CUSC Modification Proposal Form	At what stage is this document in the process?
# CMP324 ## Mod Title: Generation Zones – changes for RIIO-T2	01 Proposal Form 02 Workgroup Consultation 03 Workgroup Report 04 Code Administrator Consultation 05 Draft CUSC Modification Report 06 Final CUSC Modification Report

Purpose of Modification: The CUSC requires that generation zones, used for Transmission Network Use of System (TNUoS) tariff setting, are reviewed at the start of each price control period. This CMP seeks to change the zones and the underlying methodology used to establish them.

The Proposer recommends that this modification should be:

- assessed by a Workgroup

This modification was raised 12 September 2019 and will be presented by the Proposer to the Panel on 27 September 2019**.** The Panel will consider the Proposer's recommendation and determine the appropriate route.

High Impact: Generator Users liable for generation TNUoS

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Timetable

The Code Administrator recommends the following timetable: *(to be agreed following 1st Workgroup)*

Initial consideration by Workgroup	dd month year
Workgroup Consultation issued to the Industry	dd month year
Modification concluded by Workgroup	dd month year
Workgroup Report presented to Panel	dd month year
Code Administration Consultation Report issued to the Industry	dd month year
Draft Final Modification Report presented to Panel	dd month year
Modification Panel decision	dd month year
Final Modification Report issued the Authority	dd month year
Decision implemented in CUSC	dd month year

Any questions?

Contact:
Code Administrator

email address

telephone

Proposer & National Grid ESO Representative:
Harriet Harmon

harriet.harmon@nationalgrideso.com

07971180392

Proposer Details

Details of Proposer: (Organisation Name)	National Grid Electricity System Operator
Capacity in which the CUSC Modification Proposal is being proposed: (i.e. CUSC Party, BSC Party or "National Consumer Council")	CUSC Party
Details of Proposer's Representative: Name: Organisation: Telephone Number: Email Address:	 Harriet Harmon National Grid ESO 07971 180392 harriet.harmon@nationalgrideso.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	 Eleanor Horn National Grid ESO 07966186088 Eleanor.horn@nationalgrideso.com
Attachments N/A	

Impact on Core Industry Documentation.

Please mark the relevant boxes with an "x" and provide any supporting information

BSC	
Grid Code	
STC	
Other	

No other Electricity Codes are expected to be affected by this CMP.

1 Summary

Defect

14.15.37 of CUSC requires that the ESO establishes generation charging zones to be used during each price control period; the next price control period for transmission commences on 1st April 2021.

14.15.42 of CUSC details how zones are determined. There are currently 27 generation charging zones. Applying the current CUSC methodology to zoning for the next price control period will result in approximately 50 zones, changing again in 3-5 years based on the shorter duration of the next price control period. This is likely to lead to significant investment uncertainty and tariff disturbances for TNUoS-liable generation. The methodology in CUSC should change such that zones are fixed, irrespective of price control, and that there ceases to be a material difference between demand and generation zoning approaches.

What

14.15.42 - 14.15.45 relate to generation zoning. In practice, zones are set by reference to expansion constant & expansion factors, the security factor and the output of the nodal TNUoS tariff.

To be classed as a single zone, the total marginal cost of (generation connecting at) each node should be within +/-£1.00/kW across the zone. This value is not index-linked.

Prior to raising this CMP, the Proposer considered whether index-linking the +/- £1/kW would resolve the issue of an increasing number of zones.

Index-linking: Solely index-linking the +/-£1/kW range would not prevent the need for a broader review of zones. Analysis by the ESO confirms that a move to +/-£1.75/kW would still require views of zones 18 and 25 (Mid Wales/Midlands and Oxfordshire/Surrey/Sussex), as well as zones 11 and 13 (Lothian & Borders and NE England) to ensure that charges remained within the range. Both zones 1 (North Scotland) and 7 (Argyll) would continue to significantly exceed the range limit owing to the high £/kW cost of the HVDC and AC subsea cables. Substituting the 'unit cost' of HVDC with generic cable costs does reduce the variance within zone 1 but is not cost-reflective and does not itself resolve the range issue noted in that zone.

Aligning generation and demand charging zones: using the existing fixed demand zones for the purposes of generation charging would resolve the noted defect, namely that the current zoning criteria- is no longer fit for purpose, as the output thereof is overly-complex and does not lend itself to long-term investment signals. Whilst generation TNUoS is reflective of a long run marginal cost, the wider tariffs are sensitive to regional generation fuel mix. Regional generation mix is determined by boundaries of zones, as well as the assumed "connectivity map" that forces flows along a single path (i.e. no parallel paths are allowed among zonal connections). The wider tariff therefore cannot provide a useful long-term capacity investment signal to generators, if both the inputs into the wider zonal tariff methodology, and the boundaries/connectivities of that zone are subject to repeated change in the medium term. As demand zones are fixed, based on Grid Supply Point (GSP) Group, an alignment between zones will lead to greater stability for generator users seeking to connect, as well as for those users already connected as they will not see their zone move several times within a 5-year window, making planning easier. It is expected that constant zones will also support generators looking over the longer term at bidding into Contracts for Difference (CfD) auctions, keeping costs lower in line with reduced uncertainty.

