

## Stage 02: Workgroup Consultation

### Connection and Use of System Code (CUSC)

# CMP224

## ‘Cap on the total TNUoS target revenue to be recovered from Generation Users’

**This proposal seeks to introduce a cap on the annual generation TNUoS revenue so that the annual average transmission charges payable by generators in GB always stay within the range specified by the European Commission Regulation 838/2010.**

This document contains the discussion of the Workgroup which formed in September 2013 to develop and assess the proposal. Any interested party is able to make a response in line with the guidance set out in Section 8 of this document.

**Published on:** 19 December 2013  
**Length of Consultation:** 22 Working Days  
**Responses by:** 23 January 2014



#### ***The Workgroup concludes:***

To be completed following the Workgroup Consultation



#### ***High Impact:***



#### ***Medium Impact:***

All parties which are liable for TNUoS charges



#### ***Low Impact:***

What stage is this document at?

01	Initial Written Assessment
02	Workgroup Consultation
03	Workgroup Report
04	Code Administrator Consultation
05	Draft CUSC Modification Report
06	Final CUSC Modification Report

## Contents

1	Summary .....	3
2	Background.....	4
3	Modification Proposal .....	6
4	Summary of Workgroup Discussions.....	8
5	Workgroup Alternatives .....	27
6	Impact and Assessment.....	28
7	Proposed Implementation and Transition .....	29
8	Responses .....	31
	Annex 1 – CMP224 CUSC Modification Proposal Form.....	33
	Annex 2 – CMP224 Terms of Reference.....	37
	Annex 3 – Workgroup attendance register.....	41
	Annex 4 – Radial spurs used only for connecting generation to the MITS .....	42

## About this document

This document is a Workgroup consultation which seeks the views of CUSC and interested parties in relation to the issues raised by the Original CMP224 CUSC Modification Proposal which was suggested by National Grid and developed by the Workgroup. Parties are requested to respond by 23rd January 2014 to [cusc.team@uk.ngrid.com](mailto:cusc.team@uk.ngrid.com) using the Workgroup Consultation Response Proforma which can be found on the following link:

<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/current/amendmentproposals/>

## Document Control

Version	Date	Author	Change Reference
0.1	10/12/13	Code Administrator	Draft to Workgroup
1.0	19/12/13	Code Administrator	Workgroup Consultation



### Any Questions?

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## 1 Summary

- 1.1 This document describes the Original CMP224 CUSC Modification Proposal (the Proposal), summarises the deliberations of the Workgroup and the options for potential Workgroup Alternative CUSC Modifications. Prior to confirming any alternative proposals the Workgroup are seeking views on the options they have identified i.e. whether the options identified provide the best solution towards addressing the defect, and also any further options that the respondents may propose.
- 1.2 CMP224 was proposed by National Grid and submitted to the CUSC Modifications Panel (the Panel) for their consideration on 27th September 2013. A copy of the Proposal is provided in Annex 1. The Panel sent the Proposal to a Workgroup to be developed and assessed against the CUSC Applicable Objectives. The Workgroup is required to consult on the Proposal during this Workgroup Consultation period to gain views from the wider industry. Following this the Workgroup will consider the responses and plan to report back to the Panel at the February 2014 Panel meeting.
- 1.3 The Workgroup first met on 24th October 2013. A copy of the Terms of Reference is provided in Annex 2. The Workgroup have considered the development of the Proposal, the issues raised by it, and considered whether the Proposal and the options for potential alternatives would better facilitate the Applicable CUSC Objectives.
- 1.4 The Proposal aims to introduce a cap on the annual generation Transmission Network Use of System (TNUoS) revenue so that the annual average transmission charges payable by Generation Users in GB always stay within the range specified by European Regulation (e.g. that currently specified under European Commission Regulation ('EC Regulation') 838/2010 Part B, paragraph 3, of € zero to €2.5 /MWh). Each year TNUoS tariffs would be set to result in the overall revenue received from GB generation being the lesser of:
  - (i) 27% of the total revenue to be recovered from GB Users via TNUoS tariffs, provided the generation tariffs do not exceed the upper limit specified under EC Regulation (currently €2.5 /MWh) ; or
  - (ii) such a value that results in generation tariffs not exceeding the upper limit specified under EC Regulation (currently €2.5 /MWh).

If the amount to be collected from generation was less than 27% then the revenue not collected from generation would be collected from demand.
- 1.5 A number of options for potential Workgroup alternatives have been discussed by the Workgroup. These have mainly centred around the interpretation of how compliance with the EC Regulation should be calculated. In particular, these discussions have centred around whether the cost of some, all, or none of the local assets should be considered as 'connection' in the context of paragraph 2 (of Part B) of the EC Regulation. This interpretation significantly affects the timescales when GB generation charges based on the current Charging Methodology, are expected to breach the upper limit of EC Regulation. It is not intended that this Proposal changes what assets are considered Connection assets in the CUSC charging arrangements. Another prominent area for discussion dwelled upon how the mechanism for calculation of proposed cap would work, and looking into building in an additional bandwidth to cover the risk associated with the forecast and actual values of variables used to calculate the annual average transmission charges payable by GB generators.
- 1.6 This Workgroup Consultation has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid Website, [www.nationalgrid.com/uk/Electricity/Codes/](http://www.nationalgrid.com/uk/Electricity/Codes/), along with the Modification Proposal Form.

## 2 Background

- 2.1 European Commission Regulation 838/2010<sup>1</sup> Part B (paragraph 3) applies a range of € zero to €2.5 /MWh for the annual average transmission charges payable by generators in GB.
- 2.2 ACER (the Agency for the Cooperation of European Regulators<sup>2</sup>) is currently carrying out a review of the appropriateness of this range for the period beyond December 2014 and is expected to provide its opinion to the European Commission by 1<sup>st</sup> January 2014. The Commission may choose to make changes in line with ACER's opinion, make other changes it deems appropriate or maintain the current ranges. Therefore it is important that the value of annual average generation transmission charges in GB remains within the current prescribed range until December 2014, and within any future revised range (if modified by the European Commission after ACER's review, as set out in paragraphs 4 and 5 of Part B of the EC Regulation) that may come into force from 1<sup>st</sup> January 2015.
- 2.3 Given the time to progress changes through the CUSC under normal governance, National Grid considered that raising a CUSC Modification earlier would allow the industry to debate the issues of how this affected GB arrangements in a timely manner prior to any change by the European Commission. Waiting until mid 2014 would restrict the consideration of the issues and possibly affect the ability of CUSC Parties to take account of the ramifications in their commercial agreements.
- 2.4 As stated in Part B, paragraph 2 of the EC Regulation, '*Annual average transmission charges paid by producers is annual total transmission tariff charges paid by producers divided by the total measured energy injected annually by producers to the transmission system of a Member State*'. Therefore the value of the annual average transmission charges payable by generators in GB is dependent on a number of parameters which include:
- the total level of generation output;
  - TO Allowed Revenues; and
  - the €/£ exchange rate.
- 2.5 There is a proportion of variability possible within each of these three elements when TNUoS tariffs are set:
- the total level of generation output is subject to variability in GB demand and interconnector flows;
  - TNUoS tariffs for a given year are based upon forecasts of TO Allowed Revenue and charging bases (number of customers who pay charges) and therefore may result in the over or under recovery of revenue in any charging year; and
  - exchange rates change with varying economic conditions.
- 2.6 Considering the historic level of variability observed for these parameters, it is not expected that the level of generation transmission charges in GB will breach the €2.5 /MWh upper limit specified by the EC Regulation in the immediate future (up to and including charging year 2014/15). However, it cannot be assumed with absolute certainty that the level of these transmission charges will remain within the € zero to €2.5 /MWh range beyond charging year 2014/15 (especially given that the outcome of the ACER review is presently unknown). In addition if the European Commission were to lower or raise the €2.5 /MWh figure

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<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:250:0005:0011:EN:PDF>

<sup>2</sup> [http://acernet.acer.europa.eu/portal/page/portal/ACER\\_HOME](http://acernet.acer.europa.eu/portal/page/portal/ACER_HOME)

applicable to GB from 1<sup>st</sup> January 2015 then this may change the timescales in which a breach is expected. It should be noted the breach timescales discussed here are in line with interpretation of EC Regulation which includes all charges payable by GB generators for Use of System, in the calculation of annual average generation transmission charges.

- 2.7 Currently, National Grid recovers 27% of TO infrastructure revenue from generation and 73% from demand. However, this split of TNUoS charges in GB does not currently take into account the need for the annual average generation charges to remain within the range set by EC Regulation (currently € zero to €2.5 /MWh).

### 3 Modification Proposal

- 3.1 The defect is essentially that under forecast conditions the GB charging arrangements are expected to exceed the range in the current EC Regulation of € zero to €2.5 /MWh for the annual average generation transmission charges, within next few years (probably within charging year 2015/16 in a worst case scenario). The solutions considered by the Workgroup are required to address this defect.
- 3.2 The Proposer's solution is to introduce a cap on the proportion of TO allowed revenue recovered through GB generation transmission charges, to ensure that the €2.5 /MWh upper limit specified in European Commission Regulation 838/2010 Part B (paragraph 3) or any subsequent EC Regulation that applies a revision to that limit is not exceeded. Such a cap would be applied in a way that would fix the proportion of TO allowed revenues recovered through GB generation transmission charges at the minimum of either (i) 27% of TO allowed revenues or (ii) such a lower amount as set to recover as close to 27% of TO allowed revenues as possible from GB generation Users whilst ensuring no breach of the aforementioned EC Regulation range (currently set as € zero to €2.5 /MWh) occurs.
- 3.3 The value for annual average transmission charges payable by generators in GB is calculated by dividing the total revenue collected from generation Users through Transmission Network Use of System (TNUoS) charges by the total measured energy injected into the Transmission Network. The total demand for any given year is an absolute number. However, the total generation TNUoS revenue can be adjusted to a level so that the annual average transmission charges payable by GB generators do not exceed the prescribed upper limit of the EC Regulation (currently €2.5 /MWh).
- 3.4 CUSC Section 14 Part – 2 specifies that the total Transmission Network Use of System (TNUoS) revenue recovered will be split between generation and demand users at 27% and 73% respectively (the 'G/D split'). The G/D split ratio of 27% to 73% is a fixed ratio and it does not change, regardless of the overall revenue to be recovered from TNUoS charges in any given year. As generation TNUoS revenue is a fixed percentage; i.e. 27% for any given year; it might drive the generation transmission charges to exceed the prescribed range (of € zero to €2.5 /MWh) eventually, taking into account the current trend of year-on-year increase in the overall TNUoS revenue in GB.
- 3.5 The 27% is set on forecasts and does not lead to further changes should the forecast be wrong. Therefore 27% is a target and is unlikely to be the absolute value due to the inherent risk of an error between the forecast and the actual. At this stage the Proposer intends to adopt the same approach. The Workgroup considered a different approach and this is discussed in Section 4.
- 3.6 The Proposal suggests putting a cap on the annual generation TNUoS revenue so that the annual average transmission charges payable by generators in GB always stay within the range specified by the EC Regulation (of € zero to €2.5 /MWh). The broader context of harmonisation of transmission tariffs across Europe to facilitate a single competitive market falls outside the remit of this Proposal; although it was noted by a Workgroup member that 21 other Member States<sup>3</sup> are required to keep their transmission charges for generation to a range of range of zero to €0.5 /MWh.
- 3.7 The application of this cap will allow National Grid to reduce the overall TNUoS revenue collected from generation Users in GB. Therefore, the G/D split ratio may be modified when it is forecast that adherence to 27% for generation revenue does not fall within the range (of € zero to €2.5 /MWh) specified by the EC Regulation. Any modification to the G/D split ratio will

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<sup>3</sup> Those member states excluding Denmark, Sweden, Finland, Romania, Republic of Ireland, and Northern Ireland

affect the percentage of overall TNUoS revenue collected from both generation and demand Users in GB. However, the actual impact on individual Users' transmission tariffs is expected to be limited. It is currently expected that the G/D split ratio would only need minimal adjustment to comply with the current range specified by the EC Regulation. However, if as part of the ongoing review process the European Commission were to reduce the upper limit of €2.5 /MWh for GB then this would lead to a greater adjustment in the G/D split. Conversely, if the European Commission were to increase the upper limit then this would lead to a lower (if any) adjustment in the G/D split. National Grid would also predict the likelihood of the cap becoming 'active' in the forecast tariffs (the Condition 5 and quarterly reports) it produces to assist CUSC Parties in managing the effects in their commercial agreements.

