to:

Cusc.team@nationalgrid.com

7.4 If you wish to submit a confidential response, please note the following:

Information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non confidential response.

Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private & Confidential".

CUSC Modification Proposal Form (for Charging Methodology Proposals) CMP234

Connection and Use of System Code (CUSC)

Title of the CUSC Modification Proposal
Incorporation of Biddable Indexation of OFTO revenues in TNUoS
Submission Date
19 th August 2014
Description of the Issue or Defect that the CUSC Modification Proposal seeks to address
<p>Under Offshore Tender Rounds 1 and 2, the allowed revenue of each appointed OFTO (Offshore Transmission Owner) is fully indexed annually to RPI (Retail Price Index). Going forward (under Tender Round 3), Ofgem have introduced the option for bidders to specify the proportion of OFTO revenue that they wish to be indexed to RPI (https://www.ofgem.gov.uk/ofgem-publications/86475/decisionlettertr3licence.pdf). Under these arrangements, OFTOs will be able to index a fixed proportion of their annual revenue to RPI and have a proportion that is not indexed to RPI (remaining constant).</p> <p>As part of the TNUoS (Transmission Network Use of System) charging methodology, generators connecting to an offshore network pay Local TNUoS charges. These are based upon the level of OFTO revenue associated with each offshore transmission asset. The charges are set upon the OFTO taking ownership of the assets and re-evaluated at the start of each onshore price control period. In all other years, the charges are fully indexed to RPI.</p> <p>For an OFTO whose revenue is fully indexed to RPI, the local TNUoS charges associated with their assets should reflect the associated revenue year-on-year as both are indexed in the same manner. However, for an OFTO whose revenue is only partially linked to RPI, the indexation of the local TNUoS charges by RPI will result in charges to the generator that increase more rapidly than the associated revenue.</p>
Description of the CUSC Modification Proposal
The modification would adjust the indexation of Local TNUoS charges relating to Offshore transmission assets within the TNUoS charging methodology to match that applied to the revenue of the associated OFTO. This would ensure that the link between OFTO revenue and charges established for offshore projects forming part of tender rounds 1 and 2 would be

maintained for those under tender round 3.

For Local Substation tariffs, the solution would be to simply change the existing reference to RPI indexation of the tariff to refer to the rate of indexation applied to the OFTO's revenue under the terms of their Licence.

For Local Circuit tariffs, the solution is slightly more complex. For each generator connecting to Local Offshore assets the Local Circuit tariff is calculated as follows

Local Circuit Tariff = Marginal MWkm * Expansion Constant * Local Security Factor * Expansion Factor

where:

- Marginal MWkm is the additional amount of network required to facilitate an additional 1MW of generation from the site concerned (in MWkm);
- Expansion Constant is the unit cost of 400kV overhead line (in £/MWkm);
- Local Security Factor is a number representing the additional amount of capacity installed on the local network to provide additional security (a number up to 1.8); and
- Expansion Factor is the ratio of the unit cost of a circuit to the unit cost of 400kV overhead line.

The tariff is effectively indexed to RPI through the indexation of the expansion constant. As this is a global variable that is used in the calculation of all Local Circuit and Wider Zonal tariffs, it is not possible to apply a different indexation rate direct to this variable without affecting the calculation of other tariffs. Instead, it is proposed that the indexation is adjusted through the expansion factor.

The first step would be to divide the expansion factor by the indexation rate that has been applied to the expansion constant to effectively undo the RPI indexation. The second step is to index the result by the indexation rate applied to the OFTO's revenue under the terms of its licence.

The attached document provides suggested legal text for the modification.

Impact on the CUSC

Changes to paragraphs 14.15.63 and 14.15.87. (Suggested legal text attached).

Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes / No

No.

Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information

BSC

Grid Code

STC

Other
(please specify)

None.

Urgency Recommended: Yes / No

No.

Justification for Urgency Recommendation

N/A

Self-Governance Recommended: Yes / No

Yes

Justification for Self-Governance Recommendation

This proposal has been raised as a result of OFTO licence changes which allow biddable indexation of OFTO revenues under tender round 3 (which have already been approved). The purpose of the proposal is to reflect these changes in the calculation of Local charges related to offshore assets, whilst preserving the existing principle of directly linking TNUoS charges for Offshore assets to the associated OFTO revenue.

Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?

Yes.

Impact on Computer Systems and Processes used by CUSC Parties:

No significant impact.

