

# Stage 06: Final CUSC Modification Report

Connection and Use of System Code  
(CUSC)

## CMP214 Implementation of TNUoS Charging Parameter Updates following a Price Control Review

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

This proposal seeks to modify the CUSC to alter the implementation of any required updates to those TNUoS charging parameters reviewed at the start of a price control period, including generation charging zones, to the start of the second charging year within the new price control period.

Submitted on: 30 November 2012



***The CUSC Panel Recommend that:***

CMP214 should be implemented as it better facilitates the Applicable CUSC Objectives



***High Impact:***

All parties who pay TNUoS charges.

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### Any Questions?

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## About this document

This is the Final CUSC Modification Report for CMP214 which has been prepared and issued by National Grid as Code Administrator under the rules and procedures specified in the CUSC. The purpose of this document is to assist the Authority in their decision whether to implement CMP214.

## Document Control

Version	Date	Author	Change Reference
0.1	20 November 2012	Code Administrator	Version to the Industry
0.2	22 November 2012	Code Administrator	Version for Panel Vote
0.3	27 November 2012	Code Administrator	Version for Panel Comment
1.0	30 November 2012	Code Administrator	Version for Submission to Authority



### What is TNUoS?

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Transmission Network Use of System Charges recover the costs incurred by Transmission Owners in their businesses. They reflect the costs of installing and maintaining the National Electricity Transmission System assets required to allow the transfer of power between connection sites and to provide transmission security. Zonal tariffs are produced annually by National Grid.

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- 1.1 CMP214 seeks to alter the implementation date for any updates to the charging parameters used in the calculation of Transmission Network Use of System (TNUoS) tariffs which are reviewed at the start of each price control period. This includes updates to generation charging zones.
- 1.2 CMP214 was proposed by National Grid Electricity Transmission Plc and submitted to the CUSC Modifications Panel for their consideration on 25 October 2012. Further to the Proposer's recommendation that CMP214 should be progressed through the urgent route, the CUSC Panel considered the Proposer's request for urgency with reference to Ofgem's guidance on Code Modification Urgency Criteria.<sup>1</sup> The majority view of the Panel was that CMP214 should be treated as Urgent for the following reasons:
  - (i) CMP214 refers to an imminent issue, in that the CUSC requires final 2013/14 TNUoS tariffs to be published by the end of January 2013 and that it is standard practice to publish draft tariffs before the end of the preceding December; and
  - (ii) The issues addressed by CMP214 may cause a significant impact on the TNUoS charges that generators and suppliers are liable for.
- 1.3 The CUSC Panel Chairman wrote to the Authority on 29 October 2012 with the request for CMP214 to be treated as an urgent proposal. This letter can be found in Annex 4. The Authority approved the request on 1 November 2012, and a copy of their approval letter can be found in Annex 5.
- 1.4 The Authority accepted the Panel's recommendation to progress CMP214 as urgent. Further details on CMP214 and its treatment as urgent can be found in section 1.7.
- 1.5 The Panel determined that CMP214 should be sent to the Code Administrator Consultation phase for a period of 10 working days and that a Special Panel meeting would be held on 27 November 2012 for the Panel Recommendation Vote. The proposed timetable is contained as Annex 3.
- 1.6 The Code Administrator Consultation was published on 5 November 2012 and closed on 19 November 2012. 11 responses were received and these are summarised in Section 8. The full responses can be found in Annex 9. The majority of respondents were generally supportive of CMP214 better facilitating Applicable Objective (a), but some had concerns around Applicable CUSC Objective (b).
- 1.7 This CUSC Modifications Report has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid website at [www.nationalgrid.com/uk/Electricity/Codes](http://www.nationalgrid.com/uk/Electricity/Codes), along with the CUSC Modification Proposal form.

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<sup>1</sup> Ofgem's Urgency Criteria can be found here:

<http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/Ofgem%20Guidance%20on%20Code%20Modification%20Urgency%20Criteria.pdf>

## **CUSC Modifications Panel's View**

- 1.8 The CUSC Panel voted by a majority of 7 to 2 that CMP214 better facilitates the Applicable CUSC Objectives and so should be implemented. Full details of the vote can be found in Section 7 of this report.

## **National Grid's View**

- 1.9 National Grid supports the implementation of CMP214 as it better facilitates Applicable CUSC Objective (a) in that it will improve efficient competition in the generation and supply of electricity. This is through longer-term visibility of changes to TNUoS charging parameters and generation charging zones which will assist the predictability of TNUoS charges allowing suppliers and generators to efficiently incorporate these charges into their overall pricing structures. The Proposer's justification for urgency can be found within the CUSC Modification Proposal Form in Annex 1.

## 2 Why Change?

- 2.1 Due to CMP214 progressing directly to Code Administrator Consultation and thus not having a Workgroup, the information in this section has not been further developed from the initial information provided by the Proposer in the CUSC Modification Proposal Form.
- 2.2 TNUoS tariffs are comprised of two separate elements. Firstly, a locational element which reflects the costs of capital investment in, and the maintenance and operation of, a transmission system to provide bulk transport of power to and from different locations. Secondly, a non-locationally varying element relating to the provision of residual revenue recovery. The combination of both these elements forms the TNUoS tariff.
- 2.3 A number of parameters used to derive the locational element of generation and demand TNUoS tariffs are fixed or are limited to inflationary updates between price control reviews. The purpose of this is to provide stability of tariffs. At the start of each new price control period these charging parameters are reviewed and updated. The review includes a number of key elements as listed below.
  - the expansion constant and expansion factors, which reflect the cost of investing in the transmission network;
  - the charging parameters used in the calculation of the expansion constant and expansion factors, namely the annuity factor (comprised of the weighted average cost of capital, and asset life), the overhead factor (the cost of operating and maintaining the transmission system), and capital costs (the cost of capital investment on the transmission system);
  - the locational security factor that reflects the cost of providing a secure integrated transmission network; and
  - the generation charging zone boundaries.

- 2.4 These key elements, their role in the setting of TNUoS tariffs, and their impact on TNUoS tariffs are further described in Annex 7.
- 2.5 Due to the time between each price control period, when reviewed there can be significant changes to some or all of these key elements, which in turn can have a significant impact on the TNUoS charges which generators and suppliers are liable for.
- 2.6 Changes to some or all of these key elements can affect both wider and local TNUoS tariffs paid by generation users, and also zonal demand and energy consumption tariffs paid by demand users.
- 2.7 Ofgem have stated in their recent consultation<sup>2</sup> that network charging volatility arising from the price control is one of the key issues raised by stakeholders during the current price control reviews. Additionally the Proposer has identified that as part of National Grid's RIIO-T1 stakeholder engagement, National Grid has discussed transmission charges with its customers, and found that its customers value charges which are transparent, predictable, and where possible stable, although predictability is paramount.
- 2.8 The review of charging parameters and generation zones is dependent on information from two main sources. The first of these is network data such as information relating to the National Electricity Transmission System as well as generation and demand backgrounds. This is not confirmed until the end of October ahead of the start of the new price control period. The second information source is financial data which cannot be confirmed until the final proposals for the new price control are announced, which for RIIO-T1 is expected to be in mid-December 2012. Table 1 below indicates the dependencies of the charging parameters on these two data sources.

	Network Data Dependent	Financial Data Dependent
Expansion Constant	No	Yes
Expansion Factors	No	Yes
Security Factor	Yes	No
Generator Zones	Yes	Yes

Table 1 – Data dependencies of charging parameters

<sup>2</sup> [Mitigating network charging volatility arising from the price control settlement](#)

- 2.9 The timeline for the review of charging parameters and generation charging zones for the start of RIIO-T1 is described further in Annex 6.
- 2.10 Additionally, the review of the generation charging zone boundaries is dependent on having first finalised any updates to the charging parameters including the expansion constant, expansion factors and locational security factor.
- 2.11 National Grid has indicated that they can begin to analyse the likely impact of any charging parameter changes ahead of this data being confirmed, but the full impact on TNUoS tariffs and generation charging zones cannot be understood and communicated in draft form to customers until at least late December prior to the start of the new price control period. This is three months before the start of the new charging year when these changes would be implemented.
- 2.12 The Proposer believes that, if the changes to these charging parameters and/or generation charging zones are found to cause significant change to TNUoS tariffs, coupled with the provision of only three months notice of the change, this will introduce a significant level of unpredictability to TNUoS charges.
- 2.13 The RIIO-T1 price control period is expected to commence in April 2013. National Grid have commenced the required review of charging parameters and generation charging zones, and have presented their initial analysis of likely changes and their potential impact on TNUoS tariffs to industry at the September 2012 Transmission Charging Methodologies Forum (TCMF). This analysis, which shows potential for significant change to TNUoS tariffs, has been provided by National Grid and can be found in Annex 6 of this report. Under the current methodology these changes would take effect from 1 April 2013.
- 2.14 Further to National Grid's engagement with stakeholders through both TCMF and its RIIO-T1 stakeholder engagement, the Proposer believes that the effect of these changes are not predictable to TNUoS charge payers until the outcome of the review and update of charging parameters and generation charging zones is known. Therefore, under the current TNUoS charging methodology, any required changes cannot be efficiently incorporated into generator and supplier pricing structures.

### 3 Solution

- 3.1 As an urgent CUSC modification proposal, CMP214 has progressed directly to Code Administrator Consultation. As a result no Workgroup has been established and no alternative solutions have been developed.
- 3.2 CMP214 seeks to delay the implementation of any required updates to those charging parameters and generation charging zones reviewed by the start of a new price control period until the start of the second charging year within the new price control period. For example, changes to charging parameters or generation charging zones for the RIIO-T1 price control period (commencing in April 2013) would not take effect until 1 April 2014.
- 3.3 The Proposer believes that this will provide customers with additional notice of all charging parameter changes reviewed by the start of a new price control period and generation charging zone changes, thus improving the predictability of TNUoS charges, and allowing them to efficiently incorporate the changes into their pricing structures.
- 3.4 It is proposed that the publication of revised charging parameters and generation charging zones would continue to be by the start of the price control period.
- 3.5 For the avoidance of doubt, this proposal is limited to those charging parameters which are reviewed at the start of a new price control period, including the review of generation charging zones which is dependent on the outcome of the charging parameter review. In the first year of the price control parameters would be updated by RPI as they are during price control periods.
- 3.6 In addition to the need for the review of generation charging zones at the start of a new price control period, paragraph 14.15.21 of Section 14 of the CUSC, describes the potential need for review and update of these zones in “exceptional circumstances” during a price control period. This proposal seeks to treat such generation charging zone reviews and updates in an identical manner to those undertaken at the start of a price control period.
- 3.7 This proposal seeks to modify the timing of changes which affect the locational element of TNUoS tariffs only. Hence there is no proposed change to the TNUoS charging methodology for calculation of the residual element, and therefore there is no impact on the collection of Transmission Owner allowed revenue.



### Impact on the CUSC

- 4.1 CMP214 requires amendments to the following parts of the CUSC:
- Section 14 Part 2
- 4.2 The text required to give effect to this proposal is contained in Annex 2 of this document.

### Impact on Greenhouse Gas Emissions

- 4.3 The proposer has not identified any material impacts on Greenhouse gas Emissions

### Impact on Core Industry Documents

- 4.4 The proposer has not identified any impacts on Core Industry Documents.

### Impact on other Industry Documents

- 4.5 The proposer has not identified any impacts on other Industry Documents.

### Impact on Charges

- 4.6 The Proposer has provided supporting information on the impact of CMP214 on TNUoS charges both in Annex 6 of this document and in their response to the Code Administrator Consultation.

## 5 Proposed Implementation

- 5.1 The Code Administrator proposes that CMP214 is implemented the next working day after an Authority decision. The majority of respondents to the Code Administrator Consultation supported this approach.

## 6 The Case for Change

### Assessment against Applicable CUSC Objectives

- 6.1 For reference, the Applicable CUSC Objectives are:

#### 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.
- 6.2 The Proposer considers that CMP214 would better facilitate Applicable CUSC Objective (a) in that it would allow suppliers and generators to have sufficient view of upcoming changes to enable them to incorporate those changes into their pricing structure (i.e. to provide transparent and predictable charges).
- 6.3 Respondents to the Code Administrator Consultation set out their views against the Applicable CUSC Objectives in their responses. These are summarised in Section 8 and the full responses are included as Annex 9 of this document.

## CUSC Modifications Panel's View

7.1 At its meeting on 26 October 2012, the CUSC Panel discussed CMP214 and the Proposer's request for urgency. The Panel had some initial concerns regarding the Urgent route, namely some felt that it was not an imminent issue and could have been raised previously, and one Panel Member felt that parties who could expect reductions in charges may be denied these as a result of CMP214, if the materiality was significant. However, the Panel agreed that CMP214 did meet the urgency criteria and that it should progress in line with the Proposer's suggested timetable. The CUSC Panel minutes which capture the discussion will be available at the link below after 3 December 2012. The letter sent to Ofgem on behalf of the Panel requesting Urgency can be found in Annex 4.

[http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/Panel/2012/14\\_1\\_26Oct/index.htm](http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/Panel/2012/14_1_26Oct/index.htm)

7.2 The CUSC Panel voted on CMP214 at a special CUSC Panel Meeting on 27 November 2012. The details of the vote are contained in the table below. Overall, the Panel voted by majority that CMP214 better facilitates the Applicable CUSC Objectives and so should be implemented.

Panel Member	Better facilitates ACO (a)	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Overall (Y/N)
Simon Lord	No. CMP214 is likely to set a precedent allowing future charging changes (e.g. Project Transmit) to be delayed even if the notice of charges as set out in the CUSC is met. This may lead to inappropriate charges for some Users and effect decision making.	No. Delaying parameter changes and resulting implementation of charges that have been notified in accordance with the CUSC is likely to result in charges that are not cost reflective being applied to Users. The materiality is significant in both positive and negative direction. TNUoS is inherently volatile delaying some changes but allowing others (allowable revenue and TEC) increases volatility. Often the various sources of volatility act against each other to reduce overall change.	Neutral.	No.
Simon Lord for Paul Mott	As above.	As above.	Neutral.	No.
Garth Graham	Yes. Noted the comments in the consultation responses. It allows parties to predict charges and the benefit of this outweighs the dis-benefits of cost-reflectivity.	No as it could lead to charges that are not cost-reflective.	Neutral.	Yes.

Michael Dodd	Yes, marginally. Likely that it sets a precedent, as per Simon Lord's comments, but note the concerns that suppliers raised in response to consultation.	No. It will lead to charges that are not cost-reflective as there will always be a year of "lag" following the first year of a price control. It also sets an uncomfortable precedent that some sources of charge volatility may be delayed, whilst others are not, exacerbating the impact on cost-reflectivity that this modification introduces.	Neutral.	Yes.
James Anderson	Yes, it enables Users to make economic decisions but it is difficult to see how Users can accurately predict charges.	Neutral. There is a marginal reduction in cost-reflectivity in the short-term but there is a longer term-signal and concur with National Grid's view on this point.	Neutral.	Yes.
Bob Brown	Yes, due to the enhanced predictability of charges and subsequent stability.	No, it will delay the implementation of cost-reflectivity.	Neutral.	Yes.
Bob Brown for Duncan Carter	Same as above.	Same as above.	Neutral.	Yes.
Ian Pashley	Yes, it helps competition by allowing suppliers and generators to more efficiently incorporate the charges into their pricing structures.	Marginal yes - – whilst there may be a slight reduction in short-term cost-reflectivity, there may be an increase in long-term cost-reflectivity through provision of a more stable signal to users, which may aid their decision making processes.	Yes, it is consistent with the outcome of Ofgem's consultation on charging volatility.	Yes.
Robert Longden for Paul Jones	Yes, marginally. Improves predictability for stakeholders.	Marginal yes, as per James Anderson's views.	Neutral.	Yes.

## Industry Views

7.3 There was general support for CMP214 from the industry but there were some respondents that did not agree with the Proposer's view that CMP214 better facilitates the Applicable CUSC Objectives. A number of specific questions regarding CMP214 were also asked as part of the Code Administrator Consultation. Please see Section 8 for a summary of responses and Annex 9 for the individual responses. One late, brief, response was received to the consultation; the Code Administrator has included this response within Annex 9.

7.4 One comment was received on the draft Final Modification Report which raised concerns that the report did not contain sufficient detail on the discussions of the CUSC Modifications Panel and did not accurately reflect minority views in relation to the impact of CMP214. We have discussed these concerns with the respondent and have updated the draft Modification Report as a result, by providing further detail in Sections 1, 6 and 7 and by

changing the emphasis in Sections 2 and 3 of the report to clarify that these sections reflect the views of the Proposer of CMP214 in raising the Modification Proposal.

## **National Grid View**

- 7.5 National Grid supports the implementation of CMP214 as it better facilitates Applicable CUSC Objective (a) in that it will improve efficient competition in the generation and supply of electricity. This is through longer-term visibility of changes to TNUoS charging parameters and generation charging zones which will assist the predictability of TNUoS charges allowing suppliers and generators to efficiently incorporate these charges into their overall pricing structures.

## 8 Code Administrator Consultation Summary

8.1 11 responses were received to the Code Administrator Consultation. A summary of these responses is provided in the table below. The full responses can be found in Annex 9 of this document.

Company	Objective a)	Objective b)	Objective c)	Implementation period and timescale correct?
Centrica	Yes - Tariff changes would be more transparent and predictable and with sufficient notice periods to allow market participants to efficiently incorporate them into pricing structures.	No comment	No comment	Yes - the shortened implementation approach is required and the timetable beneficial.
Drax	Yes - the additional notice period provided for changes to charges and zone boundaries as a result of the price control review allows market participants to make efficient entry and exit decisions. The provision of sufficient notice also allows generators to avoid incurring TEC charges (in the event that they wish to withdraw TEC) also helps optimise generators behaviour.	Neutral - No appreciable effect	No comment	Yes - the shortened implementation process is necessary to provide market participants with an adequate notice period.
E.ON	No - Reduces predictability as participants won't will not know what approach will be applied until CMP214 is approved. Understand that changes in tariffs due mainly to generation and demand tariffs and not by parameters that CMP214 would affect. Wouldn't decrease volatility necessarily for all, may be some offsetting of other changes.	No - Cost reflectivity is certainly being undermined.	No Comment	<b>Yes</b>
EDF	Potentially - It could increase certainty and stability in charging but only if the zone allocation as redefined in April 2014, does not substantially change, compared to the allocations today. There is also a dependency on CMP213 coming into force in April 2014.	No - Cost-reflectivity will be reduced by introducing an extra year's delay in altering parameters (and at each subsequent price control).	Neutral	Yes - A rapid implementation would be most beneficial as it would reduce the current uncertainties.

GDF Suez	No - National Grid should review and publish tariffs in a timely manner and as such users should have sufficient time to plan accordingly.	No - National Grid has obligation to deliver cost reflective charges.	No comment	No - National Grid has an obligation to provide tariffs using the best available data; if full information is not available then tariffs should be updated for 14/15 based on final information. Delaying tariff changes appears to contrast with various CUSC objectives (eg. cost-reflectivity)
Haven	Yes - the facilitation of competition would improve by giving a year's notice of charge increases; therefore allowing suppliers to incorporate the changes accurately into their prices.	No comment	No comment	Yes
Highlands and Islands*	Yes - the current methodology doesn't allow for difficult-to-predict tariff changes to be efficiently incorporated into pricing structures.	No comment	No comment	Yes - a longer notice period is required given the level of tariff changes.
National Grid	Yes - the increased predictability of TNUoS tariffs allows generators and suppliers to efficiently incorporate charges into their pricing structures. The reduced volatility of tariffs would reduce cash-flow volatility and costs of entry; hence better facilitating efficient competition by removing barriers to entry for new market participants and lowering the costs for consumers (as risk premiums will be reduced).	Yes - the long-term impact is likely to be small, and has the potential to be positive, although may be negative in a short-term one year period. This should not cause a negative impact on the industry or consumers as the cost-reflective signals provides a locational signal for long-term decisions, and a one-year delay should not impact this. Improving predictability effectively means CMP214 provides a long-term stable signal to users; aiding efficient long-term business decisions; improving the long-term cost-reflective signal.	Yes - CMP214 is consistent with the outcome of Ofgem's charging volatility consultation and the requirements under RIIO-T1 to increase engagement with customers.	Yes - the implementation approach is necessary to minimise the period of uncertainty and still allow industry engagement. The timeline may produce windfall gains and losses in the short-term as many users have already incorporated uncertainties in their 2013/13 pricing structures, but in the long-term CMP214 would facilitate the intended benefits for all users.
RWE npower	Yes -the increased notice period allows market participants to plan for changes efficiently; including suppliers with a locational bias as cost certainty will improve.	No comment	No comment	Yes - the proposed one year delay allows for a detailed impact analysis of every class of customer impacted.

Scottish Power*	Yes - the delay will allow tariffs to be more predictable and hence improves market participants ability to make sound economic decisions. At current there is insufficient time for tariff changes to be effectively priced into pricing strategies and as such consumers may be economically inefficient.	No - Minor reduction in short-term cost-reflectivity, but this is unlikely to affect long-term decisions that locational signals are intended to influence.	No comment	Yes - The implementation approach leaves a short, but sufficient, timeframe for the authority to reach a decision.
SSE	Yes - Market participants would be able to better predict upcoming changes and hence incorporate these into pricing structures	Neutral	Neutral	Yes - The shortened implementation process is necessary for the urgent modification proposal

\* Respondent did not explicitly comment on the proposal in reference to the applicable CUSC objectives. View taken based on response in general.



**CUSC Modification Proposal Form  
(for Charging Methodology proposals)**
**CMP214**
**Title of the CUSC Modification Proposal:** *(mandatory by proposer)*

Implementation of TNUoS charging parameter updates following a price control review

**Submission Date** *(mandatory by Proposer)*

25<sup>th</sup> October 2012

**Description of the CUSC Modification Proposal:** *(mandatory by proposer)*

There are a number of charging parameters used in the calculation of TNUoS tariffs which are reviewed and, if required, updated at the start of each price control period. This proposal seeks to alter the implementation date for any updates to these parameters to the start of the charging year after the commencement of a new price control period. For example, changes to parameters for the RIIO-T1 price control period (commencing in April 2013) will not take effect until 1<sup>st</sup> April 2014.

