

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

