

SQSS Panel

Wednesday, 27 May 2026

Microsoft Teams

Public

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 SQSS Panel held on 24 March 2026 and Special Panel meeting held on 28 April 2026

Action Log

Action Log

Action number	Panel Raised	Owner	Action	Comment	Due by	Status
40.8	Mar-24	AJ	ESO to report on progress of GC0117 and if an SQSS modification is required, when this will be raised.	28.04.26 AJ gave an update: The Workgroup is rerunning the cost-benefit analysis (CBA) using the latest data and has sought stakeholder feedback on key sensitivities. Further updates will be provided as the CBA progresses. No further action is expected until Ofgem decides on the GC117 send-back.	TBC	Open
42	Sep-24	AG / PD	AG to talk to Ofgem Lawyers for clarification of "Company" / Code references within licence/code	SMC to add to housekeeping modification	TBC	Open
47	Dec-25	GG	5.12.25 GG to consider the necessity of drafting a consequential SQSS Modificaiton alongside GC0117	GG advised not in a position to raise an SQSS Mod until the GC0117 send back has been completed.	TBC	Open
48	24-Mar	All	Review updated GSR036 proposal, legal text, and case studies and provide comments	Panel to review		Open

Action Log

Action number	Panel Raised	Owner	Action	Comment	Due by	Status
49	24-Mar	SMC	SMC to organise and run an informal SQSS housekeeping / formatting workshop for GSR 037 prior to modification going straight to CAC.	28.04.26 CN updated the Panel and confirmed SMC had held three to four workshops with interested parties. The Panel noted the engagement to date and that the work is nearing completion.		Open
52	28-Apr	TP	To review historic minutes/notes to confirm intent, and (2) liaise with SMC with regard to including any needed text changes in the next housekeeping modification, with an update at the May Panel	Passed to SMC to add to Housekeeping Mod	May Panel	Open
53	28-Apr	BJ/CW	BJ/CW to give Ofgem view on FRCR Governance		May Panel	Open
54	28-Apr	TP	To send out request (via Teams) to each Panel member to identify their preferred FRCR option(s) for 2027 and longer term.	Completed	May Panel	Open
55	28-Apr	NESO/FRCR Team	NESO/FRCR team: consider viable options in light of wider process changes (incl. code manager context).	For discussion at future Panel	TBC	Open

Authority Decisions and Update

No new decisions have been made on SQSS modifications since the last Panel meeting.

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

[Energy codes | Ofgem](#)

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[Energy codes | Ofgem](#)

New Modification

GSR036: System Access Reform:
Review of the voltage limits

Dozie Nnabuife (NESO)

Critical Friend Feedback: GSR036

Code Administrator comments	Amendments made by the Proposer
<p>Suggested making paragraphs shorter for readability</p> <p>Consistency in the word used "Proposal or Modification"</p> <p>Review of font size used throughout</p> <p>Updated Acronyms</p> <p>Annex suggestions for paragraph shortening of wording</p>	<p>The Proposer accepted the Critical Friend Check and returned documents updated as required and chose not to change the paragraph detail.</p>

GSR036 Impact Assessment

Introduction

- **GSR036 proposes reverting the 275kV upper voltage limit from +9% to +10%**, restoring the pre-2017 SQSS position
- **The current +9% limit constrains transmission development**, slowing outage planning and network growth needed for 2030 and 2050 targets.
- **The change has a medium industry impact**, could benefit Transmission Owners, NESO, Network Operators, Interconnectors, and Generators by enabling more efficient outage scheduling, fewer rejections, and faster grid connections without compromising asset integrity.

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

Proposed Solution

Route : Standard Governance modification to proceed to Code Administrator Consultation Update SQSS

- Revise upper voltage limit to +10% for 275kV and similar ranges

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 1.10pu	-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	0.95pu-1.09pu 1.10pu	-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%

Impact on resilience and 275KV steady state voltage increase

- **No material impact on system resilience** is anticipated from increasing the 200–300 kV SQSS voltage limits, based on TO's consent.
- **Reverting the 275 kV upper voltage limit to 1.1pu (302.5 kV)** restores the pre-2017 SQSS position and corrects a temporary deviation introduced to align with EU standards.
- **The change is supported by Transmission Owners and NESO**, aligns with Grid Code CC.6.1.4, and reflects voltage levels already used in practice on 275 kV networks.
- **Transmission equipment is designed to withstand 1.1 pu**, with negligible impact on generation, as relevant electrical specifications already reference this capability.

[Transmission Acceleration Public Consultation | National Energy System Operator](#)

Case Studies

- **Case studies illustrate the operational impact** of increasing the 275 kV voltage limit, using scenarios derived from NESO's Voltage Event Reports (VER).
- **No real system events have exceeded the current +9% limit at 275 kV**; all examples are based on calculated voltages from Power Network Analyser (PNA) simulations representing insecure fault conditions.
- **Voltage issues are typically identified first on the 400 kV network**, due to its stricter +5% limit, prompting operational actions before 275 kV voltage limits are reached.

Case Study 1

- **Outage combinations in West London and South Wales led to elevated post-fault voltages**, reaching 300–301 kV at two West London substations, slightly exceeding the current +9% (300 kV) limit under lightly loaded overnight conditions.
- **Voltage control options were limited**, with an interconnector STATCOM unavailable and a Voltage Control Circuit (VCC) required to remain in service, reducing operational flexibility.
- **Operational mitigations were assessed but not viable in real time**, as the only action capable of reducing voltage within current limits introduced unacceptable additional demand (single-circuit) risk.
- **Under the proposed +10% limit (302.5 kV), the scenario would be compliant and secure**, allowing the outage to proceed without additional intervention, with demand security maintained through reinstatement of the VCC.