It is proposed that the publication of revised parameters would continue to be by the start of the price control period, i.e. unchanged from the current CUSC baseline.

For the avoidance of doubt, this proposal is limited to those charging parameters which are reviewed at the start of a new price control period, including the review of generation zones which is dependent on the outcome of the charging parameter review.

**Description of Issue or Defect that the CUSC Modification Proposal seeks to Address:**

*(mandatory by proposer)*

A number of parameters used to derive the locational component of generation and demand TNUoS tariffs are fixed or have inflationary updates between price control reviews. The purpose of this is to provide stability and predictability of tariffs. At the start of each new price control period these charging parameters must be reviewed and updated. The scope of the review includes:

- the expansion constant and expansion factors, which reflect the cost of investing in the transmission network;
- the charging parameters making up the expansion constant, namely the annuity factor (comprised of the weighted average cost of capital, and asset life), the overhead factor, and the capital costs;
- the locational security factor that reflects the cost of an integrated transmission network; and
- the generation charging zone boundaries which is dependent on the outcome of the charging parameter review.

Given the time that elapses between price control reviews (eight years going forwards), there are

likely to be significant changes to at least some of the input parameters, which can have a significant impact on TNUoS charges paid by generators and suppliers. In the case of the RIIO-T1 price control review, the potential impact on charges is illustrated in Annex 1.

The review of these charging parameters is dependent on two data sources;

1. network data, such as information to allow review of expansion factors as well as generation and demand backgrounds. Expansion factor information from external transmission owners is only finalised from the October ahead of the start of the new price control period.
2. financial information from the price control such as efficiency assumptions, operating costs, and the cost of capital. This can only be confirmed once final proposals for the RIIO-T1 price controls are announced. In the case of RIIO-T1 for NGET these are anticipated in mid-December, approximately 15 weeks before the proposed start of the new price control period.

The following table indicates the dependencies of the charging parameters on these two data sources.

	Network Data Dependent	Financial Data Dependent
Expansion Constant	No	Yes
Expansion Factors	No	Yes
Security Factor	Yes	No
Generator Zones	Yes	Yes

Additionally, the review of the generation charging zone boundaries is dependent on having first finalised any update to charging parameters including the expansion constant, expansion factors and locational security factor.

In summary, the full impact on TNUoS tariffs and generation charging zones cannot be understood and communicated in draft form to customers until at least late December prior to the start of the new price control period. This is only three months before the start of the new charging year when it is required these changes to be implemented to TNUoS charges.

Paragraph 14.14.10 of Section 14 of the CUSC requires that National Grid publish final TNUoS tariffs by the end of January prior to the new charging year. Whilst the above timeline allows these tariffs to be produced, it also presents a potentially considerable amount of volatility to TNUoS tariffs only three months ahead of their introduction.

In the case of RIIO-T1, this potential volatility, including possible changes to the composition of generation charging zones, was presented to industry at the September Transmission Charging Methodologies Forum (TCMF) and is attached for reference in Annex 1 of this proposal.

The purpose of this CUSC modification proposal is to reduce this potential volatility in TNUoS

charges through delay to the implementation of any required changes to charging parameters until the start of the charging year after the commencement of a new price control period. This will provide customers with additional notice of any parameter changes, improving the predictability of TNUoS charges, and allowing them to efficiently incorporate the changes into their pricing structures.

**Impact on the CUSC:** *(this should be given where possible)*

Changes would be limited to Section 14 Part 2 of the CUSC to clarify, for each affected input parameter, the timescale for review, publication and implementation. It is proposed that this could be efficiently discharged through reference to new common paragraphs within Section 14 to explicitly state that;

- o Charging parameters will be reviewed and published prior to the start of the new price control period.
- o Implementation of any required changes will take place at the start of the charging year after the commencement of a new price control period.

**Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes/No** *(mandatory by Proposer. Assessed in accordance with Authority Guidance – see guidance notes for website link)*

No

**Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information:** *(this should be given where possible)*

BSC

Grid Code

STC

Other

*(please specify)*

None

**Urgency Recommended: Yes / No** *(optional by Proposer)*

Yes

**Justification for Urgency Recommendation** *(mandatory by Proposer if recommending progression as an Urgent Modification Proposal)*

The RIIO-T1 price control is due to be implemented for Transmission Owners from April 2013. Compliance with the current CUSC baseline would require charging parameters to be

reviewed and updated in the TNUoS methodology ahead of this date with final information to undertake analysis not available until December 2012. Hence we believe that the review and update of these charging parameters;

- is an **imminent issue** as, in accordance with the CUSC, final tariffs need to be notified by 31<sup>st</sup> January 2013 and custom and practice is that draft tariffs are published before Christmas. Our proposed timetable has been attached to this submission.;
- and can have a **significant impact** on parties, as the changes could be large in magnitude and would be implemented at short notice because of the dependency of these on the outcome of the price control.

**Self-Governance Recommended: Yes / No** (*mandatory by Proposer*)

No

**Justification for Self-Governance Recommendation** (*mandatory by Proposer if recommending progression as Self-governance Modification Proposal*)

**Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?** (*mandatory by Proposer in order to assist the Panel in deciding whether a Modification Proposal should undergo a SCR Suitability Assessment*)

There are no ongoing Significant Code Reviews affecting this proposal.

**Impact on Computer Systems and Processes used by CUSC Parties:** (*this should be given where possible*)

None

**Details of any Related Modifications to Other Industry Codes (including related CUSC Modification Proposals):** (*where known*)

None

Justification for CUSC Modification Proposal with reference to Applicable CUSC Objectives:  
(*mandatory by proposer*)

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:**

As part of our RIIO-T1 stakeholder engagement we have discussed transmission charges with customers, and have found that customers value charges which are transparent, predictable, and where possible stable, although predictability is paramount. In addition, Ofgem have stated in their recent consultation<sup>3</sup> that network charging volatility arising from the price control is one of the key issues raised by stakeholders during the current price control reviews.

On this basis, we believe that there is a strong case for implementing TNUoS changes associated with a price control in a manner which allows customers to have sufficient view to enable them to incorporate those changes into their pricing structure (i.e. to provide transparent and predictable charges). We believe that this will help facilitate competition in the electricity market by allowing suppliers and generators to efficiently incorporate transmission charges into their overall pricing structure.

Whilst we believe that, for a one year period, there will be a slight reduction in the cost reflectivity of TNUoS charges as a result of this proposal we believe that this is outweighed by the benefits for competition. Additionally, TNUoS charges provide a long term locational signal to customers of the cost of transmission. Therefore a one year delay to input parameter changes should not affect the long term behaviour of a user provided the changes are forecast and predictable.

**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:

**Details of Proposer:**  
(Organisation's Name)

National Grid

<sup>3</sup> [Mitigating network charging volatility arising from the price control settlement](#)

<p>Capacity in which the CUSC Modification Proposal is being proposed: (i.e. CUSC Party, BSC Party, “National Consumer Council” or Materially Affected Party)</p>	<p>CUSC Party</p>
<p><b>Details of Proposer’s Representative:</b> Name: Organisation: Telephone Number: Email Address:</p>	<p><b>Andy Wainwright</b> <b>National Grid</b> <b>01926 655944</b> <b>Andy.wainwright@nationalgrid.com</b></p>
<p><b>Details of Representative’s Alternate:</b> Name: Organisation: Telephone Number: Email Address:</p>	<p>Adelle McGill National Grid 01926 653142 Adelle.mcgill@nationalgrid.com</p>
<p><b>Attachments (Yes/No): Yes</b></p> <p><b>If Yes, Title and No. of pages of each Attachment: Annex 1 – Latest National Grid view on potential changes to the TNUoS charging parameters and their potential impact<sup>4</sup> (3 pages)</b></p> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Microsoft Word Document</p> </div> <div style="text-align: center;">  <p>Microsoft PowerPoint Presentation</p> </div> <div style="text-align: center;"> <p>5</p> </div> </div>	

<sup>4</sup> <http://www.nationalgrid.com/NR/ronlyres/AA5C22F4-204B-4EA1-9818-264E7B8209CF/57224/NGviewonchangingparameters.pdf>

<sup>5</sup> <http://www.nationalgrid.com/NR/ronlyres/F6AC0487-FB53-4025-8D42-BD3F71B76D7F/57225/CMP214potentialtimetable.pdf>

14.14.5 In April 2004 The Company introduced a DC Loadflow (DCLF) ICRP based transport model for the England and Wales charging methodology. The DCLF model has been extended to incorporate Scottish network data with existing England and Wales network data to form the GB network in the model. In April 2005, the GB charging methodology implemented the following proposals:

- i.) The application of multi-voltage circuit expansion factors with a forward-looking Expansion Constant that does not include substation costs in its derivation.
- ii.) The application of locational security costs, by applying a multiplier to the Expansion Constant reflecting the difference in cost incurred on a secure network as opposed to an unsecured network.
- iii.) The application of a de-minimus level demand charge of £0/kW for Half Hourly and £0/kWh for Non Half Hourly metered demand to avoid the introduction of negative demand tariffs.
- iv.) The application of 132kV expansion factor on a Transmission Owner basis reflecting the regional variations in network upgrade plans.
- v.) The application of a Transmission Network Use of System Revenue split between generation and demand of 27% and 73% respectively.
- vi.) The number of generation zones using the criteria outlined in paragraph 14.15.267 has been determined as 21.
- vii.) The number of demand zones has been determined as 14, corresponding to the 14 GSP groups.

### 14.15 Derivation of the Transmission Network Use of System Tariff

14.15.4 A number of charging parameters that are inputs to the TNUoS methodology are fixed, or have limited updates, for the duration of a price control period to assist charging stability. These parameters are reviewed, and any updated values published, prior to the start of the new price control period. These updated values will not take effect until the start of the second charging year within the new price control period. For example, for a price control period commencing on 1<sup>st</sup> April 2013, then charging parameter updates would be implemented in the methodology from 1<sup>st</sup> April 2014.

14.15.242 Given the requirement for relatively stable cost messages through the ICRP methodology and administrative simplicity, nodes are assigned to zones. Typically, generation zones will be reviewed at the beginning of each price control period with another review only undertaken in exceptional circumstances. Any rezoning required during a price control period will be undertaken with the intention of minimal disruption to the established zonal boundaries, and will not take effect until the start of the second charging year after the review. The full criteria for determining generation zones are outlined in paragraph 14.15.267. The number of generation zones set for 2010/11 is 20.

14.15.278 The process behind the criteria in 14.15.267 is driven by initially applying the nodal marginal costs from the DCLF Transport model onto the appropriate areas of a substation line diagram. Generation nodes are grouped into initial zones using the +/- £1.00/kW range. All nodes within each zone are then checked to ensure the geographically and electrically proximate criteria have been met using the substation line diagram. The established zones are inspected to ensure the least number of zones are used with

minimal change from previously established zonal boundaries. The zonal boundaries are finally confirmed using the demand nodal costs for guidance.

- 14.15.323 In the methodology, the expansion constant is used to convert the marginal km figure derived from the transport model into a £/MW signal. The tariff model performs this calculation, in accordance with 14.15.601 – 14.15.656, and also then calculates the residual element of the overall tariff (to ensure correct revenue recovery in accordance with the price control), in accordance with 14.15.812.
- 14.15.345 For each circuit type and voltage used onshore, an individual calculation is carried out to establish a £/MWkm figure, normalised against the 400KV overhead line (OHL) figure, these provide the basis of the onshore circuit expansion factors discussed in 14.15.423 – 14.15.478. In order to simplify the calculation a unity power factor is assumed, converting £/MVAkm to £/MWkm. This reflects that the fact tariffs and charges are based on real power.
- 14.15.378 The Weighted Average Cost of Capital (WACC) and asset life are ~~established~~ reviewed and updated in accordance with paragraph 14.15.4. ~~at the start of a price control.~~ Values then ~~and~~ remain constant throughout ~~a~~ the remainder of the price control period. The WACC used in the calculation of the annuity factor is the The Company regulated rate of return, this assumes that it will be reasonably representative of all licensees. The asset life used in the calculation is 50 years; the appropriateness of this is reviewed when the annuity factor is recalculated ~~at the start of a price control period~~ in accordance with paragraph 14.15.4. These assumptions provide a current annuity factor of 0.066.
- 14.15.38 The final step in calculating the expansion constant is to add a share of the annual transmission overheads (maintenance, rates etc). This is done by multiplying the average weighted cost (J) by an 'overhead factor'. The 'overhead factor' represents the total business overhead in any year divided by the total Gross Asset Value (GAV) of the transmission system. This is recalculated ~~at the start of each price control period~~ in accordance with paragraph 14.15.4. The overhead factor used in the calculation of the expansion constant for 2009/10 is 1.8%. The overhead and annuitised costs are then added to give the expansion constant.
- 14.15.401 This process is carried out for each voltage onshore, along with other adjustments to take account of upgrade options, see 14.15.456, and normalised against the 400KV overhead line cost (the expansion constant) the resulting ratios provide the basis of the onshore expansion factors. The process used to derive circuit expansion factors for Offshore Transmission Owner networks is described in 14.15.501.
- 14.15.41 This process of calculating the incremental cost of capacity for a 400kV OHL, along with calculating the onshore expansion factors is carried out ~~for the first year of the price control~~ in accordance with paragraph 14.15.4 and is increased by inflation, RPI, (May–October average increase, as defined in The Company's Transmission Licence) each subsequent year of the price control period. The expansion constant for 2010/11 is 10.633.
- 14.15.534 Prevailing OFFSHORE TRANSMISSION OWNER specific expansion factors will be published in this statement. These shall be re-calculated ~~at the start of each price control~~ in accordance with paragraph 14.15.4 when the onshore expansion constants are revisited.



14.15.567 The locational onshore security factor derived for 2010/11 is 1.8 and is based on an average from a number of studies conducted by The Company to account for future network developments. The security factor is reviewed ~~for each price control period~~ in accordance with paragraph 14.15.4 and fixed for the ~~duration~~ remainder of the price control period.

14.15.689 The process for calculating Local Substation Tariffs will be carried out ~~for the first year of the price control~~ in accordance with paragraph 14.15.4 and will subsequently be indexed by RPI for each subsequent year of the price control period.

## 14.22 Example: Calculation of Zonal Generation Tariff

Let us consider all nodes in generation zone 4: Western Highland.

The table below shows a sample output of the transport model comprising the node, the wider nodal marginal km (observed on non-local assets) of an injection at the node with a consequent withdrawal at the reference node, the generation sited at the node, scaled to ensure total national generation equals total national demand.

Genzone	Node	Wider Nodal Marginal km	Scaled Generation
4	LAGG1Q	1113.41	0.00
4	CEAN1Q	1133.18	54.41
4	FASN10	1143.82	38.50
4	FAUG10	1100.10	0.00
4	FWIL1Q	1009.79	0.00
4	FWIL1R	1009.79	0.00
4	GLEN1Q	1123.82	43.52
4	INGA1Q	1087.40	16.74
4	MILL1Q	1101.55	0.00
4	MILL1S	1106.76	0.00
4	QUOI10	1123.82	15.07
4	QUOI1Q	(a) 120.49	0.00
4	LOCL1Q	(b) 082.41	0.00
4	LOCL1R	(c) 082.41	0.00
		(d) otals	168.24

In order to calculate the generation tariff we would carry out the following steps.

- (i) calculate the generation weighted wider nodal shadow costs.

For zone 4 this would be as follows:

Genzone	Node	Wider Nodal Marginal km	Scaled Generation (MW)	Gen Weighted Wider Nodal Marginal km
4	CEAN1Q	1133.18	54.41	366.48
4	FASN10	1143.82	38.50	261.75
4	GLEN1Q	1123.82	43.52	290.71
4	INGA1Q	1087.40	16.74	108.20
4	QUOI10	1123.82	15.07	100.67
	Totals		168.24	

i.e.  $\frac{1087.40 \times 16.74}{168.24}$

- (ii) sum the generation weighted wider nodal shadow cost to give a zonal figure. For zone 4 this would be:

$$(366.48 + 261.75 + 290.71 + 108.20 + 100.67) \text{ km} = \underline{\underline{1127.81 \text{ km}}}$$

- (iii) modify the zonal figure in (ii) above by the generation/demand split correction factor. This ensures that the 27:73 (approx) split of revenue recovery between generation and demand is retained.

For zone 4 this would be say:

$$1127.81 \text{ km} + (-239.60 \text{ km}) = \underline{\underline{888.21 \text{ km}}}$$

This value is the generation/demand split correction factor. It is calculated by simultaneous equations to give the correct split of total revenue.

- (iv) calculate the wider transport tariff by multiplying the figure in (iii) above by the expansion constant (& dividing by 1000 to put into units of £/kW).

For zone 4 and assuming an expansion constant of £10.07/MWkm and a locational security factor of 1.8:

$$\underline{\underline{888.21 \text{ km}}} * \underline{\underline{£10.07/MWkm}} * \underline{\underline{1.8}} = \underline{\underline{£16.10/kW}} \quad 1000$$

- (v) If we assume (for the sake of this example) that the generation connecting at CEAN1Q connects via 10km of 132kV 100MVA rated single circuit overhead line from the nearest MITS node, with no redundancy, the substation is rated at less than 1320MW, and there is no other generation or demand connecting to this circuit, then:

- a) referencing the table in paragraph 14.15.678, the local substation tariff will be £0.133/kW; and
- b) running the transport model with a local circuit expansion factor of 10.0 applied to the 10km of overhead line connecting CEAN1Q to the nearest MITS node and the wider circuit expansion

factors applied to all other circuits, gives a local nodal marginal cost of 100MWkm. This is the additional MWkm costs associated with the node's local assets. Applying the expansion constant of £10.07/MWkm and local security factor of 1.0 and dividing by 1000 gives a local circuit tariff of £1.007/kW.

- (vi) We now need to calculate the residual tariff. This is calculated by taking the total revenue to be recovered from generation (calculated as c.27% of total The Company TNUoS target revenue for the year) less the revenue which would be recovered through the generation transport tariffs divided by total expected generation.

Assuming the total revenue to be recovered from TNUoS is £1067m, the total recovery from generation would be (27% x £1067m) = £288m. Assuming the total recovery from both wider generation transport and local generation tariffs is £70m and total forecast chargeable generation capacity is 67000MW, the Generation residual tariff would be as follows:

$$\frac{£288 - £70m}{65000MW} = \underline{£3.35/kW}$$

- (vii) to get to the final tariff for a generator connecting at a particular node, we simply sum the generation residual tariff calculated in (vi), the wider zonal transport tariff calculated in (iv), the local substation tariff calculated in (v(a)) , and the local circuit tariff calculated in (v(b)). In this example:

For CEAN1Q : £16.10/kW + £3.35/kW + £0.135/kW + £1.007/kW = **£20.592 /kW**

To summarise, in order to calculate the generation tariffs, we evaluate a generation weighted zonal marginal km cost, modify by a re-referencing quantity to ensure that our revenue recovery split between generation and demand is correct, multiply by the security factor, then we add a constant (termed the residual cost) to give the overall tariff.

## 14.28 Stability & Predictability of TNUoS tariffs

### Stability of tariffs

The Transmission Network Use of System Charging Methodology has a number of elements to enhance the stability of the tariffs, which is an important aspect of facilitating competition in the generation and supply of electricity. This appendix seeks to highlight those elements.

Each node of the transmission network is assigned to a zone. The result of this is to dampen fluctuations that would otherwise be observed at a given node caused by changes in generation, demand, and network parameters. The criteria used to establish generation zones are part of the methodology and are described in Paragraph 14.15.267.

These zones are themselves fixed for the duration of the price control period. The methodology does, however, allow these to be revisited in exceptional circumstances to ensure that the charges remain reasonably cost reflective or to accommodate changes to the network. In rare circumstances where such a re-zoning exercise is required, this will be undertaken in such a way that minimises the adverse impact on Users. This is described in Paragraph 14.15.2930.

In addition to fixing zones, other key parameters within the methodology are also fixed for the duration of the price control period or annual changes restricted in some way. Specifically:

- the expansion constant, which reflects the annuitised value of capital investment required to transport 1MW over 1km by a 400kV over-head line, changes annually according to RPI. The other elements used to derive the expansion constant are only reviewed at the beginning of a price control period to ensure that it remains cost-reflective. This review will consider those components outlined in Paragraph 14.15.3<sup>4</sup>2 to Paragraph 14.15.4<sup>4</sup>2.
- the expansion factors, which are set on the same basis of the expansion constant and used to reflect the relative investment costs in each TO region of circuits at different transmission voltages and types, are fixed for the duration price control. These factors are reviewed at the beginning of a price control period and will take account of the same factors considered in the review of the expansion constant.
- the locational security factor, which reflects the transmission security provided under the NETS Security and Quality of Supply Standard, is fixed for the duration of the price control period and reviewed at the beginning of a price control period.

### Predictability of tariffs

The Company revises TNUoS tariffs each year to ensure that these remain cost-reflective and take into account changes to allowable income under the price control and RPI. There are a number of provisions within The Company's Transmission Licence and the CUSC designed to promote the predictability of annually varying charges. Specifically, The Company is required to give the Authority 150 days notice of its intention to change use of system charges together with a reasonable assessment of the proposals on those charges; and to give Users 2 months written notice of any revised charges. The Company typically provides an additional months notice of revised charges through the publication of "indicative" tariffs. Shorter notice periods are permitted by the framework but only following consent from the Authority.

These features require formal proposals to change the Transmission Use of System Charging Methodology to be initiated in October to provide sufficient time for a formal consultation and the Authority's veto period before charges are indicated to Users.

More fundamentally, The Company also provides Users with the tool used by The Company to calculate tariffs. This allows Users to make their own predictions on how future changes in the generation and supply sectors will influence tariffs. Along with the price control information, the data from the Seven Year Statement, and Users own prediction of market activity, Users are able to make a reasonable estimate of future tariffs and perform sensitivity analysis.

