

Public

SQSS Panel

Friday, 05 December 2025

Microsoft Teams

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WELCOME

Purpose of Panel & Duties of Panel Members

4.2 Functions of the Panel

4.2.1 The **Panel** shall consider all reasonable requests to modify the **SQSS**. Such requests may be made by any of the **Members**, the **Authority** or any relevant interested person. **SQSS** Modification Proposals shall be raised via the **Secretary**.

4.2.2 The functions of the **Panel** shall be to:

4.2.2.1 keep the **SQSS** and its working under review;

4.2.2.2 evaluate and administrate modifications to the **SQSS** in accordance with procedures set out in the **Governance Framework**;

4.2.2.3 keep the **Governance Framework** and its working under review;

4.2.2.4 publish recommendations to modify the **SQSS** and the reasons for the recommendations;

4.2.2.5 recommend to the **Authority** any modifications of the **SQSS**; and

4.2.2.6 the **Panel** shall endeavour at all times to perform its functions:

- (a) in an efficient, economical and expeditious manner, taking account of the complexity, importance and urgency of a particular modification to the **SQSS**; and
- (b) with a view to ensuring the **SQSS** facilitates achievement of its objectives.

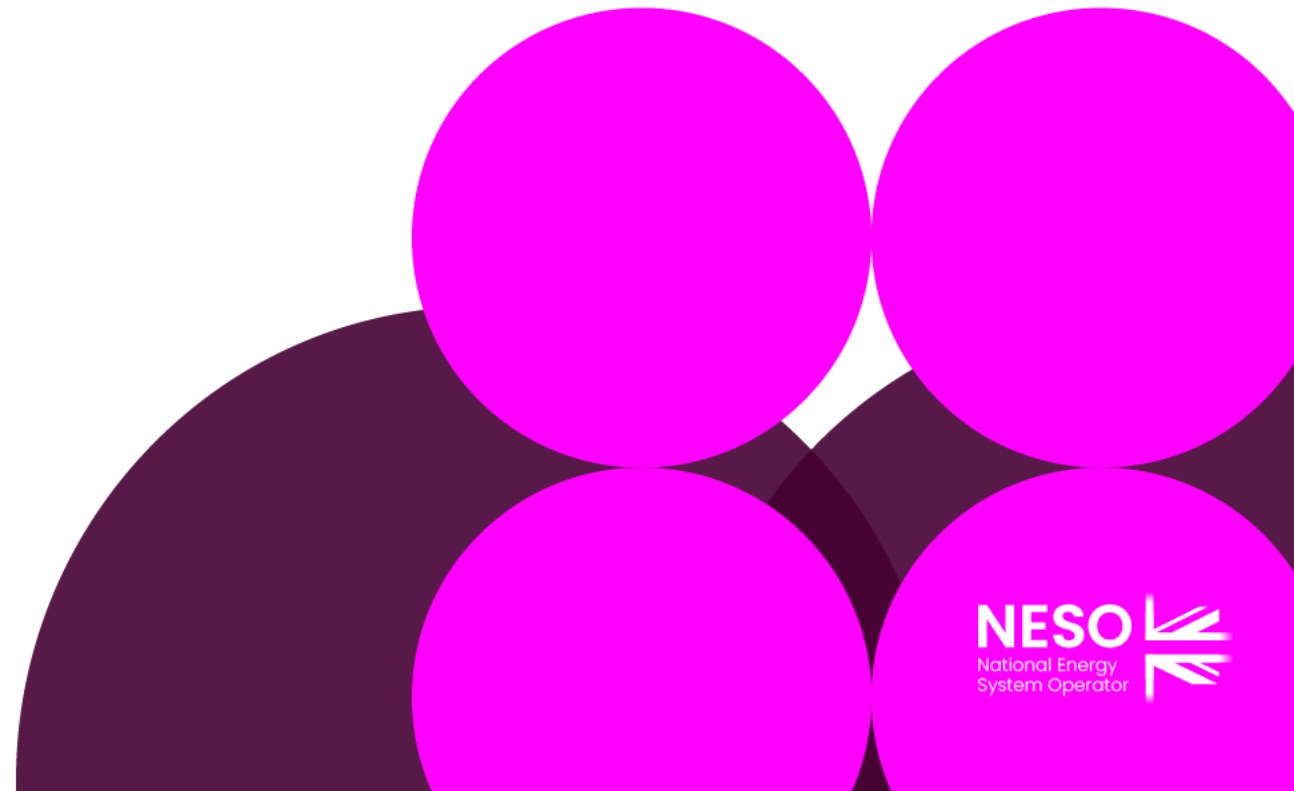
Approval of Panel Minutes

Approval of Minutes from the Meeting held on:

29 July 2025

31 October 2025

Jess Rivalland, Code Administrator



Action Log

Action number	Panel Raised	Owner	Action	Comment
40.8	Mar-24	AJ	NESO to report on progress of GC0117 and if an SQSS modification is required, when this will be raised.	Open. Pending until GC0117 solution is approved/rejected by Ofgem
43	Jul-25	DN/RM	Update SAR (System Access Reform) Transmission Acceleration slides and documentation.	Closed.
44	Jul-25	AP	Review the interaction of OFTO regulations covered by the Grid Code regarding GSR030 and discuss with the Proposer.	
45	Jul-25	JR	To share public version of slides for SAR Transmission Acceleration to the Panel.	Closed. Chair shared updated slides with stakeholders for further dissemination.
46	Oct-25	PD	Provide clarity on the status of the FRCR process and its alignment with Ofgem's consultation.	