Details of any Related Modification to Other Industry Codes

None.

Justification for CUSC Modification Proposal with Reference to Applicable CUSC Objectives for Charging:

Please tick the relevant boxes and provide justification for each of the Charging Methodologies affected.

Use of System Charging Methodology

- (a) that compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
- (b) that compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage connection);
- (c) that, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses.
- (d) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.
These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1.

Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

Full justification:

The proposed changes will maintain the link between local TNUoS charges for offshore assets and the associated OFTO revenues following the introduction of biddable indexation. As the OFTO revenue is linked to asset value and associated costs such as financing and maintenance costs, the proposal will maintain cost reflectivity of the associated charges, better achieving applicable objective (b).

In addition, this change will facilitate competition by ensuring that local TNUoS charges for offshore generation associated with tender round 3 reflect the associated OFTO revenues in an equivalent manner to those under tender rounds 1 & 2. This better facilitates applicable object

(a).

Finally, the proposed solution aims to take account of changes implemented to the manner in which OFTO revenues are calculated under the terms of their licence, properly taking account of these developments in OFTOs' transmission businesses (better facilitating applicable objective (c)).

Additional details

Details of Proposer: (Organisation Name)	Wayne Mullins National Grid Electricity Transmission Plc
Capacity in which the CUSC Modification Proposal is being proposed: (i.e. CUSC Party, BSC Party or "National Consumer Council")	CUSC Party
Details of Proposer's Representative: Name: Organisation: Telephone Number: Email Address:	Wayne Mullins National Grid Electricity Transmission Plc 01926 653999 wayne.mullins@nationalgrid.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Andrew Wainwright National Grid Electricity Transmission Plc 01926 655944 andrew.wainwright@nationalgrid.com
Attachments (Yes/No): Yes If Yes, Title and No. of pages of each Attachment: Suggested Legal Text (2 Pages)	

Contact Us

If you have any questions or need any advice on how to fill in this form please contact the Panel Secretary:

E-mail cusc.team@nationalgrid.com

Phone: 01926 653606

For examples of recent CUSC Modifications Proposals that have been raised please visit the National Grid Website at <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/Current/>

Submitting the Proposal

Once you have completed this form, please return to the Panel Secretary, either by email to jade.clarke@nationalgrid.com and copied to cusc.team@nationalgrid.com, or by post to:

Jade Clarke
CUSC Modifications Panel Secretary, TNS
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

If no more information is required, we will contact you with a Modification Proposal number and the date the Proposal will be considered by the Panel. If, in the opinion of the Panel Secretary, the form fails to provide the information required in the CUSC, the Proposal can be rejected. You will be informed of the rejection and the Panel will discuss the issue at the next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform you.

CMP234 – Proposed legal text (numbering based upon pre-CMP213 baseline)

Offshore Circuit Expansion Factors

14.15.59 Offshore expansion factors (£/MWkm) are derived from information provided by Offshore Transmission Owners for each offshore circuit. Offshore expansion factors are Offshore Transmission Owner and circuit specific. Each Offshore Transmission Owner will periodically provide, via the STC, information to derive an annual circuit revenue requirement. The offshore circuit revenue shall include revenues associated with the Offshore Transmission Owner’s reactive compensation equipment, harmonic filtering equipment, asset spares and HVDC converter stations.

14.15.60 In the first year of connection, the offshore circuit expansion factor would be calculated as follows:

$$\frac{CRevOFTO1}{L \times CircRat} \div \text{Onshore 400kV OHL Expansion Constant}$$

Where:

- CRevOFTO1 = The offshore circuit revenue in £ for Year 1
- L = The total circuit length in km of the offshore circuit
- CircRat = The continuous rating of the offshore circuit

14.15.61 In all subsequent years, the offshore circuit expansion factor would be calculated as follows:

$$\frac{AvCRevOFTO}{L \times CircRat} \div \text{Onshore 400kV OHL Expansion Constant}$$

Where:

- AvCRevOFTO = The annual offshore circuit revenue averaged over the remaining years of the onshore National Electricity Transmission System Operator (NETSO) price control
- L = The total circuit length in km of the offshore circuit
- CircRat = The continuous rating of the offshore circuit

14.15.62 For the avoidance of doubt, the offshore circuit revenue values, *CRevOFTO1* and *AvCRevOFTO* shall be determined using asset values after the removal of any One-Off Charges.