To supplement this, The Company also prepares an annual information paper that provides an indication of the future path of the locational element of tariffs over the next five years.<sup>6</sup> This analysis is based on data included within the Seven Year Statement. This report typically includes:

- an explanation of the events that have caused tariffs to change;
- sensitivity analysis to indicate how generation and demand tariffs would change as a result of changes in generation and demand at certain points on the network that are not included within the SYS;
- an assessment of the compliance with the zoning criteria throughout the five year period to indicate how generation zones might need to change in the future, with a view to minimising such changes and giving as much notice of the need, or potential need, to change generation zones; and

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<sup>6</sup> <http://www.nationalgrid.com/uk/Electricity/Charges/gbchargingapprovalconditions/5/>

- a complete dataset for the DCLF Transport Model developed for each future year, to allow Users to undertake their own sensitivity analysis for specific scenarios that they may wish to model.

There are a number of charging parameters that, for charging stability purposes, are reviewed normally only once prior to the start of a new price control period. Any required changes to these parameters are published before the start of the new price control period, but will not take effect until the start of the second charging year within the new price control period. This allows customers to understand the impact of these changes on tariffs and ensure the predictability of TNUoS charges is maintained.

In addition, The Company will, when revising generation charging zones ~~prior to~~ [at the start of](#) a new price control period, undertake a zoning consultation that uses data from the latest information paper. The purpose of this consultation will be to ensure tariff zones are robust to contracted changes in generation and supply, which could be expected to reduce the need for re-zoning exercises within a price control period. [To ensure predictability of TNUoS charges is maintained, implementation of such generation re-zoning will take place at the start of the second charging year within the new price control period.](#)

## Annex 3 – Timeline

25 Oct 2012	CUSC Modification Proposal and request for Urgency submitted
26 Oct 2012	Proposal and request for Urgency considered by CUSC Panel Panel's view submitted to Ofgem for consultation
31 Oct 2012	Ofgem view on urgency provided
5 Nov 2012	Code Administrator Consultation issued for 10 working days
19 Nov 2012	Consultation closes
20 Nov 2012	Draft FMR published for industry comment (1 working day)
21 Nov 2012	Deadline for comments
22 Nov 2012	Draft FMR circulated to Panel (2 working days' review)
27 Nov 2012	Special Panel meeting for Panel Recommendation Vote
27 Nov 2012	Final FMR circulated for Panel comment
29 Nov 2012	Deadline for Panel comment (2 working days' review)
30 Nov 2012	Final report sent to Authority for decision
18 Dec 2012	Indicative Authority Decision due (12 working days)
19 Dec 2012	Implementation Date
21 Dec 2012	NGET publishes Indicative TNUoS tariffs

## Annex 4 – Panel Urgency Request to Authority

Mobile Telephone Number: 07770 341581  
e-mail: miketoms53@btinternet.com

Abid Sheikh  
Industry Codes Manager  
Ofgem  
**By email**

29 October 2012

Dear Abid

### **CUSC Modifications Panel Views on request for Urgency for CMP214: Implementation of TNUoS charging parameter updates**

On 25<sup>th</sup> October 2012, National Grid Electricity Transmission plc raised CMP214, with a request for the proposal to be treated as an Urgent CUSC Modification Proposal. The CUSC Modifications Panel ("the Panel") considered CMP214 and the associated request for urgency at its meeting on 26<sup>th</sup> October. This letter sets out the views of the Panel on the request for urgent treatment and the procedure and timetable that the Panel recommends, should the Authority grant urgency.

#### **Request for Urgency**

The Panel considered the request for urgency with reference to Ofgem's Guidance on Code Modification Urgency Criteria. The majority view of the Panel is that CMP214 should be treated as an Urgent CUSC Modification Proposal, for the reasons set out below:

- CMP214 refers to an imminent issue;
- The issues addressed by CMP214 may cause a significant commercial impact on parties, consumers or other stakeholders;

In the discussion members of the Panel also noted a number of concerns over granting urgency, set out below:

- Using an urgent process holds an inherent risk of unintended consequences, which may arise due to there being insufficient time for all aspects of a Modification Proposal to be considered;
- One Panel Member questioned whether CMP214 could have been raised earlier;
- A Panel Member felt that it was not clear from the information within the Modification Proposal form whether Suppliers' views support the need for urgency;
- With regard to the materiality of the proposal, if the issues are not material, then the proposal should not be treated as urgent; however if the issues are material, then the urgent process will not allow sufficient industry engagement;
- Allowing CMP214 to progress in urgent timescales will create more unpredictability for customers.

#### **Procedure and Timetable**

The Proposer included a proposed timeline with the Modification Proposal, which set out recommended process steps and dates (appended to this letter). Having agreed to the principle of urgency, the Panel

discussed an appropriate process. One Panel Member felt that a Workgroup should be convened to consider CMP214, but recognised that there was not sufficient time for a full process to be run.

The Panel Members agreed that, if the Authority were to grant Urgency, the timetable attached should be used. Panel Members noted that the timetable assumes two decisions to be provided by the Authority by certain dates, including a decision on this Urgency request by the end of October. We appreciate that it is not within the gift of the Panel to require this to happen.

Please do not hesitate to contact me if you have any questions on this letter or the proposed process and timetable. I look forward to receiving your response.

Yours sincerely

Michael Toms  
CUSC Panel Chair



## Appendix: Proposed Process and Timetable for Urgency

25 Oct 2012	CUSC Modification Proposal and request for Urgency submitted
26 Oct 2012	CUSC Panel considers Proposal and request for Urgency
29 Oct 2012	Panel's view on urgency submitted to Ofgem for consultation
31 Oct 2012	Ofgem view on urgency provided
1 Nov 2012	Code Administrator Consultation issued for 10 working days
15 Nov 2012	Consultation closes
16 Nov 2012	Draft FMR published for industry comment (1 working day)
19 Nov 2012	Deadline for comments
20 Nov 2012	Draft FMR circulated to Panel (2 working days' review)
23 Nov 2012	Special Panel meeting for Panel Recommendation Vote
23 Nov 2012	Final FMR circulated for Panel comment
27 Nov 2012	Deadline for Panel comment (2 working days' review)
28 Nov 2012	Final report sent to Authority for decision
14 Dec 2012	Indicative Authority Decision due (12 working days)
17 Dec 2012	Implementation Date
21 Dec 2012	NGET publishes Indicative TNUoS tariffs





Michael Toms  
CUSC Panel Chair  
c/o National Grid Electricity  
Transmission plc  
National Grid House  
Warwick Technology Park  
Gallows Hill  
Warwick CV34 6DA

Our Ref: CUSC/Mod/CMP214  
Email: [industrycodes@ofgem.gov.uk](mailto:industrycodes@ofgem.gov.uk)

Date: 2 November 2012

Dear Mr. Toms,

**CUSC Modifications Panel request for urgency for CMP214: Implementation of TNUoS charging parameter updates**

On 29 October 2012 the Connection and Use of System Code (CUSC) Modifications Panel requested that modification proposal CMP214: *Implementation of TNUoS charging parameter updates*<sup>1</sup> should be treated as an urgent modification proposal.

This letter sets out our decision to **grant** the request. However, we are disappointed with the process that National Grid Electricity Transmission (NGET) has followed in this matter which has resulted in the need to consider these issues in an urgent manner.

This letter also highlights a number of areas that we expect to be addressed in the development of the proposal before it comes to us for a decision.

**The Proposal**

There are a number of provisions within the current regulatory framework that are designed to enhance the stability, and promote the predictability, of Transmission Network Use of System (TNUoS) tariff levels. These include a requirement for NGET to publish final tariff levels in January ahead of the start of a new charging year<sup>2</sup>. Historically, NGET have also published forecast TNUoS tariff levels in mid-December, although this is not a requirement of the licence or code framework.

In accordance with the default notification timescales, NGET has developed supporting charge setting processes to guide the relevant licensees towards providing forecast revenue information to NGET in a manner designed to improve accuracy and give customers additional information on the predicted tariff movements<sup>3</sup>.

Implicit within the charge setting process is the need to make forecasts when calculating the annual total allowed revenue to be recovered through tariffs levied by NGET. During a price control period the total allowed revenue comprises relatively stable forecast cost submissions by the existing transmission owners. The difference between the published forecast of tariffs in December and the final tariffs levels have therefore been minimal.

NGET does not believe that the default charge setting process provides an appropriate level of accuracy and predictability of tariff levels to customers for the upcoming charging year,

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<sup>1</sup> The CUSC Panel's letter requesting urgent treatment for CMP214 is on National Grid's website: <http://www.nationalgrid.com>

<sup>2</sup> CUSC section 3.14.3 requires NGET to provide at least 2 month advance written notice of any revised charges.

<sup>3</sup> For example, the SO-TO Code Processes (STCPs) 13-1 and 14-1 requires each transmission licensee to send NGET their best forecast of its revenue requirement for the next financial year by 1 November and licensees' final forecast revenue by 25 January to allow NGET to publish tariffs for the next financial year by 31 January.

the first year of the new price control period. NGET contends that the full impact on TNUoS tariff levels cannot be accurately analysed and communicated in draft form to customers until certain financial information, used in the derivation of the locational element of TNUoS tariffs, can be confirmed. During a price control period, such information is relatively stable and is available for validation and use in NGET's charging model from November of each charging year. In this charging year, the year prior to the commencement of a new price control period, NGET notes that such information will only be confirmed once the final proposals of the RIIO-T1 price controls are announced. This information is estimated to be available in mid-December 2012 based on current RIIO publication forecasts.

We understand from the modification proposal that NGET believes that there are deficiencies in applying the current charge setting process. In particular -

- The magnitude of change envisaged to the financial information will produce significant movements in tariff levels in some areas relative to the existing tariff levels (2011/12), creating an unacceptable degree of tariff volatility in some areas.
- Movements in these charging input parameters will drive changes in the composition of the applicable generation charging zones boundaries determined in accordance with the zoning criteria in the TNUoS charging methodology<sup>4</sup>, exacerbating the potential increase in tariff volatility.
- The updated parameters would be applied with limited notice to customers for them to efficiently incorporate the changes into their pricing structures.

In light of the above concerns, NGET proposes to delay the implementation of the update of the revised charging parameters and the impact on generation zoning boundaries to 1 April 2014, so that customers can have greater notice of these changes.

## Panel Discussion

The CUSC Modifications Panel discussed CMP214 at its meeting on 26 October 2012 when a number of concerns were raised about whether urgent treatment is appropriate. The Panel agreed by majority that the proposal was linked to an imminent 'date' issue, namely, publication of draft TNUoS tariff levels before Christmas 2012 and final tariff publication by 31 January 2013. The Panel also agreed that changes to charges might have a significant commercial impact on CUSC parties, consumers and other stakeholders. However, the Panel also questioned whether the circumstances in which NGET raised CMP214 merits urgent treatment, e.g. whether NGET could have raised the proposal earlier and whether there would be sufficient stakeholder engagement through an urgent process.<sup>5</sup>

## Our Views

Taking into account the Panel's majority view, the reservations expressed by Panel members and our consideration of the criteria for granting urgent status to a modification proposal set out in our published guidelines<sup>6</sup>, we are satisfied, on balance, that the proposal meets the criteria. In particular, we consider that the proposal is:

**Linked to an imminent issue or a current issue that if not urgently addressed may cause:**

**a) a significant commercial impact on parties, consumers or other stakeholder(s);**

We accept that there is an imminent 'date' issue that means that the modification should be addressed through an urgent timetable. Whether NGET should review and update the relevant charging parameters for implementation on 1 April 2013 or a year later as

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<sup>4</sup> See CUSC section 14.15.26. We also note that section 14.28 requires NGET to undertake a zoning consultation "when revising generation charging zones prior to a new price control period".

<sup>5</sup> The CUSC Panel's views are set out in the letter – see footnote 1.

<sup>6</sup> [www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/Ofgem%20Guidance%20on%20Code%20Modification%20Urgency%20Criteria.pdf](http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/Ofgem%20Guidance%20on%20Code%20Modification%20Urgency%20Criteria.pdf)

proposed should be considered through an urgent assessment timetable. However, in accepting that this 'date' issue exists, we are also mindful of the Panel's concerns about the aim of the proposal. We consider that this modification could have been raised earlier as the RIIO-T1 timetable has been known for some time, and that earlier and more thorough consideration of alternative options to raising a CUSC modification could have been explored.

We have specific concerns that must be addressed by the urgent assessment of CMP214 and which may affect our ability to form an opinion on it once a final report is presented for decision. These concerns are directly affected by the urgency with which CMP214 is being assessed, and so must be addressed fully through the urgent process, namely -

- NGET must use its best endeavours to ensure that stakeholders can understand the core intent of the proposal and its implications to allow sufficient industry engagement. NGET must therefore demonstrate with sufficient clarity the current charge setting process and its reasons why and how the proposed change will have a significant impact on parties. The proposal currently fails to specify how this impact will arise, how volatility will be reduced and the implied beneficial trade off between greater predictability and a reduction in cost reflectivity as a result of this proposal will be achieved. The Final Modification Report (FMR) should further elaborate on the evidence presented through the consultation to address these concerns.
- As part of the assessment, we would expect NGET to provide clarity and detail regarding the work they intend to do in reviewing and updating the charging parameters including any revisions arising from network data, the consequences of RIIO-T1 proposals and possible revisions to generation zones. In each case, NGET should present the likely impact on tariff volatility.
- As part of the assessment, NGET should also clarify and quantify the impact on cost recovery of a one-year delay to the implementation of the revised and updated charging parameters should the proposal be approved.

In agreeing to the urgent assessment of the proposal, we are mindful of concerns that the assessment will not engage industry as effectively as through a standard modification timetable. In addressing our concerns above, NGET must seek as far as possible to engage with those parties most likely to be affected by the proposal to establish a robust evidence base of stakeholder views.

### **Urgency Timetable**

The Authority consents to urgency on the grounds that this proposal meets the urgency criteria. We note the urgent timetable presented by the Panel. In our view, the timetable should allow for industry consultation of a minimum of 10 Working Days and for the FMR to be presented to us by 30 November 2012 in order that we can consider our decision.

For the avoidance of doubt, in accepting this request for urgency, we have made no assessment of the merits of the modification proposal and nothing in this letter in any way fetters the discretion of the Authority in respect of this modification proposal.

If you have any queries in relation to the issues raised in this letter, please email: [industrycodes@ofgem.gov.uk](mailto:industrycodes@ofgem.gov.uk).

Yours sincerely

**Andrew Burgess**  
**Associate Partner – Transmission and Distribution policy**

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## Annex 6 – Latest National Grid view on potential changes to the TNUoS charging parameters and their potential impact

The following is the latest National Grid view on potential changes to the TNUoS charging parameters and generation charging zones, and their potential impact on tariffs from the start of the RIIO-T1 price control period in April 2013. Whilst it provides an indication of what these parameters could be following the introduction of the new price control, figures presented are subject to further change and should be not taken as final values.

### Indicative charging parameter changes

The table below lists all of the charging parameters that are required under the TNUoS charging methodology to be reviewed by the start of the new price control period. Their full description including their role in the derivation of TNUoS tariffs is provided in Annex 7.

Parameter	Likely change	Justification
Expansion Constant	Increase <sup>7</sup>	Underlying efficient capital costs
Annuity Factor	Decrease	Finance package and opex allowance included in NGET's Initial Proposals
Overhead Factor	Neutral	Finance package and opex allowance included in NGET's Initial Proposals
Capital Costs	Increase	Underlying efficient capital costs
Cable Expansion Factors	Decrease	Underlying capital costs
OHL Expansion Factors	Increase	Reduced uprating of transmission circuits
Security Factor	Neutral	Consistent level of redundancy required

Table A1 – Indicative charging parameter changes

### Potential impact on wider tariffs

The charts below shows an initial view of the potential changes to wider generation and demand TNUoS tariffs following changes to the above parameters, along with the likely allowed revenue requirements in 2013/14. They are based on the initial demand and generation backgrounds for 2013/14 as of April 2012 and an initial view of the updated expansion constant and expansion factors. Annex 8 provides the tariff information in tabular form.

<sup>7</sup> likely increase from £11.7/MWkm to around £13/MWkm

## Generation tariff

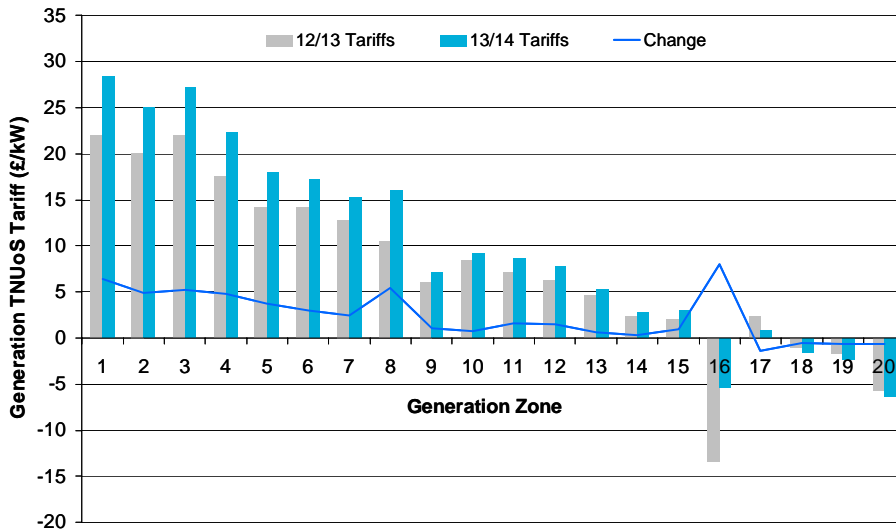


Chart A1 – Initial view of potential 2013/14 wider generation tariffs with charging parameter changes

It should be noted that this chart does not account for any re-zoning of generation. The general pattern of the charts shows an increase in zonal tariffs for generators located in the north (zones 1-15) and a slight reduction for those located in the south (zones 17-20). This is consistent with a general uplift in revenues to be recovered, which is applied equally across all zones, coupled with a stretch in the locational elements from north to south of Great Britain due to:

- changes in the generation and demand background;
- a potential increase in the expansion constant and expansion factors.

Zone 16 does not follow this trend due to a significant change in the local generation background affecting the locational signal.

## Demand tariffs

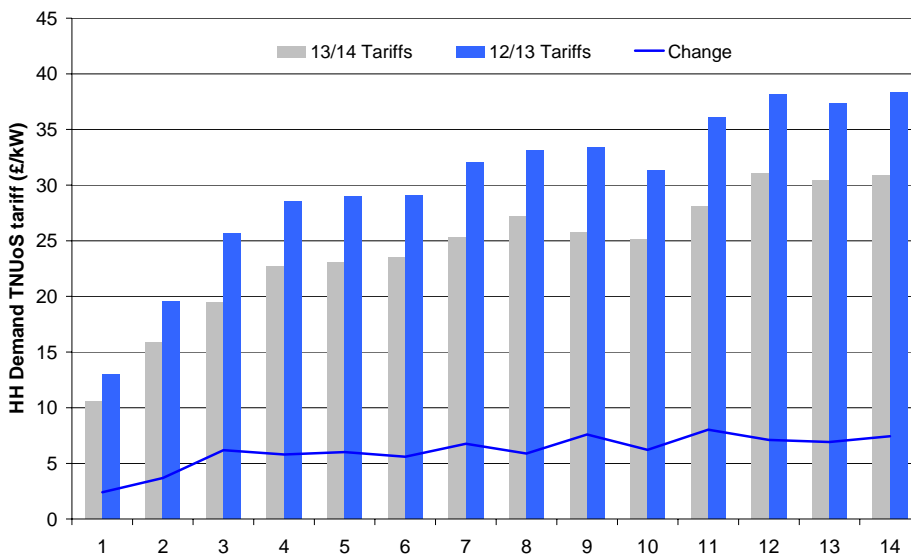


Chart A2 – Initial view of potential 2013/14 HH demand tariffs with charging parameter changes

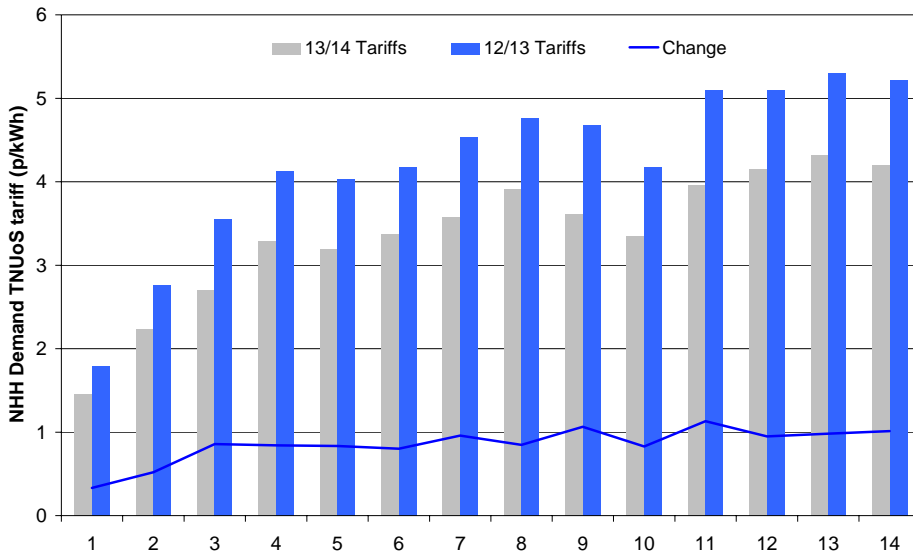


Chart A3 – Initial view of potential 2013/14 wider generation NHH demand tariffs with charging parameter changes

The demand tariffs tend to show the reverse trend to the generation tariffs with the increases smallest in Scotland (Zones 1 and 2) and increasing towards southern England. The locational changes are due to the same drivers i.e. expected changes in the generation and demand background and the potential increases in the expansion constant and expansion factors.

Charts A4 and A5 show the direct potential impact of the input parameter changes by comparing changes in indicative 2013/14 tariffs. The tariff changes shown in magenta have been estimated with the existing charging parameters, whilst those in blue have been produced with updated estimated charging parameter values. In both cases, the generation and demand backgrounds have been based on data for 2013/14 as of April 2012. This means the difference between the magenta and blue lines represents the change due to updates to the charging parameters. The shaded area represents the potential uncertainty around charging parameter changes.