- 3.8 Linking this cap to the range specified by the EC Regulation mitigates the risk of any future revisions to this range. This would ensure that National Grid always remains compliant with the EC Regulation and avoid further change to the GB methodology should the limit change. For example, the legal text could say 'the limit applicable to GB as specified in EC Regulation 838/2010 Part B paragraph 3, or any subsequent EC Regulation placing a limit on the annual average transmission charges paid by generation Users rather than '2.5 €/MWh'.

## 4 Summary of Workgroup Discussions

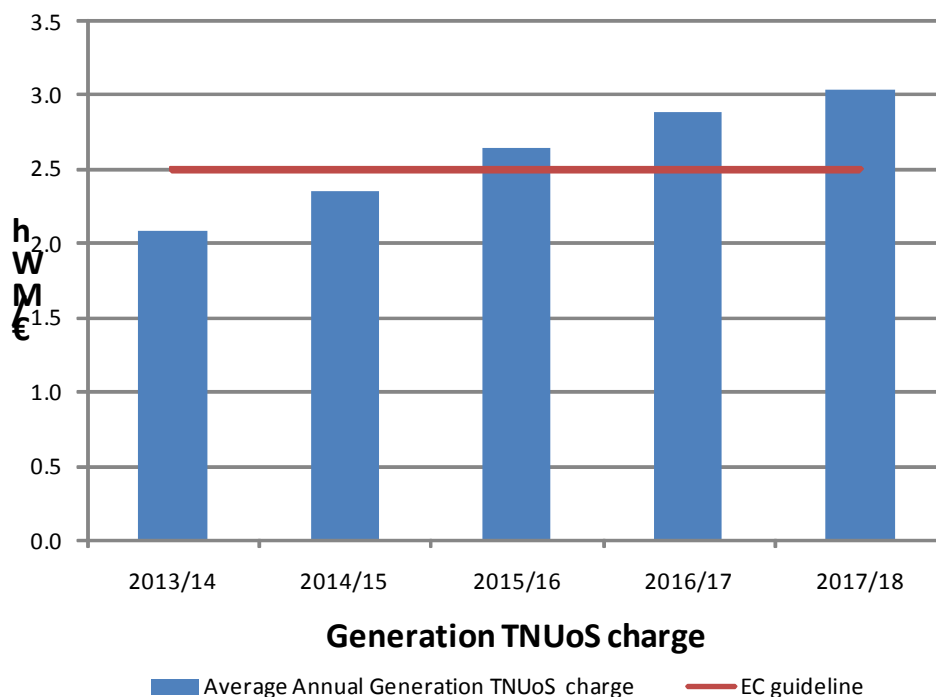
### Presentation of Proposal

- 4.1 The Proposer outlined the defect that had been identified, namely the likelihood of a breach of the range set out in EC Regulation 838/2010 Part B, paragraph 3 over the next few years.
- 4.2 The EC Regulation 838/2010 Part B creates a common regulatory approach to transmission charging across the Member States. The EC Regulation states that the annual average transmission charges for generators in GB (plus Ireland and Northern Ireland) should remain within the range of € zero to €2.5 /MWh. These transmission charges shall exclude;
  - Charges paid by producers [generators] for physical assets required for connection to the system or upgrade of the connection;
  - Charges paid by producers [generators] related to ancillary services;
  - Specific system losses paid by producers [generators].
- 4.3 Ancillary services have been considered analogous to charges under BSUoS, and losses are managed through the BSC as volume adjustments. Therefore these elements have not been considered further by the Workgroup
- 4.4 There is a risk that under current charging arrangements, the GB annual average transmission charge may exceed the upper limit of €2.5 /MWh within the next couple of years, based on current predictions. This assessment is built on the interpretation of the EC Regulation to include all charges payable by GB generators for Use of System, when calculating the annual average transmission charges payable by GB generators. The main driver for this Modification Proposal is to ensure this limit is not breached and therefore to ensure the GB charging arrangements remain compliant with European Legislation.
- 4.5 One Workgroup member noted that the objective of the EC Regulation included ensuring that *“Variations in charges faced by producers of electricity for access to the transmission system should not undermine the internal market. For this reason average charges for access to the network in Member States should be kept within a range which helps to ensure that the benefits of harmonisation are realised”*. The member’s view was that this suggested that the limits on annual average transmission charges paid by generators in all 28 Member States would harmonise gradually to a similar range, noting that 21 Member States currently operate in a range of € zero to €0.5 /MWh. It was further clarified within the Workgroup that although the EC Regulation takes a step closer towards harmonisation of tariffs to facilitate a single European energy market, it does not state they should converge on € zero /MWh. It was also noted that this Modification Proposal was not intended to address or support a broader move to tariff harmonisation across Europe, but it was about making sure that GB charges are compliant with the EC Regulation.

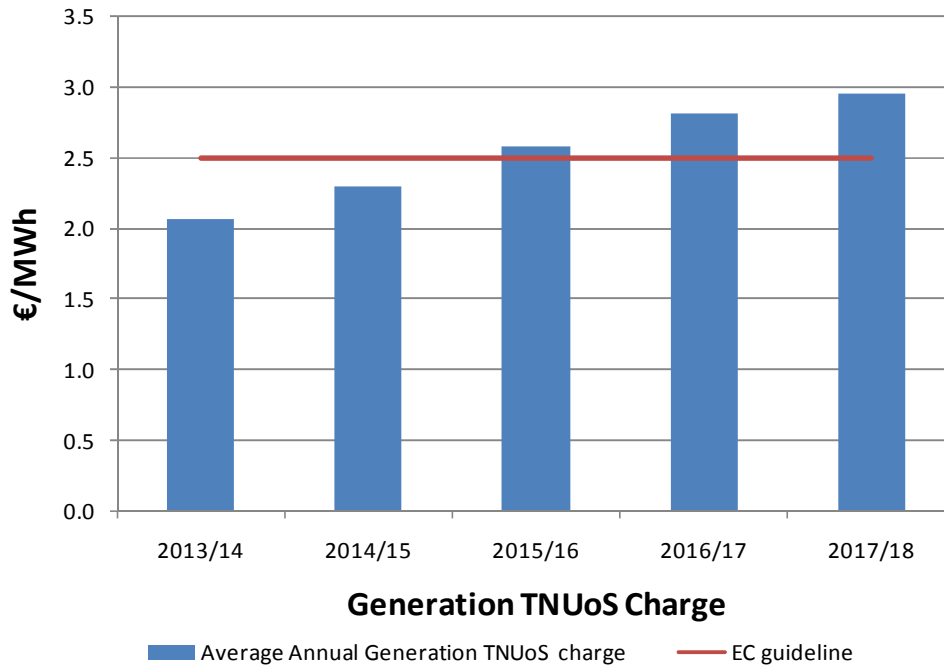


### ***When will the limit be breached?***

- 4.6 The Proposer presented analysis under two different scenarios (both based on the interpretation of the EC Regulation to include all charges payable by GB generators for Use of System when calculating the annual average transmission charges payable by GB generators) which concluded in similar results regarding the timescales of a possible EC Regulation breach in the future. The initial analysis indicates that under both National Grid's Slow Progression and Gone Green scenarios the point at which the €2.5 /MWh GB limit is exceeded is forecast to occur during charging year 2015/16. If, as permitted under the EC Regulation, the €2.5 /MWh upper limit for GB were to be reduced (or increased) from 1<sup>st</sup> January 2015 then a breach could occur sooner (or later) than the charging year 2015/16. This initial analysis used an assumed €/£ exchange rate based upon the average of the maximum and minimum rates observed during the year up to 14th October 2013.
- 4.7 The Workgroup considered that it could be beneficial to use a forecast of future €/£ exchange rates as the fluctuation in exchange rate could have a significant effect when the €2.5 /MWh limit might be exceeded.
- 4.8 Forecasts produced by the Office of Budget Responsibility (OBR) were taken as a reasonable forecast of future exchange rates. It was agreed by the Workgroup that this was from a credible and reliable source. National Grid revised the initial analysis on this basis for both of the scenarios. As with the initial analysis, the revised view indicates that a breach of the €2.5 /MWh limit set by the current EC Regulation is forecast from charging year 2015/16 onwards. This updated analysis is presented below in Figure 1 and Figure 2:



**Figure 1 Forecast performance against EC Regulation 838/2010 under the National Grid Slow Progression scenario**



**Figure 2 Forecast performance against EC Regulation 838/2010 under the National Grid Gone Green scenario**

### ***What uncertainties are there?***

The Workgroup discussed that changes to several variables could lead to the € zero to €2.5 /MWh range being exceeded. The primary variables were summarised as:

- TO Maximum Allowed Revenue (MAR) assumed when TNUoS charges are set, and subsequent changes affecting generation revenue recovery;
- the total volume of energy injected onto the transmission system by generation (highly dependent upon the total transmission system demand);
- €/£ exchange rate fluctuation;
- the outcome of the ACER review of the limits prescribed by EC Regulation 838/2010 (described below);
- whether Local TNUoS charges should be included within the annual average transmission charges paid by generators in GB; and
- whether output from embedded generation should be included within the total volume of energy injected onto the transmission system by generation.

