

**CUSC Code Administrator Consultation Response Proforma****CMP353 'Stabilising the Expansion Constant and non-specific Onshore Expansion Factors from 1<sup>st</sup> April 2021'**

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses to [cusc.team@nationalgrideso.com](mailto:cusc.team@nationalgrideso.com) by **2pm on 19 November 2020**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Panel.

If you have any queries on the content of this consultation, please contact Paul Mullen [paul.j.mullen@nationalgrideso.com](mailto:paul.j.mullen@nationalgrideso.com) or [cusc.team@nationalgrideso.com](mailto:cusc.team@nationalgrideso.com).

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**For reference the applicable CUSC objectives are:**

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

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

**Please express your views in the right-hand side of the table below, including your rationale.**

Standard Code Administrator Consultation questions		
1	Do you believe that CMP353 Original solution better facilitates the Applicable Objectives?	[See answer below]
2	Do you support the proposed implementation approach?	[See answer below]
3	Do you have any other comments?	[See answer below]

**Q1 Do you believe that CMP353 Original solution better facilitates the Applicable Objectives?**

Yes, we do believe that CMP353 does better facilitate the Applicable Objectives. We have set out our arguments in favour of approving this CMP353 change proposal both in summary, and in more detail.

Attached to our response, we have included two documents which SSE has commissioned, at speed, given the urgent timeframe, from expert consultants, which provide evidence supporting the approval of CMP353.

The first document, a memo from FTI Consulting, considers CMP353 against well-established economic principles and the applicable CUSC objectives, as well as considering the additional cost to customers from higher generator cost of capital which could arise if CMP353 is not approved.

The FTI memo concludes that:

*“Therefore, in the round, our view is that the CMP353 Proposal is likely beneficial for network users in aggregate, contributing towards many commonly-understood network charging principles and having a positive impact on all of the major CUSC Objectives.”*

The second document is a summary analysis by Baringa that highlights the large detrimental distributional impacts for generators and end customers, as well as the detrimental impact on CfD bid prices for some generators if CMP353 is not approved. We recommend that the CUSC Panel (and Ofgem) appropriately considers these documents and we have referred to some<sup>1</sup> particularly relevant conclusions from these reports in our response below.

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<sup>1</sup> We received these two documents today and it's not been possible, in the time necessitated by the urgent timeframe, to fully reflect their conclusions in the context of all comments in this response.

### In summary

We consider that the Original solution better facilitates the Applicable Objectives (a), (b), (c) and (e), and is neutral with regards to (d), as follows:

#### **a. *Facilitating effective competition***

CMP353 is positive against Applicable Objective (a), because stabilising the Expansion Constant and non-specific Expansion Factors would, this close to the implementation of RIIO T2, go some way to mitigating the substantial near-term uncertainty currently faced by generators and suppliers from the wide range of potential changes to charging arrangements. This would be more beneficial for competition than the significant and unpredictable changes to the locational TNUoS charges that applying the current approach would result in. Those changes, and in particular their magnitude, could not have been predicted by the affected parties, because:

- the information provided by the ESO in their forecasts did not give an indication that this change was coming (we detail this further below in terms of the ESO's September 2020 webinar, its August 2020 publication, its March 2020 publication and its March 2019 publication);
- the ESO indicated on in the CMP353 proposal on the 29<sup>th</sup> October 2020, that they had concluded that the underlying data for the Expansion Constant revision was most likely flawed and should not be relied upon; and
- stakeholders do not have access to the underlying, confidential, data which they would require to make their own assessment of the Expansion Constant and Factors, and their impacts on charges.

FTI concluded that:

*".....the CMP353 Proposal strongly meets the objective of facilitating effective competition."*

#### **b. *Resulting in cost-reflective charges***

CMP353 is positive against Applicable Objective (b), because the value indicated by the ESO for their RIIO T2 review, that would result if the proposal is not approved, is likely to be less cost reflective than continuing with the value established for RIIO T1. In their Five-Year view (August 2020)<sup>2</sup> the ESO expressed material reservations about the robustness of the data they have received to calculate the RIIO T2 Expansion Constant and Expansion Factors.