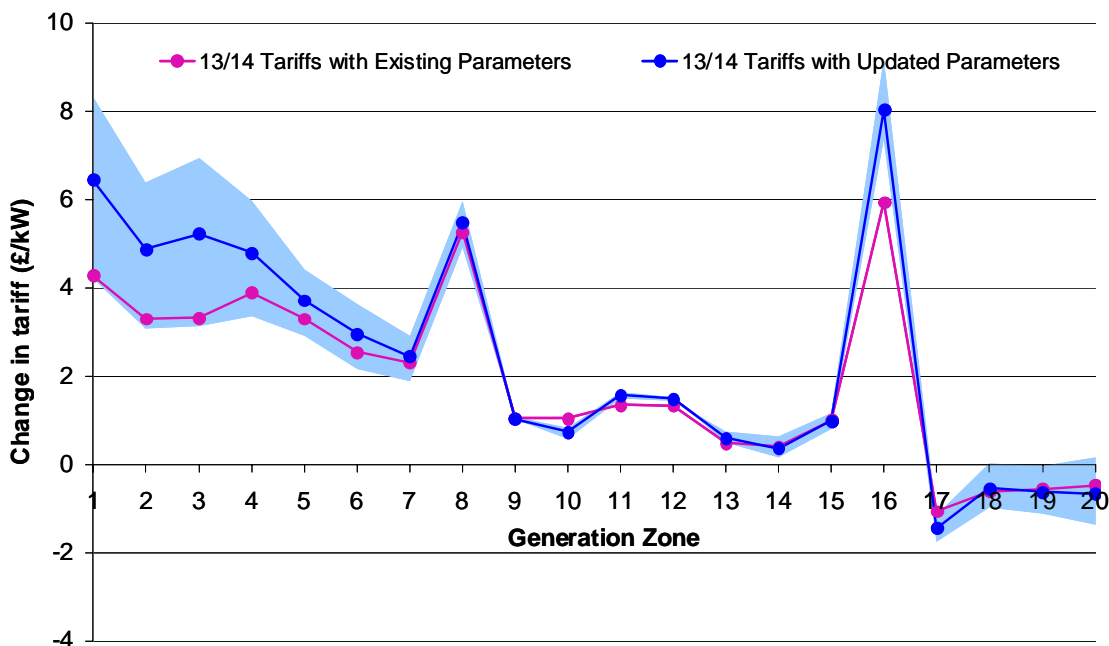


Chart A4 – Potential impact of charging parameter changes on indicative 2013/14 wider generation tariffs

Chart A4 shows the potential impact on generation zonal tariffs. It can be seen from the chart that there the greatest potential for both change and uncertainty at the peripheries of the transmission system. For



example, initial analysis suggests a potential increase of over £2/kW in Zone 1 due to changes to charging parameters alone, but that this change could be between £0/kW to £4/kW. This range is due to the current uncertainty regarding the data required to re-assess the charging parameters.

When comparing with the tariffs presented in chart A1 it can be estimated that around a third of the annual change to Zone 1 tariffs would be due to charging parameter changes, although the figure could be as high as 50%. This is due to the potential changes to the expansion constant and expansion factors.

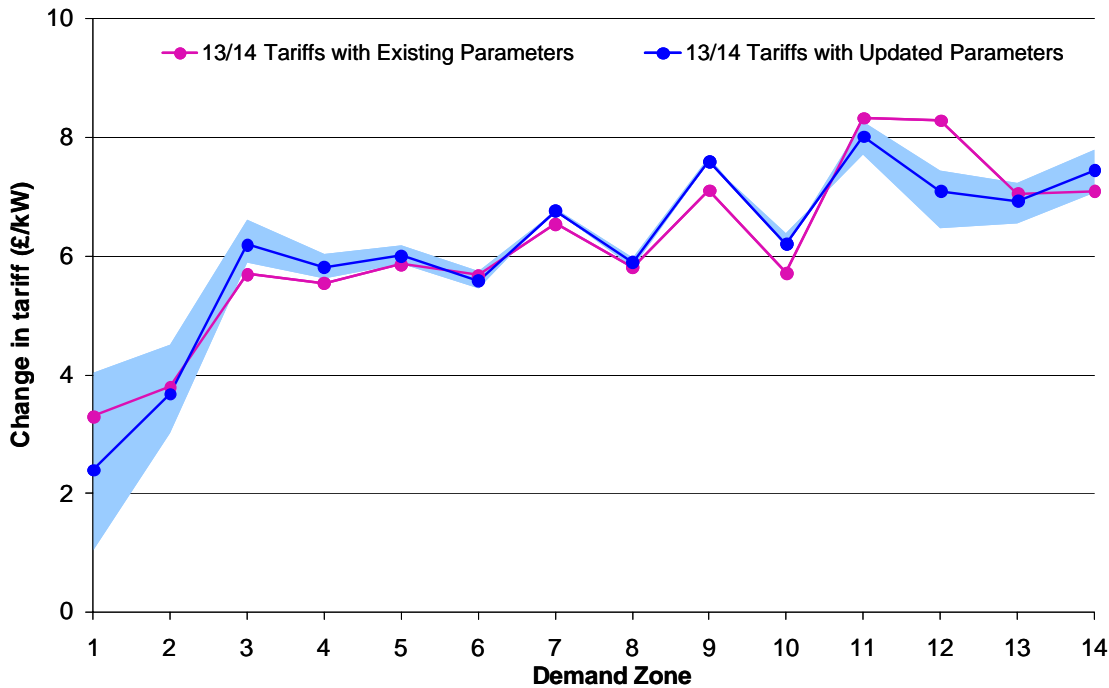


Chart A5 – Potential impact of charging parameter changes on indicative 2013/14 wider HH demand tariffs

Chart A5 provides a similar view for zonal HH demand tariffs. Again, the greatest changes are in the areas most greatly affected by changes to the expansion constant and expansion factors; zone 1 (northern Scotland) and zone 12 (London). As a result, these zonal tariffs are also exposed to the highest level of uncertainty. For zone the potential tariff changes range from an increase of over £0.5/kW to a reduction of over £1/kW.

## Potential Impact on Generation Charging Zones

Generation charging zones were last updated in 2006. The following view is presented based on the draft 2013/14 transport model updated with likely values of the expansion constant and expansion factors.

An initial re-zoning view was taken to minimise both the number of zones and also the number of changes from the current position. The results of this consideration are presented in the table below as a view of the likely areas where zone changes may be required. The current zoning criterion remains  $\pm$  £1/kW. Zones shown in red (a total of 9) breach this limit with two further zones (zones 8 and 19) being close to this limit.

Zone	Zone Name	Zonal Spread (£/kW)
1	North Scotland	2.1
2	Peterhead	0.0
3	Western Highland & Skye	4.4
4	Central Highlands	0.8
5	Argyll	3.4
6	Stirlingshire	2.4
7	South Scotland	7.1
8	Auchencrosh	1.9
9	Humber & Lancashire	5.3
10	North East England	0.0
11	Anglesey	0.0
12	Dinorwig	0.0
13	South Yorks & North Wales	2.4
14	Midlands	1.4
15	South Wales & Gloucester	6.0
16	Central London	0.0
17	South East	2.8
18	Oxon & South Coast	0.4
19	Wessex	1.8
20	Peninsula	1.3

Table A2 – Potential breaches of TNUoS Generation Zonal  $\pm$  £1/kW Criteria

On this basis it is estimated that there will be a requirement for an additional 6-10 generation zones, with some further indicative detail being;

- An additional 1-2 zones in northern Scotland.
- The splitting of southern Scotland into east and west. This may require an additional 2-3 zones.
- An additional 1-2 zones in the north midlands.
- The potential for a reduced number of zones in north west Wales.
- 2 additional zones in south Wales.
- An additional zone required for the Thames Estuary / south east coast area.

Whilst National Grid will attempt to minimise the impact of zonal changes in accordance with paragraph 14.15.27 of Section 14 of the CUSC, the impact of each zonal change will be unique, and could result significant step changes for generators in affected zones. Whilst this impact cannot be accurately quantified at this stage, an illustrative example is provided in Annex 7.

## Comparison with changes made at the start of the last price control period

These charging parameters and generation charging zones were last reviewed and updated in 2006 prior to the start of the last price control period, TPCR4, in April 2007. Table A3 below shows the potential impact of the current charging parameter review against the previous review at the start of TPCR4. Expansion constant values are quoted in 2012/13 prices. RIIO-T1 figures are indicative only at this stage.

Parameter	BETTA (April 05)	TPCR 4 (April 07)	RIIO-T1 (April 13)
Expansion Constant (£/MWkm)	12.35	11.72	Approx.13
OHL Expansion Factors	1.0 – 2.6	1.0 – 2.7	1 – 3
Cable Expansion Factors	22.4 – 30.2	20.7 – 27.9	12 – 15
Locational Security Factor	1.8	1.8	1.8
No. of generation zones	21	20	26-30

Table A3 – Comparison of Charging Parameter Updates at the start of price control periods

Generally, the changes currently forecast for the review of charging parameters and generation charging zones at the start of RIIO-T1 are expected to be greater than those experienced at TPCR-4. This is in part because TPCR4 reviewed these values only two years after their review at part of the establishment of the British Electricity Trading Arrangements (BETTA) in April 2005.

The review implemented in April 2007 saw a reduction in the expansion constant of £0.63/MWkm. The change at the RIIO-T1 view is currently considered to be an increase of around £1.2/MWkm. As this change is an increase, this will see a stretching of the locational signals within TNUoS charges (i.e. the range between the highest and lowest tariff increases), whilst the 2007 change saw a contraction. There are also changes to the expansion factors, with some more noticeable reductions to relative cable costs and some increases to some OHL costs. The impact of these is again to stretch the locational signals.

The TPCR-4 review of generation charging zones saw a reduction of one generation charging zone, i.e. minimal change. The current forecast for the generation charging zone review at the start of RIIO-T1 will see an additional 6-10 zones being created. This will likely have a much greater impact with some generators seeing significant increases and others significant decreases in their zonal charges. The reasons for this are explained further in Annex 7.

## Next Steps for Review of Charging Parameters and Generation Charging Zones

The review of charging parameters and generation charging zones is dependent on information from two main sources; network data and financial data. Whilst the majority of this information has now been received by National Grid, some data will not be available until later this year. Additionally, there are some areas where National Grid are still reviewing data presented.

Table A4 below indicates the dependencies of the charging parameters on these two data sources.

	Network Data Dependent	Financial Data Dependent
Expansion Constant	No	Yes
Expansion Factors	No	Yes

Security Factor	Yes	No
Generator Zones	Yes	Yes

Table A4 – Data dependencies of charging parameters

The purpose of this section is to inform the progress of National Grid in capturing and reviewing this information to date, and provide an intended timeline for the completion of the review. National Grid will provide a further update to industry at the TCMF on 28<sup>th</sup> November.

### Network Data

Network data includes information relating to the National Electricity Transmission System as well as generation and demand backgrounds. This data is required to be annually updated, with the updated information populating the Transport and Tariff model. Data is provided to National Grid from generators, DNOs, Directly- Connected Customers and onshore TOs by the end of October, which allows National Grid to publish draft TNUoS tariffs before Christmas. Prior to being used in the models, National Grid reviews and makes independent checks this data, to best ensure the data is free from error and all changes are understood.

As such, this data can significantly alter the transport model marginal MWkm flows. National Grid therefore requires this information be updated prior to finalising the locational security factor and reviewing generation charging zones.

On this basis, it is currently anticipated that the locational security factor will be finalised before the end of November. The review of generation charging zones is also dependent on the confirmation of financial information and so cannot be completed in this timescale.

### Financial Data

Financial data relates to the following elements. These are described in further detail in Annex 7.

1. *Capital (Investment) Costs*. This information is required to enable National Grid to set the expansion constant and expansion factors. Information is provided from the onshore TOs. Whilst this data has been supplied to allow review ahead of implementation of RIIO-T1, there is still ongoing dialogue between National Grid and other onshore TOs to understand the changes to the data from that provided for the TPCR-4 review. This is because there are certain areas which suggest a significant change to capital costs and plans, which would likely impact on locational elements of certain user's charges, National Grid therefore need to ensure that it is correct that these changes are reflected in the TNUoS methodology. This work is ongoing but National Grid hopes it will be completed by early December.
2. *The Overhead Factor*. The overhead factor is required to ensure that the expansion constant and expansion factors share the business costs, which include maintenance and business rates. Against this background, the overhead factor represents an allocation of operating costs to the assets. The calculation of the overhead factor requires data provided by the onshore TOs and operating cost information from the price control. On the basis that final proposals for the RIIO-T1 price controls will be published in mid-December, National Grid will endeavour to update the overhead factor for inclusion in draft tariffs. Any changes to the timeline for publishing RIIO-T1 final proposals will impact on the timescales for updating the overhead factor.
3. *Weighted Average Cost of Capital (WACC) / Annuity Factor*. This financial metric relates to the cost of capital for a transmission company and is used in the calculation of the annuity factor,

which in turn is used in the calculation of the expansion constant and expansion factors. The TNUoS charging methodology requires that the WACC used in the calculation of the annuity factor is the National Grid regulated rate of return, as this assumes that it will be reasonably representative of all licensees. This rate of return will not be agreed until at least mid-December, when final RIIO-T1 proposals for NGET are published. On the basis that this is finalised in mid-December, National Grid believe that the review can be completed to allow publishing of draft TNUoS tariffs by Christmas.

Providing an agreement is reached on the RIIO-T1 proposals for National Grid in mid-December, then the WACC and overhead factor can be established, and hence the annuity factor, expansion constant and expansion factors can be finalised. This will then allow the generation charging zones to be reviewed. National Grid will seek to provide more information on re-zoning in draft tariffs; however, given the resource requirements to undertake a full rezoning exercise this may not be completed until the end of January in time for publication of final tariffs.

It should be noted that the review of the charging parameters and generation charging zones associated with the RIIO-T1 price control, is intended to be completed to the above timeline whatever the outcome of CMP214. CMP214 seeks to review the implementation date for these changes only.

In the event that CMP214 is approved by the Authority in line with the timeline published in Annex 3, draft tariffs will be published in December 2012 derived from a 2013/14 Transport and Tariff model with updated network data, but with no updates to charging parameters and generation charging zones that are reviewed at the start of a price control period. In this case, National Grid will publish alongside the draft tariffs, the updated values to charging parameters and generation charging zones.

In the event that CMP214 is rejected by the Authority in line with the timeline published in Annex 3, draft tariffs will be published in December 2012 derived from a 2013/14 Transport and Tariff model with both updated network data, and also updates to charging parameters and generation charging zones that are reviewed at the start of a price control period. These updated values will be published, for clarity, alongside the draft tariffs.

In the event the Authority has not made a decision on CMP214 in line with the timeline published in Annex 3, two sets of draft tariffs will be published in December 2012 based on whether this modification proposal is approved or rejected.

## Annex 7 – The key elements of the TNUoS charging methodology affected by this proposal and their role in the setting of TNUoS tariffs

The purpose of this annex is to provide further explanation of the TNUoS charging parameters affected by this proposal and the generation charging zones. It includes an explanation of their role in the setting of TNUoS tariffs and their impact on tariff volatility.

### Overview of TNUoS Charging Methodology

The TNUoS Charging Methodology is laid out in the Statement of the Transmission Use of System Charging Methodology in Section 1 of Part 2 of Section 14 of the CUSC<sup>8</sup>.

TNUoS charges are set to recover the Maximum Allowed Revenue (MAR), as set by the Authority at the time of the Transmission Owner (TO) 's price control review to recover the costs of the TO activity function of the transmission businesses of each transmission licensee for the succeeding price control period.

TNUoS charges are collected through a number of tariffs. TNUoS tariffs are comprised of two separate elements. Firstly, a locational element which reflects the costs of capital investment in, and the maintenance and operation of, a transmission system to provide bulk transport of power to and from different locations (i.e. provides a cost reflective signal). Secondly, a non-locationally varying element relating to the provision of residual revenue recovery. The combination of both these elements forms the TNUoS tariff.

CMP214 seeks to alter the timing of changes to certain parameters (including generation charging zones) which affect the locational element. This means changes to these parameters do not affect the overall collection of MAR.

The TNUoS methodology refers to two models which are used to derive TNUoS tariffs;

- *The Transport Model.* This calculates the marginal cost of investment (expressed in MWkm) in the transmission system which would be required as a consequence of an increase in demand or generation at each connection point or node on the transmission system, based on a study of peak conditions on the transmission system.
- *The Tariff Model.* The tariff model converts the marginal MWkm figure derived from the transport model into a £/MW signal, and also then calculates the residual element of the overall tariff.

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<sup>8</sup> [The CUSC - Section 14](#)

## **Charging Parameters that are required to be reviewed at a price control review and their role in the setting of TNUoS tariffs**

Six charging parameters are affected by CMP214. These are;

- The Expansion Constant
- The Expansion Factors
- The Locational Security Factor
- The Annuity Factor
- Capital Costs
- The Overhead Factor

The annuity factor, capital costs and the overhead factor are all used to calculate the expansion constant and expansion factors.

The expansion factors are used in the transport model to reflect the difference in cost between cabled routes and overhead line routes, routes of different voltage. As the transport model expresses cost as marginal km (irrespective of cables or overhead lines), some account needs to be made of the fact that investment in these other types of circuit is more expensive than for 400kV overhead line. This is done by effectively 'expanding' these more expensive circuits by the relevant circuit expansion factor, thereby producing a larger marginal kilometre to reflect the additional cost of investing in these circuits compared to 400kV overhead line.

The expansion constant and locational security factor are used in the calculation of the initial transport tariffs. Both these charging parameters are simple multipliers to the generation and demand zonal marginal km outputs from the transport model.

Each of the parameters is described in more detail below, as is their impact on TNUoS tariffs.

### **1. Capital Costs**

These are the base capital costs used to estimate the cost of transmission infrastructure investment. They are used to provide average unit cost of investment for inclusion in tariffs via the expansion constant and expansion factors.

Capital cost data includes information provided from all onshore Transmission Owners (TOs). They are based on historic costs and tender valuations adjusted by a number of indices (e.g. global price of steel, labour, inflation, etc.). The objective of these adjustments is to make the costs reflect current prices. This cost data represents National Grid's best view; however it is considered as commercially sensitive and is therefore treated as confidential.

## 2. The Annuity Factor

The annuity factor converts the average capital cost of transmission investment into an annuitised figure for use in the expansion constant and expansion factors. The formula used to calculate of the annuity factor is shown below.

$$\text{Annuityfactor} = \frac{1}{\left[ \frac{(1 - (1 + \text{WACC})^{-\text{AssetLife}})}{\text{WACC}} \right]}$$

The Weighted Average Cost of Capital (WACC) and asset life are currently reviewed and updated at the start of a price control period. Values then remain constant throughout a price control period. The WACC used in the calculation of the annuity factor is the National Grid regulated rate of return, this assumes that it will be reasonably representative of all licensees. It is not confirmed until the outcome of the price control review is known and agreed. The asset life used in the calculation is 50 years; the appropriateness of this is reviewed when the annuity factor is recalculated. The current annuity factor is 0.066. Based on the capital cost of 400kV overhead line used in the TPCR4 review, a change of 0.1% change on WACC can be roughly estimated as having a £0.1/MWkm impact on the expansion constant. Based on the initial view of 2013/14 tariffs published in April 2012, this would increase the range of:

- generation tariffs by 28 p/kW
- HH demand tariffs by 21 p/kW
- NHH demand tariffs by 0.03 p/kWh

However, the higher the capital cost, the greater the impact of a change of WACC on the final expansion constant.

## 3. The Overhead Factor

The overhead factor is required to ensure that the expansion constant and expansion factors share the business costs, such as maintenance and business rates in addition to consideration of annuitized capital costs. The overhead factor represents the total business operating costs in any year divided by the total Gross Asset Value (GAV) of the transmission system. It is currently recalculated at the start of each price control period.

## 4. The Expansion Constant

The expansion constant, expressed in £/MWkm, represents the average annuitised £/MW cost of building 1km of 400kV overhead line and is derived from the actual costs of 400kV overhead line construction, including an estimate of the cost of capital, to provide for future system expansion. It is used to convert the marginal km figure derived from the transport model into a £/MW signal. The expansion constant is reviewed and updated at the start of a price control period, with annual RPI updates during the price control period. In 2012/13 the expansion constant is £ 11.723618 /MWkm.



### Calculating the Expansion Constant

The table below, taken from paragraph 14.15.35 of Section 24 of the CUSC, shows the first stage in calculating the onshore expansion constant, where capital costs of investment are averaged to determine an average unit cost. A range of overhead line types is used and the types are weighted by recent usage on the transmission system. This is a simplified calculation for 400kV overhead line using example data:

<b>400kV OHL average capital cost calculation</b>					
<b>MW</b>	<b>Type</b>	<b>£(000)/km</b>	<b>Circuit km*</b>	<b>£/MWkm</b>	<b>Weight</b>
A	B	C	D	E = C/A	F=E*D
6500	La	700	500	107.69	53846
6500	Lb	780	0	120.00	0
3500	La/b	600	200	171.43	34286
3600	Lc	400	300	111.11	33333
4000	Lc/a	450	1100	112.50	123750
5000	Ld	500	300	100.00	30000
5400	Ld/a	550	100	101.85	10185
<b>Sum</b>			<b>2500 (G)</b>		<b>285400 (H)</b>
				<b>Weighted Average H/G):</b>	<b>(J= 114.160 (J)</b>

*\*These are circuit km of types that have been provided in the previous 10 years. If no information is available for a particular category the best forecast will be used.*

Table A5 - 400kV OHL average capital cost calculation

The weighted average £/MWkm (J in the example above) is then converted in to an annual figure by multiplying it by the annuity factor.

The final step in calculating the expansion constant is to add a share of the annual transmission overheads (maintenance, rates etc). This is done by multiplying the average weighted cost (J) by the overhead factor.