Case Study 2

- **Elevated post-fault voltages were observed in the West Midlands** following changes in wind generation output, reducing north–south power flows and increasing system voltage gain, with a worst-case voltage of **304 kV** at a key substation under low overnight demand.
- **Mitigation options were limited**, as the affected substations had restricted access to reactive compensation or controllable generation, and no tested operational actions successfully reduced voltages to within secure limits.
- **The most severe contingency was a double-circuit fault**, resulting in post-fault voltages exceeding both the current and proposed +10% operational limits.
- **The exceedance was driven by system conditions rather than asset design**, and while the +10% limit would not resolve this specific scenario, it would provide greater operational flexibility and reduce constraints for lower-magnitude voltage events.

Case Study 3

- **High post-fault voltages were simulated in the Northwest** following a traffic-related loss of a single circuit and synchronous compensation, with regional generation unavailable due to planned outages under low overnight demand.
- **A subsequent double-circuit contingency resulted in voltage exceedances**, reaching 302 kV at the most affected substation and 301 kV at a secondary site, indicating an insecure condition under current limits.
- **The scenario represents a low-probability Mult contingency**, combining a planned outage, a fault-induced outage, and an additional double-circuit event, with post-fault voltages in the +9% to +10% range.
- **Under the proposed +10% post-fault voltage limit, all voltages would remain secure**, removing the need for a Voltage Event Report (VER) and improving security of supply and operational resilience during rare contingency events

Case Study 4

- **Simulated overnight conditions in the Northeast of England** showed elevated post-fault voltages when key generators and reactive compensation equipment were unavailable, with a worst-case voltage of ~301 kV following a single-circuit contingency.
- **The scenario represents a medium-probability event**, combining unavailability of strategically significant generation, loss of reactive equipment, and a subsequent single-circuit fault, with voltages reaching between +9% and +10% of nominal.
- **Under the proposed +10% post-fault voltage limit**, the system would remain within secure operating thresholds, avoiding a security or compliance issue.
- **The increased limit enables reactive equipment outages** (e.g. reactors) to be scheduled without compromising stability, reducing unnecessary operational costs and improving system flexibility.

Conclusion

- **Transmission assets are designed to withstand 1.1pu (302.5 kV)**, consistent with Grid Code CC.6.1.4 and existing electrical specifications, which continue to reference this capability.
- **Case studies demonstrate systemwide benefits** from increasing the post-fault voltage limit to +10%, enabling more outages to proceed without breaching SQSS security criteria.
- **Operational efficiency is improved**, with fewer unnecessary interventions and Voltage Event Reports (VERs), and reduced reliance on additional generation dispatch or reactive support.
- **Overall system security and resilience remains**, as increased voltage margins improve flexibility during abnormal conditions, support demand security, and contribute to a more robust energy infrastructure.

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	20 May 2026
Code Administrator Consultation (15 Working days)	25 May 2026 - 12 June 2026
Draft Final Modification Report (DFMR) issued to Panel (5 working days)	13 July 2026
Panel undertake DFMR recommendation vote	28 July 2026
Final Modification Report issued to Ofgem	11 August 2026
Ofgem Decision	TBC
Implementation date	10 Business Days after Decision

Inflight Modification Updates

- GSR037 Timeline Update
- GSR038 Withdrawal

GSR037 'Formatting and Housekeeping' Timeline Update

	Code Administrator Consultation	DFMR issued to Panel	FMR issued to Ofgem	Decision Date	Implementation Date
Previous timeline	27 March 2026 – 21 April 2026	12 May 2026	04 June 2026	TBC	10 Business Days after Authority decision
New timeline	19 May 2026 – 16 June 2026	14 July 2026	05 August 2026	TBC	10 Business Days after Authority decision

Rationale: The Code Administrator Consultation has been delayed due to an informal meeting being required to resolve additional questions.

Workgroups Remaining: n/a

GSR037– the asks of Panel

- **AGREE** revised timeline

GSR038: 'Single Transformer Offshore AC Substations' Withdrawal

The Proposer withdrew their support for GSR038 on 20 March 2026. A withdrawal window was opened up for 5 Business Days from this date.

No parties came forward to become the Proposer for this Modification.

GSR038 – the asks of Panel

- **AGREE** that the Modification can be withdrawn

Updates on other industry codes

23 April 2026 Grid Code Review [Panel Papers and Headline Report](#)

24 April 2026 CUSC [Panel Papers and Headline Report](#)

29 April 2026 STC [Panel Papers and Headline Report](#)

Any other business

- **Prioritisation** – [Establishing a harmonised prioritisation process in the Industry Codes: statutory consultation](#)

The Prioritisation Framework

Three Prioritisation Criteria:

1. Alignment with SDS

Does the modification support “Act now”, “Think and plan”, or “Listen and wait” policy areas?

2. Importance

Value, risk, criticality to stakeholders, and systemic impact

3. Complexity

Level of resource, system/process change, cross-code impact, and implementation effort

Two Prioritisation Categories:

1. **Standard Priority:** Follows typical timelines; may pause if dependent on other changes

2. **High Priority:** Requires faster progression but not necessarily urgent

Equal Weighting: All criteria are considered equally in determining priority

Relative prioritisation: Mods assessed against other live proposals to make sure ‘high priority’ reserved for most pressing proposals

**Urgent
modification
process
remains the
same**

Activities ahead of the next Panel Meeting

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

Close

Teri Puddefoot
Chair, SQSS Panel