### ***Changes to the EU range***

4.9 The Workgroup discussed the ACER review of the EC Regulation ranges (not just for GB but all Member States). It was highlighted that ACER are currently reviewing the appropriateness of the ranges of annual average transmission charges paid by generators in the Member States for the period beyond 1<sup>st</sup> January 2015. National Grid has provided data to Ofgem for the ACER review in June 2013 and it is expected that ACER will provide its recommendations to the European Commission by 1<sup>st</sup> January 2014.

4.10 It was highlighted that there was a risk that the European Commission may decide to reduce the current GB €2.5 /MWh upper limit, which would have the effect of increasing the risk of GB breaching the EC Regulation sooner than expected. This was noted by the Workgroup as a possible risk to consider.

- 4.11 As timescales around the European Commission's decision regarding the ACER review were uncertain it was also thought that there was a possible risk of GB breaching the €2.5 /MWh upper limit within the charging year 2014/15, and it was agreed within the Workgroup that it was not appropriate to wait for the outcome of the ongoing review and that the Workgroup would need to work on the basis of the current range (of € zero to €2.5 /MWh) to progress the Modification Proposal. It was noted that the review is an important factor to consider during the development and assessment of the Modification Proposal.

### Consideration of the 'connection' in the context of the Regulation

- 4.12 In order to calculate whether the €2.5 /MWh upper limit has been exceeded the Workgroup considered what costs TNUoS covers, and whether the calculation should be based on the whole of TNUoS or a subsection; e.g. removing 'Local charges'. The basis for this is that the EC Regulation 838/2010 (Part B, paragraph 2) states that:

*'Annual average transmission charges paid by producers is annual total transmission tariff charges paid by producers divided by the total measured energy injected annually by producers to the transmission system of a Member State.'*

*For the calculation set out at Point 3, transmission charges shall exclude:*

- (1) charges paid by producers for physical assets required for connection to the system or the upgrade of the connection;*
- (2) charges paid by producers related to ancillary services;*
- (3) specific system loss charges paid by producers.'*

- 4.13 The Proposer presented the following diagram illustrating how Local TNUoS charges in GB are levied in respect of a number of assets on the transmission network:

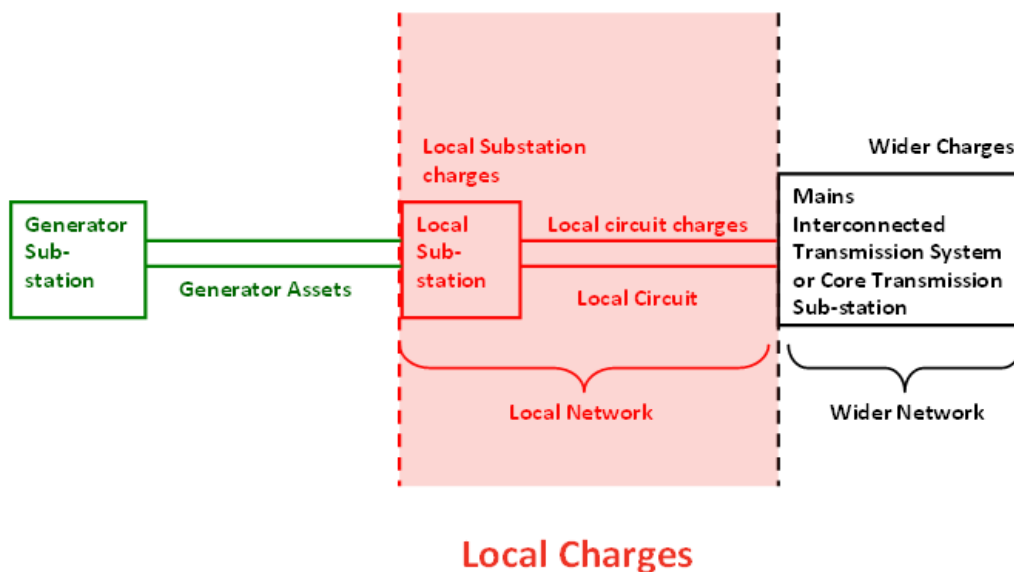
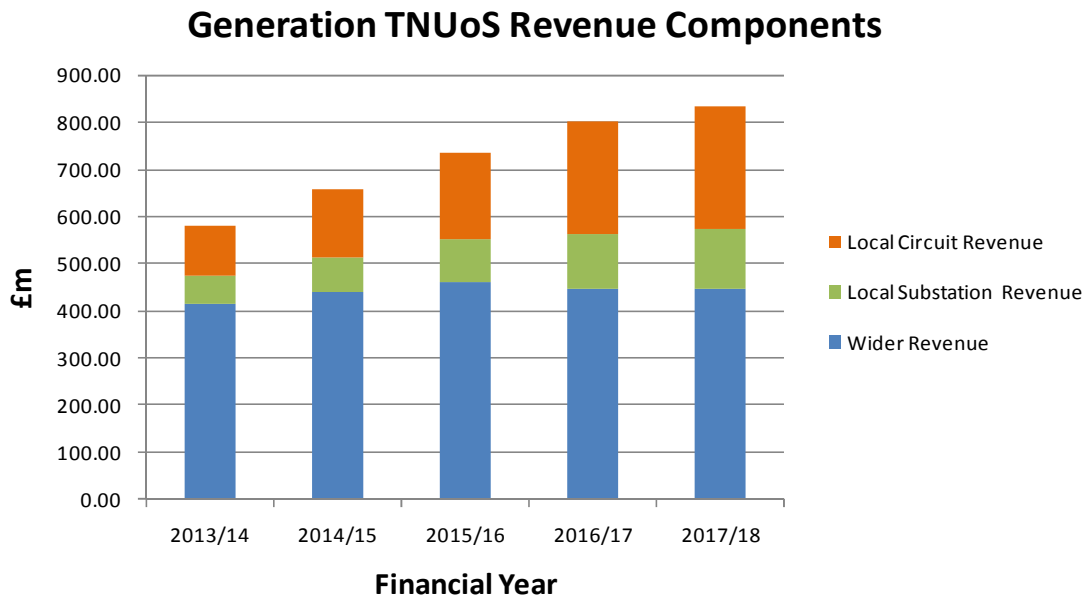


Figure 3 Generic representation of User local and wider assets for charging purposes

- 4.14 The Workgroup discussed whether or not assets which make up local charges could be considered as 'charges paid by generators for physical assets required for connection to the system' as referred to by EC Regulation 838/2010, and therefore be excluded from the calculation of the annual average transmission charges for generators when assessing performance against the €2.5 /MWh upper limit prescribed in the EC Regulation, and the impact that this would have.
- 4.15 The Workgroup investigated what proportion of the GB generation TNUoS charges were made up of local charges. Figure 4 below was presented to the Workgroup as the current and future proportion of generation charges made up of local charges:



**Figure 4 Generation TNUoS Revenue Components 2013/14 through to 2017/18**

- 4.16 Figure 4 shows an increasing proportion of GB generation TNUoS revenue as local charges over the next five charging years. This increase in local charges increases the total generation TNUoS revenue. This also shows that the wider revenue shows little change over the five year period. This would mean that if the intention of the EC Regulation was to only include wider charges in the calculation of the annual average TNUoS charges paid by GB generation (i.e. excluding all local charges), a breach of the €2.5 /MWh upper limit would occur much later and probably not in the next five years.
- 4.17 Some members of the Workgroup felt that the wording of the exclusion within the EC Regulation was ambiguous in defining whether local charges or elements of the local charge may be excluded from the calculation of the annual average transmission charge. The majority of the Workgroup believed that it was unclear as to what constituted “the transmission system” and ‘physical assets required for connection’ in the context of the EC Regulation, and that an attempt to clarify this should be made. Other Workgroup members disagreed noting that, in their view, what is meant by ‘connection’ and ‘charges for connection’ is very clearly set out in the CUSC (as per CUSC 2.14) so could be easily identified for the purposes of calculating if the €2.5 /MWh upper limit was breached (or not). In addition, they viewed the term ‘transmission system’ (with respect to ‘connection’) to also be clearly defined in both in the CUSC and in the EC Regulation itself. These Workgroup members therefore believed that all local charges should be included within the total of annual average transmission charges paid by generators in GB when considering the €2.5 /MWh upper limit.
- 4.18 The Workgroup considered a definition of the transmission system to be used for this Proposal. It was noted that within the EC Regulation transmission system is not a defined term. It was suggested that where such a definition did not exist in European Law, then the corresponding definition in Member State Law should be used, and if this did not exist, the definitions used in industry codes produced under such legislation should apply.
- 4.19 The consequence of this suggested approach was that the ‘transmission system’ in the EC Regulation should, with respect to GB, be interpreted as meaning (the CUSC definition of the NETS):
- the system consisting (wholly or mainly) of high voltage electric wires owned or operated by transmission licensees within **Great Britain** and **Offshore** and used for the transmission of electricity from one **Power Station** to a sub-station or to another **Power Station** or between sub-stations or to or from any **External Interconnection** and includes any **Plant** and **Apparatus** or meters owned or operated by any transmission licensee within **Great Britain** and **Offshore** in connection with the transmission of electricity but shall not include **Remote Transmission Assets**.
- 4.20 Some Workgroup members considered that the EC Regulation had not been drafted with the GB definition necessarily in mind and therefore this was maybe not a correct interpretation. It was also noted that this definition included assets that are charged as connection assets, and as a result it would not, in the view of some Workgroup members, be appropriate to use such a definition as the EC Regulation would become contradictory; i.e. it would also need to default to the GB codes definition of connection assets which are a subsection of NETS.
- 4.21 It was suggested by some Workgroup members that the use of the GB definition of NETS was a logical approach if assets subject to connection charges were removed. This would mean that the local network illustrated as red in figure 3 above would be considered as part of the overall transmission system, and should therefore be included within the calculation of the annual average transmission charges for generators for GB. It was suggested that this would be consistent with the location of the point of connection to the transmission system

used for the calculation of connection charges as well as interruption payments. The Workgroup did not agree that this was a logical approach or the analogy with interruption arrangements. It was pointed out that using this definition would already be inconsistent with that used for the calculation of interruption payments for generators with user choice connections. Indeed it was not clear to some Workgroup members that GB interruption payment were relevant to the discussion.

- 4.22 It was questioned whether the charges for connection assets should be included within the calculation of the total GB annual average transmission charges, given the previously highlighted definition of the NETS, which includes connection assets. The general opinion of the Workgroup was that the intention of the EC Regulation was to exclude assets associated with connection to the transmission system for which connection charges are levied. However, it was less obvious where assets classified as local assets had similar characteristics to connection assets.