The overhead and annuitised costs are then summated to give the expansion constant.

Continuing the above example, the final steps in establishing the expansion constant are shown below:

<b>400kV OHL expansion constant calculation</b>	<b>Ave £/MWkm</b>
<b>OHL</b>	114.160
Annuitised	7.535
Overhead	2.055
<b>Final</b>	<b>9.589</b>

Table A6 – Expansion Calculation

### Impact of the Expansion Constant

As the expansion constant represents the unit cost of 400kV overhead line transmission then a change to its value will alter the locational element of TNUoS charges. Those users requiring greatest use of the GB transmission system (i.e. generation located furthest from demand and vice versa) will be most greatly affected. The charts below illustrate the impact of a change of the expansion constant on 2012/13 TNUoS wider zonal generation and demand tariffs. An increase in the expansion constant can be seen to increase the locational differentials between zones, whilst a reduction in the expansion constant reduces the strength of the locational element.

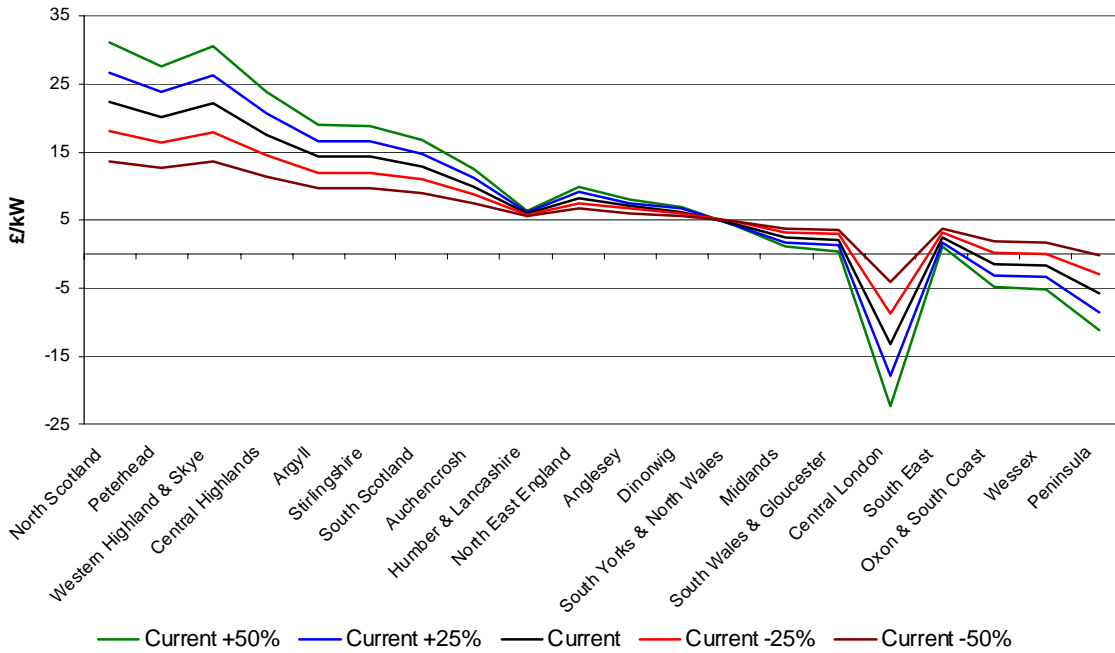


Chart A6 – Illustrative Impact of changing the expansion constant on wider zonal generation tariffs (Note: a +/- 25% change is equivalent to +/-£2.93/MWkm)

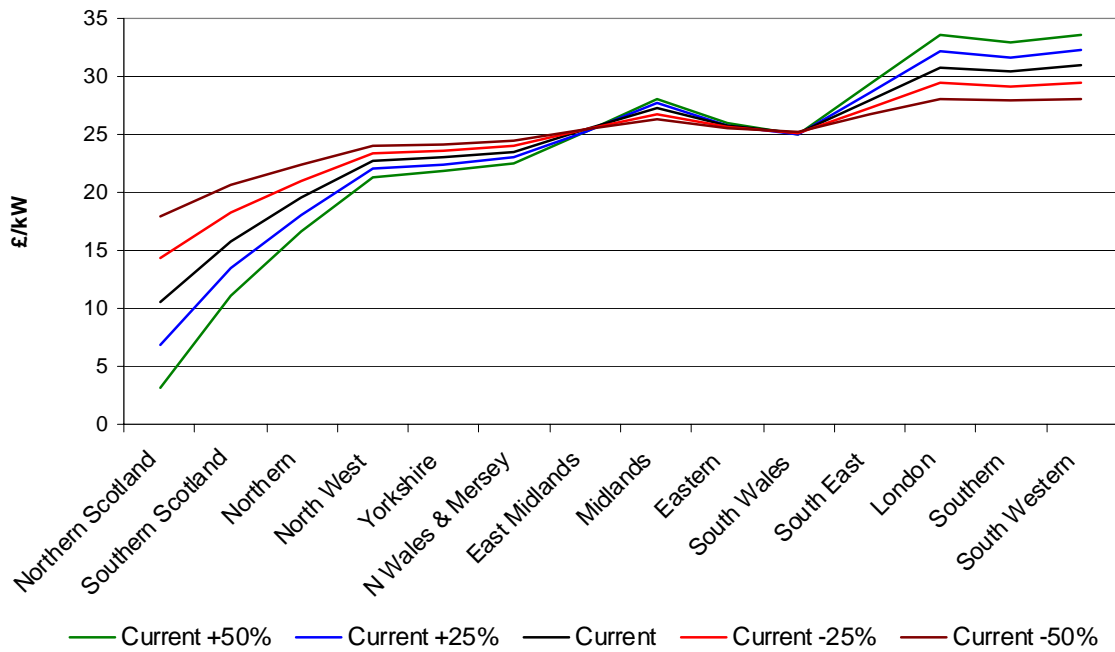


Chart A7 – Illustrative Impact of changing the expansion constant on zonal demand tariffs (Note: a +/- 25% change is equivalent to +/-£2.93/MWkm)

## 5. The Expansion Factors

The expansion constant describes the annual cost of building 1km of 400kV overhead line together with business overhead costs. The expansion factors describe the relative costs of other types of circuit construction in each onshore TO transmission area. The current expansion factors are shown below.

Type	Voltage	NG	SP	SSE
Cable	400	22.4	22.4	22.4
	275	22.4	22.4	22.4
	132	30.2	30.2	27.8
OHL	400	1.0	1.0	1.0
	275	1.1	1.1	1.1
	132	2.8	2.8	2.2

Table A7 – Current expansion factors

Base onshore expansion factors are calculated by deriving individual expansion constants for the various types of circuit, following the same principles used to calculate the 400kV overhead line expansion constant. The expansion factors are then derived by dividing the calculated expansion constant by the 400kV overhead line constant. The factors are then fixed for the price control period. For example, if 1km of 400kV OHL costs £10 per annum, then 275kV OHL costs £11 per annum (i.e.  $10 \times 1.1$ ).

In calculating the onshore cable factors, the forecast costs are weighted equally between urban and rural installation, and direct burial has been assumed. The operating costs for cable are aligned with those for overhead line. An allowance for overhead costs has also been included in the calculations.

The 132kV onshore circuit expansion factors are applied on a TO basis. This is to reflect the regional variation of plans to rebuild circuits at a lower voltage capacity to 400kV. The 132kV cable and line factor is calculated on the proportion of 132kV circuits likely to be uprated to 400kV. The 132kV expansion factor is then calculated by weighting the 132kV cable and overhead line costs with the relevant 400kV expansion factor, based on the proportion of 132kV circuitry to be uprated to 400kV. For example, in the TO areas of National Grid and Scottish Power where there are no plans to uprate any 132kV circuits, the full cable and overhead line costs of 132kV circuit are reflected in the 132kV expansion factor calculation.

The 275kV onshore circuit expansion factors are applied on a GB basis and includes a weighting of 83% of the relevant 400kV cable and overhead line factor. This is to reflect the averaged proportion of circuits across all three Transmission Licensees which are likely to be uprated from 275kV to 400kV across GB within a price control period.

The 400kV onshore circuit expansion factors are applied on a GB basis and reflect the full costs for 400kV cable and overhead lines.

Local onshore circuit tariffs are calculated using local onshore circuit expansion factors. These expansion factors are calculated using the same methodology as the onshore wider expansion factor but without taking into account the proportion of circuit kms that are planned to be uprated. Additionally, the 132kV onshore overhead line circuit expansion factor is sub divided into four more specific expansion factors. This is based upon maximum (winter) circuit continuous rating (MVA) and route construction whether double or single circuit.

Offshore expansion factors are derived from information provided by Offshore Transmission Owners for each offshore circuit. Offshore expansion factors are Offshore Transmission Owner and circuit specific. They are also reviewed at the start of a new price control period when the expansion constant is reviewed.

All expansion factors are published annually in the Statement of Use of System Charges.<sup>9</sup>

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<sup>9</sup>[Statement of Use of System Charges - April 2012](#)

Expansion factors have a similar effect as the expansion constant, in that they impact the locational element of TNUoS charges. However, as they are dependent on both circuit type and voltage, their impact can have more of an impact on specific customers. For example, an increase in cable expansion factors would increase the locational element of TNUoS charges for those users reliant on transmission in urban areas. Similarly, a reduction in 132kV expansion factors would benefit those users making use of 132kV transmission systems.

## 6. The Locational Security Factor

The transport model calculates the cost of an additional MW of generation or demand at each node assuming an intact transmission system. The transmission system however is highly integrated to ensure that when a network fault occurs, demand is not interrupted. The security factor represents the additional cost of building an integrated transmission system. A single GB average security factor is used - currently 1.8 - since large parts of the network are constructed with double circuits. It is currently reviewed at the start of a new price control period and then fixed for the duration of a price control.

The locational security factor is reviewed on a GB basis through nodal comparison of two DC load flow scenarios in a transport mode. Each scenario has the same generation and demand background but have different network configurations;

1. an intact transmission system
2. a transmission system with a worst case “contingent event” for each transmission node e.g. a single / double circuit faults

This means the model has to be run hundreds of times. The locational security factor is the nodal cost differential between the two modelled scenarios averaged on a GB basis. Chart A8 below shows a sample output of this analysis. The gradient of the best fit line provides the locational security factor.

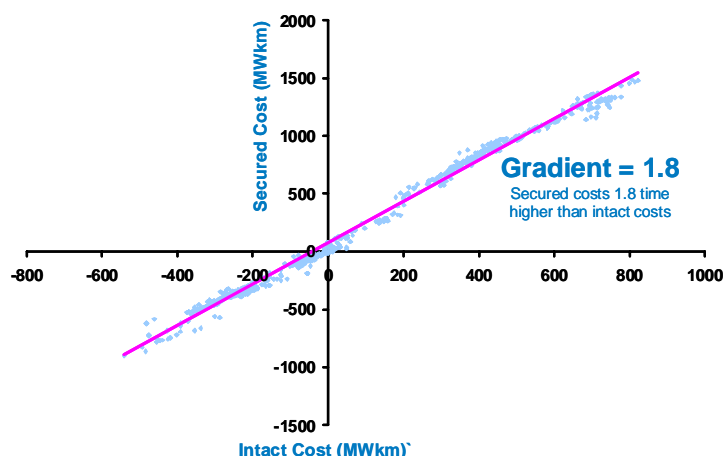


Chart A8 – Illustrative example of locational security factor derivation

Additionally there are a number of local onshore security factors. These are generator specific and are applied to a generator’s local onshore circuit. If the loss of any one of the local circuits prevents the export of power from the generator to the MITS then a local security factor of 1.0 is applied. For generation with circuit redundancy, a local security factor is applied that is equal to the locational security factor, currently 1.8.

Specific offshore local security factor (LocalSF) are calculated on an individual basis for each offshore connection. The offshore security factor for single circuits with a single cable will be 1.0 and for multiple circuit connections will be capped at the locational onshore security factor, i.e. currently 1.8.

The locational security factor is used as a multiplier to determine the locational element of TNUoS charges. As it is applied on a global basis, similar to the expansion constant, then it impacts the locational element of TNUoS charges in a similar manner to the expansion constant. As such, an increase in the global security factor will result in a stretching of the locational signal across Great Britain with those users requiring most use of the transmission system seeing an increase in TNUoS charge. This is consistent with the underlying message of such an increase, in that to build a secure transmission

system a greater number of assets is required. The reverse is also true, a reduction in the locational security factor will contract the locational element of TNUoS charges.

## **Generation Charging Zones**

The transport model calculates the marginal MWkm cost of transmission infrastructure investment on a nodal basis. For both stability and simplicity, these nodes are assigned to zones with a common unit cost.

Demand zone boundaries are fixed and relate to the GSP Groups used for energy market settlement purposes.

Generation zones are established via defined criteria at the beginning of each price control period with another review only undertaken in exceptional circumstances. These criteria are as follows;

- i.) Zones should contain nodes whose wider marginal costs (as determined from the output from the transport model) are all within +/-£1/kW (nominal prices) across the zone. This means a maximum spread of £2/kW in nominal prices across the zone.
- ii.) The nodes within zones should be geographically and electrically proximate.
- iii.) Relevant nodes are considered to be those with generation connected to them as these are the only ones, which contribute to the calculation of the zonal generation tariff.

A common cost for each zone is arrived at through a weighted average of the nodal costs (weightings from generation capacities). The process is driven by initially applying the nodal marginal costs from the transport model onto the appropriate areas of a substation line diagram. Generation nodes are grouped into initial zones using the +/- £1/kW range. All nodes within each zone are then checked to ensure the geographically and electrically proximate criteria have been met using the substation line diagram. The established zones are inspected to ensure the least number of zones are used with minimal change from previously established zonal boundaries. The zonal boundaries are finally confirmed using the demand nodal costs for guidance.

The minimum number of zones, which meet the stated criteria, are used. If there is more than one feasible zonal definition of a certain number of zones, National Grid determine and use the one that best reflects the physical system boundaries.

Zones will typically not be reviewed more frequently than once every price control period to provide some stability. However, in exceptional circumstances, it may be necessary to review zoning more frequently to maintain appropriate, cost reflective, locational cost signals. For example, if a new generator connecting to the transmission system would cause the creation of a new generation zone for that generator alone, it may not be appropriate from a cost reflective perspective to wait until the next price control period to undertake this rezoning. If any such rezoning is required, it will be undertaken against a background of minimal change to existing generation zones and in line with the notification process set out in the Transmission Licence and CUSC.

As the review of generation zones is dependent on output data from the transport model and requires both the expansion constant and locational security factor, it cannot be completed until the review and update of the six previously discussed charging parameters has finished.

*Impact of generation rezoning on TNUoS tariffs*

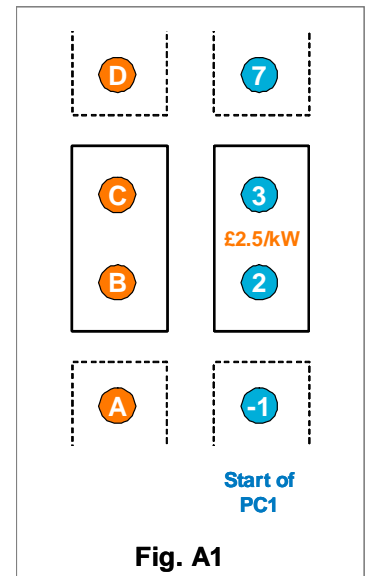
The impacts of re-zoning are specific generators, and can be difficult to predict. The following illustrative example aims to show why this is the case.

Let us consider four generators of equal capacity; A-D who are the subject of a TNUoS zoning exercise at the start of price control period PC1. The assessment of nodal £/kW costs gives the results as shown opposite in Fig. A1. As generators B and C are already in a common zone, and their nodal costs are still remain within the £2.00/kW spread they remain as a common zone with a zonal price of £2.5/kW. Generators A and D have nodal prices which both sit outside this range, and therefore remain in separate zones.

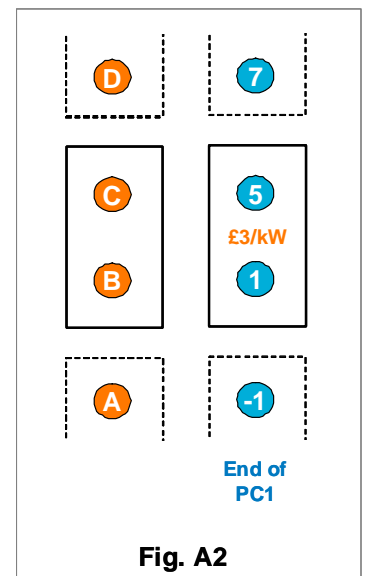
During the following price control period, there can be changes to both the generation and demand background as well as to the transmission system. This coupled with the review of charging parameters required at a price control review means that nodal costs can have significantly changed.

The situation at the end of PC1 is shown in the Fig. A2 opposite. The nodal cost of generator B has now dropped to £1/kW whilst that of generator C has risen to £5/kW. Their zonal price is now £3/kW.

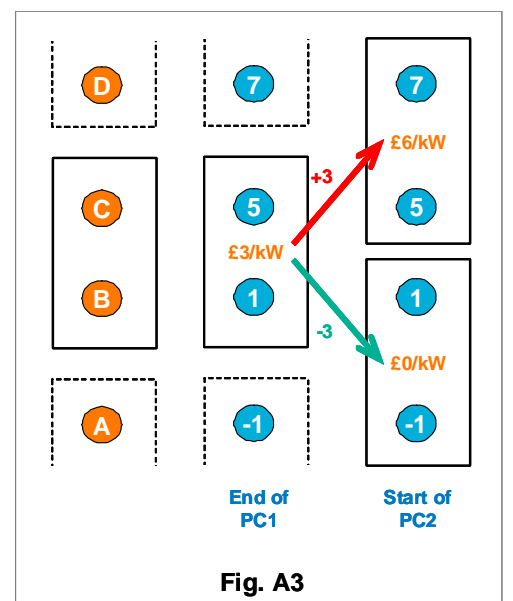
The next re-zoning happens at the start of PC2. Generators B and C are no longer within the £2/kW spread, but do meet these criteria with other neighbouring generation. As a result, generator B is moved into a zone with generator D and sees an increase in zonal tariff of £3/kW, whilst generator C moves into a zone with generator A and sees a £3/kW reduction in its zonal tariff.



**Fig. A1**



**Fig. A2**



**Fig. A3**

## Annex 8 – Supporting tariff information

The following tables provide the tariff information underpinning the charts shown in Annex 6.

Table A9 – Generation Tariff Information

Zone	Generation Tariffs (£/kW)		
	12/13	13/14	13/14
<i>Updates</i>	<i>Current tariffs</i>	<i>G&amp;D Only</i>	<i>G&amp;D + EC&amp;EF*</i>
1	21.96	26.24	28.40
2	20.11	23.41	24.99
3	22.05	25.37	27.27
4	17.56	21.45	22.35
5	14.19	17.48	17.90
6	14.23	16.76	17.18
7	12.79	15.10	15.23
8	10.50	15.76	15.98
9	6.08	7.13	7.12
10	8.43	9.47	9.16
11	7.10	8.45	8.67
12	6.36	7.68	7.84
13	4.61	5.10	5.20
14	2.39	2.80	2.76

\* Central case

Table A10 –Demand Tariff Information

Zone	Half-Hourly Demand (HH) £/kW			Non Half-Hourly Demand (NHH) p/kWh		
	12/13	13/14	13/14	12/13	13/14	13/14
<i>Updates</i>	<i>Current tariffs</i>	<i>G&amp;D Only</i>	<i>G&amp;D + EC&amp;EF</i>	<i>Current tariffs</i>	<i>G&amp;D Only</i>	<i>G&amp;D + EC&amp;EF*</i>
1	10.57	13.87	12.97	1.46	1.91	1.79
2	15.84	19.63	19.52	2.24	2.77	2.76
3	19.50	25.19	25.69	2.70	3.49	3.55
4	22.67	28.22	28.48	3.29	4.09	4.13
5	23.01	28.88	29.02	3.19	4.01	4.03
6	23.47	29.15	29.06	3.37	4.18	4.17
7	25.28	31.83	32.05	3.58	4.51	4.54
8	27.19	33.00	33.09	3.91	4.75	4.76
9	25.79	32.89	33.38	3.61	4.61	4.67
10	25.09	30.81	31.30	3.34	4.11	4.17
11	28.08	36.41	36.10	3.96	5.14	5.10
12	31.01	39.30	38.11	4.15	5.25	5.10
13	30.45	37.50	37.37	4.32	5.32	5.30
14	30.90	37.99	38.34	4.20	5.17	5.22

\* Central case

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<b>Respondent:</b>	Sarah Owen <a href="mailto:sarah.owen@centrica.co.uk">sarah.owen@centrica.co.uk</a> 01753 431052
<b>Company Name:</b>	Centrica plc
<b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b>	We believe that CMP214 better facilitates the Applicable CUSC Objectives as we suggest that it provides suppliers and generators with transparent and predictable prices that are published in sufficient timescales to enable these charges to be incorporated within pricing structures.
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	We support the implementation of this modification one working day following Ofgem's decision.
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b>	The current methodology may be sufficient to allow changes to charges to be incorporated into supplier and generator pricing structures, however, if a significant change is likely than a longer time period between the publication of charges and the implementation of the charges would be more appropriate to maintain stability and predictability of charges. However we would prefer the impact of these changes to have been published to enable the impact to our businesses to have been calculated.
<b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b>	We suggest that knowing the level of TNUoS prices a year in advance would provide greater transparency and predictability for the industry, however we are concerned that greater details of the impact to predicted charges both prior to and post implementation of this modification have not been published. This would have enabled industry members to calculate the impacts of this modification to their businesses.
<b>Do you agree that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in</b>	We support the forecast trade off between cost reflectivity of TNUoS charges for the first year following the start of a price control period and increased predictability of those charges. We agree that predictability outweighs the impact to cost reflectivity.