Authority Decisions and Update

The Authority's publication on decisions can be found on their website below:

<https://www.ofgem.gov.uk/publications/code-modificationmodification-proposals-ofgem-decision-expected-publication-dates-timetable>

New Modifications

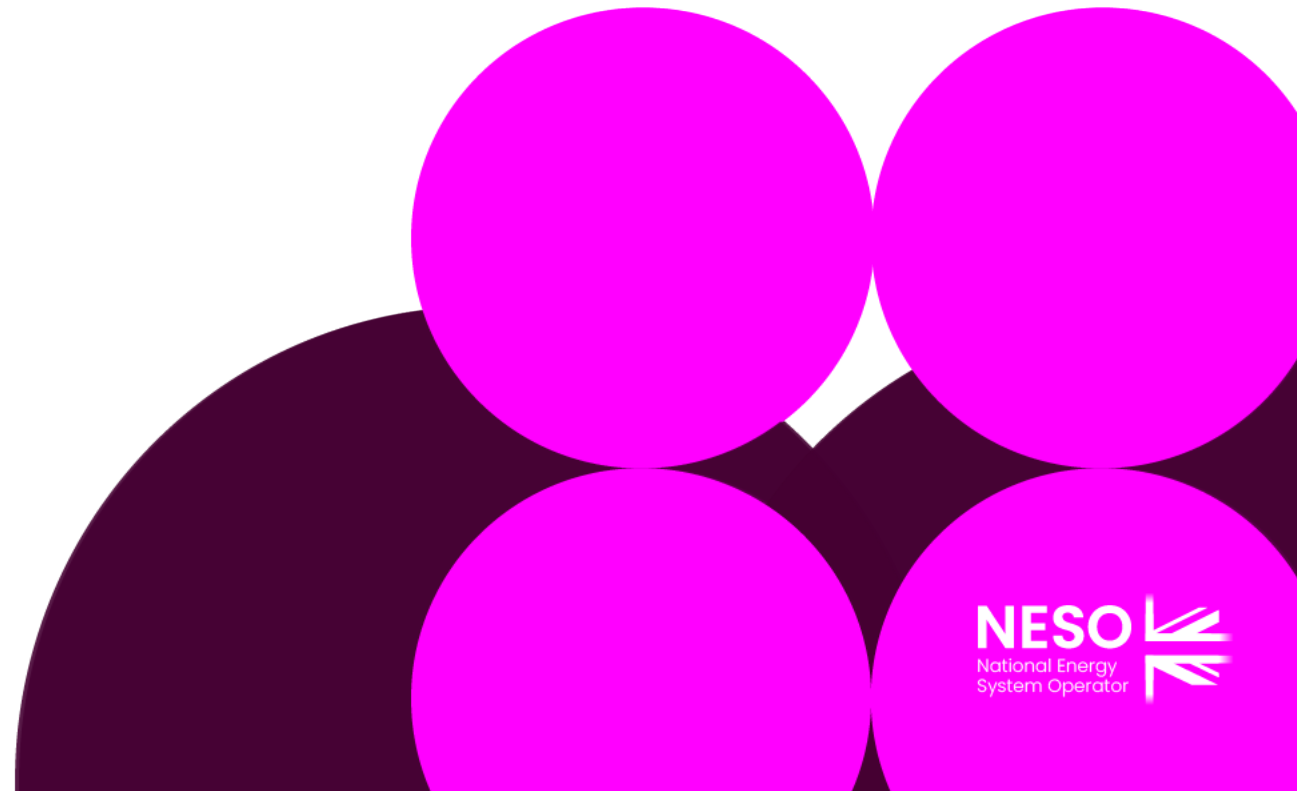
- **GSR035** – System Access Reform: Review of the operational requirement in England and Wales.
- **GSR036** – System Access Reform: Review of the voltage limits

System Access Reform SQSS Modification Proposals

GSR035 and GSR036

Dozie Nnabuife/Rich Mather/Maria Lopez

NESO



System Access Reform SQSS Modification Proposals

Dozie Nnabuike/Rich Mather/Maria Lopez

05 December 2025

An introduction to System Access Planning

In System Access Planning, NESO coordinates with TOs, DNOs and other system users to manage outages of transmission assets to facilitate system access. Our aim is to enable users to safely establish connections, upgrade the network, and maintain system security while minimising cost to consumers.