14.15.63 Prevailing OFFSHORE TRANSMISSION OWNER specific expansion factors will be published in this statement. ~~These shall be re-calculated at the start of each price control when the onshore expansion constants are revisited.~~ These shall be recalculated at the start of each price control period using the formula in paragraph 14.15.61. For each subsequent year within the price control period, these expansion factors will be adjusted by the annual Offshore Transmission Owner specific indexation factor, *OFTOInd*, calculated as follows;

$$OFTOInd_{t,f} = \frac{OFTORevInd_{t,f}}{RPI_t}$$

Comment [j1]: New formula

where:

- $OFTOInd_{t,f}$ = the indexation factor for Offshore Transmission Owner f in respect of charging year t ;
- $OFTORevInd_{t,f}$ = the indexation rate applied to the revenue of Offshore Transmission Owner f under the terms of its Transmission Licence in respect of charging year t ; and
- RPI_t = the indexation rate applied to the expansion constant in respect of charging year t .

Offshore substation local tariff

- 14.15.83 All offshore chargeable generation is subject to an offshore substation tariff. The offshore substation tariff shall be the sum of transformer, switchgear and platform components.
- 14.15.84 Each tariff component, expressed in £/kW, shall be the ratio of the Offshore Transmission Owner revenue (£) and rating associated with the transformers, switchgear or platform (kW) at each offshore substation. The Offshore Transmission Owner revenue of each tariff component shall include that associated with asset spares. In the case of the platform component, the relevant rating shall be the lower of the transformer or switchgear ratings. As with the offshore circuit expansion factors, the Offshore Transmission Owner revenue associated with each tariff component shall be averaged over the remaining years of the NETSO price control.
- 14.15.85 Offshore Transmission Owner revenue associated with interest during construction and project development overheads will be attributed to the relevant asset category with which it is associated. If these or any other costs included in the Offshore Transmission Owner revenue are not readily attributable to a given asset category, they will be pro-rated across the various asset categories based on their relative cost.
- 14.15.86 For 2010/11 a discount of £0.345590/kW shall be provided to the offshore substation tariff to reflect the average cost of civil engineering for onshore substations. This will be inflated by RPI each year and reviewed every price control period.
- 14.15.87 Offshore substation tariffs shall be ~~inflated by RPI each year and reviewed every price control period.~~ reviewed at the start of every onshore price control period. For each subsequent year within the price control period, these shall be inflated in the same manner as the associated Offshore Transmission Owner Revenue.
- 14.15.88 The revenue from the offshore substation local tariff is calculated by:

$$SLTR = \sum_{\substack{\text{All offshore} \\ \text{substations}}} \left(SLT_k \times \sum_k Gen_k \right)$$

Where:

- SLT_k = the offshore substation tariff for substation k
- Gen_k = the generation connected to offshore substation k

Abid Sheikh
Licensing and Industry Codes
Ofgem
3rd Floor
Cornerstone
107 West Regent Street
Glasgow
G2 2BA
(By Email)

Jade Clarke
CUSC Modifications Panel
Secretary
Jade.Clarke@nationalgrid.com
Direct tel +44 (0)1926 653606

2nd September 2014

www.nationalgrid.com

Reference: CMP234 Self-Governance Statement

Dear Abid,

This is the CUSC Modifications Panel's Self-governance Statement to the Authority for CUSC Modification Proposal (CMP) 234. National Grid has prepared this Self-governance Statement on behalf of the CUSC Modifications Panel and submits it to you in accordance with CUSC Section 8.25.1.

On 29th August 2014 the CUSC Modifications Panel considered CMP234 and confirmed unanimously that it meets the Self-governance criteria.

As such, CMP234 is unlikely to discriminate between different classes of CUSC Parties and is unlikely to have a material effect on:

- i) Existing or future electricity customers;
- ii) Competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution or supply of electricity,
- iii) The operation of the National Electricity Transmission System
- iv) Matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies
- v) The CUSC's governance procedures or the CUSC's modification procedures

The proposed timetable for the progression of CMP234 is as follows:

3 rd September 2014	Code Administrator Consultation issued
24 th September 2014	Deadline for responses
23 rd October 2014	Draft FMR published with Panel papers
31 st October 2014	Panel Determination Vote (appeal window opens)
12 th November 2014	Deadline for Final report being published
21 st November 2014	Self Governance appeal window closes
1 st April 2015	Implementation date

The CMP234 form is available at <http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/currentamendmentproposals/>.

