

National Electricity Transmission System Security and Quality of Supply Standard (“SQSS”) GSR036 – System Access Reform: Review of the voltage limits

Decision:	The Authority ¹ approves ² the proposed changes to the National Electricity Transmission System Security and Quality of Supply Standards (SQSS)
Target audience:	National Electricity System Operator (NESO), the SQSS Panel, SQSS Users, and other interested parties
Date of publication:	2 October 2026
Implementation date:	10 business days after the Authority decision

Background

System access is the coordinated management of taking sections of the National Electricity Transmission System (NETS) out of service, whether for maintenance, new generation connections, or essential upgrades. The current system access arrangements lack the flexibility required to support the scale and pace of transmission network development needed to meet the Clean Power 2030³ and 2050 Net Zero targets⁴. There is a view that the existing rules governing system access are overly restrictive and were not designed to accommodate the delivery of infrastructure at a rate several times greater than historical norms.

¹ References to the “Authority”, “Ofgem”, “us”, “we” and “our” are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day-to-day work. This decision is made by or on behalf of GEMA.

² This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

³ [Clean Power 2030 Action Plan - GOV.UK](#)

⁴ [Net Zero Strategy: Build Back Greener - GOV.UK](#)

To achieve this acceleration, it will require a strategic evolution of existing frameworks, which has given rise to the System Access Reform programme⁵ led by NESO in collaboration with National Grid Electricity Transmission, Scottish Power Transmission and Scottish Hydro-Electric Transmission. This programme seeks to transform system access planning, setting a new standard for efficiency, coordination and transparency.

GSR036 is the first SQSS code modification stemming from the System Access Reform programme and addresses the voltage limits that apply to operational timescales on the 200 kV to 300 kV transmission network. Section 6 of the SQSS defines the upper voltage limit applicable to the 275 kV network as +9%. This limit was reduced from +10% to +9% in 2017 following the Fundamental SQSS Review⁶ in 2010 and was then extended to the wider 200 kV to 300 kV voltage range. This change was informed by asset standards in place at the time.

The Final Modification Report (FMR)⁷ explains that the +9% limit has become a primary driver of outage rejections, particularly where large power stations are unavailable or voltage control equipment is out of service alongside major network reinforcement works. As a result, the current voltage limits can delay the delivery of critical projects. NESO studies using the Power Network Analyser tool have identified multiple outage cases that would have been rejected because they did not comply with the existing +9% limit. These simulated studies typically resulted in voltages reaching close to +10% (302.5 kV). The FMR states that these recent NESO studies demonstrate that a post-fault voltage limit of +10% is technically feasible on the 275 kV network, with Transmission Licensees confirming their 275 kV networks are designed to operate at +10%. Directly connected generators and demand customers continue to operate within established design tolerances, as their equipment is already required to withstand voltages up to +10% in accordance with Grid Code Connection Condition CC 6.1.4 and European Connection Condition ECC 6.1.4.

⁵ [System Access Reform | National Energy System Operator](#)

⁶ [26100-Working Group Report 4 Review of Planning and Operational Contingency Criteria.pdf](#)

⁷ [GSR036: System Access Reform: Review of the voltage limits | National Energy System Operator](#)

The FMR assesses GSR036 as having a medium impact on Transmission Licensees, NESO, Distribution Network Operators, Non-Embedded Customers, Offshore Transmission Owners, interconnector operators and generators. It states that impacts on Non-Embedded Customers are expected to be minimal because the proposed change remains within standard equipment design margins and existing Grid Code limits. The report does not quantify financial savings, but states that directly observable financial impacts are expected to be modest and that case studies show possible cost efficiencies from reducing reliance on generators operating solely for voltage support.

The modification proposal

NESO raised GSR036 on 20 May 2026. The proposal seeks to amend the SQSS by increasing the upper operational pre-fault and post-fault voltage limit for the 200 kV to 300 kV network from +9% to +10%, such that operation up to +10% would become compliant within the SQSS standard. Operation above +10% would remain non-standard and would continue to be managed through existing SQSS and Grid Code arrangements, requiring agreement with all affected parties. The proposal does not amend the Grid Code and does not introduce a new system risk assessment process. The Proposer identified a positive impact against the SQSS Applicable Objectives (Objectives) (a), (b), (c) and (d)⁸ citing improvements to outage planning and deliverability, thereby supporting more efficient network upgrades, and alignment with EU Regulations.⁹

Code Administrator Consultation

The Code Administrator Consultation (CAC) was issued on 12 June 2026 and closed on 3 July 2026. It received three non-confidential responses, no confidential responses, and no late responses. All respondents considered that the GSR036 Original Proposal better facilitates the Objectives. Two respondents supported the proposed implementation approach. One

⁸ The Applicable SQSS Objectives are set out in Appendix J, paragraph J.3.1 of the [SQSS Code document](#).