FTI concluded that:

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<sup>2</sup> <https://www.nationalgrideso.com/document/176886/download>

*“The combination of the significant rapid increase in the EC under the Existing Method and reasonable doubt that the increased EC is truly cost reflective means that there is, on balance of probabilities, a significant upside to maintaining stability in the EC for a short period. On this basis, in the round, the CMP353 Proposal can better contribute towards meeting the objective of cost-reflectivity.”*

**c. Properly takes account of developments in TOs’ transmission businesses**

CMP353 is positive against Applicable Objective (c). There is currently considerable uncertainty about whether the baseline, i.e. the charging methodology as it stands, reflects the TOs’ and the ESO’s changing approach to investment planning in order to achieve the net zero goal that the UK Government<sup>3</sup> has committed to. Furthermore, there is considerable uncertainty as to whether the Expansion Constant value that is produced by the process as it stands is delivering a reference cost that is a reasonable reflection of the expected costs of future expansion projects. The proposed solution would allow the ESO and industry to better ensure that proper account is taken of current developments, in particular those related to the energy transition to net zero within an updated, fit for the future, charging methodology.

FTI concluded that:

*“It seems to us that, given these reforms, delaying any changes to 2023 would allow stakeholders to consider the impact of all changes in the round. The CMP353 Proposal would accommodate for this, thereby better taking account of developments in transmission.”*

**d. Being compliant with European Regulations**

Neutral.

**e. Promoting efficiency in the implementation and administration of the system charging methodology**

CMP353 is positive against Applicable Objective (e). We consider that the ESO, together with industry, need to continue with their in-depth review of the calculations for and impacts of the Expansion Constant and Expansion Factors, and potentially the underlying methodology for deriving and applying these parameters. In our view, if this was to be completed within the current limited timeframes for RIIO T2 (i.e. in time for 1 April 2021) it would very likely result in inefficient outcomes in terms of the implementation and administration of the GB NETS charging methodology. That having been said, we believe such an in-depth review could be concluded expeditiously during calendar year 2021 in order to provide a ‘fit for the (net zero) future’ resolution of this important matter. This could be done under the auspices of a further CUSC Modification that, for

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<sup>3</sup> Along with those of the rest of GB, namely the Welsh and Scottish Governments.

example, Ofgem might indicate (in its CMP353 decision letter) that the ESO should bring forward without undue delay. Furthermore, such a review could, perhaps, also then consider the potential aims and conclusions of Ofgem's Access & Forward Looking Charges deliberations.

FTI concluded that:

*"As described in Section 2, adoption of the CMP353 Proposal would be a relatively simple change and would result in the continuation of a well-understood inflation factor to apply in the short term. The CMP353 Proposal also presents an opportunity for stakeholders to consider whether there are ways for a future methodology to more strongly adhere to the principle of simplicity. On this basis, the CMP353 Proposal contributes towards the principle of promoting efficiency in implementation and administration."*

#### In more detail

We wholeheartedly concur with the ESO's view, as summarised in the 'What is the Issue' part of the CMP353 Original proposal, namely that:

*"Unless action is taken there will be significant changes to the locational element of TNUoS tariffs as the Expansion Constant (EC) and some Expansion Factor (EF) values, which are based on investment costs in the previous price control will, because of the nature of those investments, be based on fewer and higher value projects than in previous price controls. This may not truly reflect the current drivers of network investment and will substantially change the locational costs for some Users."*

We consider that there are four reasons (promotion of Effective Competition, achievement of Cost Reflectivity, avoidance of damaging Distributional Impacts, assistance in Meeting Net Zero targets at best value to end consumers) which are key to why this modification proposal should be approved.

#### **1. Effective Competition – the TNUoS tariffs that would result if the Proposal is not accepted do not provide useful price signals because industry could not have predicted (and thus could not have reacted to) such a change**

We suggest that if CMP353 were not approved, then the CUSC requirements for the ESO of providing transparency of the methodology, of informing Users with accurate and stable cost messages, and of promoting optimal use of and investment in the transmission system will not be met. These requirements exist to ensure the charging methodology does better facilitate effective competition, so a change in tariffs which fails to meet these requirements would be detrimental to achieving effective competition:

*"14.14.11 In setting and reviewing these charges The Company [National Grid ESO] has a number of further objectives. These are to:*

- offer clarity of principles and transparency of the methodology;*

inform existing Users and potential new entrants with accurate and stable cost messages;

