CUSC Modification Proposal Form

CMP426:

Cost Recovery for Boundary Reinforcement

Overview: To consider the cost recovery for circuits being classified as boundary reinforcement within the Holistic Network Design (HND). Ensuring the purpose and function of circuits classified as boundary reinforcement are considered when determining the appropriate TNUoS tariff and users the costs are recovered from.

Modification process & timetable

1. **Proposal Form**
   30 November 2023
2. **Workgroup Consultation**
   03 June 2024 - 24 June 2024
3. **Workgroup Report**
   19 July 2024
4. **Code Administrator Consultation**
   05 August 2024 - 19 August 2024
5. **Draft Final Modification Report**
   23 August 2024
6. **Final Modification Report**
   06 September 2024
7. **Implementation**
   01 April 2025

Status summary: The Proposer has raised a modification and is seeking a decision from the Panel on the governance route to be taken.

This modification is expected to have a: Medium impact

On National Grid ESO and parties liable for TNUoS charges.

Proposer's recommendation of governance route	Standard Governance modification with assessment by a Workgroup	
Who can I talk to about the change?	**Proposer:** Nitin Prajapati Nitin.Prajapati@nationalgrideso.com 07790970158	**Code Administrator Contact:** Claire Goult Claire.Goult@nationalgrideso.com 07902 312 226

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What is the issue?

The Holistic Network Design (HND) was published by the Electricity System Operator (ESO) in July 2022 to develop a coordinated approach to offshore wind connection; it aims to balance economic, social and environmental factors. The Authority subsequently published a decision on asset classification for the HND categorising the transmission assets into either onshore transmission (reinforcement), radial offshore transmission or non-radial offshore transmission. Onshore transmission represents reinforcement of a congested onshore boundary to convey electricity generated from a congested region behind that boundary onshore, to other parts of the onshore system with a demand bias. This is effectively boundary reinforcement to convey surplus electricity from north to south.

CUSC section 14.15.35 defines that 'Generators directly connected to a Main Integrated Transmission System (MITS) node will have a zero local circuit tariff', and 14.15.33 defines the criteria for a MITS Node. When applying the current methodology, any generators which are not directly connected to a MITS Node but directly connected to a circuit being effectively utilised as boundary reinforcement would be subject to the local tariff to predominantly recover the cost of the circuit.

Why change?

As per the asset classification decision, the purpose of onshore transmission circuits in the HND are to convey surplus electricity generated by onshore generators, through the transmission system to meet demand, adding to effective boundary capacity. These circuits are neither wholly, nor mainly, used to convey electricity generated offshore but continuing onshore reinforcement.
Therefore, applying the current rules would result in circuits being utilised as boundary reinforcement in the HND being predominantly (with some sharing with demand customers) recovered from a specific generator via the local tariff. This would not be cost reflective as the primary purpose of these circuits are boundary reinforcement (part of the Main Integrated Transmission System) and they will mainly be utilised by a number of other users who are onshore. So, it would not be appropriate for the cost of these circuits to be recovered predominantly by a particular user. Hence, there is a need to ensure the cost recovery for HND circuits which are utilised as boundary reinforcement are not allocated predominantly, or wholly, to a specific generator but instead recovered from wider users, creating the need for a methodology change.
Additionally, feedback from the Offshore Coordination Code Modification Subgroup has suggested the cost recovery of circuits utilised as boundary reinforcement in the HND should be considered to ensure the use and purpose of the circuit is taken into consideration when determining the cost recovery.

What is the proposer's solution?

This modification proposes reviewing the cost recovery of circuits which are utilised as boundary reinforcement in the HND or future iterations of the HND to ensure the circuit costs are not predominantly recovered by a specific user but by users of the wider network.

A number of specific options for a solution have been explored with the industry as part of the Offshore Coordination Code Modification Subgroup and the preferred approach was to recover the costs via the wider tariff.

Recover the costs of the circuit via the wider tariff

Under this approach the emphasis is to recover all the costs for circuits utilised as boundary reinforcement from wider users and therefore recover the costs via the wider tariff. To enable this, these circuits would need to be identified as wider circuits rather than local circuits.

To ensure these circuits are classed as wider circuits, it is proposed that CUSC section 14 is updated to outline that wider charges are based on the current definitions in the methodology, plus any circuits deemed by the Authority to be 'onshore reinforcement.' It is proposed that this is outlined between CUSC section 14.15.35 and 14.15.36 to reflect that circuits deemed to be 'onshore reinforcement' would not be subject to a local charge. Through the workgroup process consideration can also be given to other areas of the CUSC that require updating to ensure the recovery of the circuit is filtered through the wider tariff.

Benefits of Solution

This would effectively ensure circuits deemed by the Authority to be boundary reinforcement are classed as wider circuits rather than local circuits and recovered via wider TNUoS charges. This solution will ensure the purpose of the circuit is reflected in the charging methodology, effectively enabling better cost reflectivity. As the circuit would be utilised by wider users, its costs would also appropriately be recovered by wider users through the wider tariff. Also, this approach has the benefit of future proofing the methodology for any additional circuits deemed to be boundary reinforcement by the Authority. There is the added benefit that this solution better incentivises investment from offshore generators, including in circumstances where boundary reinforcement might optimally be a feature of network designs. Finally, this solution is fairly simple to implement.

