






Alternative Request Proposal Form	At what stage is this document in the process?
<p>Modification potential alternative submitted to:</p> <h1>CMP320:</h1> <p>Mod Title: Island MITS Radial Link Security Factor</p>	<div><div>01</div><div>Proposed Alternative</div></div> <div><div>02</div><div>Proposed Workgroup Alternative</div></div>
<p>Purpose of Alternative: To ensure the defect is rectified fully in an efficient way with minimum risk to other areas of the TNUoS methodology.</p>	
<p>Date submitted to Code Administrator: 18.10.2019</p> <p>You are: A Workgroup member</p> <p>Workgroup vote outcome: Formal alternative – now known as WACM1</p>	

Contents		 Any questions?
1	Alternative proposed solution for workgroup review	2
2	Difference between this proposal and Original	2
3	Justification for alternative proposal against CUSC Objectives	3
4	Impacts and Other Considerations	6
5	Implementation	6
6	Legal Text	6
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1 Alternative proposed solution for workgroup review

Mandatory for the Alternative Proposer to complete Please outline your proposed alternative to the modification defect outlined within the Original Proposal

Amend the definition of MITS nodes in the CUSC to exclude nodes located on remote islands, ensuring generators on remote islands are subject to an appropriate security factor which relates to their actual level of redundancy.

2 Difference between this proposal and Original

Mandatory for the Alternative Proposer to complete. Please provide as much information as possible as to why this proposed solution is different to the Original solution proposed

The solution outlined in the original proposal is to create an additional locational onshore security factor that applies to single circuit radial subsea cables to remote islands if a

MITS node is created on the remote island. It seeks to integrate this into the existing calculations by dividing the relevant circuits' expansion factors by the current onshore locational factor of 1.8, so that when 'the' onshore locational factor (i.e. 1.8) is applied in the last step of the wider TNUoS tariff calculations, the tariff calculated is the same as if the relevant circuits had a locational security factor of 1.0 applied to them and all other circuits had a locational security factor of 1.8 applied.

It does not resolve the non-cost reflective charging of generators paying 1.8x charges for Island only circuits that are behind the redundancy 'bottleneck' of the radial subsea link, meaning some non-cost reflective charges would still apply and there would be inconsistency with the approach taken by other parts of the onshore methodology.

This WACM takes a simpler approach and builds on the existing CUSC definition of MITS nodes amending it for the purpose of the wider tariff so that remote island nodes are considered non-MITS, removing the need for a mathematical 'work around' or risking unintended consequences to the Wider TNUoS charging methodology descriptions and calculations. It also aligns with other areas of the onshore charging methodology, and results in all of the circuits behind a radial subsea 'bottleneck' receiving a cost reflective security factor of 1.0, as well as resolving potential issues that will arise from other current modifications the ESO has raised such as CMP324, which seeks to align TNUoS charging zones to the 14 demand zones.

3 Justification for alternative proposal against CUSC Objectives

Mandatory for the Alternative Proposer to complete. Please delete the CUSC Objectives that are not applicable.

Impact of the modification on the Applicable CUSC Objectives (Charging):

Relevant Objective	Identified impact
(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;	This WACM has a positive impact on competition in that it removes material economic distortions in the calculation of remote island TNUoS.
(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);	Positive impact – the WACM stops redundancy costs being applied in TNUoS calculations to remote island connections that do not have redundancy

(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;	Positive. At this time, there are no transmission links by subsea cables to remote islands. The WACM addresses the need to incorporate these developments in a cost-reflective manner.
(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	No impact
(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive – this WACM is more efficient, it is a simpler and more concise change with fewer impacts on other areas of S14 of the CUSC. It is also a more robust solution with respect to other ongoing code modifications and future potential grid developments.
*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).	

A generator's *local circuit* may comprise several individual circuits. A local security factor of 1.0 (instead of 1.8) is applied in the calculation of its local circuit charge if *any one circuit* has no redundancy (see CUSC S14.15.91). This is because the weakest link in the overall circuit defines the redundancy characteristics.

Non-financially firm generators on a remote island connected via a single circuit subsea link will require it to access the demand they will serve on the mainland, the subsea radial link will be the weakest link in the path from generation to demand, as a result (to be consistent with the approach

in s14.15.91) a 1.8 security factor would not be cost reflective if charged on any of the Island to Island based circuits as well as the subsea link.