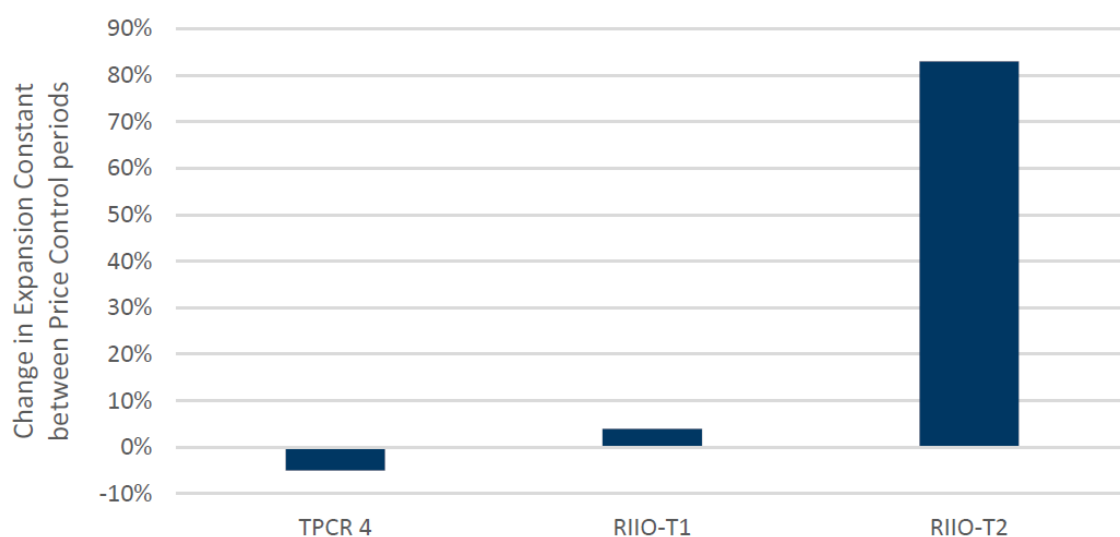
- charge on the basis of services provided and on the basis of incremental rather than average costs, and so promote the optimal use of and investment in the transmission system; and
- be implementable within practical cost parameters and time-scales.”  
[emphasis added]<sup>4</sup>

#### a. Volatility of Tariffs

Based on the currently available data, the ESO has calculated an 83% increase of the Expansion Constant starting with the new RIIO T2 price control in April 2021, and which is an order of magnitude larger than the changes for the equivalent value that resulted from the review at previous price controls. FTI described this indicative RIIO T2 increase as:

*“1.5 The increase in the EC would be a much larger change than has been experienced previously, as shown in Figure 1-1 below, and arguably outside the bounds of what could be reasonably ‘predicted’ given historical variance.”*

**Figure 1-1: Historical real-terms changes after recalculation of the Expansion Constant**



<sup>4</sup> The Complete CUSC, <https://www.nationalgrideso.com/document/141131/download>



**Table 2-1: Historical real-terms changes of Expansion Constant**

Parameter	BETTA (Apr 05)	TPCR 4 (Apr 07)	RIIO-T1 (April 13)	RIIO-T2 (Apr 21)
Expansion Constant (£/MWkm)	12.35	11.72	12.16	22.29
29Change in EC between price controls	-	(5%)	4%	83%

The only other comparator figure is the transition from BETTA to TPCR4. The equivalent change was £11.72 vs £12.35 in 2012 money, an increase of negative 5.1%. (from CMP214 FMR).

This unprecedented increase in the Expansion Constant, in turn, if allowed to endure, would lead to significant, and unforecastable, effects on network charge liabilities, with example increases of between 62% and 471% for generator TNUoS charges, as shown on page 4 of the consultation document.

Previous price controls were, in the context of the Expansion Constant and Factors, relatively stable, so industry would have a reasonable expectation that this price control may also be similar in terms of those variables (see 2.a.). The CUSC includes a section regarding the stability of tariffs including the application of the Expansion Constant, which emphasises the objective of these elements of the methodology to provide stability of tariffs. This indicates that the current methodology is not fit for purpose because it would fail to deliver this objective of stability if CMP353 were not approved:

*“14.29 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.”*

#### **b. Industry is not able to access appropriate data**

The ESO's latest Five-Year View<sup>5</sup> from August 2020, along with the presentation at the September TCMF gave the expectation to stakeholders that the anticipated 2021/22 Expansion Constant change was based on data which was not robust, nor complete - see, for example, paragraph 20 of the TCMF meeting summary<sup>6</sup> where the ESO's presenter “*highlighted concerns that there was potentially not a large enough sample for an accurate calculation of the EC. From the data received so far, there has only been a small number of large transmission projects in the last 10 years*”.

For the avoidance of doubt, this TO proprietary data has not been made available to stakeholders to allow for them (ahead of, or since, the ESO's September 2020

<sup>5</sup> <https://www.nationalgrideso.com/document/176886/download>

<sup>6</sup> <https://www.nationalgrideso.com/document/176636/download>

publication and presentation) to conduct their own analysis around the possible effects on the Expansion Constant or the Expansion Factors that could possibly arise for the forthcoming RIIO T2 price control.