Alternative approaches considered

One of the alternative approaches that was considered and discounted was to add a further point to the current MITS node definition to ensure the circuit is classed as wider rather than a local circuit. This solution could lead to complications in terms of a broader emphasis on what is considered to be the wider network and not target the specific defect. It could be hard to design the solution so that for all future relevant circuits, it consistently identifies them and no other circuits. There could also be subsequent implications from a technical perspective for the Grid Code with the need for a clear rationale for changing the MITS Node definition.

Another approach that was explored and disregarded was to classify circuits utilised as boundary reinforcements as Anticipatory Investment (AI) where the early-stage assessment process (the process) would split the Capital costs of the circuit into an AI and non-AI value. The AI value will be recovered by the specific generator connected to the circuit being utilised as boundary reinforcement and the non-AI value by wider users via the wider tariff. However, this approach would be dependent on the relevant developers submitting this as part of the process and dependent on the Authority approving with the AI value being a much smaller proportion of the capital costs. Finally, this would put a cost risk on the consumer prior to the generator connecting as outlined in the AI policy decision from the Authority.

Summary of Solution

It is proposed the costs of any circuits determined to be boundary reinforcement are recovered via the wider tariff by outlining in the CUSC that wider charges are based on the current definitions in the methodology, plus any circuit deemed by the Authority to be 'onshore reinforcement.' There is an appreciation that other options for a well-targeted and effective solution to the identified issue could also be explored during the workgroup process dependent on feedback and discussions.

Draft legal text

Draft text will be developed fully during the Workgroup process, but we propose that additional text is added to CUSC section 14.15.35 and 14.15.36 to reflect that wider charges are based on the current definitions in the methodology plus any circuits deemed to be 'onshore reinforcement'. Consideration can also be given through the workgroup process to other areas of the CUSC that require updating to ensure the recovery of circuits is filtered through the wider tariff.

What is the impact of this change?

Proposer's assessment against CUSC Charging Objectives	
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** This CUSC modification will ensure circuits classified as onshore reinforcement in the HND/further iterations of the HND are recovered by the appropriate users, enabling cost reflectively and in turn facilitating competition.
(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** This proposal enables circuits classified as onshore reinforcement in the HND/further iterations of the HND to be recovered by the appropriate users, ensuring cost reflectivity.
(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** The extension of the interconnected onshore transmission system to offshore, replacing the old approach where we have separate radial connections to shore, is clearly a new development of the interconnected/meshed 'supergrid' extending it, to a degree, offshore, and the charging methodology needs to be adapted and developed to take account of this.
(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	**Neutral**
(e) Promoting efficiency in the implementation and administration of the system charging methodology.	**Positive**

	Will provide clarity to industry on the application of wider tariffs for offshore generators and onshore generators.
**The Electricity Regulation referred to in objective (d) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.	

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	**Identified impact**
Improved safety and reliability of the system	**Neutral** This will not impact the operation of the transmission system.
Lower bills than would otherwise be the case	**Positive** The clarity of the methodology will help provide new offshore and onshore generation developers with greater confidence of what the applicable methodology and resulting tariffs will be. This will reduce investment risk and the overall costs to consumers.
Benefits for society as a whole	**Positive** Facilitates the development of an integrated offshore network and the associated consumer cost, security of supply and environmental (fewer mudflat cable transitions) benefits compared to radially connected projects.
Reduced environmental damage	**Positive** Facilitates the development of an integrated offshore network and the associated benefits towards achieving Net Zero.
Improved quality of service	**Neutral** This will not directly impact the quality of service provided by the ESO or offshore generators.

When will this change take place?

Implementation date
1st April 2025 to align to the charging year and ensure generators have visibility of the charging methodology, to aid investment decisions related to generators connecting in the HND.

Date decision required by
Following industry feedback, we believe generators wish to have visibility of and understand the application of the wider tariff to the HND by Q3/Q4 2024 (if possible), to allow this to be built into their business plans and to aid any investment decisions.

Implementation approach
To be considered in the Working Group as the detailed solution is developed.

Proposer's justification for governance route
Governance route: Standard Governance modification with assessment by a Workgroup

This modification proposal has a material impact for industry parties in terms of investment decisions and associated costs, so should follow standard governance and given there may be several options to address the defect, a Workgroup is considered appropriate.

Interactions

☐Grid Code	☐BSC	☐STC	☐SQSS
☐European Network Codes	☐ EBR Article 18 T&Cs[1]	☒Other modifications	☐Other

This modification has some limited interaction with CMP419 which looks to review the generation zoning methodology which is used as part of the wider tariff.

Acronyms, key terms and reference material

Acronym / key term	Meaning
CMP	CUSC Modification Proposal
CUSC	Connection and Use of System Code
HND	Holistic Network Design
TNUoS	Transmission Network Use of System
TO	Transmission Owner
NGESO	National Grid Electricity System Operator
HVDC	High-Voltage Direct Current (HVDC) circuits
EBR	Electricity Balancing Regulation
ESO	Electricity System Operator
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions
MITS	Main Integrated Transmission System

Reference material

- A Holistic Network Design for Offshore Wind | ESO (nationalgrideso.com)
- Decision on asset classification

[1] If your modification amends any of the clauses mapped out in Exhibit Y to the CUSC, it will change the Terms & Conditions relating to Balancing Service Providers. The modification will need to follow the process set out in Article 18 of the Electricity Balancing Guideline (EBR – EU Regulation 2017/2195) – the main aspect of this is that the modification will need to be consulted on for 1 month in the Code Administrator Consultation phase. N.B. This will also satisfy the requirements of the NCER process.