<p><b>competition through increased predictability of the charges?</b></p>	
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>Yes, we believe that the agreed timetable will facilitate the benefits put forward in this modification.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p>No</p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>We suggest that indicative charges should have been published to enable an impact assessment for individual businesses to be calculated.</p>

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<b>Respondent:</b>	Cem Suleyman ( <a href="mailto:cem.suleyman@draxpower.com">cem.suleyman@draxpower.com</a> )
<b>Company Name:</b>	Drax Power Limited
<b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b>	<p>We agree with the proposer that CMP214 better facilitates Applicable CUSC Objective (a). This is because the additional notice period provided for changes to transmission charges and, in particular, generation charging zone boundaries, as a result of the price control review, allow market participants to make efficient entry and exit decisions. The provision of sufficient notice to allow generators to avoid incurring TEC charges (in the event that they wish to withdraw TEC) is important in allowing generators to efficiently plan their future operating behaviour.</p> <p>We do not believe that the Modification will have an appreciable effect on Applicable CUSC Objective (b) for the reasons provided in the Consultation Document on page 7, paragraph 3.7. In any case we consider that the benefits of the Modification in respect of providing sufficient notice of future charges to market participants, outweighs any minimal concerns about the effect on the cost reflectivity of charges.</p>
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	<p>The shortened implementation approach proposed is necessary to provide market participants with an adequate notice period. Therefore we support the proposed implementation approach.</p>
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b>	<p>No. Providing only 3-4 months' notice of future TNUoS charges as a result of rezoning following a price control review (which are likely to be more significant than the usual year-on-year changes) does not allow generators sufficient time to efficiently plan ahead within their businesses. In particular, it does not allow generators to avoid TEC charges in the event that they wish to reduce their TEC. An inability to avoid these charges is likely to materially impact on the overall efficiency of the market.</p>
<b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b>	<p>Yes. An additional year's notice of changes to TNUoS charges would allow generators to optimise their operating behaviour.</p>
<b>Do you agreed that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and</b>	<p>Yes. We agree with the arguments presented on page 7, paragraph 3.7 of the consultation document. In particular we agree that:</p> <ol style="list-style-type: none"> <li>1. a one year delay to input parameter changes will not affect the long term behaviour of users, provided the changes are forecast and published;</li> <li>2. certain charging parameters and generation charging zones remain fixed, or have limited updates, during a price control period, resulting in a loss of cost reflectivity for the period of the</li> </ol>

<p><b>generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p>price control. This could result in a significantly greater loss than that introduced by CMP214.</p> <p>The benefits of the proposal (as presented in answer to the above questions) far outweigh the minor reduction in cost reflectivity caused by CMP214.</p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>Yes. We agree that the agreed timetable will facilitate the intended benefits provided National Grid stick to the indicated timeline. If the timetable is followed, adequate notice will be provided to market participants. If the process is delayed, an additional notice period may be required to ensure that market participants are provided with sufficient notice of TNUoS charge changes.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p>Generators and suppliers have little ability to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review (thus an inability to predict the resulting impact on charges). It seems obvious that if National Grid is unable to provide a definitive answer at this stage on the effect on transmission charges, then generators and suppliers will be no better placed to predict the outcome.</p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>No</p>

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<b>Respondent:</b>	<i>Paul Jones</i>
<b>Company Name:</b>	<i>E.ON</i>
<b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b>	<p>On balance no. We are concerned that this is targeted at one specific element of charging and does not address the issue of predictability and volatility of charging per se. We support the aim of increasing the predictability of charges and for the avoidance of large, last minute changes in tariffs. This is particularly an issue for suppliers setting tariffs, but can impact generators too. This has to be balanced however against an important requirement for cost reflectivity.</p> <p>Changes which help suppliers with predictability of charges such as providing better and more frequent information and forecasts are helpful. What CMP214 does, however, is seek to avoid a change to tariffs which has already been identified relatively early (in September). Therefore, CMP214 by its very nature reduces predictability of charges as participants won't know what approach will be applied next year until CMP214 is approved.</p> <p>In respect of volatility, the figures in Annex 8 of the CMP214 consultation show that the expected changes in tariffs for next year are mainly driven by changes in generation and demand, and not by the parameters which CMP214 would affect. The work that Ofgem has undertaken on dealing with volatility in charges under the RIIO price controls has not proposed any measures to deal with this cause of volatility, nor with that caused by changes in allowable revenue (other than that caused by incentive and uncertainty mechanisms). CMP214 appears to contradict this approach.</p> <p>It should also be noted that CMP214 will not result in reduced volatility for everyone, only for some zones. CMP214 has the effect of increasing volatility for those zones where the implementation of the new parameters would have mitigated the size of changes caused by other factors such as changes in demand and generation.</p>
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	Yes.
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in</b>	It does if sufficiently good information is made available ahead of this, such as seems to have been provided in September's TCMF.

<p><b>charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b></p>	
<p><b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b></p>	<p>The predictability of 2013/14's tariffs is being detrimentally affected by the process of raising CMP214 as mentioned above. There will be no improvement in predictability for 2014/15, which is the year for which the parameters will first be used if CMP214 is approved.</p>
<p><b>Do you agree that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p>No. On balance we do not believe that predictability is being improved and cost reflectivity is certainly being undermined.</p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>Yes.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p>Transmission users are not really in a position to predict the outcomes of price controls including the effects on these parameters. However, we would argue that National Grid is, and that timely forecast information to users is important to assist with the predictability of prices.</p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>No thank you.</p>

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**


<b>Respondent:</b>	Paul Mott
<b>Company Name:</b>	EDF Energy
<p><b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b></p>	<p>We are not convinced that the proposed original better facilitates charging objective (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. It is clear that NG has found that some of the underlying costs have changed, and that, in the usual course of events, the charging parameters would be changed in April 2013 to reflect those cost changes. Introducing an extra year's delay in altering those parameters (and at each subsequent price control) cannot readily be taken to improve cost-reflectivity.</p> <p>We do understand from a presentation given to the TCMF on 26<sup>th</sup> September, and a similar one given to the October CUSC, that there is a risk of the creation of between 6 and 10 additional generation charging zones in April 2013. The expectation then would be that these charging zones would endure until 2021. There is a suggestion that the additional charging zones would not, or not all, have been needed had the zoning criteria been delayed until April 2014. There is not sufficient information on this. It is not clear whether most zonal boundaries would change anyway in April 2014, if this mod were passed, so that a large number of nodes would then still fall in different zones, even if fewer new zones were then created. If this is so, then the disquiet that is anticipated from those with exposures to just one or a few generation charging zones, would still come out, as there would still be short notice of a change. The notice to CUSC parties of the new generation zones in April 2014, were CMP214 implemented, given a likely decision timeframe for CMP213, would hardly be any different to the notice for new zones to be created in April 2013 in the absence of CMP214. Moreover, it is not certain that CMP213 will be implemented in April 2014 at all; the CMP213 workgroup, in its 5<sup>th</sup> November meeting, acknowledged the possibility of slippage past this point, either into a 2014 mid-year (post-April) date, or to April 2015. In this case, again, CMP214 would not have its intended effect.</p> <p>It is clear that CMP214 is neutral against charging objective (c).</p> <p>The matter of whether or not CMP214 better meets the charging objectives, therefore, is unclear. It does not appear to better facilitate cost-reflectivity in charging. It does appear to have some potential to increase certainty and stability in charging – but only if the allocation of particular nodes to zones as redefined in April 2014, does not substantially change, compared to the</p>

	allocations of nodes to zones today. There is also a dependency on CMP213 coming into force in April 2014.
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	We note that NG proposes that CMP214 is implemented the next working day after Ofgem's decision, if that decision is positive. We agree that if the mod is passed at all, a rapid implementation reduces the uncertainty that now exists, whilst it is in process.
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b>	Yes, generally speaking. We would, however, comment that an 8 year gap, going forward, between parameter updates (with or without CMP214), that being the new price control period, is quite a long time. In fact, baseline does not specify when rezoning or parameter updates take place; it is merely a matter of past practice that this has taken place at the start of each (5 year) price control period. CMP214 hard-codes that the update is only to be every 8 years; this may not be optimal – but could be altered, with or without CMP214, by a later mod raised by another party, to a non-urgent timescale.
<b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b>	This depends on whether most zonal boundaries would have changed anyway in April 2014, if this mod were passed, so that a large number of nodes would then still fall in different zones, even if fewer new zones were then created than would be created in April 2013 under “baseline”. If this is so, then the disquiet that is anticipated from those with exposures to just one or a few generation charging zones, would still come out, as there would still be short notice of a change. The notice to CUSC parties of the new generation zones in April 2014, were CMP214 implemented, given a likely decision timeframe for CMP213, would hardly be any different to the notice for new zones to be created in April 2013 in the absence of CMP214.
<b>Do you agree that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b>	The benefits and drawbacks are unclear, due to uncertainties spelt out above.
<b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b>	Yes, if the change is to be made, it is better to do it rapidly
<b>Can you provide any evidence</b>	--

<b>on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b>	
<b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b>	No



**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<p><b>Respondent:</b></p>	<p><b>Simon Lord</b>  Head of Transmission Services  Tel. +44 (0) 1244 504601  <a href="mailto:Simon.lord@jprplc-gdfsuez-ukeu.com">Simon.lord@jprplc-gdfsuez-ukeu.com</a></p>
<p><b>Company Name:</b></p>	
<p><b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b></p>	<p>For reference, the Applicable CUSC Objectives for the Use of System Charging Methodology are:  <i>No we do not believe that this proposal better meets the relevant objective. NG should review and publish tariffs in a timely manner. This proposal effectively delays the implementation of tariff changes that are known by the 31<sup>st</sup> December (the custom and practice date) by 12 months.</i></p>
<p><b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b></p>	<p>No we do not. We believe that the situation is clear and needs no clarification. The need to review the inputs to the charging model following a price control period has been known about for many years. The industry was informed of potential changes in September (via TCMF) with indicative tariffs due in December and final tariffs in January. The TO's have collective responsibility to provide NG information to calculate inputs to tariff modes to meet the deadline.  NG has an obligation to use the best possible information in the calculation of tariffs, if full information is not available then the best information should be used for 13/14 tariffs and subsequently updated for 14/15 tariffs based on final information. To simple delay tariff changes until full information is available appears at odds with various CUSC objectives.</p>
<p><b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b></p>	<p>Yes as long as the industry is aware of this and illustrative tariffs are available via TCMF (or other CUSC obligations). No re-zoning information has been made available as such it may be prudent to delay re-zoning until 2014/15 charging year as there has been no information on the impact on individual generators at TCMF. It does not appear that NG is under no obligation to re-zone at the same time as other data inputs reviewed.</p>
<p><b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b></p>	<p><i>TNUoS volatility derives from several sources as a consequence TNUoS has and will always be difficult to predict. The various drivers of volatility are changes in TEC, changes to MAR, parameter changes as well as methodology changes. The current method of TCMF meetings in combination with indicative tariffs in December and final Tariffs in January provides reasonable visibility of potential changes.</i></p>
<p><b>Do you agreed that the</b></p>	<p><i>No we believe that there is an obligation to deliver cost reflective</i></p>

<p><b>suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p><i>charges, the stability refers to the methodology not the charge.</i></p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p><i>No we do not.</i></p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p><i>See answer to previous question.</i></p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p><i>It is unclear why this modification has been given urgent status given that the matter has been known about for many years.</i></p>

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<b>Respondent:</b>	<i>Debbie Houldsworth Email: <a href="mailto:d.houldsworth@havenpower.com">d.houldsworth@havenpower.com</a></i>
<b>Company Name:</b>	<i>Haven Power Ltd</i>
<b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b>	Yes. We agree with National Grid that the proposal better facilitates Applicable CUSC Objective (a) as it will improve the facilitation of competition by giving a year's notice of the increases; therefore allowing suppliers to incorporate changes accurately into their prices.
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	Yes.
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b>	No.
<b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b>	<i>No. However, these parameters are one of a number of inputs to the charging model that can affect final tariffs. Providing a longer notice period of changes under this proposal and more information on future tariff levels (CMP206, if implemented) will allow users early visibility of the effect of any changes on final tariffs. We note there are DCUSA change proposals to provide increased notice of changes charging model input parameters (although these are not specifically linked to the start of a price control period).</i>
<b>Do you agreed that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b>	Yes.
<b>Do you believe that the agreed timetable will facilitate the intended</b>	Yes, we feel that a one year delay is reasonable.

<b>benefits of the proposal?</b>	
<b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b>	No.
<b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b>	No.

## CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review

<b>Respondent:</b>	Andrew Wainwright, <a href="mailto:andy.wainwright@nationalgrid.com">andy.wainwright@nationalgrid.com</a>
<b>Company Name:</b>	National Grid
<p><b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b></p>	<p>National Grid believes that this proposal better facilitates Objective (a) in that it will help facilitate competition in the electricity market by allowing suppliers and generators to more efficiently incorporate transmission charges into their overall pricing structure through increased predictability of their TNUoS charges.</p> <p>As part of our RIIO-T1 stakeholder engagement we have discussed transmission charges with customers, and have found that customers value charges which are transparent, predictable, and where possible stable, although predictability is paramount.</p> <p>Additionally, Ofgem have stated in their recent consultation<sup>10</sup> that network charging volatility arising from the price control is one of the key issues raised by stakeholders during the current price control reviews. Suppliers indicated, in their responses to this consultation, that they would include a risk premium in fixed price contracts to customers partly to cover volatility in network charges. It was noted that improved predictability of network charges will allow suppliers to better incorporate changes into the contracts they offer customers which should reduce the risk premium, and therefore the cost to the end consumer.</p> <p>In the decision paper for their charging volatility consultation, Ofgem introduced a number of options designed to improve the predictability of network charges, including transmission charges. The first option considered improved information provision, including the need to provide information in timescales that allow it to be acted upon. We believe that this is consistent with the intent of CMP214 which seeks to give users additional notice of charging parameter and generation charging zone changes through delaying their implementation (CMP214 does not seek to delay the date of publication of these changes).</p> <p>We also note that other options in Ofgem's charging volatility consultation consider increasing the lag on both incentive rewards and penalties and also certain uncertainty mechanisms. This is to improve the predictability of allowed revenue and therefore, ultimately, network charges. We present in Annex A of this response a comparison of the variance to TNUoS tariffs caused by a change to allowed revenue with the variance to TNUoS tariffs caused by uncertainty in the charging parameter updates. This comparison suggests that changes associated with parameter updates can be as significant, and for some users of greater significance, than those associated with revenue changes. It would therefore follow that a similar lag to that proposed in Ofgem's consultation, if applied to TNUoS charging parameter and generation charging zone changes, would also reduce</p>

<sup>10</sup> [Mitigating network charging volatility arising from the price control settlement](#)

the volatility of transmission charges. This would in turn reduce the cash-flow volatility of suppliers and reduce the costs of entry (e.g. in terms of working capital), facilitating entry for new suppliers. Ultimately, this would improve competition leading to a reduction in customer bills.

In addition to the charging parameter updates we believe that the potential rezoning of wider generation TNUoS zones presents a significant source of charging volatility for not only generation users but also suppliers and ultimately the end consumer. This is because, similar to suppliers, generators will include a risk premium to compensate them for the risk associated with unexpected changes in network charges. If these changes are expected, i.e. sufficient advance notice is provided to allow their incorporation into generators' pricing structures, this risk premium will be reduced. Ultimately such costs, and therefore savings, are passed onto suppliers and the end consumer.

We note that our views are largely qualitative. In order to undertake a quantitative cost benefit analysis we would need to estimate both suppliers' risk premium in relation to these sources of charging volatility and their expected reduction in risk premium through the proposed delay in the update of charging parameters and generation re-zoning. Both these elements would also need to contain a measure of pass through risk premium from generators. We do not believe that we can estimate such elements quantitatively in a robust manner, but would welcome any quantitative evidence from other parties to either prove or disprove our beliefs.

In regard to Objective (b), we believe that, in the long term, there is little impact, with arguably a net increase in the cost reflectivity of TNUoS charges, through the application of this proposal.

We recognise that, for a one year period, there may be a slight reduction compared to the status quo in the cost reflectivity of TNUoS charges as a result of this proposal. This reduction is due to the one year delay to the implementation of the update of charging parameters which reflect the unit cost of transmission. We do not believe that this will have a direct impact on the industry or the end consumer. This is because, in the longer term, we recognise that the cost-reflective element of TNUoS charges seeks to provide a locational signal to customers of the forward cost of transmission. These signals are intended to allow users to account for the cost of electricity transmission when making long term decisions such as where to site new generation and whether to close existing plant. Provided users are aware of the longer term direction of TNUoS charges (i.e. changes are forecast and predictable), a one year delay to input parameter changes should not affect their long term behaviour.

We note that this proposal still requires that National Grid publish intended changes to charging parameters and generation charging zones by the start of a new price control period. This would give users at least twelve month visibility of any revisions to generation charging zones and the impact of charging parameter changes on TNUoS tariffs. We anticipate that this publication would align well with our

	<p>existing Condition 5 publication of forecast TNUoS tariffs, thus allowing users to have early sight of the long term direction of their transmission charges and to incorporate changes to charging parameters and generation charging zones into their pricing structures. On this basis it could be argued that by improving the predictability of the locational element of TNUoS charges for changes that, other than in exceptional circumstances, are then in place for a price control period, the proposal is assisting the provision of a long term stable signal to users. Such a signal would aid users in making efficient long term investment decisions. We believe that this would improve the long term cost reflective signal that TNUoS tariffs aim to achieve thereby helping to facilitate Objective (b).</p> <p>Finally, we believe that this proposal is consistent with both the outcome of Ofgem's recent consultation on charging volatility, and also the need, under RIIO-T1, for further engagement with customers. Therefore we believe that this proposal takes account of such developments in transmission businesses and represents an improvement under Objective (c).</p>
<p><b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b></p>	<p>National Grid supports the proposed implementation approach. We believe that it is important that, whatever the outcome of CMP214, the duration of industry uncertainty due to the proposal is minimised. We believe that the timeline approved by the CUSC Panel allows for industry engagement in a timely manner, allowing for our custom and practice publishing of draft tariffs in December.</p>
<p><b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b></p>	<p>We believe that the current methodology presents users with a significant level of uncertainty in TNUoS charges leading up to the start of a new price control period. In order to incorporate this uncertainty, users will apply a premium to fixed price charges. This premium is ultimately passed on to the end consumer. If these changes are known in advance then the uncertainty, and hence the risk premium will be reduced.</p> <p>We believe that industry are already contracting for 2013/14, and therefore considering the level of risk premium to be applied to manage this uncertainty in transmission charges. Based on our prior stakeholder engagement through both TCMF and RIIO-T1, we understand that users would prefer additional notice of such changes to improve the efficient incorporation of transmission charges into their pricing structures.</p>
<p><b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b></p>	<p>National Grid believes that this proposal will significantly affect the predictability of TNUoS charges. Annex B contains further evidence to illustrate the level of unpredictability caused through changes which occur only at the start of a price control in comparison to unpredictability occurring during TNUoS charge setting in general.</p>
<p><b>Do you agreed that the suggested trade-off between cost reflectivity</b></p>	<p>We agree that the suggested trade-off between any reduction in short term cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by</p>

<p><b>of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p>the start of a price control period and generation charging zones is significantly outweighed by the benefit in competition through increased predictability of the charges. Detailed reasoning is provided in our response to the first question of this consultation, but in summary this is because;</p> <p>a. We believe that any short-term impact on cost reflectivity will have no impact on the end consumer. This is because the impact on the end consumer is through the long term effect of TNUoS charges.</p> <p>b. We believe, in the long term, that the improved predictability of changes to charging parameters and generation charging zones will help provide a stable long term cost reflective signal to users to make efficient investment decisions, ultimately benefitting the end consumer.</p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>In the short term, for the setting of 2013/14 TNUoS tariffs, we are unsure how widely the agreed timetable will facilitate the intended benefits of this proposal.</p> <p>For users who have already incorporated the uncertainty associated with the parameter changes and generation charging zones into their pricing structures for 2013/14, and cannot change from this position, then this proposal will have limited benefit for 2013/14. Indeed there may be windfall gains or losses depending on whether a generator or supplier has been able to successfully pre-empt the changes to charging parameters and generation charging zones. However we believe that it is difficult for parties to forecast the outcome of the charging parameters review and that it is not possible for any party, at this point in time, to accurately forecast the make-up of generation charging zones following a re-zoning review. Whilst we have no evidence to suggest users have pre-empted these changes, we understand, from conversations with several suppliers, that they are contracting for 2013/14 based on existing generation charging zones, i.e. they are not attempting to forecast the changes to generation charging zones.</p> <p>For those users who have not yet incorporated this uncertainty, and those users who can revise any risk premium applied, then the intended benefits of this proposal will be facilitated.</p> <p>Ultimately, we believe that, in the long term, this proposal will facilitate the intended benefits for all users.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p>National Grid does not believe that the majority of suppliers or generators can reasonably predict the outcome of the review of TNUoS charging parameters. We do recognise that, through our engagement with stakeholders through the Transmission Charging Methodologies Forum (TCMF), and also by our publishing of the Transport and Tariff model, we have provided as much support and guidance to generators and suppliers as possible given the level of uncertainty. As a result, this will assist some users in being able to make informed judgements, particularly on the outcome of the charging parameter review. However we cannot comment on how accurate such forecasts would be.</p>



	<p>We do not believe that any industry party can, at this point in time, accurately predict the outcome of a generation charging zone review associated with the start of RIIO-T1. We believe that this is less straightforward, and more difficult for users to predict than the review of TNUoS charging parameters. In Annex E we present an indicative view of the potential impact of generation re-zoning based on the information used to provide indicative tariffs to industry at the September 2012 TCMF.</p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>National Grid has, in Annex 6 of the Code Administrator Consultation, indicated the next steps under which the charging parameters and generation charging zones will be reviewed and updated. It is recognised that the review will progress in parallel with this Modification Proposal. As such, additional clarity as to 2013/14 TNUoS tariffs may become available ahead of the intended publication of draft TNUoS tariffs in December 2012. National Grid will endeavour to keep customers informed of 2013/14 TNUoS tariff progression over this period. For example, we have recently published an updated view of TNUoS tariffs in 2013/14<sup>11</sup>, and we intend to provide a further update to TCMF on 28<sup>th</sup> November 2012. Additional information will also appear in the Charging Section of the National Grid website<sup>12</sup>.</p> <p>In Annex D we present a view of draft and final 2013/14 TNUoS tariff production and publication in the event that CMP214 is not implemented. In the event of CMP214 being implemented to the timeline provided in the Code Administrator Consultation, draft 2013/14 TNUoS zonal tariffs will be produced by the end of December with no updated charging parameters or generation re-zoning other than the normal RPI indexation of the expansion constant.</p> <p>We note that CMP214 seeks to delay the implementation of changes to those TNUoS charging parameters reviewed at the start of a price control period, and generation charging zones. As such it will have no impact on the collection of allowed revenue for Transmission Owners which is itself a separate input to the TNUoS charging methodology. National Grid believes that mechanisms to improve the predictability of network charges through management of revenue streams have been considered, and are being implemented, as part of Ofgem's consultation on network volatility. It also does not intend to alter the process for determining the allowed revenue, including any adjustment for under / over recovery, as these are licence issues for each Transmission Owner and sit outside the TNUoS charging methodology.</p> <p>We note the comments made in Ofgem's letter to the CUSC Panel Chair on 2<sup>nd</sup> November in regard to the information required by Ofgem to enable full assessment of CMP214. We have attempted to address, in both the Code Administrator Consultation and this response, these</p>

<sup>11</sup> [Updated view of 2013/14 TNUoS Tariffs - November 2012](#)

<sup>12</sup> [National Grid: Useful information](#)

points through the provision of further information. It should be recognised that the outcome of the charging parameter review is not known at this stage, and the review of generation charging zones will not likely be completed until early next year. This presents a level of uncertainty, which may be reflected in responses to this consultation, and indeed, underpins our submission of this proposal. To further aid Ofgem's deliberations we have included the following information with this consultation response;

- Annex A – Comparison of TNUoS charging volatility caused by revenue changes to that caused by charging parameter uncertainty
- Annex B – Comparison of volatility in general TNUoS charge setting compared to volatility due to changes required at the start of a price control period.
- Annex C – We note that the generation tariff information provided in Table A9 of Annex 8 of the Code Administrator Consultation is incomplete as it contained only 14 zones. We therefore have provided the full data in Annex C of this response, although we note that the full data was available in the charts in Annex 6 of the Code Administrator Consultation. For reference, the data provided for demand tariffs in Annex 8 of the Code Administrator Consultation does not account for the small generator discount.
- Annex D - View of draft tariff production in the event that CMP214 is not implemented
- Annex E - Relative impacts of Expansion Constant / Factor updates and Generation Charging Zone Changes on Indicative TNUoS Tariffs

## Annex A – Comparison of TNUoS charging volatility caused by revenue changes to that caused by charging parameter uncertainty

### Impact of £50m change in allowed revenue on indicative wider zonal TNUoS tariffs

Below we show the indicative impact on wider zonal TNUoS tariffs of a £50m revenue change. Such a level of change is not inconsistent with RIIO-T1 proposals; peak change due to incentive payments during TPCR4 was £16m and we are expecting a higher proportion of Transmission Owner revenues to be driven through incentives under RIIO-T1.