Progress to Date Transmission Acceleration (TA)

- In June 2023, the Electricity Networks Commissioner Report was published. It focused on the need to accelerate electricity transmission network build ([See full report](#))
- From the report, four recommendations were made in relation to Outage Planning with NESO assigned as the action owners:
 - OP1 – Winter Emergency Return to Service (ERTS)
 - OP2 – Security and Quality of Supply Standard (SQSS)
 - OP3 – Long Term Project Design
 - OP4 – Outage Planning Process Review
- In November of 2023, NESO initiated a project with TO's to deliver the outage planning recommendations from the Commissioner's Report
- Over the course of 2024, projects were run in parallel to determine the actions and recommendations required to deliver in these 4 outage planning areas.
- In February 2025 a public consultation was released. This consultation includes a detailed summary of each of the project workstreams and can be found on the NESO website. This consultation can be found [here](#)

Accelerating Need for Reform Clean Power 2030 (CP30)

- In order to enable the UK Government's CP30 ambition we will need to work even more strategically cross-industry to provide system access at the right times and maximise the value of each outage.
- We will require greater stability and certainty in the planning process than we have today, with greater transparency in reporting, and a continued focus on reducing waste.
- To meet the Clean Power 2030 plan, **network build must proceed at more than four times the rate of the last decade**, delivering twice as much in half the time.
- Our recommendations to Government on pathways to deliver **clean power indicate that we need 210–220GW of generation and storage** by 2030. Projections from our FES24 Holistic Transition scenario indicate that **c380GW of generation, interconnection and storage may ultimately be required by 2050**.
- System access will play a major role in the deliverability of the Clean Power 2030 plan. Action is required across industry to ensure that cohesive plans are in place to provide assurance of delivery.

We are setting up the **System Access Reform Programme** to proactively mobilise industry to accelerate TA recommendation implementation and ensure CP30 targets are achieved