In the Access and Forward-Looking Charges Significant Code Review, Ofgem are considering the extent to which embedded generation should contribute towards the costs of the transmission network through TNUoS. Aligning the demand and generation zones facilitates any eventuality under that Significant Code

Review (SCR), and, further increases the ESO's ability to provide equal and opposite locational signals to demand and generation.

Why

Were the ESO to use the procedure outlined in CUSC currently, the number of generation zones would increase from 27 to c.50 from April 2021. Those zones would then need to be reviewed again in advance of the next price control. This would create significant uncertainty in the market, potentially affecting investment decisions.

There are multiple drivers for changes to zones, including but not limited to: changes in demand and generation output over the long-term; changes in network topology, including assets moving between being in scope of local circuit charges to being in scope of the wider tariffs; the addition of circuits between Main Interconnected Transmission System (MITS) nodes (for instance, the HVDC lines) and the number and size of generation connections within a price control period. It can be the case that a single generator connection would, under the current methodology constitute a zone in itself, particularly in lower voltage areas (e.g. Scotland) where the "unit costs" of circuits are high. The ESO is then required to calculate and apply zonal tariffs for that single generator. Whilst this is accepted as cost-reflective, it is not the most efficient way to ensure cost-reflectivity and does not send appropriate investment signals to generators seeking to connect.

How

The existing provisions of 14.15.42 - 45 should be removed, and replaced with a single paragraph stating that the number of generation zones has been determined as 14, corresponding to the 14 GSP groups. This wording already exists in 14.14.5 of CUSC. There will be consequential changes to other parts of Section 14 solely to the extent that generation zones are referenced – in practice there would cease to be 'demand' or 'generation' zones, instead just 'zones'.

2 Governance

Justification for Normal Procedures

It would not be appropriate for this modification to proceed without a Workgroup. There are multiple potential solutions to the Defect, and the Proposer is of the view that its proffered solution would have a material effect on generation users which should be discussed within a Workgroup environment. An Authority decision is needed owing to the potential effect on users' charges – as a matter of course, the Proposer believes that any change to Section 14 of the CUSC should be subject to Authority approval owing to the effect such changes can have on competition in the market.

Requested Next Steps

This modification should be assessed by a Workgroup.

3 Why Change?

Were the ESO to use the procedure outlined in CUSC currently, the number of generation zones would increase from 27 to c.50 from April 2021. Those zones would then need to be reviewed again in advance of the next price control (that is, a further review would be needed starting in September 2023). This would create significant uncertainty in the market, potentially affecting investment decisions.

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4 Code Specific Matters

Technical Skillsets

Working knowledge of CUSC Section 14, especially to the extent it relates to generation TNUoS charges.

Reference Documents

The ESO presented this modification at Transmission Charging Methodology Forum (TCMF) and whilst not essential, it is recommended by the Proposer that the slides are reviewed alongside this CMP.

https://www.nationalgrideso.com/document/147651/download

5 Solution

Replace the existing rezoning methodology with a statement that demand and generation zones have been determined to be 14 in number and shall be the GSP Groups.

6 Impacts & Other Considerations

Generators liable for TNUoS are directly affected by this CMP.

Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No however the Proposer is mindful of CMP315 which seeks to alter expansion factors/constants – any solution for this CMP which retains the link to expansion factors/constants should be cognisant of developments within CMP315. The Proposer of this CMP considers it to be out of scope of the Access and Forward-Looking Charges SCR given that it a mandatory requirement under price control, changes to the transport model are out of scope of the SCR save for reference node, and this CMP would be required in any event.

Consumer Impacts

Demand TNUoS tariffs are not directly affected by this CMP. Increased stability in zoning should provide better long-term investment signals to generators, potentially improving competition in the wholesale and CfD markets.

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;	Positive – increased stability provides better investment signals, longer-term certainty and simplification of the current regime removing a barrier to entry
(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);	None
(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;	None
(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	None
(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive – fixed zones and connectivity map improves transparency and improves efficiency in TNUoS tariff setting and publication processes, as well as simplifying matters on a long term basis.

*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).

7 Implementation

This CMP needs to be approved no later than mid-October 2020 to be able to take effect for April 2021. Delayed implementation is not possible without a further CUSC change, an ESO derogation or an extension to price control.

8 Legal Text

The current wording in 14.14.5 in so far as it relates to demand zones should be updated to reflect that it encompasses demand and generation zones. All references to 'generation' or 'demand' zones within CUSC should then be removed and replaced with 'zones'. The Proposer has not offered legal text at this stage as there will likely be multiple potential solutions however the above is easy to implement.

9 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Normal governance procedures should apply; and
- Refer this proposal to a Workgroup for assessment.