Tariff	Change to tariffs
Generation	± £0.17 /kW
HH Demand	± £0.65 /kW
NHH Demand	± 0.09 p/kWh

Table A1 - Impact of £50m change in allowed revenue on indicative wider zonal TNUoS tariffs

### Impact of 5% variance of expansion constant on indicative wider zonal TNUoS tariffs

The following tables show the impact of a +/- 5% variance on the expansion constant, around a central case of £13/MWkm. Negative values indicate zones where an increase in expansion constant causes a reduction in tariff and vice versa. This is less than the range currently forecast by National Grid in charts A4 and A5 in the Code Administrator consultation which also included uncertainties on expansion factors.

HH £/kW	Zone	Range
	1	1.92
	2	1.26
	3	0.62
	4	0.33
	5	0.30
	6	0.27
	7	-0.01
	8	-0.12
	9	-0.15
	10	0.07
	11	-0.48
	12	-0.63
	13	-0.60
	14	-0.57

Table A2- Variance on HH Tariffs

NHH p/kWh	Zone	Range
	1	0.26
	2	0.18
	3	0.09
	4	0.05
	5	0.04
	6	0.04
	7	0.00
	8	-0.02
	9	-0.02
	10	0.01
	11	-0.07
	12	-0.08
	13	-0.09
	14	-0.08

Table A3 – Variance on NHH Tariffs

Gen £/kW	Zone	Range
	1	-2.19
	2	-1.88
	3	-2.21
	4	-1.67
	5	-1.19
	6	-1.11
	7	-0.91
	8	-0.90
	9	-0.09
	10	-0.29
	11	-0.24
	12	-0.15
	13	0.10
	14	0.35
	15	0.28
	16	1.17
	17	0.57
	18	0.81
	19	0.94
	20	1.17

Table A4 – Variance in Generation Tariffs

## Conclusions

As the variances shown in Table A1 arrive from a change in revenue, then they will affect all charges equally. Changes to charging parameters will affect the locational signal, and will therefore not affect all customers equally.

The tariff variances shown in Tables A2-A4 still have a larger impact on certain zones than a £50m change in revenue.

On the basis that, in Ofgem's consultation on network charging volatility, a lag to certain allowed revenue components has been introduced to improve the predictability of such revenue changes and reduce the volatility of transmission charges, it would therefore follow that a lag on the implementation of charging parameter and generation charging zone changes would also reduce the volatility of transmission charges. This could in turn reduce both the cash-flow volatility of suppliers and also the costs of entry (e.g. in terms of working capital) for new suppliers, thereby facilitating their entry into the market. This would ultimately improve competition leading to a reduction in customer bills.

## Annex B – Comparison of volatility in general TNUoS charge setting compared to volatility due to changes required at the start of a price control period.

This annex compares the level of uncertainty associated with charging parameter updates required at the start of a price control with the uncertainties that exist typically within year in the process of forecasting and developing TNUoS tariffs.

### Uncertainty associated with parameter updates

Charts A4 and A5 in the Code Administrator Consultation show the range of uncertainty in indicative 2013/14 TNUoS wider zonal tariffs due to charging parameter changes. These charts were based on parameter information available to National Grid in September 2012, and will be refined closer to final tariff setting which will reduce the range of uncertainty. The management of this uncertainty and its balancing with the requirement to publish draft and final tariffs is described further in Annex D. The charts are presented again below for reference.

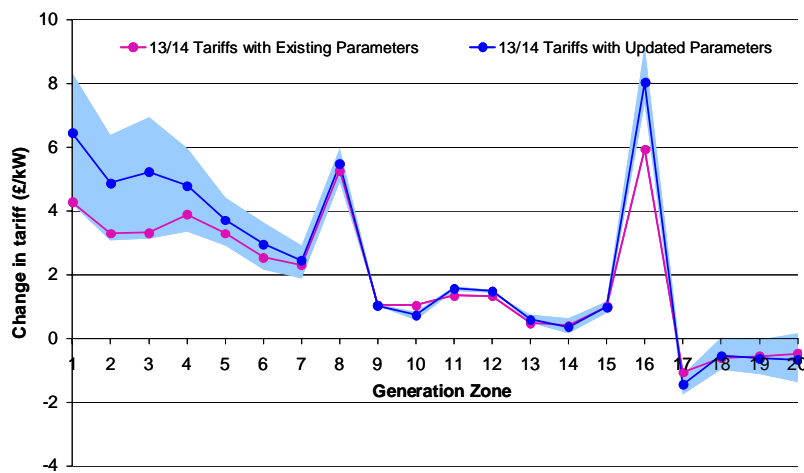


Chart B1 – Potential impact of charging parameter changes on indicative 2013/14 wider generation tariffs

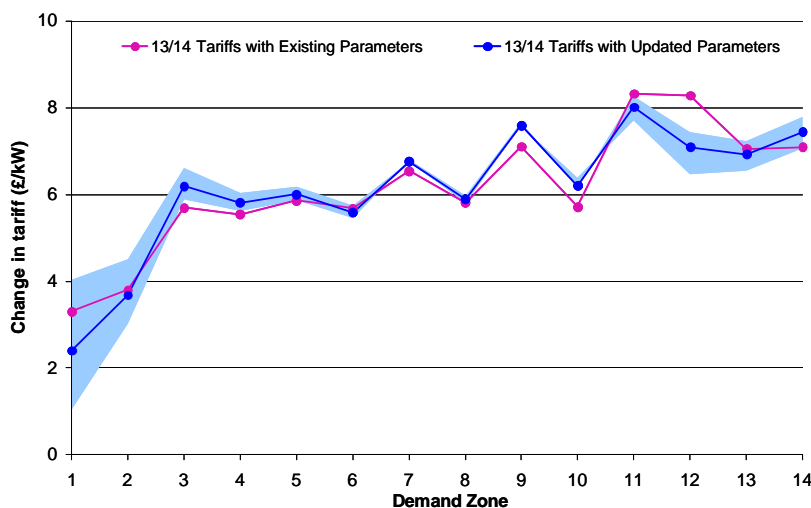


Chart B2 – Potential impact of charging parameter changes on indicative 2013/14 wider HH demand tariffs

## Typical forecast uncertainty within year

Whilst this Modification Proposal considers the uncertainty in TNUoS charges due to the review of charging parameters and generation charging zones at the start of a new price control period, it is recognised that there is underlying uncertainty each year in the TNUoS charge setting process. In this annex we illustrate the level of this uncertainty, and how it reduces with time. This uncertainty is due to other input charging data to the TNUoS charging methodology which are reviewed annually. These include the generation and demand backgrounds, the transmission network topology, and the allowed Transmission Owner revenue to be collected. This uncertainty can have an additive effect to the uncertainty due to the charging parameter and generation charging zone changes that this Modification Proposal seeks to delay.

The three charts below show the variation in forecast wider zonal TNUoS tariffs for 2013/14 between those published in April 2012 in the Initial view of TNUoS tariffs for 2013/14<sup>13</sup> and those published this month in the Updated View of TNUoS tariffs for 2013/14<sup>14</sup>.

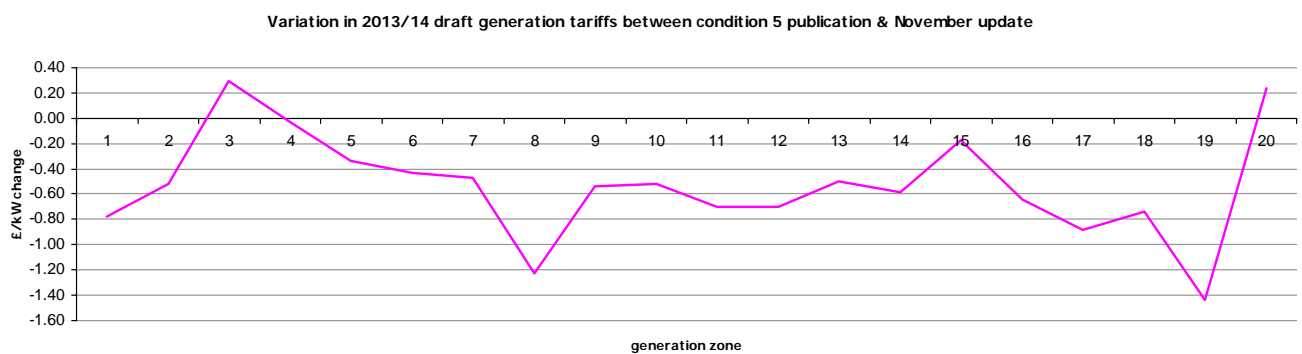


Chart B3 – Variation in 2013/14 draft generation tariffs between condition 5 publication & November update

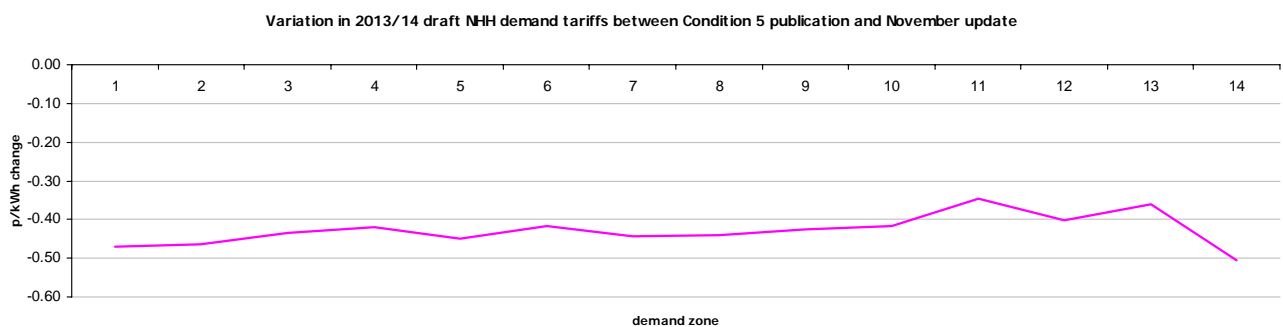


Chart B4 – Variation in 2013/14 draft NHH demand tariffs between condition 5 publication & November update

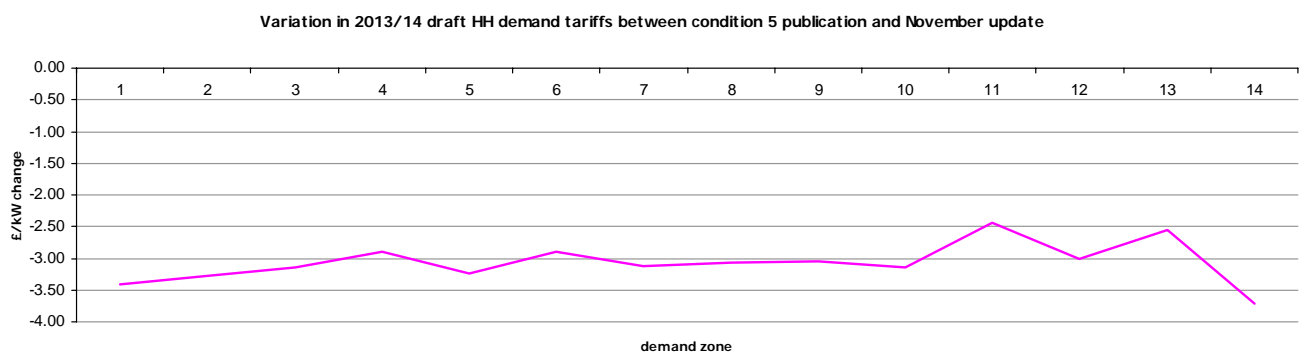


Chart B5 – Variation in 2013/14 draft HH demand tariffs between condition 5 publication & November update

<sup>13</sup> [Initial View of 2013/14 TNUoS tariffs April 12](#)

<sup>14</sup> [Updated View of 2013/14 TNUoS tariffs Nov 12](#)

There is a general reduction in forecast tariffs between April and November due to changes in the forecast allowed revenues for both onshore and offshore TOs. Additionally, particularly for generation tariffs, there is significant change between zones. This is primarily due to changes in the forecast generation background which is now fixed for charge setting purposes. It can also be seen that the variation of these changes has a less significant impact in those zones most affected by changes to charging parameter changes associated with a price control review (as shown in charts B1 and B2).

### Uncertainties between draft and final tariffs

The charts below show the historic difference between draft wider zonal TNUoS tariffs, published in December, and final wider zonal TNUoS tariffs, published in January ahead of the charging year commencing on 1<sup>st</sup> April. These are generally due to changes in forecast revenues, which affect the residual element of the tariff and therefore affect all zones equally. NHH tariffs show more distortion due to better information on HH demands at Triad periods, and also due to low level of the change.

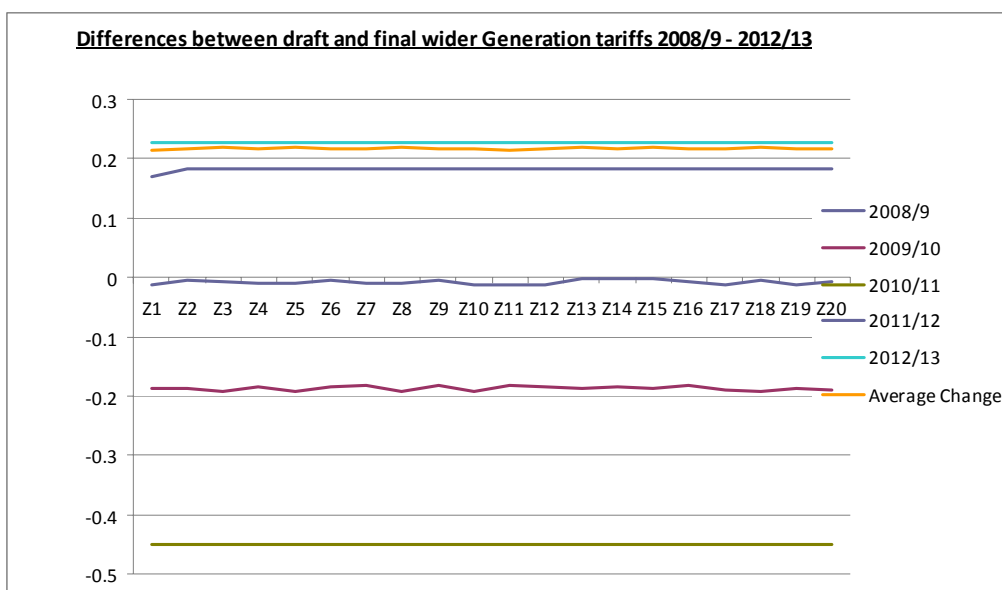


Chart B6 – Differences between draft and final wider Generation tariffs 2008/9-2012/13

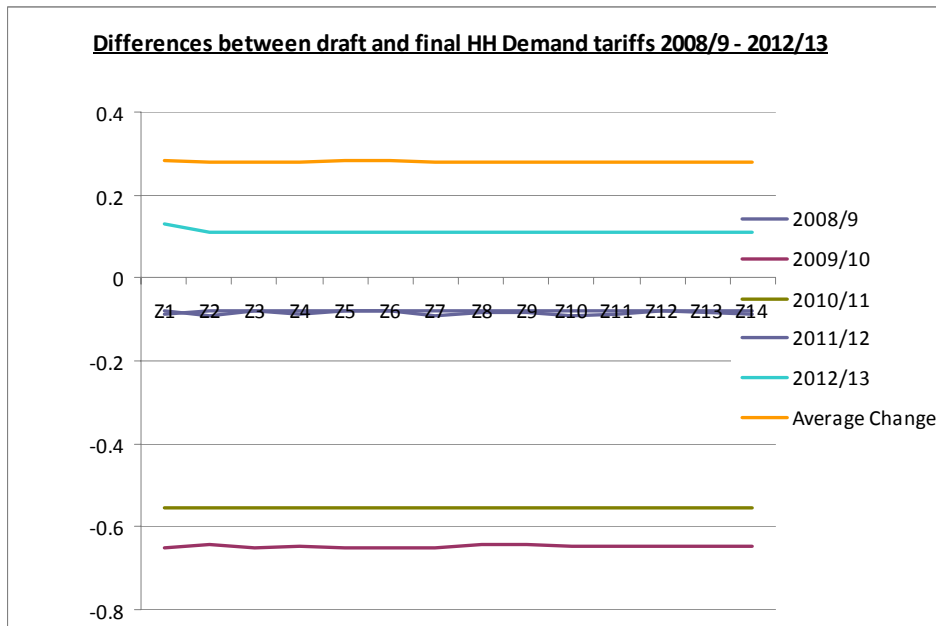


Chart B7 – Differences between draft and final wider HH Demand tariffs 2008/9-2012/13

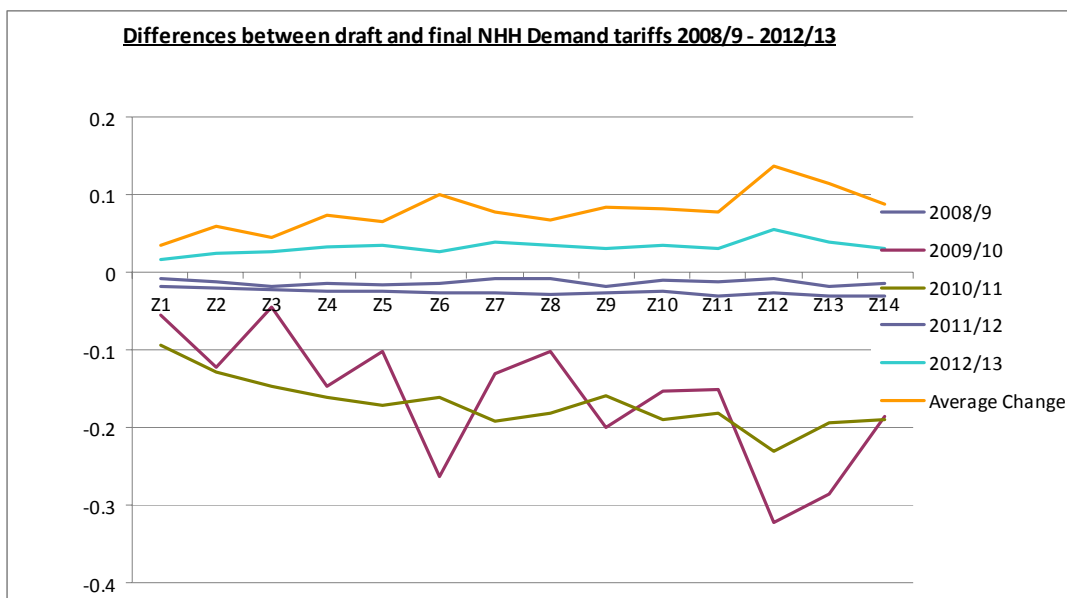


Chart B8 – Differences between draft and final NHH Demand tariffs 2008/9-2012/13

## Conclusions

Based on the information presented in this annex, the following conclusions can be drawn;

- Changes between draft and final tariffs are minimal and will have a similar affect on all customers.
- Changes due to charging parameter updates associated with a price control review are likely to be of greater significance to those users at the geographic limits of the GB transmission system than typical annual changes in the charge setting process.