### **Legal opinion on interpretation of regulation**

- 4.23 The Ofgem representative suggested that the Workgroup may wish to obtain a form of legal opinion on the interpretation of the EC Regulation. This would seek to establish a possible legal view on whether excluding charges associated with local assets when calculating the annual average transmission charge payable by generation Users in GB was a reasonable interpretation of the EC Regulation.
- 4.24 It was agreed by the Workgroup that National Grid would seek advice from their legal team on the process that should be adopted in obtaining such a legal opinion. It was viewed that such practices are undertaken in relation to other GB industry codes (such as commissioning legal opinion) as the Code Administrator does not have its own legal experts. In the case of the CUSC, National Grid in its role as Code Administrator has access to the National Grid legal team to provide such advice. In the past external legal advice has also been obtained for a CUSC Workgroup, however the Workgroup did not consider it was appropriate in this case.. It was clarified that if an individual member of the Workgroup wishes to obtain a separate legal opinion they are welcome to provide this to the Workgroup. It was also understood that if Ofgem required legal advice to determine on the Proposal that they would need to procure this separately from the Workgroup process.
- 4.25 National Grid sought an opinion from their legal team based on the interpretation of whether the charges for local assets should be included or excluded from the calculation of the GB annual average transmission charges. Two questions were asked in order to obtain this opinion:
1. Given the wording of EC Regulation 838/2010 and the manner in which local charges are calculated, could the exclusion of particular charges from the calculation of the Annual average Transmission charge be interpreted as including local TNUoS charges?
  2. Could such an interpretation be subject to challenge in the future?

A summary of the legal opinion that was obtained was presented to the Workgroup and consisted of the following points<sup>4</sup>:

- It is not clear on the face of the EC Regulation where the distinction between connection and network charges should be drawn;

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<sup>4</sup> Text in brackets was added by the Workgroup for clarity

- There is no detail or guidance notes published alongside the EC Regulation, there are only a few words within the EC Regulation (physical assets required for the connection or upgrade of the connection);
- The different thresholds which charges on generation may not exceed may have already been set accounting for individual charging regimes;
- The clearest interpretation seems to be to include what in the GB regime is set as 'Local TNUoS' charges (within the calculation of the annual average transmission charges);
- Excluding local charges (from the calculation of the annual average transmission charges paid by generation) leaves scope for challenge to the (GB) charging regime; and
- Potential implications can arise from enforcement.

4.26 The Workgroup noted the summary legal opinion from National Grid. However, the workgroup were not able to agree, based on the summary legal opinion and their consideration of the baseline CUSC, as to whether it would be sensible to; 1) exclude a subset of local assets from, or 2) leave all local assets in, the calculation of annual average charges. This stems from different views as to what 'connection' should be interpreted as, when complying with the EC Regulation. Views for and against are presented in Table 1 below.

4.27 It was suggested that it would be up to the European Commission to decide whether the Workgroup's interpretation of the EC Regulation, subsequently approved by the Authority, is correct and it was suggested that a table with arguments in favour of and against different interpretations of the EC Regulation regarding the treatment of local charges be created to help understanding of the views. This was subsequently incorporated within, Table 1, which can be found later in this section of the report.

### **Exclusion of a subset of Local TNUoS charges**

4.28 There was discussion within the Workgroup about how local charges are calculated and whether aspects of this charge could be excluded from the calculation of the annual average transmission charges for GB. In most cases, charges in relation to local assets are based upon generic costs. However, there are some cases (mainly offshore) where charges for local assets are based upon specific costs as there is insufficient information available to enable a generic calculation.

4.29 The Workgroup considered a range of options to include within the annual average transmission charges:

- i) exclude all Local TNUoS charges;
- ii) exclude Local TNUoS charges for assets that are considered sole use;
- iii) exclude Local TNUoS charges for which assets are specifically costed;
- iv) exclude Local TNUoS charges for assets that are part of a spur connection for the sole purpose of connecting generation to the MITS;
- v) exclude Local TNUoS charges for assets that were built as part of the works undertaken to connect an individual generator; and
- vi) exclude local substation charges.

4.30 The following table, Table 1 outlines the Workgroup's initial assessment of the potential advantages and disadvantages of these options:

**Table 1 Options for interpreting 'connection' when apply Regulation to GB arrangements**

Options	Reasons for	Reasons against
<b>i) All local charges (as per the CUSC definition)</b>	<ul style="list-style-type: none"> <li>Local assets could be considered as assets that are 'paid for by producers for physical assets required for connection to the system'.</li> <li>Delays the timescales for action assumed to be required to avoid exceeding the current limit of €2.5/MWh on annual average generation charges. No impact on demand charges as a result.</li> <li>Limits the affect of timings of OFTO appointments on performance against limit, due to targeting of revenue through local charges.</li> <li>Decreases risk of mid-year tariff changes to avoid breach of limit – provides more certainty of charges.</li> </ul>	<ul style="list-style-type: none"> <li>Interpretation may be challenged as the GB transmission system could be considered to be the NETS and thus connection to it includes all local and wider charges paid by generators – therefore some risk of infringement.</li> <li>Possible inconsistency with existing areas of the CUSC (e.g. connection charges), causing potential unintended consequences?</li> <li>Delays the addressing of the breaching of the €2.5 /MWh upper limit which, could potentially, undermine the internal market.</li> </ul>
<b>ii) Sole use asset Local charges (where only one generator uses the assets – not shared)</b>		<ul style="list-style-type: none"> <li>Interpretation may be challenged as the GB transmission system could be considered to be the NETS and thus connection to it includes all local and wider charges paid by generators – therefore some risk of infringement</li> <li>Some local charges are not asset specific.</li> <li>Possible inconsistency with existing areas of the CUSC (e.g. connection charges), causing potential unintended consequences?</li> <li>It is not clear what sole use assets are. Sole use is subjective e.g. an asset could currently be sole use but potentially shareable.</li> <li>Complicated if some local charges are made for a combination of both sole use and shared assets.</li> <li>Delays the addressing of the breaching of the €2.5 /MWh upper limit which, could potentially, undermine the internal market.</li> </ul>



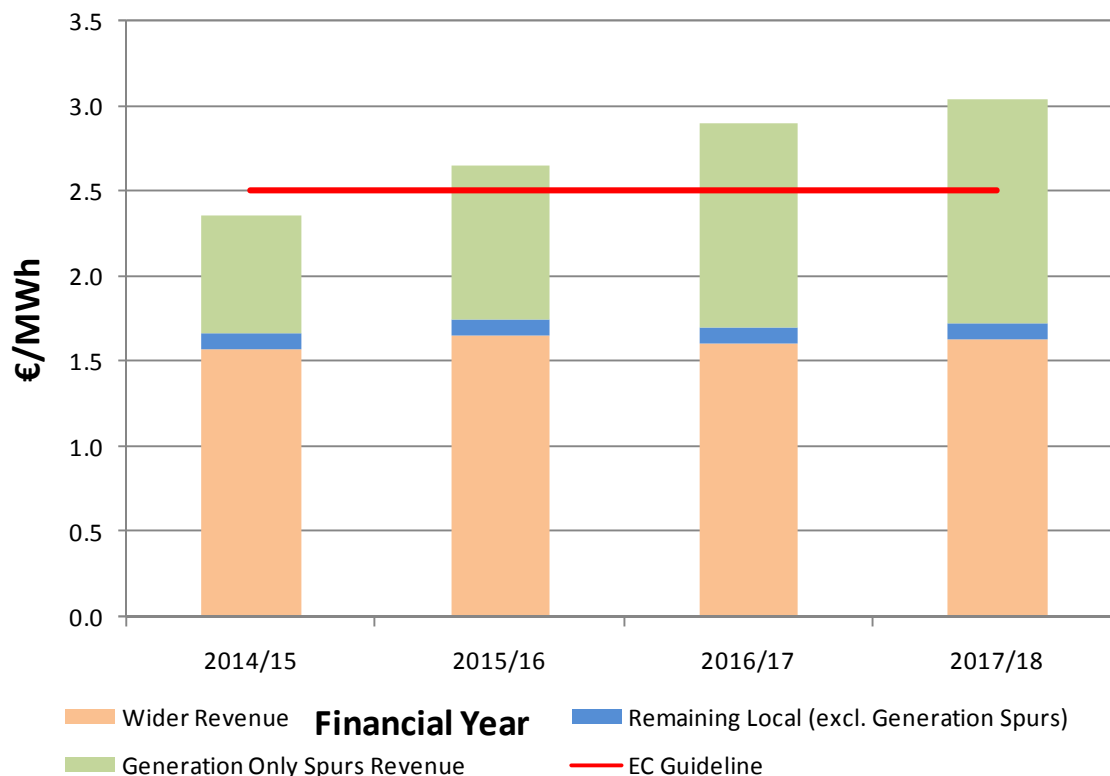
Options	Reasons for	Reasons against
<b>iii) Specifically costed asset Local charges (assets charges based on actual rather than generic prices)</b>	<ul style="list-style-type: none"> <li>• Easily identified – determined by references to existing charges.</li> <li>• Easier to administer – not temporal.</li> <li>• It's objective.</li> </ul>	<ul style="list-style-type: none"> <li>• Interpretation may be challenged as the GB transmission system could be considered to be the NETS and thus connection to it includes all local and wider charges paid by generators – therefore some risk of infringement</li> <li>• It could change with the CUSC.</li> <li>• Possible inconsistency with existing areas of the CUSC (e.g connection charges), causing potential unintended consequences?</li> <li>• Charges made in respect to one off works could be considered as included (although not part of the regulated revenue) – can avoid via definition;</li> <li>• Delays the addressing of the breaching of the €2.5 /MWh upper limit which, could potentially, undermine the internal market.</li> </ul>
<b>iv) Local charges for radial spur connections used only for connecting generation to the MITS</b>	<ul style="list-style-type: none"> <li>• Easily identified – determined by references to existing charges.</li> <li>• It's objective.</li> <li>• Assets concerned are required for physical connection to wider system.</li> </ul>	<ul style="list-style-type: none"> <li>• Interpretation may be challenged as the GB transmission system could be considered to be the NETS and thus connection to it includes all local and wider charges paid by generators – therefore some risk of infringement</li> <li>• Possible inconsistency with existing areas of the CUSC (e.g. connection charges), causing potential unintended consequences?</li> <li>• Delays the addressing of the breaching of the €2.5 /MWh upper limit which, could potentially, undermine the internal market.</li> </ul>

Options	Reasons for	Reasons against
<b>v) Local charges for assets built as part of works facilitating a generation connection</b>	<ul style="list-style-type: none"> <li>• They are the assets needed for connection.</li> </ul>	<ul style="list-style-type: none"> <li>• Interpretation may be challenged as the GB transmission system could be considered to be the NETS and thus connection to it includes all local and wider charges paid by generators – therefore some risk of infringement</li> <li>• Temporal issues –back and forward.</li> <li>• Difficult to calculate.</li> <li>• Difficult to allocate strategically built capacity.</li> <li>• Inconsistency if not applied in Europe.</li> <li>• Possible inconsistency with existing areas of the CUSC (e.g. connection charges), causing potential unintended consequences?</li> <li>• Delays the addressing of the breaching of the €2.5 /MWh upper limit which, could potentially, undermine the internal market.</li> </ul>
<b>vi) Local substation charges</b>	<ul style="list-style-type: none"> <li>• Required to physically connect.</li> </ul>	<ul style="list-style-type: none"> <li>• Interpretation may be challenged as the GB transmission system could be considered to be the NETS and thus connection to it includes all local and wider charges paid by generators – therefore some risk of infringement</li> <li>• Generic charges - not necessarily based upon installed assets.</li> <li>• Difficult to justify why charges for substation assets should be excluded, but those for certain circuit assets should not.</li> <li>• Possible inconsistency with existing areas of the CUSC (e.g. connection charges), causing potential unintended consequences?</li> <li>• Delays the addressing of the breaching of the €2.5 /MWh upper limit which, could potentially, undermine the internal market.</li> </ul>

4.31 Once the arguments in favour and against each of the above options set out in Table 1 had been considered, the Workgroup discussed the viability of each option as a possible Workgroup Alternative CUSC Modification (WACM). Overall, the Workgroup considered that option (iv) appeared, at this stage, to be the strongest possible alternative in this area. However, at this stage the opinion of the Workgroup was split as to whether this approach

provided a better solution than that which included all TNUoS charges (for local and wider assets) within the calculation of the GB annual average transmission charges; i.e. the original Proposal.