If you require any further information please do not hesitate to contact me.

Yours Sincerely,

Jade Clarke
CUSC Modifications Panel Secretary.

Offshore Circuit Expansion Factors

14.15.59 Offshore expansion factors (£/MWkm) are derived from information provided by Offshore Transmission Owners for each offshore circuit. Offshore expansion factors are Offshore Transmission Owner and circuit specific. Each Offshore Transmission Owner will periodically provide, via the STC, information to derive an annual circuit revenue requirement. The offshore circuit revenue shall include revenues associated with the Offshore Transmission Owner’s reactive compensation equipment, harmonic filtering equipment, asset spares and HVDC converter stations.

14.15.60 In the first year of connection, the offshore circuit expansion factor would be calculated as follows:

$$\frac{CRevOFTO1}{L \times CircRat} \div \text{Onshore 400kV OHL Expansion Constant}$$

Where:

- CRevOFTO1 = The offshore circuit revenue in £ for Year 1
- L = The total circuit length in km of the offshore circuit
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14.15.61 In all subsequent years, the offshore circuit expansion factor would be calculated as follows:

$$\frac{AvCRevOFTO}{L \times CircRat} \div \text{Onshore 400kV OHL Expansion Constant}$$

Where:

- AvCRevOFTO = The annual offshore circuit revenue averaged over the remaining years of the onshore National Electricity Transmission System Operator (NETSO) price control
- L = The total circuit length in km of the offshore circuit
- CircRat = The continuous rating of the offshore circuit

14.15.62 For the avoidance of doubt, the offshore circuit revenue values, *CRevOFTO1* and *AvCRevOFTO* shall be determined using asset values after the removal of any One-Off Charges.

14.15.63 Prevailing OFFSHORE TRANSMISSION OWNER specific expansion factors will be published in this statement. ~~These shall be re-calculated at the start of each price control when the onshore expansion constants are revisited.~~ These shall be recalculated at the start of each price control period using the formula in paragraph 14.15.61. For each subsequent year within the price control period, these expansion factors will be adjusted by the annual Offshore Transmission Owner specific indexation factor, *OFTOInd*, calculated as follows;

$$OFTOInd_{t,f} = \frac{OFTORevInd_{t,f}}{RPI_t}$$

where:

Comment [j1]: New formula

$OFTOInd_{t,f}$	=	the indexation factor for Offshore Transmission Owner f in respect of charging year t ,
$OFTORevInd_{t,f}$	=	the indexation rate applied to the revenue of Offshore Transmission Owner f under the terms of its Transmission Licence in respect of charging year t ; and
RPI_t	=	the indexation rate applied to the expansion constant in respect of charging year t .

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14.15.84 Each tariff component, expressed in £/kW, shall be the ratio of the Offshore Transmission Owner revenue (£) and rating associated with the transformers, switchgear or platform (kW) at each offshore substation. The Offshore Transmission Owner revenue of each tariff component shall include that associated with asset spares. In the case of the platform component, the relevant rating shall be the lower of the transformer or switchgear ratings. As with the offshore circuit expansion factors, the Offshore Transmission Owner revenue associated with each tariff component shall be averaged over the remaining years of the NETSO price control.

14.15.85 Offshore Transmission Owner revenue associated with interest during construction and project development overheads will be attributed to the relevant asset category with which it is associated. If these or any other costs included in the Offshore Transmission Owner revenue are not readily attributable to a given asset category, they will be pro-rated across the various asset categories based on their relative cost.

14.15.86 For 2010/11 a discount of £0.345590/kW shall be provided to the offshore substation tariff to reflect the average cost of civil engineering for onshore substations. This will be inflated by RPI each year and reviewed every price control period.

14.15.87 Offshore substation tariffs shall be ~~inflated by RPI each year and reviewed every price control period.~~ reviewed at the start of every onshore price control period. For each subsequent year within the price control period, these shall be inflated in the same manner as the associated Offshore Transmission Owner Revenue.

14.15.88 The revenue from the offshore substation local tariff is calculated by:

$$SLTR = \sum_{\text{All offshore substation}} \left(SLT_k \times \sum_k Gen_k \right)$$

Where:

SLT_k	=	the offshore substation tariff for substation k
Gen_k	=	the generation connected to offshore substation k