⁹ [Commission Regulation \(EU\) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation \(Text with EEA relevance\)](#)

respondent supported the modification but raised concerns that the implementation approach lacked sufficient detail. To address the concerns raised, the Proposer clarified that implementation activities are expected to be limited. Should the proposal be approved by Ofgem, NESO will communicate the revised limits to relevant stakeholders, confirm any documentation updates and consider whether affected Users should review existing alarm or protection settings. Respondents also provided minor editorial comments on the legal text and asked questions about implementation timing, which were addressed,

SQSS Panel¹⁰ recommendation

The SQSS Panel carried out its recommendation vote on 28 July 2026. All seven Panel members voted unanimously that the Original Proposal should be implemented. All Panel members identified a positive impact against Objective (a), while six of the seven Panel members identified positive impacts against Objective (b), two identified positive impacts against Objective (c) and no Panel members identified positive impacts against Objective (d). No Panel members identified a detrimental impact against any Objective.

Our decision

We have considered the issues raised by the proposal and the FMR. We have considered and taken account of the responses of the SQSS Panel included in the FMR. We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the Objectives (a) and (b) and has a neutral impact on the other Objectives

¹⁰ The SQSS Panel is established and constituted from time to time pursuant to and in accordance with Appendix J, paragraph J.2.5 of the [SQSS Code document](#).

- directing that the modification be made is consistent with our principal objective, Strategic Direction Statement (SDS)¹¹ and statutory duties¹²

Reasons for our decision

We consider this modification proposal will better facilitate Objectives (a) and (b), and has a neutral impact on Objectives (c) and (d). This change aligns with our priority to accelerate the delivery of onshore network projects set out in our SDS. Our reasons are set out below.

(a) *facilitate the planning, development, and maintenance of an efficient, coordinated, and economical system of electricity transmission, and the operation of that system in an efficient, economic, and coordinated manner*

We consider that GSR036 better achieves Objective (a) by facilitating the development and maintenance of the electricity network. The modification proposal increases the standard upper operational voltage limit from +9% to +10% for the 200 kV to 300 kV network. The FMR states that the existing +9% limit can delay outages, require Voltage Event Reports, and require synchronous generation to run solely for reactive power support. The case studies referred to in the FMR show that some outage combinations rejected under the existing +9% limit would fall within the standard operating envelope under a +10% limit. The FMR also highlights that, for this change to be implemented efficiently, co-ordination and communication with all affected parties would be undertaken. We agree that this addresses the concerns raised by industry stakeholders at the CAC. We expect this change to improve outage planning flexibility and support more efficient delivery of maintenance and reinforcement works.

(b) *ensure an appropriate level of security and quality of supply and safe operation of the National Electricity Transmission System*

¹¹ Objective 6.1 [Second-preliminary-Strategic-Direction-Statement-for-industry-codes-2026.pdf](#)

¹² The Authority's statutory duties are wider than matters that the Panel must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

We consider that GSR036 better facilitates Objective (b). The modification proposal does not permit operation above +10% within the SQSS standard. Operation above +10% would remain non-standard and continue to be managed through existing SQSS and Grid Code arrangements, requiring agreement with all affected parties. The FMR states that voltages up to +10% remain within equipment capability and are consistent with Grid Code provisions requiring directly connected generators and demand customers to withstand voltages up to +10%. Increasing the threshold to +10% allows the full technical capability of the plant and network assets to be utilised enabling a more appropriate level of security and quality of supply. We agree with the Proposer that the change improves outage planning by clarifying compliant operation under the SQSS and reduces reliance on exceptional arrangements for routine scenarios, thereby improving operational safety. On that basis, in our view, the modification proposal better facilitates this Objective by aligning the pre and post fault voltage limits with equipment design limits.

(c) *facilitate effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity*

We consider that GSR036 has a neutral impact on Objective (c). The FMR states that the proposal can indirectly support effective competition by enabling transmission maintenance and upgrade work to be undertaken more efficiently, supporting a more predictable and available transmission system. This enhanced system access supports the timely delivery of generation connections and allows more asset and system outages to progress concurrently. By increasing the availability of generation through timely enabling outages for energisation and maintenance, this may enable reliable longer-term operation, thereby facilitating effective competition. However, the FMR does not quantify competition benefits and does not state that all outages would benefit equally. We have therefore placed limited weight on this Objective, considering the effect to be neutral. Although improved outage planning and reduced voltage-related constraints can support the availability of the transmission system for generation and supply over time, we do not think sufficient evidence is available at this time to consider the impact positive.

(d) *facilitate electricity Transmission Licensees to comply with any relevant obligations under Assimilated Law*

We note the Proposer considers this modification proposal to positively impact against this Objective, citing the alignment with EU regulations and the European Electricity Network Codes retained in UK law. However, we agree with the Panel that GSR036 has a neutral impact on Objective (d). The FMR states that the modification neither alters nor expands licensees' statutory duties under Assimilated Law and therefore our view is that the modification proposal has a neutral impact on this Objective.

Decision notice

In accordance with Standard Condition E7 of Annex E - Electricity System Operator Licence Conditions and the National Electricity Transmission System Security and Quality of Supply Standard as in force at the relevant time, the Authority hereby directs that modification proposal GSR036: 'System Access Reform: Review of the voltage limits' be made.

Shilen Shah

Head of Strategic Planning, Codes and Standards

Signed on behalf of the Authority and authorised for that purpose