- 4.32 Further to this, the Workgroup went on to consider examples of radial spur connections used only for connecting generation to the MITS that would be excluded from the GB annual average transmission charges under option (iv). These examples are included in Annex 4. These charges made up a large proportion of the annual average generation revenue, as seen below in Figure 5.



**Figure 5: Annual average Generation TNUoS Revenue Components (Slow Progression)**

- 4.33 It was noted that, based upon the current €2.5 /MWh upper limit, if the European Commission's interpretation of the EC Regulation was consistent with option (iv); i.e. excluded radial spur connections used only for connecting generation to the MITS from the calculation of the GB annual average transmission charges; it would be unlikely that a breach of the EC Regulation would occur in the near future.
- 4.34 Based upon the arguments for and against excluding charges listed under the remaining options, in Table 1 above, none of the Workgroup believed that any of these solutions provided a preferable solution to that under option (iv).

**Q4. Do you believe that the Workgroup has considered all potential interpretations of “charges paid by producers for physical assets required for connection to the system or the upgrade of the connection” to be excluded from the GB annual average transmission charges referred to under EC Regulation 838/2010?**

**Q5. Do you believe that any Local Generation TNUoS Charges (or a subset thereof listed in Table 1 or otherwise) should be excluded from the annual average transmission charges as part of defining a cap on the proportion of TNUoS charges paid by generation in GB under the proposed solution?**

4.35 There were some concerns within the Workgroup relating to future proofing the exclusion of charges for certain assets from the annual average transmission charges. For example if it was proposed to exclude specific charges (such as those for offshore transmission assets) from the calculation then, in a few years time, when there is enough information to charge these generically, they would then be automatically included within the calculation for the GB annual average transmission charges, resulting in a step change in the annual average transmission charges. The majority of the Workgroup agreed that this is a risk that would have to be assessed at the time and suggested that the criteria used to calculate the proposed cap would need to be reconsidered at the time of such a change, to ensure that this remains appropriate.

**Q6. Do you believe that based upon the summary legal opinion from National Grid it would be sensible to include assets subject to local TNUoS charges within the calculation of the annual average transmission charges for GB for the reason set out?**

#### **Calculation and application of the proposed cap**

4.36 The Workgroup moved on to discuss how the Proposal should be implemented once an appropriate method of determining the annual average transmission charges for GB had been established. The National Grid representative highlighted that there could potentially be a two stage process: one to identify a potential breach; and another to adjust the proportioning of revenue targeted to generation and demand. The Workgroup agreed that where such a solution was developed then the same benchmark forecast of the annual average transmission charges for GB should be used for both steps.

4.37 The Workgroup considered different options for calculating GB compliance with the (current) €2.5 /MWh upper limit when it is set on a normal rolling year. These options were;

- a. Best forecast based - National Grid would set the cap using their best forecasts of the three elements noted in paragraph 2.4, these are forecasts and are not entirely accurate so it may risk exceeding the €2.5 /MWh limit or the cap being more active than intended;
- b. Based upon best forecast of the three elements noted in paragraph 2.4 with a reconciliation - National Grid would set the cap based on their best forecast, and if a breach subsequently became apparent transmission charges would be changed (potentially mid-year) to adjust the G/D split to ensure they did not breach the €2.5 /MWh limit; and
- c. Based upon an adjusted forecast - National Grid would set the cap using their best forecasts of the three elements noted in paragraph 2.4 adjusted by an error margin to reduce the likelihood of a breach of the €2.5 /MWh limit occurring, should the best forecast not eventuate.

4.38 In order to assess the appropriateness of these options, the Workgroup questioned what would happen if the €2.5 /MWh limit was breached under any of these three scenarios. It was

suggested that the level of action taken against GB for an infringement of the EC Regulation would potentially be based on the following questions:

- i. could the breach have been identified prior to it occurring; and
- ii. could any action have been taken to avoid such a breach?

4.39 In order to consider question (i) under options (a), (b) and (c), the Workgroup moved on to assess how each option would work in practice. In respect of question (ii) the Workgroup noted that it is possible, under the current GB charging arrangements, to effect a 'mid year' tariff change. As such the Workgroup agreed that whilst not necessarily desirable, it would be possible for action to be taken to avoid a GB breach of the €2.5 /MWh limit without the need to wait till the end of a particular charging year (if such a breach was with either envisaged or actually occurred).

4.40 In relation to option (a), the National Grid representative presented an analysis for charging year 2015/16 to the Workgroup. This was based on a contracted generation background, assumed generation recovery and an average recovery/kW. This was then adjusted to meet the €2.5/MWh limit set by the EC Regulation by adjusting to 24.7 / 75.3 the G/D Split. With hindsight if this were to be significantly wrong it was suggested that the GB TNUoS tariffs had been set on the basis of Good Industry Practice.

4.41 It was also noted that whilst option (b) would ensure the correct recovery it would inject a level of uncertainty into the commercial arrangements. If a cap was introduced this would essentially provide a windfall gain to traders or generators that had traded based on a higher value. A counter view would be that if the change was not corrected as soon as it could be that this would essentially provide a windfall gain to traders or generators that had traded based on a lower value.

4.42 This would also cause a windfall loss to suppliers who would be required to make up the difference, although in a competitive wholesale market there could be a lowering of the wholesale market price charged to suppliers which may match their windfall loss, dependent upon how far ahead energy was traded. This uncertainty could cause suppliers to introduce a risk premium based on the accuracy of National Grid forecasting of the three elements noted in paragraph 2.4. The Workgroup discussed and agreed that it would not be possible to determine the likely premium, although it was not expected to be significant. It was also questioned whether it would be fairer to have symmetrical arrangements where the reconciliation could increase the revenue collected from generation in the event that the annual average charges levied to generation fell below the upper limit specified in the EC Regulation. It was viewed that this could further increase the risk for parties to manage. It was recognised that a broader aim of the EC Regulation is to encourage cross border trading and from previous work on BSUoS it was recognised uncertainty on charges paid by GB generation in the short term had a negative impact on trading. Therefore the introduction of reconciliation could, overall, be considered counter productive.

4.43 The Workgroup then discussed how under option (c) a bandwidth (error margin) could be established. Several methods were discussed:

- i. Using an ongoing mechanism, which sets a different bandwidth each time transmission tariffs are set;
- ii. Using a fixed percentage determined by the Workgroup and set out in the CUSC; or
- iii. Using a fixed percentage based on applying the mechanism derived under (i) at a given point in time.

4.44 It was proposed that method (i) would:

1. Adjust National Grid's best forecast of the three inputs into the annual average transmission charges in the following manner:
2. Use the TO Allowed Revenue increased by the maximum percentage over or under recovery error observed over a set number of [5] years;
3. Use the OBR forecast €/£ exchange rate inflated by the maximum percentage deviation from the annual average €/£ exchange rate observed over the same time period; and
4. Use the forecasted output from generation reduced by the maximum demand forecast error observed in annual energy requirements forecasts by National Grid over the same time period.

4.45 The Workgroup considered each of these points in turn, and the Workgroup agreed that the variability in the TO Allowed Revenue and annual energy requirements forecasts were intrinsically linked to that which would be observed in the GB total annual generation TNUoS charge and forecasted generation output, respectively. The Workgroup believed that there was a good understanding of this data and that the level of associated variability would be directly related to the quality of the forecasts National Grid uses when setting TNUoS tariffs. On this basis, it was viewed as reasonable to include such variability within the bandwidth that would be applied under method (i).

4.46 In relation to variability in the €/£ exchange rate, the Workgroup viewed this as being driven by external factors and impractical for electricity industry participants to forecast with any degree of certainty. Following a discussion, it was agreed that National Grid was not best placed to judge the future variability in the €/£ exchange rate, and that this introduced a risk of an inappropriate error margin being assumed, potentially over inflating the required bandwidth and in itself creating uncertainty in the level of TNUoS charges. The Workgroup considered that providing a robust €/£ exchange rate forecast was used when assessing performance against the EC Regulation whilst setting TNUoS tariffs, then this provided a defensible position if a purely exchange rate driven breach of the EC Regulation occurred, and as a result no error margin would need to be considered. It was agreed by the Workgroup that as the €/£ exchange rate forecast published by the OBR was used by the UK Government, that the rate published by the OBR each spring alongside the UK Government's Budget was suitable for the purpose of setting TNUoS tariffs for the following charging year (so as not to breach the €2.5 /MWh limit). In other words the OBR €/£ exchange rate forecast in spring 2014 would be used for the purposes of forecasting with respect to charging year 2015/16 (and so on for each subsequent charging year).

4.47 To provide a view of how the bandwidth would be calculated under method (i), the National Grid representative presented a comparison of historic forecasted annual transmission system energy consumption published in the Seven Year Statement (SYS), Electricity Ten Year Statement (ETYS) and Future Energy Scenarios (FES) publications and subsequently published outturn figures:

Year	Consumption forecast (y-1) TWh	Reported Outturn TWh	Forecast Error
2007/08	350.6	351.0	-0.1%
2008/09	348.2	337.6	3.1%
2009/10	325.9	325.4	0.1%
2010/11	323.7	314.7	2.9%
2011/12	314.4	312.5	0.6%
2012/13	312.7	Forecast basis changed	N/A

**Table 2: Historic forecast transmission system energy consumption and associated outturns**

- 4.48 It was noted that following customer feedback, National Grid had changed the way in which it reported energy consumption in the 2012 FES document to reflect total GB demand rather than purely demand observed on the transmission system, and that this presented a potential issue with applying the mechanism on an ongoing basis (method (i)).
- 4.49 To provide a view of how the bandwidth would be calculated under method (i), the National Grid representative presented a comparison of historic forecasted annual transmission system energy requirements (consumption) published in the Seven Year Statement (SYS), Electricity Ten Year Statement (ETYS) and Future Energy Scenarios (FES) publications and subsequently published outturn figures:
- 4.50 The National Grid representative also presented the outturn on historic charging years' under or over recovery of TO Allowed Revenues. This can be seen in **Table 3** below:

Charging Year	Over (+ve) / Under(-ve) Recovery (%)
2012-13	0.1%
2011-12	-1.5%
2010-11	0.8%
2009-10	-3.1%
2008-09	1.0%

**Table 3 Outturn of Historic years for G/D Split**

- 4.51 The Workgroup noted that this is indicative of the level of variability that could occur in transmission charges paid by GB generation in a given charging year, as both are driven by similar events, for example, the timing of the appointment of an Offshore TO and its associated revenue.
- 4.52 Taking into account the potential level of variability in the Allowed TO Revenues displayed in **Tables 2 and 3** above, the Workgroup agreed that it would be good to have a margin on the cap to avoid a breach of the €2.5/MWh limit. It was suggested that this could be a fixed value based upon the maximum error margin presented (3.1%).