FTI described the lack of transparency as:

*“2.20 The Existing Method does not appear to reflect a transparent methodology, because network users do not have access to any constituent elements driving the calculation of EC and Expansion Factors in advance.”*

This lack of access to data contradicts the CUSC section relating to the predictability of tariffs because ESO tariff forecasts did not include the large increase in Expansion Constant and industry does not have the required data which would have been necessary for industry to accurately make its own predictions:

*“14.29 ...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. This analysis is based on data included within the Seven Year Statement.” [emphasis added]*

- c. Insufficient notice given to industry of the potential for a much higher Expansion Constant** – the very short notice period ahead of a significant TNUoS tariff change (if CMP353 was not approved) would provide generators and suppliers with insufficient time to take these changes into account in their commercial decisions for 2021/22.

In their Five Year View published in August 2020, the ESO provided guidance which it would be reasonable for industry to rely on that the ESO initial view of the RIIO T2 Expansion Constant was based on partial data and it was not accurate, or suitable for forming a view of future tariffs:

*“Based on the very limited historical data received so far from some of the TOs, the EC would be close to £27/MWkm for 2021/22. However, we don’t believe that this value is correct nor suitable to feed into tariff calculations as it may create disproportionate tariffs, sending misleading signal to the industry. As such, we have used the current EC inflated by RPI for this five-Year view.” [emphasis added]*

Further, the ESO Five Year View did not provide any indication of what the RIIO T2 Expansion Factors may be, which would also be essential for industry to form a view of future tariffs ahead of their publication.



The illustrative 2021/22 generation TNUoS tariffs the ESO presented in their Five-Year View in August 2020, were not based on the (much increased) RIIO T2 adjusted Expansion Constant, due to the ESO's reservations about the underlying data, and ongoing further analysis. Instead, the ESO presented tariffs using the (lower) current RIIO T1 Expansion Constant (RPI inflated) in both the August Five-Year View and their webinar presentation to industry in September 2020<sup>7</sup>.

We also note that this reference to the continued use of RPI to inflate the Expansion Constant by the ESO was signposted, by the ESO, sometime in advance. For example, in the March 2020 "Forecast TNUoS Tariffs for 2021/22"<sup>8</sup> the ESO stated that:

*"Our assumption in these tariffs is that the expansion constant continues to increase by RPI as per the CUSC, and that the expansion factors are unchanged"*<sup>9</sup>;

and

*"14. Expansion Constant and RPI*

*The expansion constant is the annuitised value of the cost required to transport 1 MW over 1 km. The 2021/22 Expansion Constant is forecast to be £ 15.367047 /MWkm. This value will be updated in line with the average May to October RPI, and will be finalised with the outturn value by the Final Tariffs.*

*The expansion constant is also dependent on the annuity factor, which will be reviewed as part of the RIIO-T2 parameter reset. We will update this value, along with other parameters, in the August [2020] 5 year tariff view.*<sup>10</sup>

This was also reflected in the ESO's similar forward-looking report from March 2019 "Five-year view of TNUoS tariffs for 2020/21 to 2024/25"<sup>11</sup> which set out that:

*"Our assumption in these tariffs is that the expansion constant continues to increase by RPI as per the CUSC, and that the expansion factors are unchanged. We are aware that the RIIO-T2 framework may use different inflation index [<sup>12</sup>], and we are keen to understand whether the industry thinks changes need to be made to the charging methodology accordingly"*<sup>13</sup>;

and

*"22. Expansion constant*

<sup>7</sup> See, for example, slides 5 and 59 of the ESO's webinar presentation which explicitly references the Expansion Constant for the next five years (covering the RIIO T2 price control period) being "inflated by RPI" and "inflated annually by RPI".

<sup>8</sup> <https://www.nationalgrideso.com/document/166761/download>

<sup>9</sup> Page 8.

<sup>10</sup> Page 24.

<sup>11</sup> <https://www.nationalgrideso.com/document/140806/download>

<sup>12</sup> We believe this is a reference to the talk, at the time, of moving over to a CPI focussed indexation.

<sup>13</sup> Page 11.