Transmission Acceleration Summary

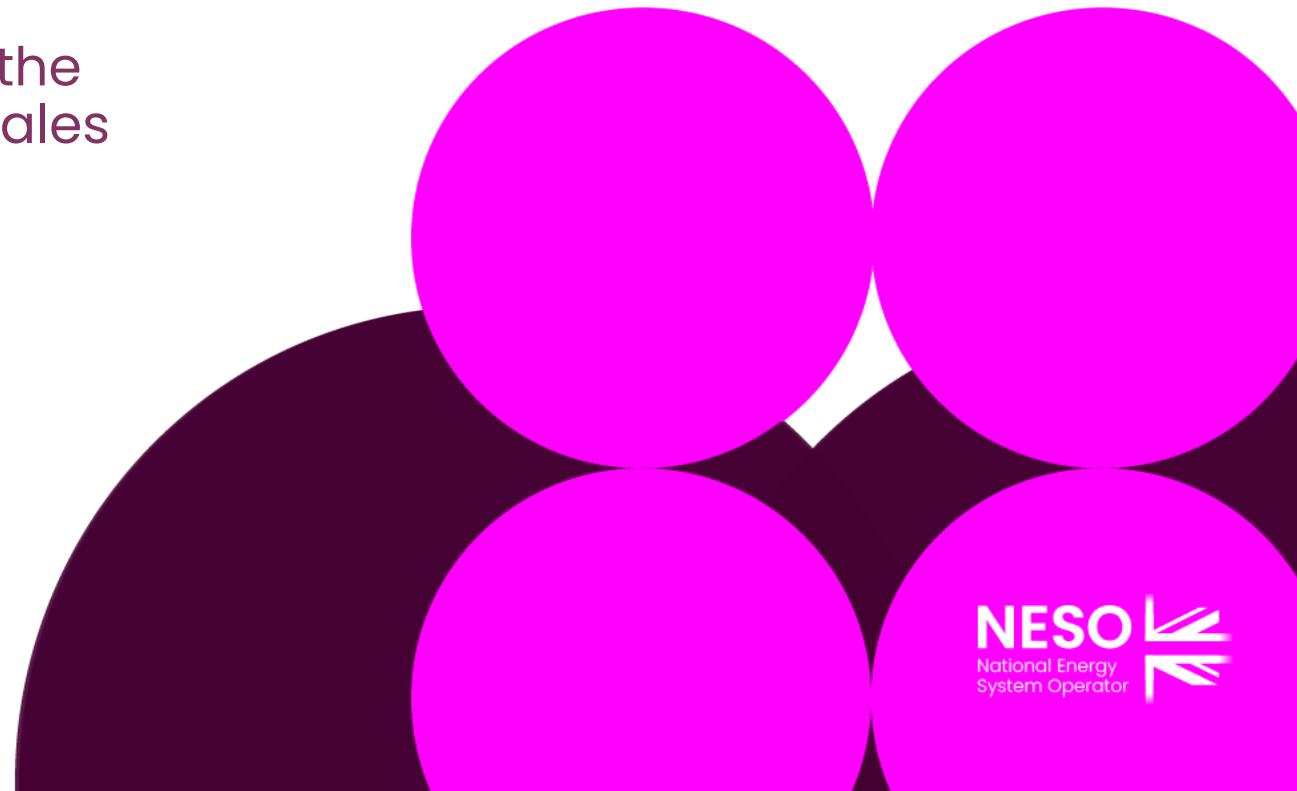


	OP1 Winter Risk	OP2 SQSS Review	OP3 Long Term Project Design	OP4 Outage Planning Review
	<p>Implement a risk-based approach to allow more outages during winter by assessing the Emergency Return to Service (ERTS) times and ensuring sufficient generation capacity to meet demand</p>	<p>Investigate opportunities to relax operational rules (e.g. network security) to allow more outages during appropriate conditions.</p> <ul style="list-style-type: none">• Thermal Constraints: Propose a probabilistic assessment which considers fault likelihood and risk mitigations.• Risk Assessment: Develop a risk assessment form with TOs, NESO to sign off on acceptable risks.• Voltage Constraints: Manage non-compliant voltage scenarios case-by-case using a risk assessment.• Thermal Overload Schemes: Explore using thermal overload schemes to simulate 'cascade tripping' in E&W	<p>Incorporate constraint costs into the assessment of project delivery options to ensure a holistic view of project costs</p>	<p>Improve the timely identification and coordination of all outage requirements and reduce foreseeable changes to outage plans</p>
Implementation	<p>NESO and Transmission Owners (TOs) will schedule outages with longer ERTS times during winter, using a robust risk assessment process</p>	<p>A probabilistic risk assessment approach will be used to identify and mitigate risks, allowing certain outages to proceed where there is a significant consumer benefit. Several proposed changes are to align existing rules from the Scottish to English system</p>	<p>NESO will provide constraint cost calculations for different build options, and these will be included in the Centralised Strategic Network Plan (CSNP) methodology</p>	<p>Develop a more strategic long-term system access plan, engage with affected parties, and enhance the transparency of the outage planning process</p>
Benefits	<p>This approach is expected to facilitate 60 additional weeks of outages during the winter period, optimizing network reinforcement and upgrade projects</p>	<p>This approach could unlock many millions of pounds of opportunity by allowing major construction schemes to progress and reducing constraint management costs. It will reduce the likelihood of emergency recalls assets during unplanned onerous conditions</p>	<p>This approach will lead to better decision-making for project build options, reduced system access requirements, and more opportunities for other essential works (e.g. offline network build)</p>	<p>This approach will identify and implement an enduring system access process that provides greater plan stability, reduces constraint costs, supports the delivery of a clean power system in 2030 and net zero beyond 2030. Reduced effort in managing plan changes.</p>

New Modification

GSR035: System Access Reform: Review of the operational requirement in England and Wales

Dozie Nnabuike, NESO



Critical Friend Feedback: GSR035

Code Administrator comments	Amendments made by the Proposer
<p>Typographical and format changes suggested</p> <p>Clarification of numbers a clauses in the SQSS</p> <p>Addition and expansion of acronyms and modification link added.</p> <p>Suggestion to elaborate on how parties are impacted. Questioned if there are any changes to normal processes as a result of this proposal.</p> <p>Advised to rethink the titles of reference material or add in links/footers to relevant sections of the document</p> <p>Possible inclusion of draft legal text as an Annex</p>	<p>Proposer agreed all suggestions.</p>

Problem Statement

1. Current SQSS rules are too rigid, blocking essential upgrades and maintenance
2. The operational criteria in Section 5 of the NETS SQSS offer limited flexibility when it comes to responding to occasions when the probability, cost, and means of meeting a certain criterion is disproportionate to the risks it prevents.

Incorporation of greater flexibility within the SQSS for thermal Constraints

- The SQSS currently dictates that NESO operates the network based on ensuring system security for the worst-case scenario regardless of the likelihood of a fault occurring depending on whether 'Normal' or 'Adverse' criteria is being applied.
- This means that all faults outlined in the SQSS are secured regardless of the frequency or the likelihood of them occurring.
- It is proposed that a more flexible approach utilising a probabilistic assessment could provide benefit in certain circumstances where there is a significant consumer benefit from the outage proceeding.
- This risk-based methodology could result in allowing works to proceed that offer a substantial benefit, such as extensive new infrastructure build that could ultimately reduce system risk when completed.
- A proposed risk assessment form has been created in collaboration with all three TOs
- If the probabilistic assessment determines that the fault likelihood is low and there are sufficient risk mitigations that have been implemented by NESO, TO, DNO or DCC with their agreement, then it will be reviewed by NESO with a view to proceeding.

Proposed Solution

Route : Standard Governance modification to with assessment by a workgroup

- Update SQSS for flexible, risk-based decision-making for network outages and constraints and this is achieved by :
- Changes to clauses 5.3, 5.4, 5.5
In doing that, clauses 5.3 and 5.5 refer to a 1500MW threshold for the demand groups that must not be affected by such disturbance. Whereas the proposal does not recommend an increase to it, there may be benefit that the Workgroup considers such increase.
- Add clause 5.11.3 to provide relaxation for specific secured events under strictly limited conditions if these are identified through a robust process approved by the Authority

GSR035 Asks of Panel

- **AGREE** that this Modification has a clearly defined defect and scope
- **AGREE** that this Modification should proceed to Workgroup
- **AGREE** Workgroup Terms of Reference
- **NOTE** the proposed timeline