- 4.53 The National Grid representative outlined a possible calculation method for such a margin using the proposed mechanism used to assess potential forecast errors. This would be done by using the following calculation of an inflated annual average transmission charges paid by generators (in GB) of:

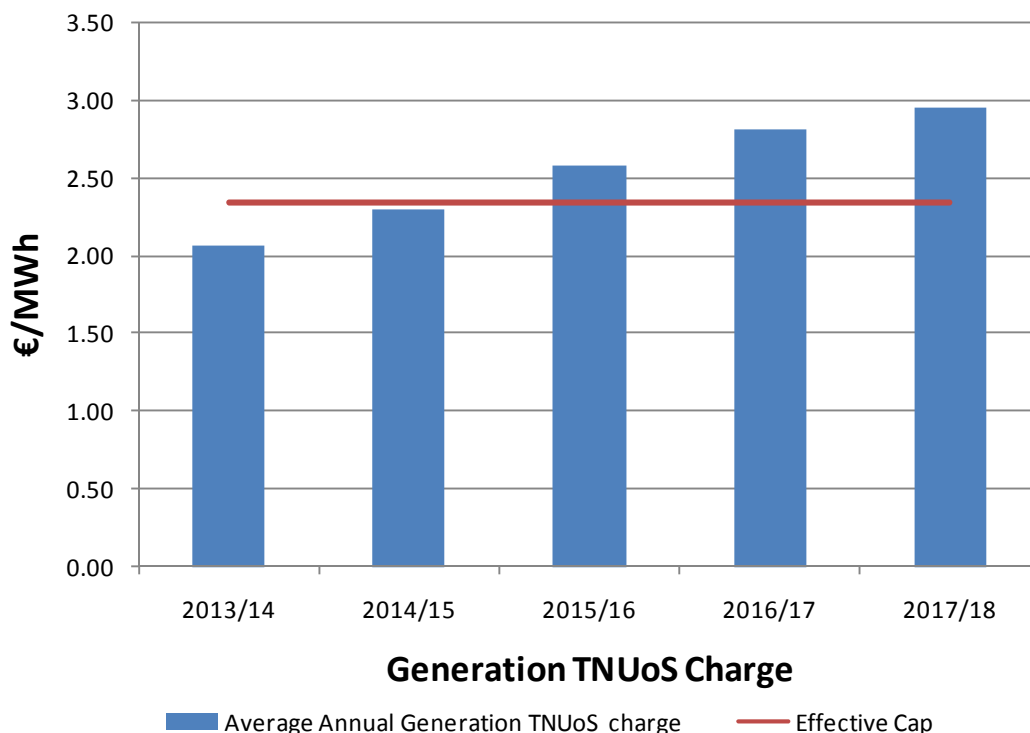
$$\frac{\text{Inflated Recovery} \times \text{Inflated Exchange Rate Forecast}}{\text{Deflated Generation Output}}$$

The largest deviation from forecasts observed over a five year period was taken to calculate an inflated annual average transmission charges, as follows:

$$\frac{(\text{Forecast Recovery} \times 1.031) \times (\text{Forecast Exchange Rate} \times 1)}{\text{Generation Output} \times 0.969}$$

$$= 1.064 \times \frac{\text{Forecast Recovery} \times \text{Forecast Exchange Rate}}{\text{Generation Output}}$$

Rounding up to the nearest 1%, applying this calculation would result in a margin of 7%. This equates to setting GB generation TNUoS tariffs under a best forecast to a limit of €2.34 /MWh instead of the €2.5 MW/h upper limit set out in the EC Regulation (as presented in **Figure 6**). The Workgroup felt that applying this mechanism would be reasonable for the Proposal as there is a certain level of rationale behind the mechanism.



**Figure 6: Annual average transmission charge paid by generation under the Gone Green scenario compared with a €2.34/MWh limit**



- 4.54 The Workgroup felt that it would be sensible to hard code the use of a 7% bandwidth in the CUSC which could then be kept under review by National Grid.
- 4.55 The application of a 7% bandwidth in 2015/16 is forecast to result in the G/D split changing from 27% to 24% of TNUoS revenues being recovered through generation charges and 76% (instead of 73%) being recovered from demand charges. Assuming a generation background of 79GW and a peak demand of 56GW, this would have the effect of decreasing the generation residual by £1.02/kW and increasing the demand residual by £1.44/kW.
- 4.56 It was noted that if a bandwidth was calculated inclusive of the variation of the annual average €/£ exchange rate (4.3%) then this would be set at 11%, which equated to applying limit of €2.25/MW/h (instead of the current €2.5 /MWh limit).

**Q7. Do you believe that the application of an additional bandwidth to manage the risk of potential breaches of the limit set out in EC Regulation 838/2010 is appropriate?**

### **Workgroup Alternative CUSC Modifications**

- 4.57 The Workgroup discussed possible Workgroup Alternative CUSC Modifications based upon its discussions to date. In addition to the potential alternative to remove local charges that related to spurs provided only for the purpose of connecting generation (option (iv) in Table 1), the Workgroup also discussed whether or not the G/D split should be restored to the current 27:73 in subsequent charging years following the application of the cap if this does not result in a breach of the limit set out in the EC Regulation. The Proposer highlighted that as the purpose of the Modification Proposal was only to avoid a breach of the EC Regulation the intention would be to revert back to a 27:73 split under this scenario.
- 4.58 In contrast, it was argued that the potential for the G/D split to return to 27:73 introduced a level of uncertainty that would provide difficulties to Suppliers in setting their retail prices. However, there was also a view that considered that Suppliers would benefit from the return to 27:73 in the short term as this would reduce their element of the total TNUoS charges for the charging year concerned (for which they may have already purchased their energy). It was agreed that the overall benefit depended upon whether or not Suppliers valued increased certainty greater than the potential increase in costs. However, it was noted that under this scenario there would be an increased risk placed on generators of a return to 27:73 and that this risk would be passed on, in the form of a risk premium, to suppliers via the overall wholesale market price.

**Q8. Do you believe that the a G/D split should revert back to 27:73 in charging years following the application of the proposed cap (assuming no breach of the EC Regulation)?**

The Workgroup moved on to consider how an alternative in this area could work. It was suggested that the G/D split could be adjusted to ensure that the annual average charges included in the bandwidth in a future charging year (e.g. 2017/18) falls below the required limit. Under this solution, the same G/D split would apply to all charging years. It was highlighted that this solution could still encounter a breach, if there was a change in the Regulation €2.5 /MWh upper limit applied under the EC Regulation (e.g. following the ACER review). However, it was suggested that this could be adapted to be reassessed on an ongoing basis. The Workgroup agreed to consider this as a potential alternative CUSC modification.

### **Next Steps**

- 4.59 The Workgroup will meet after this consultation to consider the responses submitted and seek, with the Proposer, to finalise the Proposal. Once the Workgroup have finalised the Proposal post consultation they will agree the legal text for the Original and any

alternative(s). This legal text will be submitted to the Panel and will form part of the later Code Administrator consultation prior to the Proposal being submitted to the Panel for their recommendation, which will be sent to the Authority for a decision.

## 5 Workgroup Alternatives

- 5.1 Section 4 of this report highlights the main areas of the Workgroup discussion that could lead to possible alternatives. The Proposer indicated at the most recent Workgroup meeting that the Original Proposal is currently based on the annual average transmission charges paid by generators GB including all TNUoS based charges (that is all local and wider charges); with the cap based on a forecast (with no reconciliation); using a bandwidth of 7% to manage any forecast error set once; and set on a charging year basis. Given this, currently, it appears that there are a number of potential Alternatives through a combination of the various options discussed in Section 4, namely:
- a) Options around excluding some local charges from the annual average transmission charges figure for GB, these being:
    - i) All local charges (as per the CUSC definition);
    - ii) Sole use asset Local charges (where only one generator uses the assets – not shared);
    - iii) Specifically costed asset Local charges (assets charges based on actual rather than generic prices);
    - iv) Charges for radial spur connections used only for connecting generation to the MITS;
    - v) Local charges for assets built as part of works facilitating a generation connection; and
    - vi) Local substation charges;
  - b) Options with the cap based on:
    - i) Using actuals outturn and reconciliation; or
    - ii) A fixed bandwidth;
  - c) An error managed:
    - i) by a methodology; or
    - ii) A fixed bandwidth;
  - d) Compliance based on a calendar year (rather than a charging year); and
  - e) Whether the G/D Split should revert back to 27:73 following the application of the cap (if doing so would not result in a breach of the limit specified in the EC Regulation (currently €2.5 /MWh)).
- 5.2 The arguments for and against these various option have been highlighted in the discussions set out in Section 4 of this report. The Workgroup are interested in any further evidence consultation respondents can provide to support any of these potential alternatives.
- 5.3 Respondents can also suggest a formal Workgroup Alternative and the process to follow for doing this is set out in the link shown in paragraph 8.3 below. Following this consultation the Workgroup will consider this (with supporting evidence) along with the possible alternatives above. It will then vote to establish any formal Workgroup Alternative(s) that overall better meet the relevant Applicable Objectives applied to the Charging Methodologies. In this process it is expected that the list in paragraph 5.1 above will be reduced with possibly only a few (or no) alternatives being taken forward.

### Impact on the CUSC

- 6.1 Changes to Section 14, the TNUoS Charging Methodology, and possible changes to Section 11, Definitions and Interpretations

### Impact on Greenhouse Gas Emissions

- 6.2 None identified.

### Impact on Core Industry Documents

- 6.3 None identified.

### Impact on other Industry Documents

- 6.4 None identified.

