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CUSC Modification Proposal Form

CMP457:

Revision of the Obligatory Reactive Power Service (ORPS)

Overview: The rising cost of ORPS provision reflects the compensation rate for ORPS, being reflective of gas prices. The increasing shift away from gas to low carbon generation requires a re-evaluation of compensation principles rather than a simple updating of values. This update to the Connection and Use of System Code (CUSC) will incorporate the output from the ORPS project to introduce a fair and transparent payment methodology.

Modification process & timetable

1	Proposal Form 11 July 2025
2	Workgroup Consultation 07 January 2026 – 04 February 2026
3	Workgroup Report 15 May 2026
4	Code Administrator Consultation 01 June 2026 – 22 June 2026
5	Draft Final Modification Report 17 July 2026
6	Final Modification Report TBC
7	Implementation 01 April 2027

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: High impact on all Generators that have agreed to be bound by the provisions of the Grid Code.

Proposer's recommendation of governance route	Standard Governance modification with assessment by a Workgroup	
Who can I talk to about the change?	Proposer: Jeremy Taylor / Stephen Dale (NESO) Jeremy.Taylor@neso.energy Stephen.dale1@neso.energy	Code Administrator Contact: cusc.team@neso.energy

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What is the issue?

All Generators that have Transmission Entry Capacity on the Transmission Network and signed up to the Grid Code have an obligation to support the System Operator in maintaining a stable and secure Transmission Network by providing Reactive Power when operating on the Transmission Network. The rate that they are compensated for their contribution was based on a network predominantly supported by fossil fuelled generation using a number of historical assumptions. National Energy System Operator (NESO) has commissioned an in-depth review of what a revised approach to the compensation for this essential service should be and the output of this work forms the basis of the modification proposal.

Why change?

Historically the production of real power in Megawatts (MW) using traditional centralised Power Station with large Generators synchronised to the network provided predictable needs and control of the Reactive Power (MVAR) provision. The compensation for Reactive Power provision utilised a number of parameters that were reflective of these power generations operational costs, including gas prices, it being the predominate fuel at the time.

Recent years have seen a continued rise in the adoption of renewable power generation and an associated growth in battery storage. The intermittent generation characteristics of these assets output, along with the non-synchronous nature of their generation further contributes to the increased unpredictability of the need for Reactive power provision.

These changing characterises of generation has also led to the shift in the generation location. Reactive power correction is a local requirement and the decommissioning of large-scale synchronous generation and the location of much of the renewable sources also creates a lack of availability for reactive generation in some regions.

It was the intention of the Obligatory Reactive Project rather to just refresh the various parameters in the current methodology, but to review the approach to Reactive Power remuneration and ensure that it was still fit for purpose for the current Network configuration and able to support developments in the Network Reactive Power requirements for the foreseeable future.

The project aims were to ensure that the Reactive Power remuneration for Generators is:

- Cost reflective for the provider and economic for the consumer

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- Fair and transparent
- Robust and able to support the network development
- Encouraging all Generators to participate and meet their Grid Code obligations.

The compensation model approach aims to compensate the providers proportionally to their operational costs and thereby removing any barrier to compliance.

What is the Proposer's solution?

The ORPS' project has identified more than one potential solution that would seem to meet the requirements above. The work of the project has identified that the current single rate model that was appropriate when the majority of generation was of the traditional large power synchronous power station was no longer cost reflective for all the generation types in the current system.

The project has sought to identify alternative approaches and currently is modelling these to establish which meets the requirements most effectively. The intention is to consult with Industry once the analysis is complete and then to build the final model for remuneration around the preferred solution.

Draft legal text

The legal text hasn't been drafted currently as the solution has not been finalised.

What is the impact of this change?

This proposal will impact all Generators connected to Transmission Network, by ensuring the compensation for provision of Reactive Power and meeting their Grid Code obligations reflects the operational costs incurred in provision.

The proposal will also impact Transmission Operators (TOs), who currently are impacted by the unpredictability of the Reactive Power availability and are investing in equipment to offset some of these constraints.

NESO is optimistic that the availability of Generators meeting their Grid Code obligations to provide Reactive Power will improve if barriers are remunerated in a cost reflective way and equipment is maintained in an effective manner. It is anticipated that the need for remedial action should be more predictable and met by the new reactive capacity products being introduced by NESO.