*The expansion constant is 14.9879521554383. This reflects our latest view of RPI.*

*The expansion constant and expansion factors will be recalculated for RIIO T-2 starting in 2021/22. We have not yet recalculated these figures, but will provide more information on our progress in future forecasts.<sup>14</sup>*

These statements from the ESO when combined with the historical<sup>15</sup> increases seen in the Expansion Constant in previous price control related changes therefore set a legitimate expectation to stakeholders as to the likely magnitude of the change, to the Expansion Constant and Expansion Factors, that they could envisage from April 2021 onwards. It was only with the sudden publication of the urgent CMP353 on 29<sup>th</sup> October 2020 (some five months prior to the charges becoming applicable) that the actual impact on TNUoS charges was, for the first time, seen by stakeholders.

Furthermore, it should also be noted that these numerous statements etc., from the ESO, sent out a consistent message up until just 21 days ago<sup>16</sup> which is materially different to the situation pertaining to CMP214 (it should also be pointed out that the materiality of the impact identified in terms of CMP214 is substantially lower than that for CMP353).

#### **d. Suppliers cannot respond to it in time**

Suppliers will not be able to reflect the TNUoS changes in their tariffs for end consumers at such short notice, particularly in their ongoing fixed-term offerings, be it in terms of passing through increases in central and southern regions, and decreases in northern regions and Scotland. This requirement for sufficient time, on the part of suppliers, in order for them to be able to respond to significant TNUoS demand charge changes has been recognised in the past. For example, earlier this year Ofgem in, their Targeted Charging Review, acknowledged the need for an adequate implementation period by agreeing to defer, by one year (with a further one year's notice), the changes to the Transmission Demand Residual element of TNUoS charges from April 2021 to April 2022<sup>17</sup>. Ofgem summarised the situation as follows:

***“How this is affecting suppliers and non-domestic consumers***  
*As a result of both of the factors described above, there is concern that the uncertainty around TDR charges from 2021 will continue until late 2020, or perhaps longer. Most suppliers fix their electricity prices for many of their non-domestic customers in advance, through contracts. The current uncertainty means that energy suppliers are not able to*

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<sup>14</sup> Page 34

<sup>15</sup> See Table 2.1 in the FTI Consulting document.

<sup>16</sup> 29<sup>th</sup> October, with the publication of the CMP353 proposal.

<sup>17</sup> [Ofgem's decision](#) of 31 March 2020 in relation to the withdrawal of CMP332

accurately estimate the charges they will incur in 2021 for these customers.<sup>18</sup> [emphasis added]

- e. **Even with notice, the majority of the generators most affected still could not respond to the change in price signal** – those generators most exposed to the change in price signal, namely northern renewables, cannot respond to the price signal because they have already made their investment decisions and it would be detrimental to both the GB NETS (as well as the ‘whole system’) and to the meeting of renewables targets set by Government for them to take the only action available and close.

**2. Lack of cost reflectivity – The Methodology is not appropriate in this and potentially all instances as it may depend on insufficient data.**

The two key question to consider here are:

- (i) have the transmission investment patterns of the three onshore TOs in GB during RIIO T1 changed in such a radical and substantial way that would have led to such a large change (i.e. increases of 62%-471% for some generators)?; and
- (ii) even if this was the case, do those (backward-looking) changes reflect the expected changes in transmission network reinforcement and usage going forward into the RIIO T2 price control?

Based on the detailed reasoning we set out in the four points below, we say the answer to these two key questions is ‘No’.

- a. **The large increase does not reflect changing industry fundamentals since previous price controls** - in their Five-Year View, the ESO provided their view to industry that the indicative number was not cost reflective:

*“However, we don’t believe that this value is correct nor suitable to feed into tariff calculations as it may create disproportionate tariffs, sending misleading signal to the industry. As such, we have used the current EC inflated by RPI for this Five-Year View.”*

- b. **The charging methodology is too backward looking** – in light of what the ESO has identified within CMP353, it is appropriate to now consider whether this approach is still fit for purpose (or indeed ‘fit for the future’ in terms of the net zero goal) in respect of the Expansion Constant and Expansion Factors. The proposal has highlighted that the current approach may be too backward-looking, and not sufficiently forward-looking (i.e. use of a small historical data set of 400kV transmission projects doesn’t take account of the fundamental changes in transmission network planning or the ‘whole systems’ operational approach

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<sup>18</sup>[https://www.ofgem.gov.uk/system/files/docs/2020/03/letter\\_to\\_ngeso\\_re\\_cmp332\\_consent\\_to\\_withdrawal\\_and\\_new\\_direction\\_0.pdf](https://www.ofgem.gov.uk/system/files/docs/2020/03/letter_to_ngeso_re_cmp332_consent_to_withdrawal_and_new_direction_0.pdf)

envisaged with the forthcoming transmission – TOs and ESO – and distribution price controls). National Grid ESO recognised this issue in their Five Year View published in August:

*“Through the forecasting process, we have noticed a discrepancy between the STCP and the CUSC. This relates to the data that we obtain from the TO’s and the methodology defined in the CUSC to calculate the Expansion Constant and Factors. The current STCP only permits the ESO to request from the TOs the information on projects that have occurred in the past 10 years whilst the CUSC defines that we should use more forward looking costs/data to calculate the Expansion Constant and Factors. We have raised this issue to the STC Panel and are working with the TOs to develop a proposal for a potential STCP change.” [emphasis added]*

- c. Fails to take account of key methods for network reinforcement** - CMP315, raised in April 2019, had already identified cost-reflectivity issues in the methodology for deriving the Expansion Constant and Expansion Factors, in particular that their derivation was based only on cabling costs, ignoring the cost of other essential network assets. However, work on the proposal was paused in autumn 2019 to await the outcome of the Authority’s TCR SCR, with the issues identified in CMP315 as yet unresolved.
- d. Use of a sample size that is too small to be representative** - other longer-term developments will have significant effects on how ‘fit for purpose’ the current methodological use of the backward-looking calculation of the Expansion Constant will be in the 2020s and beyond as we make progress to a Net Zero GB (and UK) by 2050. These include the expected progression to a ‘whole system’ approach which takes into account actions and investments at both transmission and distribution level (which are expected to lead to more innovative solutions, leading to less direct investment in new transmission circuits – which will further exacerbate the small sample size flaw that CMP353 has highlighted) together with the long-anticipated move to the integration of onshore transmission with offshore transmission linkages, involving offshore wind farms and interconnectors along the east coast.

FTI concluded “it appears to us there is room for reasonable doubt as to whether the EC expected under the Existing Method is reasonably cost-reflective. This is because:

- The EC would be calculated based on “*higher value projects than in previous price controls*” as NGESO describes it. It is not clear whether such projects are representative of future expected transmission costs.
- • The EC would be calculated based on “*fewer*” projects than in previous price controls. This is important because the smaller number of projects reduces the reliability of the data set as it is more strongly influenced by individual project costs.”

### **3. Proportionality: Distributional consequences of the change**

In our view approval of CMP353 would be better for promotion of effective competition and better for enhancing cost reflectivity for the reasons noted above. Furthermore, it is better from the point of view of proportionality. This is because failure to approve CMP353 would result in large distributional impacts at such short notice which would not be proportionate.

For example, as the generation TNUoS charges shown on page 12 of the CMP353 proposal sets out, the distribution of change to those charges is very uneven across the regions of GB, with the spread between generator costs and credits increasing significantly across the TNUoS charging zones (as well as the DNO regions, albeit less extreme). In the case of intermittent generation, the range may increase by 75%, and for other generation by as much as 85%.

Generators in the northern zones are expected to experience a sudden and substantial increase in their charges, whereas generators in southern zones could benefit from substantial windfall increases in credits measured in hundreds of percent, which would arise from no action on their part<sup>19</sup>. There is no clear evidence available as to whether these distributional impacts are warranted or justified; in our view they are in fact distortive to competition.

The attached document from Baringa shows the modelled distributional impact for generators and customers if CMP353 were not implemented. This shows, considering all gaining zones vs all losing zones:

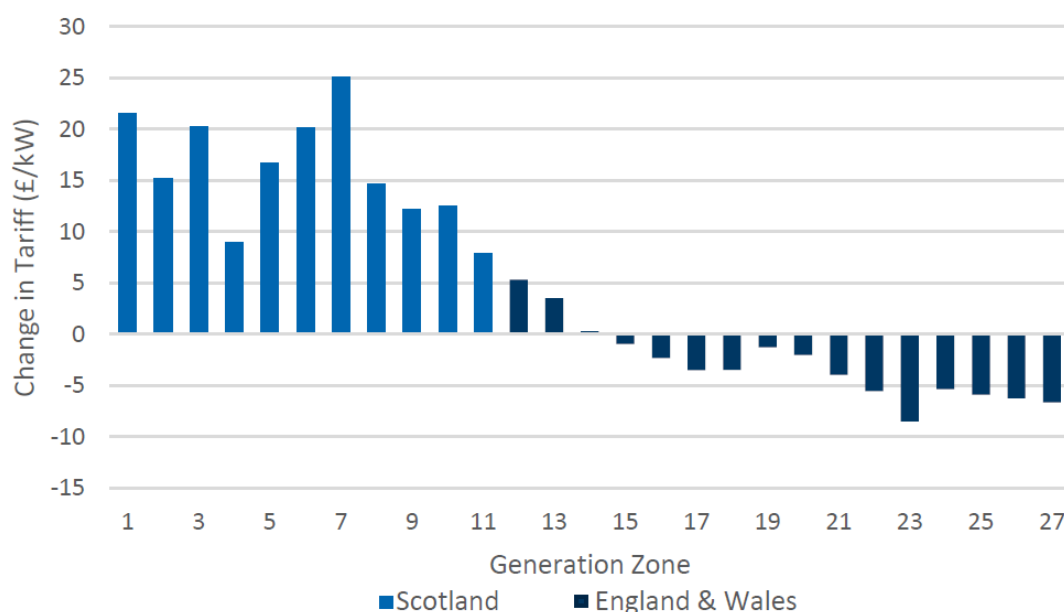
- *increase in Scotland/north England generation tariffs by **£145m**,*
- *increase in Southern England and Wales demand tariffs by **£129m***

*“We estimate that a typical domestic customer in Southern England and Wales could see their bill increase by around £1-£4 with an average of around £2.50”.*

- FTI also carried out a separate analysis of the impact averaged across tariffs for different technologies:
  - “2.16 The geographical concentration of this impact can be seen below in Figure 2-1, which illustrates, for each Generation Zone, the change in TNUoS charge (averaged across three example tariffs<sup>8</sup>) as a result of the expected EC.”

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<sup>19</sup> See the Hypothetical Examples in Annex 4 of the [CMP353](#) Code Administrator Consultation documentation

**Figure 2-1: Change in tariff by Generation Zone (averaged across example tariffs) (£/kW)**

With regards to discrimination, FTI observed:

*“2.18 The impact of the Existing Method would therefore be to concentrate a relatively high increase in charges in a relatively small proportion of the generation capacity, all in one country (Scotland). There is a high potential for the methodology, if not cost-reflective, to produce unduly discriminatory outcomes. Given this, and the uncertainty described above regarding the cost-reflectivity of the new EC value, it would be in line with good regulatory practice to delay the implementation of this whilst exploring further the suitability and appropriateness of the methodology.”*

#### 4. Meeting Net Zero at best value to customers

The move to net zero, introduced by the UK Government, has been widely welcomed by Ofgem, National Grid, SSE and other stakeholders. SSE<sup>20</sup>, like others, such as National Grid<sup>21</sup>, have for example this week formally joined in support of the UK Government’s COP 26 development which is seen as a key building block in achieve net zero in the UK as well as globally. If the defect highlighted by CMP353 (and other recent modification proposals) were left unaddressed, and the changes to the Expansion Constant and Factors were made without further review, the uneven distribution of the impacts across the charging zones could have an unintended consequence on the renewable generation mix.

For instance, the UK Government has set (prior to CMP353 being raised) ambitious GB-wide targets for offshore wind capacity which have, only this week, been greatly increased further as the Prime Minister’s ‘Ten Point Plan for a Green Industrial

<sup>20</sup> <https://www.sse.com/news-and-views/2020/11/sse-named-as-major-partner-for-cop26/>

<sup>21</sup> <https://www.nationalgrid.com/stories/journey-to-net-zero-stories/excited-be-principal-partner-cop26>



Revolution'<sup>22</sup> of yesterday sets out – and we note the Ofgem CEO's statement<sup>23</sup> welcoming<sup>24</sup> the Prime Minister's announcement. To achieve the existing target level (let alone this week's enhancements), it will be necessary to build wind in those regions of GB which will be most affected by the changes to the Expansion Constant (if CMP353 is not approved). However, amplifying the locational signal against northern generators will tend to result in a less wind being built overall which, in turn, will impede the achievement of net zero.