## 7 Proposed Implementation and Transition

- 7.1 At this stage the Workgroup assumption is that if implemented the Proposal should come into effect prior to the start of the next charging year after the Authority decision, providing that the Authority decision is made by the 30th November preceding that charging year (i.e. a minimum of four months notice). The Workgroup have not identified the need for any transition arrangements for CMP 224.
- 7.2 The Workgroup discussed a number of potential implementation issues.
- 7.3 It was asked if, given the National Grid legal opinion received in relation to the inclusion of Local TNUoS charges within the calculation of the GB annual average transmission charges for the purposes of compliance with the EC Regulation, whether or not National Grid would need to change the way in which this is reported to Ofgem and ACER. It was noted that National Grid has included Local Charges within their reporting to date, and so would not need change the way they report this on the basis of the legal opinion.
- 7.4 The Workgroup has noted that there was a misalignment between the calendar year on which the EC Regulation and the ACER review is based, and the charging year that National Grid bases its charges (and reporting) on. It was agreed that the management of fulfilling the EC Regulation given this misalignment would need to be considered as part of the Original Proposal (and any alternative(s)).
- 7.5 There was an assumption that National Grid would continue to report on a charging year basis, although this may cause an implementation issue in the first year it was agreed that it would be a good idea to confirm that this will continue to be acceptable with the European Commission. However, such confirmation may not be forthcoming from them prior to an Authority decision on this Proposal.
- 7.6 The Workgroup discussed how this misalignment could possibly affect implementation timescales. It was stated that the practical application of the Proposal would occur at the start of the GB TNUoS charging year (1<sup>st</sup> April) with draft TNUoS charges produced by National Grid prior to the end of the preceding December and final TNUoS tariffs by the end of the preceding January. The Workgroup also stated that ultimately it would be up to the Authority to make the final decision as the Panel can only advise on an implementation date.
- 7.7 The Workgroup considered the risk that the ongoing ACER review (which is due to submit an opinion to the European Commission by 1<sup>st</sup> January 2014) may result in the current €2.5 /MWh upper limit for GB set out within the EC Regulation being revised downwards, which would potentially be effective from 1<sup>st</sup> January 2015 (noting the possibility that the European Commission's final decision on ACER's opinion might be delayed). It was suggested that if the European Commission gave enough notice of this, National Grid could put forward a case to Ofgem to allow a mid-year TNUoS tariff change in order to ensure GB remains compliant with the (revised) € /MWh limit set out in the EC Regulation. All Workgroup members thought that this would not be a preferable option.
- 7.8 It was then suggested that National Grid would be able to adjust TNUoS tariffs as usual at the start of the charging year in order to comply with the (revised) EC Regulation limit. The Workgroup came up with two options to put forward to Ofgem of how to deal with a reduced € /MWh limit in the EC Regulation. These were:
- i. As National Grid changes TNUoS tariffs and report on a charging year basis, they will base their compliance on the charging year rather than the calendar year. If the European Commission revises the € /MWh limit downward (from €2.5 /MWh) to take effect from 1st January 2015 there could potentially be a breach, by GB, for 3 months and then National Grid will change TNUoS tariffs from the start of the charging year

2015/16 (i.e. 1<sup>st</sup> April 2015) onwards in order to be compliant with the (revised) EC Regulation € /MWh limit.

- ii. If the European Commission revises the € /MWh limit downward (from €2.5 /MWh) to take effect from 1<sup>st</sup> January 2015, GB will breach the EC Regulation in the first 3 months (of 2015) but then compensate for this by reducing the TNUoS tariffs from 1<sup>st</sup> April 2015 onwards so that the TNUoS tariffs are compliant over the calendar year 2015 as the € /MWh limit in the EC Regulation is based on the annual average transmission charges.

7.9 The Workgroup felt that generally option (ii) would be a viable option, but this would depend upon the European Commission's opinion on whether this would be acceptable. Such an opinion may not be forthcoming from them prior to an Authority decision on this Proposal

7.10 These options would be provided to the Authority as part of the Final Modification Report to advise how National Grid would deal with the potential scenario of reduction in the € /MWh limit prescribed by the EC Regulation.

7.11 The Workgroup is seeking industry views on when the Proposal should be implemented and if there are any special arrangements that should be considered that could lead to the need for formal transition arrangements.

## 8 Responses

- 8.1 This Workgroup is seeking the views of CUSC Parties and other interested parties in relation to the issues noted in this documents and specifically in response to the questions highlighted in the report and summarised below:

### Standard CUSC Workgroup consultation questions;

- Q1:** Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible
- Q2:** Do you have any other comments?
- Q3:** Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider? Please see 8.3.

### Specific CMP224 questions;

- Q4:** Do you believe that the Workgroup has considered all potential interpretations of “charges paid by producers for physical assets required for connection to the system or the upgrade of the connection” to be excluded from the annual average transmission charge referred to under EC Regulation 838/2010?
- Q5:** Do you believe that any Local Generation TNUoS Charges (or a subset thereof listed in Table 1 or otherwise) should be excluded from the annual average transmission charge as part of defining a cap on the proportion of TNUoS charges paid by generation under the proposed solution?
- Q6:** Do you believe that based upon the summary legal opinion from National Grid it would be sensible to include assets subject to local TNUoS charges within the calculation of the annual average transmission charges for GB for the reason set out?
- Q7:** Do you believe that the application of an additional bandwidth to manage the risk of potential breaches of **the limit set out in** EC Regulation 838/2010 is appropriate?
- Q8:** Do you believe that the G/D split should revert back to 27:73 in charging years following the application of the proposed cap (assuming no breach of the EC Regulation)?

- 8.2 If you wish to make a representation on this Workgroup Consultation, please use the response proforma which can be found under CMP224 at the following link:

<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/currentamendmentsproposals/>

- 8.3 In accordance with Section 8 of the CUSC, CUSC Parties, BSC Parties and the National Consumer Council may also raise a Workgroup Consultation Alternative Request. If you wish to raise such a request, please use the relevant form available at the weblink below:

[http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/forms\\_guidance/](http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/forms_guidance/)

- 8.4 Views are invited upon the proposals outlined in this report, which should be received by 23<sup>rd</sup> January 2014. Your formal responses may be emailed to: [cusc.team@uk.ngrid.com](mailto:cusc.team@uk.ngrid.com)
- 8.5 If you wish to submit a confidential response, please note that 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.
- 8.6 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 and Confidential".



## Annex 1 – CMP224 CUSC Modification Proposal Form

# CUSC Modification Proposal Form (for nationalgrid Charging Methodology Proposals) CMP224

## Connection and Use of System Code (CUSC)

Title of the CUSC Modification Proposal
Cap on the total TNUoS target revenue to be recovered from generation users
Submission Date
19/09/2013
Description of the Issue or Defect that the CUSC Modification Proposal seeks to address
<p>European Commission Regulation 838/2010 applies a range of 0 - 2.5 €/MWh that average annual transmission charges payable by generators in GB must remain within. If in any given year the average annual generation transmission charges do not fall within this range, National Grid runs the risk of being non-compliant with the regulation. This range applies until the end of December 2014. ACER is currently carrying out a review of the appropriateness of this range for the period beyond December 2014 and will provide its opinion to the Commission by 1<sup>st</sup> January 2014. Therefore it is important that the average annual generation transmission charges remain within the current prescribed range until December 2014, and within the revised range (if modified after ACER's review) that may come into force from 1<sup>st</sup> January 2015.</p> <p>The value of average annual transmission charges payable by generators is dependent on a number of parameters which include -</p> <ul style="list-style-type: none"> <li>• Demand forecasts</li> <li>• Revenue forecasts</li> <li>• £/€ Exchange rate</li> </ul> <p>Considering the impact of all these parameters along with the ACER review outcome, it is possible that the level of these charges does not breach the range specified by the EC regulation anytime soon. However, it cannot be assumed with absolute certainty that the level of these charges will remain within the range in future.</p> <p>The driver for this proposal is to counter the risk of non-compliance with the EC regulation if indeed a breach of the range applied on generation transmission charges becomes a possibility in future. The broader context of harmonisation of transmission tariffs across Europe to facilitate a single competitive market falls outside the remit of this proposal. It is National Grid's view that the latter goal can only be accomplished by a comprehensive review of the Generation/Demand revenue split (G/D split in short). However, as the common regulatory approach to transmission charging across Europe is still evolving, it is recommended to carry out such an exercise when the European position in this area becomes clearer. This proposal does not aim to go into that level of detail.</p>

<b>Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes / No</b>	
No	
<b>Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information</b>	
BSC	<input type="checkbox"/>
Grid Code	<input type="checkbox"/>
STC	<input type="checkbox"/>
Other <i>(please specify)</i>	<input type="checkbox"/>
<b>Urgency Recommended: Yes / No</b>	
No	
<b>Justification for Urgency Recommendation</b>	
N/A	
<b>Self-Governance Recommended: Yes / No</b>	
No	
<b>Justification for Self-Governance Recommendation</b>	
N/A	
<b>Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?</b>	
We believe that this proposal does not have any interaction with an ongoing SCR.	
<b>Impact on Computer Systems and Processes used by CUSC Parties:</b>	
DCLF ICRP Transport Model	

### Details of any Related Modification to Other Industry Codes

None Identified

### 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.

#### Full justification:

The European Commission Regulation 838/2010 is legally binding for all Transmission licensees across Europe. National Grid believes that this proposal ensures that it remains compliant with the European legislation and properly reflects National Grid's duties in the development of its transmission business, in the absence of an overarching direction of European charging arrangements.

#### Connection Charging Methodology

- ☐ (a) that compliance with the connection 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 connection 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 connection charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;
- ☐ (d) in addition, the objective, in so far as consistent with sub-paragraphs (a) above, of facilitating competition in the carrying out of works for connection to the national electricity transmission system.

**Full justification:**

#### Additional details

<b>Details of Proposer:</b> (Organisation Name)	National Grid Electricity Transmission Ltd.
<b>Capacity in which the CUSC Modification Proposal is being proposed:</b> (i.e. CUSC Party, BSC Party or "National Consumer Council")	CUSC Party
<b>Details of Proposer's Representative:</b> Name: Organisation: Telephone Number: Email Address:	Tushar Singh National Grid Electricity Transmission Ltd. 01926 656829 <a href="mailto:tushar.singh@nationalgrid.com">tushar.singh@nationalgrid.com</a>
<b>Details of Representative's Alternate:</b> Name: Organisation: Telephone Number: Email Address:	Adam Sims National Grid Electricity Transmission Ltd. 01926 655292 <a href="mailto:adam.sims@nationalgrid.com">adam.sims@nationalgrid.com</a>
<b>Attachments (Yes/No):</b>  No	

## Annex 2 – CMP224 Terms of Reference

CMP224 Workgroup Terms of Reference

V1.0 11 October 2013

### Workgroup Terms of Reference and Membership TERMS OF REFERENCE FOR CMP224 WORKGROUP

#### Responsibilities

1. The Workgroup is responsible for assisting the CUSC Modifications Panel in the evaluation of CUSC Modification Proposal CMP224 'Cap on the Total Target Revenue to be recovered from Generation Users' tabled by National Grid Electricity Transmission Plc at the Modifications Panel meeting on 27 September 2013.
2. The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable CUSC Objectives. These can be summarised as follows:
  - (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.
3. It should be noted that additional provisions apply where it is proposed to modify the CUSC Modification provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

#### Scope of work

4. The Workgroup must consider the issues raised by the Modification Proposal and consider if the proposal identified better facilitates achievement of the Applicable CUSC Objectives.
5. In addition to the overriding requirement of paragraph 4, the Workgroup shall consider and report on the following specific issues:
  - a) Consider the potential outcome of the ongoing ACER review on the ranges prescribed for annual average generation transmission charges, by the European regulation.
  - b) Consider implementation timescales



- c) Review illustrative legal text
- 6. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative CUSC Modifications (WACMs) arising from Group discussions which would, as compared with the Modification Proposal or the current version of the CUSC, better facilitate achieving the Applicable CUSC Objectives in relation to the issue or defect identified.
- 7. The Workgroup should become conversant with the definition of Workgroup Alternative CUSC Modification which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual member of the Workgroup to put forward a WACM if the member(s) genuinely believes the WACM would better facilitate the achievement of the Applicable CUSC Objectives, as compared with the Modification Proposal or the current version of the CUSC. The extent of the support for the Modification Proposal or any WACM arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the CUSC Modifications Panel.
- 8. Workgroup members should be mindful of efficiency and propose the fewest number of WACMs possible.
- 9. All proposed WACMs should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WACMs which are proposed by the entire Workgroup or subset of members.
- 10. There is an obligation on the Workgroup to undertake a period of Consultation in accordance with CUSC 8.20. The Workgroup Consultation period shall be for a period of 3 weeks as determined by the Modifications Panel.
- 11. Following the Consultation period the Workgroup is required to consider all responses including any WG Consultation Alternative Requests. In undertaking an assessment of any WG Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Applicable CUSC Objectives than the current version of the CUSC.