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Lastly by developing a new compensatory model for obligatory Reactive Power generation as outlined by the project requirements the expectation is that the consumer will benefit from a more economic procurement of the Reactive Power needs.

Proposer's assessment against CUSC Charging Objectives	
Relevant Objective	Identified impact
(d) 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 The revised approach to the compensation for obligatory Reactive Power whilst not a market driven product, will remove cost distortion between service providers in the provision of real time reactive needs under the Grid Code that has developed in the market as a result of new technologies.
(e) 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 System Operator Transmission Owner Code (STC)) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C11 requirements of a connect and manage connection);	Positive Analysis has identified that the current single rate model does not treat all participants fairly and does not recognise the benefits provided by those that do meet or exceed their obligations to manage the need for Reactive Power under the Grid Code. The modification will aim to address this.
(f) 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'	Positive The primary purpose of the project is to review the ORPS' payments to ensure they are fair and cost reflective. They are not

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transmission businesses and the Independent System Operator and Planner (ISOP) business*;	specifically targeting TO's. It aims to remove disparity in remuneration between providers of Reactive Power to the ISOP and provide a more cost reflective approach, in line with the code principles.
(g) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and	Neutral
(h) Promoting efficiency in the implementation and administration of the system charging methodology.	Positive By providing a cost reflective approach that ensures fair remuneration for the contribution suppliers make the proposal aims to remove disparity in costs incurred by the NESO which are passed onto the consumer. A secondary goal is to as far as possible remove any disparity between suppliers and encourage all providers to meet their obligations under the Grid Code.

* See Electricity System Operator Licence

**The Electricity Regulation referred to in objective (g) 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

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Improved safety and reliability of the system	Positive The current approach to Obligatory Reactive Power is no longer representative of the operational environment and has created distortion in the payment to and in some cases the provision of ORPS from service providers that isn't reflective of the costs incurred or their overall contribution, and whilst not a primary cause, potentially contributes to a lack of market liquidity and risks to voltage stability.
Lower bills than would otherwise be the case	Positive The current model is based on a set of historical parameters that are not the main cost drivers in today's operational environment. The accurate allocation of consumer resources to reward the suppliers that provide the service relative to their contribution and costs incurred should result in a more cost-effective model.
Benefits for society as a whole	Positive Reactive power costs have been growing year on year, resulting from the increasing unpredictability of the network flows and the structure of the current model that links the remuneration to generation distribution that is no longer reflective of the actual market. Corrective the model should help support work to create better predictability in the reactive market and reduce the overall cost to the consumer.
Reduced environmental damage	Neutral We do not anticipate significant change in the incentives to protect the environment. The aim is for a transparent and fair remuneration for industry to ensure all to contribute in ORPS provision to minimise the need for some gas generation instruction from NESO to meet Reactive Power needs.
Improved quality of service	Neutral No anticipated benefits

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When will this change take place?

Implementation date:

The expectation would be given the changes to ORPS would be a charging change that the modification once approved would be implemented with the new methodology being enabled from 01 April 2027.

Date decision required by

30 September 2026.

Implementation approach

The proposal would be to implement the changes in the CUSC 10 Business Days after an Ofgem approval with a view to changes taking effect from the next charging year.

Proposer's justification for governance route

Governance route: Standard Governance modification with assessment by a Workgroup – It is believed currently there are a number of outstanding questions that require industry input. Some of these may be resolved through the planned engagement by the project including webinars, Transmission Charging Methodologies Forum (TCMF) and Grid Code Development Forum (GCDF), discussions but it is seen as important that industry can ask any questions and gain understanding, so the proposal is to provision for Workgroups.

Interactions

☒ CUSC ☐ BSC ☐ STC ☐ SQSS
☐ European Network Codes ☐ EBR Article 18 T&Cs¹ ☐ Other modifications ☐ Other

Currently the belief is that the proposed modification doesn't impact any other code apart from the CUSC.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
CUSC	Connection and Use of System Code

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EBR	Electricity Balancing Regulation
GC	Grid Code
GCDF	Grid Code Development Forum
ISOP	Independent System Operator and Planner
ORPS	Obligatory Reactive Power Service
MVAR	Mega Volt–Amperes Reactive
MW	Megawatt
NESO	National Energy System Operator
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
TCMF	Transmission Charging Methodologies Forum
TO	Transmission Owner
T&Cs	Terms and Conditions