## Annex C – Generation Tariff Information

Table C1 provides the generation tariff information underpinning the chart A1 shown in Annex 6 of the CMP214 Code Administrator Consultation.

Zone	Generation Tariffs £/kW		
	12/13	13/14	13/14
<i>Updates</i>	<i>Current tariffs</i>	<i>G&amp;D Only</i>	<i>G&amp;D + EC&amp;EF*</i>
1	21.96	26.24	28.40
2	20.11	23.41	24.99
3	22.05	25.37	27.27
4	17.56	21.45	22.35
5	14.19	17.48	17.90
6	14.23	16.76	17.18
7	12.79	15.10	15.23
8	10.50	15.76	15.98
9	6.08	7.13	7.12
10	8.43	9.47	9.16
11	7.10	8.45	8.67
12	6.36	7.68	7.84
13	4.61	5.10	5.20
14	2.39	2.80	2.76
15	2.03	3.04	3.02
16	-13.35	-7.41	-5.33
17	2.32	1.26	0.88
18	-1.11	-1.71	-1.64
19	-1.71	-2.26	-2.33
20	-5.68	-6.15	-6.34

\* Central case

Table C1 – Indicative generation tariff information underpinning chart A1 in the CMP214 Code Administrator Consultation

## **Annex D - View of draft tariff production in the event that CMP214 is not implemented**

National Grid is currently required, in paragraph 14.14.10 of Section 14 of the CUSC, to publish final tariffs in respect of a Financial Year by the end of the preceding January. Additionally we normally publish draft tariffs in the preceding December, although there is no formal requirement for us to do so. This annex describes how we intend to meet these requirements in the event that CMP214 is not implemented.

In the event that a determination is not made on CMP214 ahead of the end of December we will publish two sets of draft 2013/14 TNUoS tariffs based on both the status quo methodology (described below) and a set of tariffs with no updated charging parameters or generation re-zoning other than the normal RPI indexation of the expansion constant. This second set would apply in the event of CMP214 being subsequently implemented.

Determination of allowed revenue requirements for all Transmission Owners will continue to follow the usual process and is not impacted by the proposed changes set out in CMP214. This is because the allowed revenue is an input to the TNUoS methodology, and its derivation sits outside of the methodology.

### **Draft Tariff Publication**

In the event that CMP214 is not implemented, National Grid still intends to publish draft 2013/14 tariffs in December based on the current status quo methodology. This will require the production of draft tariffs based on changes to charging parameters and generation charging zones. We may not have sufficient information to finalise all these parameters and rezone generation in time for publication of draft tariffs. This uncertainty is discussed in further detail below.

### Uncertainties affecting draft tariff publication

Ofgem are expected to publish RIIO-T1 final proposals for NGET in mid-December. We require certain financial information, for example, the agreed rate of return, to fully determine the expansion constant which is not finalised until the RIIO-T1 proposals are agreed with NGET. The requirement that the expansion constant is based on the National Grid regulated rate of return is stated in paragraph 14.15.37 of the CUSC, and was not explicitly stated in the Statement of Use of System Charging Methodology until after the start of the last price control period (TPCR4). Hence the TNUoS charging methodology is now tied more tightly to the outcome of the RIIO-T1 price control process than was previously the case.

If agreement on the RIIO-T1 final proposals is quickly reached we may still be able to finalise the expansion constant prior to the publication of draft tariffs. We may also be able to provide an initial view of generation re-zoning, however this will be further refined prior to publication of final tariffs in January 2013.

There is a possibility that agreement for RIIO-T1 will not be reached in sufficient time to allow final information to be incorporated in draft tariffs. In such a case we will make a best estimate of the expansion constant in producing draft tariffs, and will caveat the uncertainty surrounding its derivation. In such a case we will not be able to provide a view of generation re-zoning, although we would still intend to re-zone by the publication of final tariffs.

In either case it should be possible to finalise both the expansion factors and locational security factor in time for publication of draft tariffs.

## **Final Tariff Publication**

In the event that CMP214 is not implemented, National Grid still intends to publish final 2013/14 TNUoS tariffs by the end of January 2013 incorporating changes to both charging parameters and generation charging zones.

In the event that an agreement for RIIO-T1 has not been reached by the end of January 2013 then we are minded to implement changes to the expansion constant based on the best view of agreed rate of return, and we will re-zone generation charging zones using this expansion constant. We will seek industry views at the TCMF on 28<sup>th</sup> November as to this position, and welcome the opinions of users.

## Annex E - Relative impacts of Expansion Constant / Factor updates and Generation Charging Zone Changes on Indicative TNUoS Tariffs

Table E1 shows the relative impact on wider generation tariffs of updating the expansion constant and expansion factors and subsequently revising the generation zone boundaries. Where the boundaries of existing zones have been changed, the column headings with letters signify new zones that generators within the existing zone could be mapped to. For instance, in existing Zone 1, the update to the expansion constant and factors would increase tariffs by £2.17/kW alone. Following a rezoning exercise the zone would be split into two, which would further alter the updated generation zonal tariff; reducing some by up to £0.05/kW (1A) and increasing others by £1.10/kW (1B).

The table is based on underlying generation and demand backgrounds used to present information to the September 2012 TCMF. As National Grid's charge setting activities progress, the model will continue to develop which will affect both tariff changes and re-zoning implications. This will likely cause significant changes to both the indicative generation TNUoS tariffs and indicative generation zones shown below, and therefore the table should be treated as illustrative only.

We believe that it is not possible to accurately forecast the make-up of generation charging zones following the required re-zoning review until the charging parameters have been updated and the Transport Model finalised. Whilst it may be possible to make some reasonable approximations for certain broader zonal boundaries, many of the more localised zonal boundaries will likely see significant change from the figures shown below

Existing Zone	No Update	EF + EC Update	Change due to EC and EF	All Updates (EC, EF, Zones)					Chnages due to zoning	
				A	B	C	D	E	Min	Max
1	26.24	28.40	2.17	28.35	29.50				0.05	-1.10
2	23.41	24.99	1.58	25.20					-0.21	-0.21
3	25.37	27.27	1.90	26.92	31.18				0.35	-3.91
4	21.45	22.35	0.90	22.84					-0.49	-0.49
5	17.48	17.90	0.42	20.38	17.78				0.12	-2.48
6	16.76	17.18	0.41	16.25	17.78				0.93	-0.60
7	15.10	15.23	0.13	14.38	17.78	13.25	16.88	19.71	1.98	-4.49
8	15.76	15.98	0.22	15.44					0.54	0.54
9	7.13	7.12	-0.01	6.94	13.25	8.27			0.17	-6.13
10	9.47	9.16	-0.31	9.37					-0.21	-0.21
11	8.45	8.67	0.22	8.88					-0.21	-0.21
12	7.68	7.84	0.16	8.05					-0.21	-0.21
13	5.10	5.20	0.10	5.29					-0.09	-0.09
14	2.80	2.76	-0.04	2.97					-0.21	-0.21
15	3.04	3.02	-0.02	0.75	3.56	5.88			2.27	-2.86
16	-7.41	-5.33	2.08	-5.12					-0.21	-0.21
17	1.26	0.88	-0.38	1.36	-0.74				1.62	-0.47
18	-1.71	-1.64	0.07	-1.44					-0.21	-0.21
19	-2.26	-2.33	-0.08	-2.12					-0.21	-0.21
20	-6.15	-6.34	-0.19	-6.13					-0.21	-0.21

Table E1 - Relative impacts of Expansion Constant / Factor updates and Generation Charging Zone Changes on Indicative TNUoS Tariffs

The table shows that, for some power stations, rezoning is unlikely to have a significant impact, for example, in Zone 2. This is because of their location on the network. For other power stations the rezoning is likely to be of more significance (for example, in Zones 7, 9, 15, and 17) particularly where there have been significant generation changes during the current price control period. For example consideration of Zone 15 shows that some users could experience a tariff reduction of over £2/kW through re-zoning, whilst others would see an increase of in excess of £2/kW. We believe that such changes are difficult for industry to forecast, and therefore, if introduced at short notice, present a significant source of volatility to the TNUoS charges users pay.

In addition to the formation of new generation charging zones, as the charge setting process progresses including the review of generation charging zones, individual power stations may be re-assigned to adjacent charging zones. Where this happens, there may be instances where the impact of the zonal

tariff change may be more modest compared to the impact on the power station itself. This would tend to be the case for smaller power stations that would not significantly influence the zonal tariffs. For example, whilst zonal changes in Zones 19 and 20 are not large, if a power station was to be reallocated between these charging zones then they would experience a significant rise or fall in the wider zonal TNUoS tariff they would pay.

We intend to consult with industry later this month on our intended approach to re-zoning, particularly on our proposed application of the re-zoning criteria as laid out in the Section 14 of the CUSC. We intend that this consultation will be published as an open letter to industry in the charging section of the National Grid web-site<sup>15</sup>.

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<sup>15</sup> [National Grid: Useful information](#)

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<b>Respondent:</b>	<i>George Douthwaite</i> <i>george.douthwaite@npower.com</i>
<b>Company Name:</b>	<i>RWE npower</i>
<b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b>	<p>YES</p> <p>We believe that the proposal CMP214 better facilitates the Applicable CUSC Objectives as set out in that it provides a sufficient notice period so that our businesses can plan for these changes based on the forecast of the charges.</p> <p>Similarly, this clarity will help other suppliers with more of a locational bias to better compete with some cost certainty.</p>
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	<p>YES</p> <p>We believe that any proposed change should be accompanied by a detailed impact analysis of every class of customer impacted and so we welcome the proposed delay in implementing these new parameters until such analysis has been completed.</p>
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b>	<p>NO</p> <p>We don't believe that the current methodology gives sufficient time for the changes to be incorporated into pricing structures. The notice period is too short as it impacts existing contracts.</p> <p>For substantial changes we require 12-18 months notice, with 18 months being our ideal.</p> <p>There will be a significant volume of contracts sold prior to the December notification that use a 12-24 month TNUoS forecast where a step change in April will impact most of the contract period. Hence, this notice period is not sufficient and we would require 15-18 month notification if we are to incorporate a significant proportion of change into our pricing structures.</p>
<b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b>	<p>YES.</p> <p>To delay implementation of the changes to parameters and generation zones will help in predictability, giving more opportunity to assess impacts and build into pricing structures.</p>
<b>Do you agreed that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is</b>	<p>YES</p> <p>We believe that the benefit in competition outweighs any detrimental impact due to delay in implementation of the new charging parameters.</p> <p>With the reduction in cost reflectivity of TNUoS there will be some customers who benefit and this overall benefit will be netted off with customers who are disadvantaged.</p> <p>However, with the proposed change, the average customer</p>

<p><b>outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p>should benefit through increased competition and keener prices delivered through more certainty in costs.</p> <p>Moreover, as we move through the price control these parameters become out of date, and so we normally operate around this issue.</p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>YES.</p> <p>We believe that the proposal to delay implementation of updates to the parameters and generation zones will deliver the intended benefits as it will increase the notice period of the changes significantly closer to our preferred 18 month notice where sufficient portion of the change in our TNUoS changes can be reflected in our pricing structures.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>YES.</p> <p>Historical short notice changes to charges have caused us issues in the past. We therefore support this proposed change and the general principle that we should be provided with a sufficiently long notice period so that our businesses can plan for changes to TNUoS charges especially when this involves modifications to the methodologies and its main input parameters.</p>

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<b>Respondent:</b>	<i>James Anderson; james.anderson@scottishpower.com</i>
<b>Company Name:</b>	<i>ScottishPower Energy Management Ltd</i>
<b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b>	<p>For reference, the Applicable CUSC Objectives for the Use of System Charging Methodology are:</p> <p><i>(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;</i></p> <p><i>(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);</i></p> <p><i>(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.</i></p>
<b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b>	ScottishPower supports the proposed implementation approach for the reasons outlined below.
<b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b>	ScottishPower does not believe that the current methodology allows sufficient time for changes in TNUoS tariffs to be effectively priced into generator and supplier pricing strategies and that economically inefficient prices may be set resulting in windfall gains or losses to some market participants or the inclusion of a TNUoS risk factor which will ultimately be passed through to end consumers.
<b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b>	ScottishPower believes that this proposal will significantly improve the predictability of TNUoS charges by allowing Users a longer period to model the impact of the new Charging Parameters on locational TNUoS charges and Generation TNUoS Zones.
<b>Do you agreed that the</b>	We agree that the locational element of TNUoS charges are



<p><b>suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p>intended to reflect the long term costs of transmission investment to users through a locational pricing signal. For generators, in particular, siting decisions are long term in nature and any minor reduction in cost-reflectivity for the first year of a price control period should not affect such long term decisions.</p> <p>A lack of predictability in TNUoS tariffs reduces market participants' ability to make sound economic decisions. Significant changes to TNUoS tariffs in a timeframe in which market participants have no opportunity to respond (e.g. by adjusting contract prices or by making closure decisions) only serve to produce windfall gains and losses for those affected.</p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>ScottishPower agrees with the proposed implementation timetable which will enable National Grid to publish Indicative TNUoS tariffs on the basis of the current Charging parameters in December 2012. We note that the timetable requires the Authority to take a decision within 12 working days but consider that this should be sufficient time for them to form an opinion.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p>ScottishPower does not believe that suppliers or generators have the ability to accurately predict the outcome of the review of Charging Parameters or the changes to generation charging zones which may arise. Although generation charging zones are initially determined using the objective criteria defined in 14.15.26 a subjective check is applied within 14.15.27 "to ensure the least number of zones are used with minimal change from previously established zonal boundaries." In applying this second check, users may be unable to replicate the decisions taken by National Grid in setting new zonal boundaries. As the change in zonal boundaries can have a very significant effect on generator's charges as demonstrated in Annexe 7 and as the intention is to maintain the stability of charging zones for the Price Control period, the utmost care should be taken to ensure that the process is carried out accurately.</p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>We note that this proposal seeks to amend the timetable for updating Charging Parameters at the beginning of each new Price Control period and does not solely apply to the introduction of RIIO-T1. Thus, the impact of any changes introduced as a result of a new price control will affect the full length of the price control period although the introduction may be delayed for a single year.</p>

**CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

<p><b>Respondent:</b></p>	<p>Garth Graham (<i>garth.graham@sse.com</i>)</p>
<p><b>Company Name:</b></p>	<p>SSE</p>
<p><b>Do you believe that the proposed original better facilitate the Applicable CUSC Objectives? Please include your reasoning.</b></p>	<p>For reference, the Applicable CUSC Objectives for the Use of System Charging Methodology are:</p> <p><i>(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;</i></p> <p><i>(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);</i></p> <p><i>(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.</i></p> <p>We note the reasoning set out in paragraph 6.2 of the consultation document, namely that:-</p> <p><i>".....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; in that it allows suppliers and generators to have sufficient view of upcoming changes to enable them to incorporate those changes into their pricing structure (i.e. to provide transparent and predictable charges)."</i></p> <p>We concur with this reasoning and therefore agree with the Proposer of CMP214 that it better facilitates Applicable CUSC Objective (a), and is neutral to both (b) and (c).</p>
<p><b>Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.</b></p>	<p>Given the 'urgency' case set out by the Proposer, together with the Authority's letter of 2<sup>nd</sup> November 2012 granting urgency status, it would be inappropriate (in this case) to unduly delay implementation of CMP214 by an additional nine Working Days (i.e. ten instead of the proposed one).</p> <p>Therefore we support the proposed implementation approach set out in section 9 of the consultation document.</p>
<p><b>Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation</b></p>	<p>Given the timeline associated with the current RIIO-1 Transmission Price Control Review it is difficult to expect, for this particular price control, that changes (associated with RIIO-1) will be finalised, by the Authority, in the timescales</p>

<p><b>charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?</b></p>	<p>required to allow the TOs to provide the necessary information to National Grid (SO) for the SO to then produce indicative TNUoS tariffs for stakeholders to then reflect these into their forward plans.</p> <p>Given this we do not believe that the current TNUoS charging methodology does allow for the practicality of changes (to the TNUoS composition etc.), to be efficiently incorporated into supplier and generator pricing structures.</p>
<p><b>Do you believe that the proposal will significantly affect the predictability of TNUoS charges?</b></p>	<p>We do believe that the CMP214 will have a beneficial affect in terms of the predictability of TNUoS charges associated with TNUoS tariffs arising from the RIIO-1 Transmission Price Control Review which is due to be finalised, by the Authority, in the near future.</p> <p>We note the forecast provided by National Grid earlier this year on the step change in allowable revenue that the TOs anticipate will arise from the implementation of RIIO-1 in April 2013. The uncertainty around the approval process for RIIO-1, coupled with the magnitude of the potential (TO) recoverable revenue that may (or may not) be approved, by the Authority, has impeded our ability to predict the potential TNUoS tariffs that could apply from 1<sup>st</sup> April 2013.</p>
<p><b>Do you agreed that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?</b></p>	<p>We note the discussions set out in the CMP214 proposal and the consultation document.</p> <p>We agree that the suggested trade-off (between cost reflectivity and a one year delay in the implementation of the RIIO-1 associated TNUoS changes) is appropriate and that the benefits of such a delay (from 1<sup>st</sup> April 2013 to 1<sup>st</sup> April 2014) in terms of competition associated with increased predictability of TNUoS charges outweighs any potential dis-benefits in terms of cost reflectivity.</p>
<p><b>Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?</b></p>	<p>We note the suggested timetable and concur that this should facilitate the intended benefits of CMP214.</p>
<p><b>Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?</b></p>	<p>Given the statement from National Grid at the September TCMF (regarding the possibility of an additional six generation TNUoS charging zones; i.e. 26 instead of 20 - a 20+% increase in the number of zones) arising from the RIIO-1 changes, it is extremely difficult, when combined with the potentially substantial step change increase in the amount of allowed (TO) revenue for any generation party to predict (i) what the new (and old) generation zones will be as well as (ii) what the charges might be (in those zones).</p>
<p><b>Do you have any other evidence or comments that you believe may assist in the assessment of this proposal?</b></p>	<p>Nothing further at this time.</p>

**From:** Nick Kay [mailto:nick.kay@verbeiaenergy.com]

**Sent:** Wednesday, November 21, 2012 4:52 PM

**To:** .Box.Cusc.Team

**Cc:** 'Nick Oppenheim'; 'Serena Oppenheim'

**Subject:** Uisenis Power - Respoins to CMP214 Draft CUSC Modification Report

Uisenis Power is currently developing a 150MW wind farm extension to the already consented 140MW Beinn Mhor wind farm site on the Isle of Lewis.

Uisenis Power would concur with the general view of the respondents to the consultation in that more time should be allowed for developers to fully understand the impact of the updated price parameters on TNUoS. We are concerned that the potential change could be significant, up to £6/kW increase for the North of Scotland wider charge, but it is difficult to predict what the actual change could be. This will also come on top of the already high TNUoS levels anticipated for the Western Isles Link.

We are hopeful that the CMP213 process will go some way to addressing high TNUoS for Scottish islands, but it is not helpful for other aspects of TNUoS charging to be changed in parallel, and without transparency on the potential changes and likely impact on overall TNUoS.

Kind regards

Nick Kay

On behalf of Uisenis Power Limited

Bali Virk  
Electricity Codes  
Transmission Network Service  
National Grid

[cusc.team@nationalgrid.com](mailto:cusc.team@nationalgrid.com)

Dear Bali

**Response to CMP214 – Implementation of TNUoS Charging Parameter Updates following a Price Control Review**

Highlands and Islands Enterprise (HIE) is the Scottish Government's agency responsible for economic and community development across the North and West of Scotland and the islands.

HIE along with its local partners: the democratically elected local authorities covering the north of Scotland and the islands: Shetland Islands Council, Orkney Islands Council, Comhairle nan Eilean Siar, Highland Council, Argyll & Bute Council and Moray Council make representations to key participants on behalf of industry to influence the way in which grid construction is triggered, underwritten then accessed and charged for in the region.

Please find our comments on the specific questions posed in the response proforma below:

*Do you support the proposed implementation approach? If not, please state why and provide an alternative suggestion where possible.*

Yes, we believe that a longer notice period is essential given level of tariff change. The current North of Scotland charge is around £21/kW. An increase of £6/kW as calculated at October's TCMF would constitute a 28.5% increase which, even with a delay, constitutes a significant change which will be difficult for some parties to manage. We feel that the change could have been signalled earlier, and that National Grid should go further by providing other means of managing the impact such as phased implementation.

*Do you believe that the current methodology (i.e. potential changes to TNUoS charging parameters and generation charging zones in late December to take effect in charges from the following April) allows for changes associated with a price control review to be efficiently incorporated into supplier and generator pricing structures?*

No – and we believe this is not limited to price control changes. Any significant and difficult-to-predict change will be difficult for parties to manage and incorporate into pricing structures.

*Do you believe that the proposal will significantly affect the predictability of TNUoS charges?*

To the extent that the likely parameters are now published yes predictability is improved. Predictability would be better improved through enhanced transparency of the data underlying the new parameters. Otherwise it will always be a 'shock' when published.

*Do you agree that the suggested trade-off between cost reflectivity of TNUoS charges from a one year delay of implementation of changes to the charging parameters reviewed by the start of a price control period and generation charging zones is outweighed by the benefit in competition through increased predictability of the charges?*

Yes

*Do you believe that the agreed timetable will facilitate the intended benefits of the proposal?*

Yes

*Can you provide any evidence on the ability of suppliers or generators to predict the outcome of the review of TNUoS charging parameters and generation charging zones associated with a price control review?*

It's impossible to predict the outcome when there is no transparency on what cost categories are input into the expansion factors, nor any data (aggregated or not) on the basket of contracts used to set the expansion factors. Clearly revenue recovery is also impossible to predict until settled with Ofgem although there is some indicative data available.

Yours sincerely,

*Gavin MacKay*

Gavin MacKay  
Senior Development Manager, Renewable Energy Policy & Strategic Projects  
Highlands and Islands Enterprise

In partnership with:  
Shetland Islands Council  
Orkney Islands Council  
Comhairle nan Eilean Siar  
Highland Council  
Argyll & Bute Council