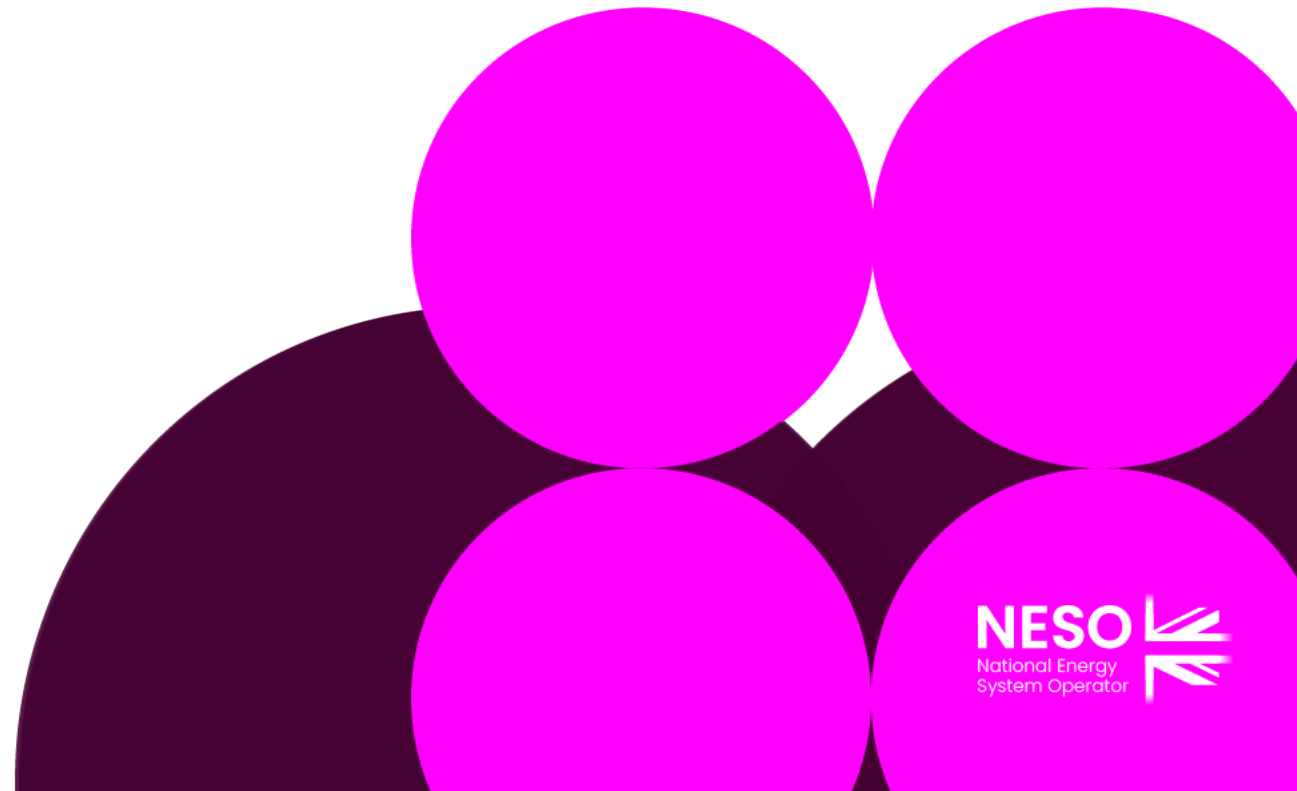
Public GSR035 Proposed Timeline

Milestone	Date	Milestone	Date
Modification presented to Panel	05 December 2025	Code Administrator Consultation (15 Business Days)	06 August 2026 to 28 August 2026
Workgroup Nominations (20 Business Days holiday period)	09 December 2025 to 09 January 2026	Draft Final Modification Report (DFMR) issued to Panel (5 Business Days)	11 November 2026
<ul style="list-style-type: none"> • Workgroup 1 – review proposal and legal text • Workgroup 2 – refine solution and build Workgroup Consultation document • Workgroup 3 – approve Workgroup Consultation document 	28 January 2026 24 February 2026 26 March 2026	Panel undertake DFMR recommendation vote	25 November 2026
Workgroup Consultation (15 Business Days)	06 April 2026 to 28 April 2026	Final Modification Report issued to Panel to check votes recorded correctly	26 November 2026 to 04 December 2026
Workgroup 4 – review consultation feedback and build Workgroup Report Workgroup 5 – Review Workgroup Report and vote	DD Month Year	Final Modification Report issued to Ofgem	08 December 2026
Workgroup report issued to Panel (5 Business Days)	15 July 2026	Ofgem decision	TBC
Panel sign off that Workgroup Report has met its Terms of Reference	27 July 2026	Implementation Date	10 Business Days after Authority decision

New Modification

GSR036: System Access Reform:
Review of the voltage limits

Dozie Nnabuike, NESO



Critical Friend Feedback: GSR036

Code Administrator comments	Amendments made by the Proposer
<p>Typographical and format changes suggested, addition and expansion of acronyms.</p> <p>Request to be consistent with governance route and provide reasoning for this choice.</p> <p>Suggestion to elaborate on how parties are impacted. Questioned if there are any changes to normal processes as a result of this proposal.</p> <p>Advised to rethink the titles of reference material or add in links/footers to relevant sections of the document</p> <p>Straight to CAC requires inclusion of legal text as an Annex</p>	<p>Proposer agreed all suggestions.</p>

Problem Statement

1. NETS SQSS Section 6 voltage limits for 200kV–300kV set too low
2. No short-term flexibility, even when safe
3. Restricts efficient upgrades and maintenance
4. Revise upper voltage limit to +10% for 275kV and similar ranges