As appropriate, the Workgroup will be required to undertake any further analysis and update the original Modification Proposal and/or WACMs. All responses including any WG Consultation Alternative Requests shall be included within the final report including a summary of the Workgroup's deliberations and conclusions. The report should make it clear where and why the Workgroup chairman has exercised his right under the CUSC to progress a WG Consultation Alternative Request or a WACM against the majority views of Workgroup members. It should also be explicitly stated where, under these circumstances, the Workgroup chairman is employed by the same organisation who submitted the WG Consultation Alternative Request.

- 12. The Workgroup is to submit its final report to the Modifications Panel Secretary on 23 January 2014 for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting on 31 January 2014.

## Membership

13. It is recommended that the Workgroup has the following members:

Role	Name	Representing
<i>Chairman</i>	Patrick Hynes	National Grid
<i>National Grid Representative*</i>	Tushar Singh (Proposer)	National Grid
<i>Industry Representatives*</i>	Garth Graham	SSE
	James Anderson	Scottish Power
	Paul Mott	EDF
	Cem Suleyman	Drax Power
	Guy Philips	E.ON
	Jeremy Gummow	RWE
<i>Authority Representatives</i>	Donald Smith	Ofgem
<i>Technical secretary</i>	Jade Clarke	Code Administrator
<i>Observers</i>		

NB: A Workgroup must comprise at least 5 members (who may be Panel Members). The roles identified with an asterisk in the table above contribute toward the required quorum, determined in accordance with paragraph 14 below.

14. The chairman of the Workgroup and the Modifications Panel Chairman must agree a number that will be quorum for each Workgroup meeting. The agreed figure for CMP224 is that at least 5 Workgroup members must participate in a meeting for quorum to be met.
15. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WACM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise]. There may be up to three rounds of voting, as follows:
- Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives;
  - Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the original Modification Proposal;
  - Vote 3: which option is considered to BEST facilitate achievement of the Applicable CUSC Objectives. For the avoidance of doubt, this vote should include the existing CUSC baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.

16. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should raise these with the Workgroup chairman at the earliest possible

opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.

17. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.
18. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.
19. The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

#### Appendix: Indicative Workgroup Timetable

The following timetable is indicative for the CMP224 Workgroup.

W/C 30 September	Send out request for WG nominations
24 October	Workgroup meeting 1
W/C 4 November	Workgroup meeting 2
13 November	Issue draft Workgroup Consultation for Workgroup comment (5 working days)
20 November	Deadline for comments on draft Workgroup Consultation
22 November	Publish Workgroup consultation (for 3 weeks)
13 December	Deadline for responses to Workgroup consultation
W/C 16 December	Post-consultation Workgroup meeting
9 January	Circulate draft Workgroup Report
16 January	Deadline for comment on Workgroup report
23 January	Submit final Workgroup report to Panel Secretary
31 January	Present Workgroup report to CUSC Modifications Panel



### Annex 3 – Workgroup attendance register

Name	Organisation	Role	24/10/13	14/11/13	06/12/13
Patrick Hynes	National Grid	Chairman	Attended	Attended	Attended
Jade Clarke	National Grid	Technical Secretary	Attended	Attended	Attended
Tushar Singh	National Grid	Proposer / National Grid representative	Attended	Apologies	Attended
Wayne Mullins	National Grid	Proposer's Alternative / National Grid representative	Apologies	Attended	Attended
Donald Smith	Ofgem	Authority representative	Teleconference	Attended	Teleconference
Garth Graham	SSE	Workgroup Member	Attended	Attended	Attended
James Anderson	Scottish Power	Workgroup Member	Attended	Apologies	Attended
Cem Suleyman	DRAX	Workgroup Member	Attended	Apologies	Attended
Paul Mott	EDF Energy	Workgroup Member	Attended	Apologies	Teleconference
Jeremy Gummow	RWE	Workgroup Member	Attended	Attended	Attended
Kyle Martin	Energy UK	Workgroup Member	Teleconference	Attended	Apologies
Guy Phillips	EON	Workgroup Member	Attended	Attended	Attended

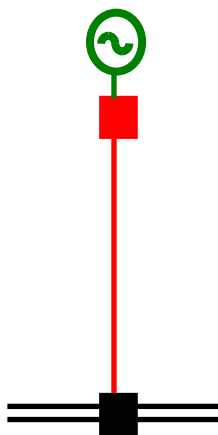
## Annex 4 – Radial spurs used only for connecting generation to the MITS

The following diagrams provide examples of radial spurs used only for connecting generation to the MITS. These assets are a subset of those for which local TNUoS charges are applied which:

- (i) are solely used for connecting generation to the MITS (Main Integrated Transmission System); and
- (ii) do not parallel the MITS.

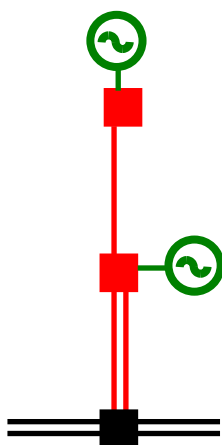
In these examples, the assets represented in red form the radial spurs used only for connecting generation to the MITS. Those in blue are assets not forming part of the spur, but form part of the assets for which a Local circuit charge<sup>5</sup> will be levied. Black circuits represent those assets which form part of the MITS, and green assets represent connection assets or assets owned by a generator.

### Example 1



This example shows the simplest example of a single radial spur used only for connecting generation to the MITS, in the form of a single circuit. The circuit does not parallel the MITS, as it connects to a single MITS substation.

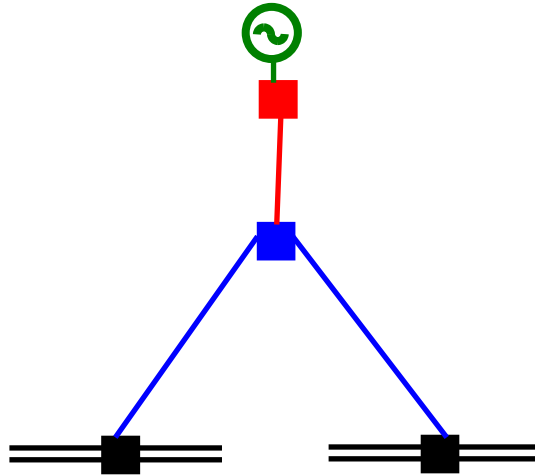
### Example 2



<sup>5</sup> Local substation charges only apply for the first transmission substation to which a generator connects.

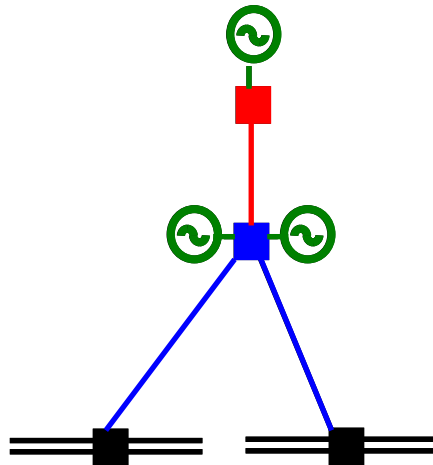
Building on example 1, this example shows a slightly more complex radial connection to the MITS comprising of two generation substations connected via a single circuit, with a double circuit connecting one of these to the MITS. All these assets form a single radial spur used only for connecting generation to the MITS.

### Example 3

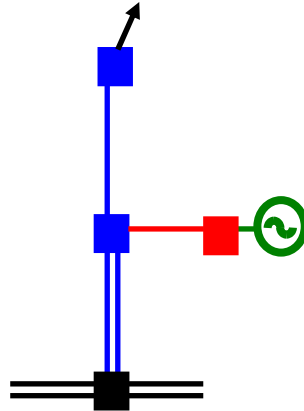


Example 3 shows a generation substation connecting to a second substation via a single circuit which is further connected to two different MITS substations. In this case, only the generation substation and the circuit connecting this to the second substation form a single radial spur used only for connecting generation to the MITS. The second substation and both the local circuits connecting this to the MITS substations do not form part of the spur as these parallel the MITS.

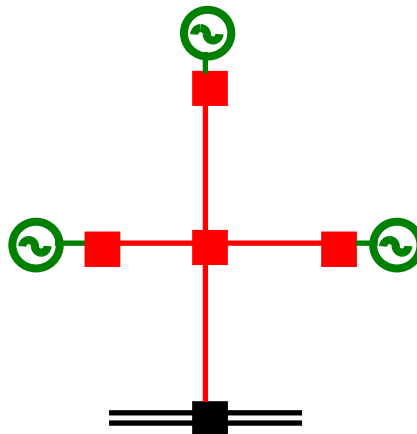
### Example 4



This example is identical to Example 3 with the exception that generation connects to the second substation. This makes no difference to the assets that form a radial spur used only for connecting generation to the MITS.

**Example 5**

This example shows a radial circuit that facilitates both generation and demand. The separate demand and generation substations connect via to a substation via a single circuit which in turn connects to a single MITS substation via a double circuit. In this scenario the generation substation and the single circuit connecting to the intermediary substation form a radial spur used only for connecting generation to the MITS.

**Example 6**

Example 6 shows three generation substations connecting into a feeder substation via single circuits which then connects to a MITS substation. In this example, all of the local assets from the generation substations up to the MITS substation form a radial spur used only for connecting generation to the MITS. It is worth noting that as no local substation charge is levied for the feeder substation, no charges relating to this would be removed from the annual average transmission charge in this example.