

**Workgroup Consultation Response Proforma****CMP315:** TNUoS Review of the expansion constant and the elements of the transmission system charged for and**CMP375:** Enduring Expansion Constant & Expansion Factor Review

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 **5pm on 17 May 2022**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

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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**I wish my response to be:**

(Please mark the relevant box)

☒ Non-Confidential☒ Confidential

*Note: A confidential response will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.*

**For reference the Applicable CUSC (charging) Objectives are:**

- 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;*
- 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);*
- 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;*
- Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency \*; and*

- e. *Promoting efficiency in the implementation and administration 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 Workgroup Consultation questions								
1	Do you believe that the CMP315 Original Proposal better facilitates the Applicable Objectives?	<p>Mark the Objectives which you believe each solution better facilitates:</p> <table border="1"> <tr> <td>Original</td> <td><input type="checkbox"/>A</td> <td><input type="checkbox"/>B</td> <td><input type="checkbox"/>C</td> <td><input type="checkbox"/>D</td> <td><input type="checkbox"/>E</td> </tr> </table> <p>Click or tap here to enter text.</p>	Original	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E
Original	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E			
2	Do you believe that the CMP375 Original Proposal better facilitates the Applicable Objectives?	<p>Mark the Objectives which you believe each solution better facilitates:</p> <table border="1"> <tr> <td>Original</td> <td><input type="checkbox"/>A</td> <td><input type="checkbox"/>B</td> <td><input type="checkbox"/>C</td> <td><input type="checkbox"/>D</td> <td><input type="checkbox"/>E</td> </tr> </table> <p>Click or tap here to enter text.</p>	Original	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E
Original	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E			
3	Do you support the proposed implementation approach?	<p><input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p>We oppose the proposed implementation date of April 2023, as we think it does not provide TNUoS parties with enough notice to adapt to a major methodological change. We think that CMP315 and CMP375 should be absorbed into the TNUoS Task Force.</p>						
4	Do you have any other comments?	<p>We do not believe that the CMP315 Original or the CMP375 better facilitate ACOs A or C.</p> <p>A:</p> <p>The proposed modifications will disincentivise renewable generators and storage operators from deploying in constrained regions, suppressing effective competition. Onshore renewable generators have limited choice as to where to locate assets, due to land costs, wind speeds, and planning issues. Further increasing TNUoS charges for generators in constrained areas would harm their business case and, by slowing the rollout of renewable generation, hinder progress to net zero. More storage is needed in generation-constrained areas to integrate intermittent generation into the energy system, by alleviating constraints, reducing curtailment, and providing stability services. By increasing TNUoS charges for storage in positive zones, CMP315 and CMP375 would further disincentivise storage operators from locating in constrained regions. This would exacerbate an existing barrier to market entry.</p>						

		<p>C:</p> <p>The legally binding objective to reach net zero ahead of 2050 is a key development in transmission licensees' business. As such, transmission charges must take into account the need to ramp up provision of renewable energy infrastructure. Implementation of CMP315 and CMP375 could in principle make charges more accurately reflect the cost of investing in the transmission network, but at the expense of slowing the deployment of renewable generation and energy storage.</p>
5	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>Click or tap here to enter text.</p> <p>Click or tap here to enter text.</p> <p>Click or tap here to enter text.</p>

### Specific Workgroup Consultation questions

6	<p>Do you agree with the CMP315 and CMP375 Proposers' conclusions that the Expansion Constant should also include circuit reinforcement, non-circuit works and life extension works in addition to new circuit build. Are there any other reinforcement types that should be included? Please provide justification for your response.</p>	<p>We agree with the principle that the TNUoS methodology should reflect the changing nature of the transmission system as the UK transitions to renewable energy. We also believe that the methodology should deliver signals that incentivise the development of a secure, flexible, low-carbon grid.</p> <p>On this basis, we oppose including circuit reinforcement, non-circuit works, and life extension works in the Expansion Constant (EC) calculation. We recognise why some parties think the EC should include more transmission assets. We also appreciate the principle that if assets can be identified appropriately, their associated costs should be recovered through cost-reflective charges.</p>
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	<p>However, we find that as proposed in CMP315 and CMP375, such a move would contradict the UK's legally binding net zero policy aims.</p> <p>Including the proposed elements in the EC would exaggerate the locational signals that transmission charges currently provide to generators and storage operators (i.e., higher charges in positive zones, lower or negative charges in negative zones). This would further disincentivise deployment of intermittent generation and storage in generation-constrained areas. In the context of Government policy to achieve 50GW of wind generation by 2030 while bringing forward sufficient flexibility capacity, this is not a useful signal.</p> <p>Certain Transmission Owners (TOs) and generators find that current transmission charging signals present barriers to the deployment of renewable generation at scale.<sup>1</sup> They argue that charges are unfairly high in generation-constrained areas, that tariffs are volatile, and that it is difficult to forecast charges accurately. The proposed changes to the EC would further increase both the cost and the volatility of transmission charges for generators in constrained areas. This would harm their business case and, by slowing the rollout of renewable generation, hinder progress to net zero.</p> <p>The proposed changes would also create cost shocks for storage operators. In the <i>Smart Systems and Flexibility Plan</i> Ofgem and BEIS pledge to create, by the mid-2020s, 'a best-in-class regulatory framework for electricity storage':</p>
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<sup>1</sup> See, for example, *Transmission Charges: An overview of charges for use of the GB transmission system* (SSEN, February 2021).

