

CUSC Workgroup Consultation Response Proforma

CMP320 – Island MITS Radial Link Security Factor

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 by **5pm** on **27 September 2019** to cusc.team@nationalgrideso.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Paul Mullen at paul.j.mullen@nationalgrideso.com or cusc.team@nationalgrideso.com.

Respondent:	Guy Nicholson
Company Name:	Statkraft UK Ltd
Please express your views regarding the Workgroup Consultation, including rationale. (Please include any issues, suggestions or queries)	

Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that CMP320 Original Proposal better facilitates the Applicable CUSC Objectives?	<p>No, the main purpose for the modification is to ensure that single circuit radial links are not exposed to non-cost reflective charging if they become part of the MITS, however the current legal text proposal fails to do this for the following reasons:</p> <ol style="list-style-type: none"> 1) If the radial link becomes part of the MITS, its cost will be included in the wider TNUoS tariff. Defining a second locational security factor to be applied to single circuit radial links is not consistent with the wider TNUoS calculations defined in the CUSC, i.e. for each node within a zone the marginal km associated with an additional MW of generation is calculated and summed to get the zonal marginal km, other operations are applied for Peak/shared/non shared elements and as a final step the output is multiplied by the expansion constant and locational security factor. <p>If a new specific single circuit radial link / remote island only</p>

		<p>locational security factor is created, the calculations (and explanations of methodology) associated with the wider tariff would need to be changed in numerous places (for peak/shared/not shared components) in addition to the existing legal text draft changes to ensure the CUSC is consistent within itself and accurately reflects the change in TNUoS methodology the change proposal is seeking to achieve. The nodal cost would need to be calculated from the marginal km of each link multiplied by the relevant locational security factor for that link, and the outputs no longer multiplied by “the” onshore locational security factor as a last step for each of the peak/shared/not shared elements. This runs contrary to the concepts and terms ‘<i>marginal km</i>’ and <i>incremental km</i> which are so fundamental in the TNUoS calculations and methodology so would be a large undertaking, there are more efficient ways to implement this modification.</p> <p>2) If at some future date a remote island single circuit radial link did become part of the MITS, the remote island generators may form a separate ‘remote island’ zone, or become part of a wider TNUoS zone. The Original Proposal should be robust to future changes to zoning. If a Remote Island node becomes part of a wider zone which is greater than the island itself, the high costs associated with the remote island connection will be socialised across all generators in that wider zone, a non-cost reflective outcome. This will have negative consequences for any generator or potential generator not located in the Remote Island in such a wider zone. The unreflective higher TNUoS charges would result in otherwise economic projects (not located on the islands) not being built, and ultimately higher prices for consumers, in addition as it would most likely be new renewable projects adversely affected, there would be a negative environmental impact due to higher carbon intensity of electricity that would result.</p>
2	Do you believe that the Workgroup has met its Terms of Reference?	
3	Do you support the proposed implementation approach?	<p>No. There are no existing transmission links with the remote islands. In Shetland there is currently one planned link, but the transmission licensee is proposing a second link to connect more generation, rather than expanding the first link. Depending on several factors, it is possible that no link is built, one link is built or two (or more) links are built. Any link(s) that are built may or may not result in a MITS node being created on a remote island. As it is uncertain whether the defect identified will arise, or if it does will endure, we do not think it is appropriate to modify such large portions of s14 of the CUSC that would be required if dual</p>

		<p>locational security factors are defined and integrated fully and correctly into the wider tariff calculations, especially as there are easier ways to avoid non-cost reflective charging for ‘single circuit radial links’ and remote islands generally.</p> <p>If the current approach of defining a separate locational onshore security factor for the remote island/single radial link is implemented any calculation or text referencing “marginal km” or “incremental km” will need to be reconsidered. The following parts of the CUSC will also likely need be reviewed/amended:</p> <p>14.15.4 14.15.5 14.15.26 - 14.15.30 14.15.39 - 14.15.41 14.15.48 14.15.50 14.15.53 - 14.15.57 14.15.96 - 14.15.97 14.21- 14.24</p>
4	Do you have any other comments?	
5	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	<p>Yes:</p> <p>The following alternative solution is much easier to implement: define Remote Island nodes as non-MITs via the below changes in red to s14.15.33.</p> <p><i>“14.15.33 Main Interconnected Transmission System (MITS) nodes are defined as:</i></p> <ul style="list-style-type: none"> <i>• Grid Supply Point connections with 2 or more transmission circuits connecting at the site; or</i> <i>• connections with more than 4 transmission circuits connecting at the site.</i> <p><i>Nodes on a Remote Island are non-MITS nodes, even if either or both of the above two criteria are met.</i></p> <p><i>Remote Island – has the meaning given to “remote island” in The Contracts for Difference (Miscellaneous Amendments) Regulations 2018”</i></p> <p>The local relevant local onshore methodology is outlined in s14.15.91/2</p>

		<p>Local Security Factors</p> <p>14.15.91 Local onshore security factors are generator specific to the generator's local onshore circuits. If the loss of a circuit prevents the export of power from the generator, a security factor of 1.0 is applied. For generation with no local circuit, a security factor is applied that is equal to the local circuit security factor.</p> <p>14.15.92 Where a Transmission Owner has designed a circuit (or otherwise that circuit once built) to a capacity low relative to the generation using that circuit, then the local security factor is multiplied by a Counter Correlation Factor (CCF) as follows;</p> $CCF = \frac{D_{min} + T_{cap}}{G_{cap}}$ <p>This WACM solution keeps the Remote Island circuits local, which has the following benefits:</p> <ol style="list-style-type: none"> 1) A maximum 1.0 security factor will apply to a single radial circuit to reflect the lack of redundancy. 2) High remote island connection costs would not be unfairly borne by mainland generators in the event of future changes to zoning. 3) There is cost reflectivity if a second single circuit is built and generation is connected without redundancy. 4) If in future generation connected to the link exceeds the link capacity, there is already a counter correction factor methodology in place in 14.15.92. 5) Implementation is straight forward as it requires very little change to the CUSC
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Specific CMP320 questions

Q	Question	Response
6	Do you believe that the Legal Text (set out in Annex 3 of the Workgroup Report) achieves the intent of this Modification?	No – for the reasons mentioned in 3, the current draft does not consider other parts of the CUSC which would need to be changed to provide adequate instructions for the calculation of the wider TNUoS charges.
7	Would it be better, in terms of the Applicable Objectives, for the solution to apply only to subsea circuits, or also include onshore circuits as well. Please explain	The WACM suggested should only be for Remote Islands because it is a specific case where the very high TNUoS charges would have an unprecedented financial impact on generators connected on the Remote Islands if this defect is not rectified.

	your answer?	<p>If there are other locations, e.g. onshore circuits, where this defect applies, it should be for those parties affected to raise this matter and make appropriate CUSC change proposals identifying any potential consequences of such a change. The fact that no such change proposals have been raised so far indicates that this aspect of the CUSC has not been significant issue for any party to date.</p>
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