Revert the upper voltage limit on the 275kV network back to +10%

- A working group explored the possibility of returning to the +10% on the 275kV following the decrease to +9% in February 2017.
- It was identified that the Grid Code (CC.6.1.4) and Relevant Electrical Specifications for connections to each TOs network still refer to the +10% (303kV) values and that equipment should be capable of withstanding the revised limit.
- The working group also reviewed the impact and concluded that it would be acceptable to change the current pre-fault steady state and post-fault steady state upper voltage limit for 275kV from +9% (300kV) to +10% (302.5kV) in the SQSS.
- With the additional voltage headroom from this recommendation, there will be a higher likelihood of future outages on the 275kV network proceeding. Or rather, fewer outages will be delayed as a result of voltage non-compliance

Proposed Solution

Route : Standard Governance modification to proceed to Code Administrator Consultation

Update SQSS for flexible, risk-based decision-making

- Revise upper voltage limit to +10% for 275kV and similar ranges
- Allow higher limits by agreement under certain conditions

Table 6.3 Pre-Fault Steady State Voltage Limits and Targets in Operational Timescales

(a) Voltage Limits on Transmission Networks			
Nominal Voltage	PU Value (1pu relates to the Nominal Voltage)	Minimum (percentage of Nominal Voltage)	Maximum (percentage of Nominal Voltage)
Greater than 300kV	0.95pu-1.05pu	-5% Note 6	+5%
200kV up to 300kV	0.95pu-1.09pu	-5% Note 6	+9% +10%
132kV up to and including 200kV	0.95pu-1.10pu	-5% Note 6	+10%
(b) Voltages to be Achievable at Interfaces to Distribution Networks and Non-Embedded Customers			
Any Nominal Voltage	Target voltages and voltage ranges as agreed with the relevant Distribution Network Operators or Non-Embedded Customers, within the limits of Table 6.4		

Table 6.4 Steady State Voltage Limits and Targets in Operational Timescales

(a) Voltage Limits on Transmission Networks			
Nominal Voltage	PU Value (1pu relates to the Nominal Voltage)	Minimum (percentage of Nominal Voltage)	Maximum (percentage of Nominal Voltage)
Greater than 300kV	0.90pu-1.05pu	-10%	+5% Note 7
200kV up to and including 300kV	0.90pu-1.09pu	-10%	+9% +10%
132kV up to and including 200kV	0.90pu-1.10pu	-10%	+10%
(b) Voltage Limits at Interfaces to Distribution Networks and Non-Embedded Customers			
Nominal Voltage			
132kV	0.90pu-1.10pu	-10%	+10%
At less than 132kV	0.94pu-1.06pu	-6%	+6%

GSR036 Asks of Panel

- **AGREE** that this Modification has a clearly defined defect and scope
- **AGREE** that this Modification should proceed to Code Administrator Consultation
- **NOTE** the proposed timeline

GSR036 Proposed Timeline

Milestone	Date
Modification presented to Panel	05 December 2025
Code Administrator Consultation (20 Business Days holiday period)	15 December 2025 – 15 January 2026
Draft Final Modification Report (DFMR) issued to Panel (5 Business Days)	21 January 2026
Panel undertake DFMR recommendation vote	28 January 2026
Final Modification Report issued to Panel to check votes recorded correctly	30 January 2026
Final Modification Report issued to Ofgem	09 February 2026
Ofgem decision	TBC
Implementation Date	10 Business Days after Authority decision

Inflight Modification Updates

- **Timeline update** – GSR029: Review of Demand Connection Criteria to Align with EREC P2/7
- **Timeline update** – GSR030: Offshore DC Connections
- **Terms of Reference update** – GSR030: Offshore DC Connections

GSR029: Review of Demand Connection Criteria to Align with EREC P2/7

	Workgroup Report issued to Panel	DFMR issued to Panel	FMR issued to Ofgem	Decision Date	Implementation Date
Previous timeline	25 March 2026	27 July 2026	11 August 2026	TBC	TBC
New timeline	16 September 2026	25 November 2026	17 December 2026	TBC	TBC

Rationale: The solution requires further development.

Workgroups Remaining: 6

GSR029 – the asks of Panel

- **AGREE:** revised timeline.

GSR030: Offshore DC Connections

	Workgroup Report issued to Panel	DFMR issued to Panel	FMR issued to Ofgem	Decision Date	Implementation Date
Previous timeline	11 March 2026	15 July 2026	13 August 2026	TBC	TBC
New timeline	13 May 2026	15 July 2026	14 August 2026	TBC	TBC

Rationale:

Defect 1 has been removed from GSR030 and is now a proposal in its right (GSR034). The Workgroups for GSR030 will commence and concentrate on the remaining defects.