Baringa identified a distributional impact between technology types with low carbon generators on average paying systematically more, while carbon emitting generators would on average pay systematically less. This impact would appear detrimental and undermine efforts to achieve net zero at best value to customers:

- *“Intermittent low carbon generation (onshore wind and offshore wind) would see an increase in tariffs of around £53m, conventional low carbon generation (nuclear, hydro) increase of around £32m, with conventional carbon generation seeing a reduction of £85m.”*

Baringa considered how the increase in TNUoS cost caused the indicated RIIO T2 increase would equate to an increase in £/MWh cost which renewable generators would need to recover from CfD bid prices and/or wholesale market revenue:

*“Increases throughout Scotland are significant, with for example an increase of £16/kW (62% increase) in zone 1 for an intermittent generator with a 40% annual load factor, equating to £4.70/MWh”*

The FTI document includes an analysis of the potential increase in cost to generators which could be caused by the greater uncertainty and how that this could be detrimental for achieving the net zero objective:

*“3.6 Discounting by the social time preference rate of 3.5%,<sup>18</sup> this would result in an increase in the NPV of capital costs of c. £22-378m for existing generation assets over RIIO-T2. If this increase in regulatory uncertainty persisted in perpetuity, we would see an increase in the NPV of capital costs of c. £139-2,390m for existing generation assets.*

*3.7 These figures represent a large increase in the costs faced by generators and ultimately, consumers. These figures relate only to existing assets, and would be larger if also capturing the impact on future planned investments (which are, given the UK's 'Net Zero' ambitions, likely to be substantial and particularly so in the Generation Zones most sensitive to the EC).*

<sup>22</sup> <https://www.gov.uk/government/news/pm-outlines-his-ten-point-plan-for-a-green-industrial-revolution-for-250000-jobs>

<sup>23</sup> <https://www.ofgem.gov.uk/publications-and-updates/ofgem-response-prime-minister-s-ten-point-plan-green-industrial-revolution>

<sup>24</sup> *“Ofgem welcomes the Prime Minister's ten point plan for a green industrial revolution and will continue to work closely with government, the industry and wider stakeholders to play our part in its delivery. In particular, we will work to put in place the market arrangements and network regulation that support these plans and the wider transition to net zero at the lowest cost to consumers.”*  
[emphasis added]

*3.8 Further, an additional impact from the increase in the uncertainty faced by generators could be fewer and/or smaller investments in generation than would otherwise be the case. This is because any increase in the cost of capital increases the probability that a given investment will not be projected to reach the 'hurdle rate' of that cost of capital. The implications of this may be:*

- consumers paying higher electricity prices than would otherwise be the case and/or*
- putting at risk the UK's ability to meet its 'Net Zero' ambitions."*

## **Q2 Do you support the proposed implementation approach?**

Yes, we support the proposed implementation approach set out on page 8 of the consultation document. It is important that this change be applied to the TNUoS tariffs from the start (1<sup>st</sup> April) of the forthcoming 2021/22 Charging Year.

## **Q3 Do you have any other comments?**

As we set out above in Question 1 we have also attached two separate documents; one from FTI Consulting the other from Baringa; which forms part of this response.

We received these two documents earlier today and it has not been possible to fully incorporate the statements from those documents into this response. Therefore, we'd like, in particular, to highlight the following FTI quotes which we believe support the views we have expressed elsewhere in this response.

With respect to the general aim of the Proposal:

*"1.6 In light of this, and other concerns, the National Grid Electricity System Operator (NGESO) submitted Connection and Use of System Code (CUSC) modification proposal CMP353 on 29 October 2020.3 The key concerns of NGESO, which we agree with and describe further in this memorandum, are that the expected change to the EC (and related Expansion Factors):*

- "may not truly reflect the current drivers of network investment";*
- "will substantially change the locational costs for some Users"; and*
- "will present a cost shock to certain parties with little advance notice of the effects it will have on them."*

With respect to good Regulatory practice:

*"2.10 Therefore, leaving aside the significant magnitude of the expected change in the EC under the Existing Method, and the opacity of the process (both discussed below), it seems to us it would be in line with good regulatory practice to explore the methodology further."*

With regards to the opportunity for the Proposal to allow a timely review of the appropriateness of the locational signals:

*“2.13 As well as providing an opportunity to further examine the cost-reflectivity of the EC methodology, the CMP353 Proposal provides an opportunity for stakeholders to fully consider the system-wide implications of this element of the methodology and, if necessary, develop a solution which leads to more appropriate locational signals.”*

With regards to transparency:

*“2.21 The CMP353 Proposal, whilst relatively simple, is transparent insofar as all network users can understand the rationale for and the relatively simple calculation of the ‘rolled-over’ EC. Further, it also provides the opportunity for greater transparency of and stakeholder engagement with the enduring nature of the EC methodology.”*

With regards to predictability:

*“2.22 Predictability means that network users are better able to understand their risks and plan accordingly. This reduces uncertainty associated with investments, and in turn the cost of capital. This reduces costs and barriers to entry, contributing to greater competition and better outcomes for consumers in the form of lower prices and better service.”*

**[end].**