The original proposal captures this issue (extract):

What

The application of the Security Factor where a MITS node is located on an island which, in turn, is connected to the mainland on a single radial subsea circuit needs to be changed from 1.8 to 1.0 if the relevant circumstances apply. -

I.e. If an Island is connected to the mainland via a single subsea circuit and it has MITS nodes located on it a security factor of 1.0 should be applied.

Similarly:

Why

This change is required to ensure that the charges paid by Generators located on Islands served by a single radial circuit pay more cost reflective charges.

This highlights the wider issue of non-cost reflective charges on Generators based on Islands, which requires a broader solution than amending just the individual subsea link.

The original defect highlights the issue of there being “*effectively no redundancy in the transmission circuit*” which can include the interpretation as plural - as is frequently used in charging, i.e. a “local circuit” or “generation circuit” often actually comprise of multiple individual circuits. Hence the defect encompasses the lack of redundancy in the transmission circuit from remote island generators to the mainland – which includes the application of a 1.8 security factor to remote island only circuits, which should also only have a 1.0 security factor applied.

The original proposal’s solution addresses only the connection between the mainland and the remote island, and not any other circuits behind the redundancy bottleneck, which is contrary to the approach taken where similar situations arise in local circuits. This WACM avoids the inconsistent approach, and fully rectifies the defect by keeping the remote island circuits local.

This WACM is firmly in scope of the original proposal, it better facilitates its objectives as it fully addresses the non-cost reflective charges with respect to redundancy and is a simpler and more efficient change to the CUSC.

4 Impacts and Other Considerations

This approach also has other benefits compared to the original proposal:

- 1) The WACM would ensure that the high remote island connection costs would not be unfairly born by mainland generators in the event of future changes to zoning. This is particularly relevant in light of CMP324, which seeks to align TNUoS zones with the existing 14 demand zones. The ESO have indicated that a solution to the remote islands costs would need to be found (dependent on the outcome of this modification), this WACM would negate the need for an additional solution.
- 2) There is cost reflectivity if a second single subsea remote island circuit is built and generation is connected without redundancy as the existing local security factor methodology accounts for this situation.
- 3) If in future generation connected to a subsea remote island circuit(s) exceeds the circuit capacity, there is already a counter correction factor methodology in place to automatically reflect the lower security levels in the local circuit charge.

Consumer Impacts

Consumers will benefit as generators will face more cost reflective charges which promotes fairer competition.

The impact on consumers is very similar to the original proposal, only improved as it is more cost reflective and robust to future changes. It ensures that generator impacts are considered for wider zoning changes in future or where an additional subsea cable circuit is constructed. With more cost reflective generator charging we would expect any resultant impact on consumers to be improved as well,

The affected generators are CfD projects so this modification (or WACM) would not impact any overall demand/supply charge split. If the modification is approved, the projects will be able to bid lower so any increase in socialisation of TNUoS costs to demand will be equally offset by a decrease in socialisation of CfD costs to demand customers (or increase in revenues to demand customers as the case may be).

The change will also level the playing field and enable the Island projects a fair chance of being successful. The Island projects being unfairly handicapped is a negative for consumers as if the Island generators are not successful the likely outcome is that demand customers will pay for 100% of a very expensive demand only link.

5 Implementation

Implementation will be easier, quicker (and hence less costly) than the original proposal as the amendments to the CUSC are minor.

6 Legal Text

This WACM proposes to amend s14.15.33 – the definition of a MITS node.

The existing definition of MITS nodes in the CUSC is under s14.15.33:

“14.15.33 Main Interconnected Transmission System (MITS) nodes are defined as:

- *Grid Supply Point connections with 2 or more transmission circuits connecting at the site; or*
- *connections with more than 4 transmission circuits connecting at the site.”*

This WACM would add the following legal text:

14.15.33A For the purposes of this Section 14, Nodes located on a Remote Island shall not be deemed as MITS Nodes, even if one or more of the criteria stated in 14.15.33 are met. For clarity, Remote Island in this paragraph shall have the same meaning as “remote island” in The Contracts for Difference (Miscellaneous Amendments) Regulations 2018 (as amended).