Workgroups Remaining: 7

GSR030– the asks of Panel

- **AGREE** revised timeline

GSR030: Offshore DC Connections

The Workgroup would like reflect the following within their Terms of Reference:

Amended Workgroup Terms of Reference

- a) Consider risk-based approach for the specification of any restriction on the loss of infeed risk associated with multiple cables sharing the same route.
- b) Consider retrospective impact on existing cables.
- c) Consider retrospective impact on existing cables, including both AC and DC cables.
- d) If there is no reliability data available, consider alternative ways of assessing the risks and the benefits for the increase of the loss of infeed risk. – remove relates to defect 1

GSR030 – the asks of Panel

- **AGREE** the amended points within Terms of Reference

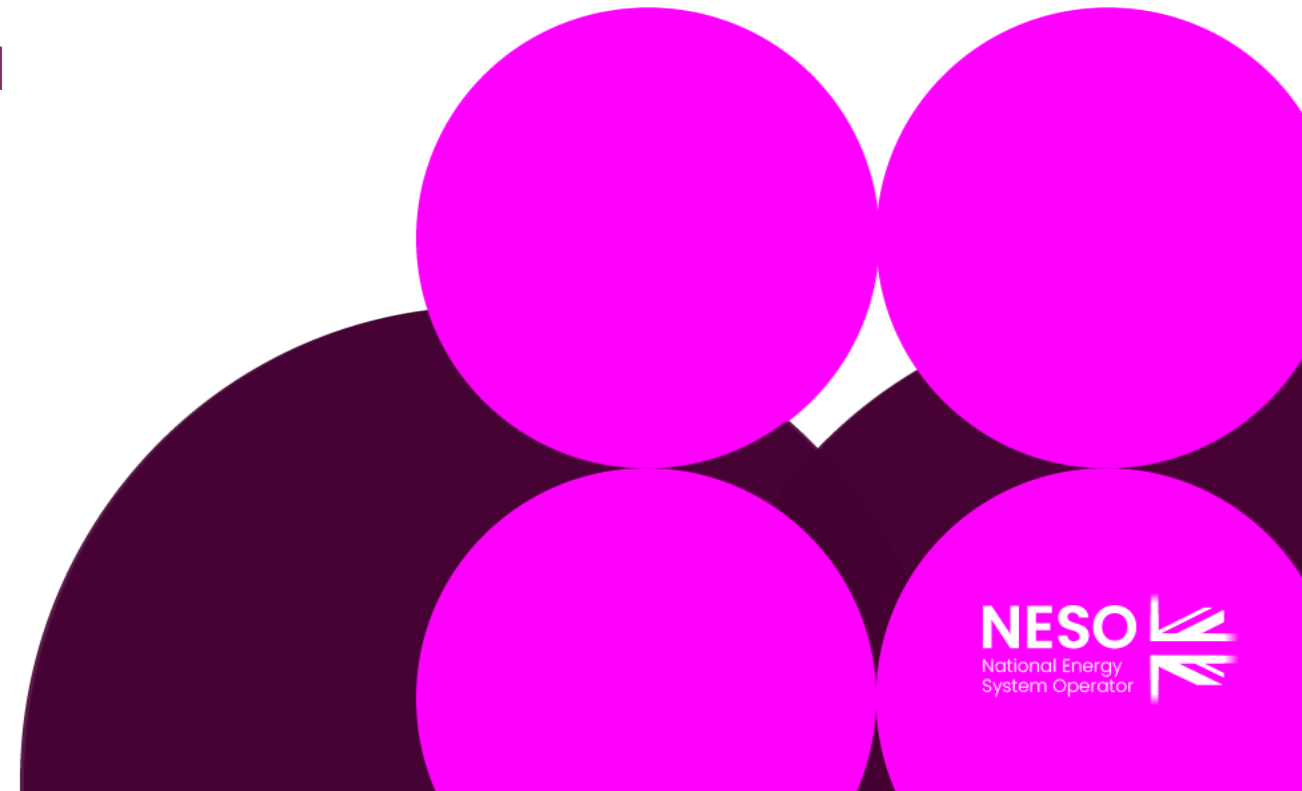
Draft Modification Reports

- **GSR034:** Review of Loss of Power Infeed Risk for Offshore DC Converter

Draft Final Modification Report

GSR034: Review of Loss of Power Infeed
Risk for Offshore DC Converter

Jess Rivalland, Code Administrator



Key points to note

- This amendment is suggested to evaluate the 1320MW limit on power infeed loss resulting from outages of offshore DC converters.
- Initially included in GSR030, it was later removed to enable progress, as the solution had been approved but was delayed due to further discussion relating to other defect within the proposal.
- Following the Code Administrator Consultation, the solution was updated to improve clarity as requested by one respondent. The solution and legal text remain unchanged.

Solution

Assessment of Impacts:

- There will be a short-term increase in frequency response costs to maintain system stability after large generation losses (e.g., 1800MW of offshore wind).
- This cost is expected to become negligible once new nuclear units are operational.
- The number of events where system frequency drops below 49.5Hz may increase, depending on the reliability and number of high-capacity DC converters. If this becomes significant, additional frequency response services will be procured to keep events within acceptable limits.
- The cost for these frequency response services is capped at approximately £12 million per year, based on current market prices.

Benefits:

- The proposal is expected to deliver £5.6 billion in savings.
- It will reduce the environmental footprint of offshore connections by 33%.
- It will cut CO₂ emissions by 2 million tonnes between 2030 and 2032.