		<p>investors and developers will be confident in the framework, and this will trigger a marked increase in the deployment of storage [...] in the most optimal locations and at all scales. Storage will be providing significant flexibility to the system [...] and helping to address many of the challenges presented by a low carbon system, including maintaining energy security; shifting when generation is needed; alleviating constraints; and providing system stability services.<sup>2</sup></p> <p>Storage operators currently face the same transmission charging methodology as ‘conventional carbon’ generators (such as coal and gas). Consequently, the proposed changes to the EC would dramatically increase transmission charges for storage operators ‘alleviating constraints’ in ‘optimal locations’ (i.e., generation-constrained areas).<sup>3</sup> This contradiction between net zero policy and transmission charging regulation would damage confidence among storage operators and investors. We emphasise that the proposed changes would create cost shocks for investors who have already made significant commitments. Storage should be incentivised to deploy in constrained areas to reduce reinforcement and curtailment costs, thus reducing the overall TNUoS cost for both generation and demand users. In turn, this would reduce costs for consumers while reducing energy wastage and driving progress to net zero. By contrast, increasing TNUoS charges for storage in constrained regions would increase curtailment costs and potential transmission</p>
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<sup>2</sup> *Transitioning to a net zero energy system: Smart Systems and Flexibility Plan 2021* (BEIS and Ofgem: London, 2021).

<sup>3</sup> *Smart Systems and Flexibility Plan*.

		<p>upgrade costs, thereby further increasing the TNUoS cost for the overall pool.</p> <p>Ultimately, improving the accuracy and cost-reflectivity of the EC without introducing further prohibitive volatility to the TNUoS signal would require substantial changes to the TNUoS charging model. We therefore believe that the issues raised in CMP315 / 375 should fall within the scope of Ofgem's Task Force into TNUoS charges. As such, CMP315 / 375 should not be resolved through the standard governance procedure.</p> <p>We think CMP353 should remain in place as an interim measure. CMP353 froze the expansion constant at RIIO-1 levels on the basis that using RIIO-2 values would present a 'cost shock to certain parties'.<sup>4</sup> Ofgem therefore chose to stabilise the expansion constant at RIIO-1 levels 'until such time as the effect of any change in the locational signal can be better understood'.<sup>5</sup> We think this line of reasoning also applies to the proposed modifications.</p>
7	CMP315 and CMP375 have different proportions of each reinforcement type in the basket for the calculation of the Expansion Constant because the Proposers have different interpretations as to what the Expansion Constant should represent. Which one of these interpretations do you agree with or do you have a different approach? Please provide justification for your response.	As set out above, we do not agree with the proposed modifications. We prefer the current method for calculating the Expansion Constant, as we believe it provides a signal that is more consistent with net zero aims than the proposed alternatives. However, of the two proposals, we prefer CMP375, as we find it would more accurately reflect recent changes on the transmission system than CMP315.
8	A Workgroup Member has also suggested an alternative approach to establish the forward-looking marginal cost over a realistic 5–10-year time horizon. Do you agree with this	We oppose the Workgroup Member's proposal to replace the cost of new build 400kV in the EC with a representative 'basket' of techniques and technologies expected to be used

<sup>4</sup> Workgroup Consultation CMP315 and CMP375, 14 April 2022.

<sup>5</sup> Workgroup Consultation CMP315 and CMP375.

	interpretation or would you suggest a different approach? Please provide justification for your response.	over the next 5-10 years. We consider that an EC calculated on this basis would result in substantially higher TNUoS charges for generators and storage operators in positive zones, harming their business cases, slowing deployment of renewable energy infrastructure, and hindering progress to net zero.
9	CMP315 and CMP375 Originals propose using the last 10 years historical data when calculating the Expansion Constant/Expansion Factors. Do you agree with this approach or are there alternative approaches to consider? Please provide justification for your response.	<p>We agree with the proposed approach to use historic data from the last ten years (as is the case with the current methodology). We think this approach would help ensure that the Expansion Constant reflects recent developments on the transmission system.</p> <p>Using older data might result in the calculation of the expansion constant according to outdated factors. We think that incorporating forecast data into Expansion Constant calculations would create risks of inaccuracy and of a lack of transparency to industry. While we appreciate the rationale behind the proposal to weight historic and forecast data differently, we think that creating a methodology for this would be unduly complex.</p>
10	Do you agree with the list of data items, the ESO require from Transmission Owners to calculate the Expansion Constant. Please provide justification for your response.	We find that the requested data items are appropriate to enable the ESO to calculate the EC as set out in CMP315 and CMP375.
11	In their analysis, Lane Clark and Peacock (LCP) have provided an alternative implementation approach proposing non-circuit build to be allocated to existing circuits and thereby included within the EFs rather than creating proxy circuits (as proposed by the CMP315 and CMP375 Original). Do you have any thoughts on this and do you agree with LCP's proposal for reinforcement factors? Please provide justification for your response.	As with CMP315 and CMP375, we find that the proposed implementation approach would exaggerate existing transmission charging signals. We find that this would hinder achievement of the UK's net zero objectives.



12	To achieve implementation by 1 April 2023, the Workgroup understand that it will not be possible under the current timeline to include the new EC/EFs in the draft TNUoS tariffs for 2023/2024. Do you support this and, if so, in the absence of draft TNUoS tariffs for 2023/2024, what detail will you need ahead of final TNUoS tariffs being published?	We do not support this implementation approach. As we noted in response to an earlier question, the current Expansion Constant was stabilised on the basis that changing it without due notice would provide a 'cost shock to certain parties'. We think that if implemented via the standard governance procedure, CMP315 / CMP375 should be introduced later, to allow new ECs/EFs to be included in draft tariffs, thus giving industry more notice.
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