Conclusion:

The operational impacts are manageable, the costs are relatively low compared to the benefits, and the change will facilitate significant economic and environmental gains. Therefore, it is proposed to update the relevant SQSS clauses to refer to the infrequent loss of infeed risk instead of the normal loss of infeed risk. Dynamic Containment is identified as the likely frequency response service to manage the associated risks.

Code Administrator Consultation Responses

Summary of Code Administrator Consultation Responses:

The Code Administrator Consultation was run from 05 November to 19 November and received four non-confidential responses and 0 confidential responses.

Key points were:

- All four respondents were supportive of both the proposal and the implementation approach. One respondent highlighted that the implementation approach aligns with current NESO processes and therefore did not anticipate any major obstacles.
- Reasons in support of the proposal included:
 - Expected to improve transmission network development
 - Lower consumer costs
 - Supports the move to Net Zero
 - Reduces environmental impacts
- Two respondents highlighted that although frequency excursions may rise, mitigation is feasible, and the benefits outweigh the costs.

GSR034 Asks of Panel

- **VOTE** whether or not to recommend implementation
- **NOTE** next steps

GSR034 Next Steps

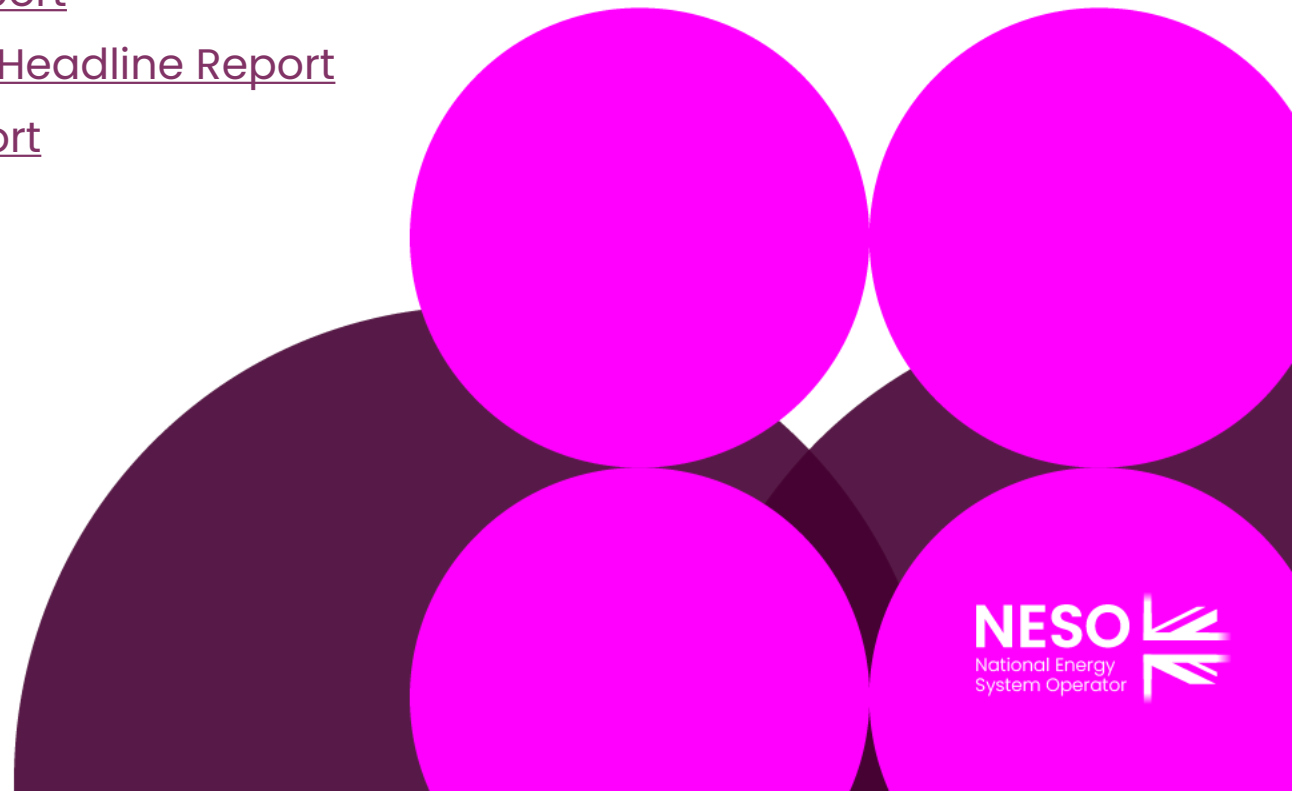
Milestone	Date
Final Modification Report issued to Panel to check votes recorded correctly (5 Business Days)	08 December to 15 December 2025
Submission of Final Modification Report to Ofgem	16 December 2025
Ofgem decision date	TBC
Implementation Date	10 Business Days after Authority decision

Updates on other industry codes

31 October 2025 CUSC [Panel Papers and Headline Report](#)

30 October 2025 Grid Code Review [Panel Papers and Headline Report](#)

29 October 2025 STC [Panel Papers and Headline Report](#)



Any other business

Activities ahead of the next Panel Meeting

Modification Proposal Deadline for November Panel	07 January 2026
Papers Day	14 January 2026
Panel Meeting	28 January 2026 Teams

Close

Jess Rivalland
Chair, SQSS Panel