

Workgroup Consultation		
GSR035: System Access Reform: Review of the operational requirements on the Onshore Systems Overview: This modification seeks to review the operational criteria to enhance system access through the appropriate treatment of low probability low impact events, through limited time relaxation of the operational criteria under certain conditions.	Modification process & timetable 1 2 3 4 5 6 7 Proposal Form 06 November 2025 Workgroup Consultation 21 September 2026 – 12 October 2026 Workgroup Report 10 November 2026 Code Administrator Consultation 26 November 2026 – 24 December 2026 Draft Final Modification Report January 2027 Final Modification Report February 2027 Implementation 10 Business Days after Authority decision	
	Have 5 minutes? Read our Executive summary Have 60 minutes? Read the full Workgroup Consultation Have 120 minutes? Read the full Workgroup Consultation and Annexes. Status summary: The Workgroup are seeking your views on the work completed to date to form the final solution to the issue raised. This modification is expected to have a: Medium impact on Transmission Owners, (TOs), National Energy System Operator (NESO), Network Operators (DNOs), Non-embedded Customer, Interconnectors and Generators.	
Governance route	Standard Governance modification with assessment by a Workgroup.	
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How do I respond?	Send your response proforma to box.sqss@neso.energy by 5pm on 12 October 2026	

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Executive Summary

This modification seeks to introduce a risk-based mechanism (via a new Security and Quality of Supply Standard (SQSS) paragraph 5.11.3) to allow limited relaxation of SQSS operational criteria for low-probability events, enabling additional outages to proceed without materially undermining system security. The current version of the SQSS is founded on a deterministic framework, designed to ensure that the transmission system is securely operated under defined conditions, it does not seek to prohibit taking outages; rather it establishes clear and consistent criteria governing system access and the level of security that must be maintained during outages. However, the deterministic nature of these criteria implies that all outages should be treated uniformly, irrespective of their likelihood of occurrence or the magnitude of their potential impact.

The modification proposes to introduce a complementary approach by incorporating probabilistic considerations into the assessment of system security in limited scenarios. In doing so, it does not replace the existing deterministic framework but augments it by enabling a more bespoke evaluation of risk, whereby both the probability and impacts of events are explicitly considered. The application of a probabilistic approach, when the application of the present deterministic approach is considered to be to risk adverse, facilitates a more proportionate interpretation of system security requirements, allowing operational decisions to reflect the actual level of risk, observable under specific conditions, while retaining the overarching objective of maintaining system resilience, reliability and flexibility.

What is the issue?

The current SQSS operational criteria require all secured events to be treated equally, even where the likelihood and impact of certain faults are very low, which can unnecessarily restrict outages, including those required for essential maintenance and network upgrades. This lack of flexibility can delay network development, increase operational costs, and ultimately lead to higher consumer bills. The current SQSS operational framework is based on deterministic criteria by requiring compliance with predefined security standards without explicit consideration of event probability. While this approach may prevent certain outages from proceeding, it does so in order to maintain robustness

and prevent exposure to low-likelihood events, thereby prioritising system resilience over operational flexibility.

What is the solution and when will it come into effect?

Proposer's solution: GSR035 proposes the introduction of a new SQSS paragraph 5.11.3, which would:

- retain all existing SQSS requirements, including those in paragraphs 5.3 and 5.4, as the default position to ensure system security;
- permit specific secured events not to be secured to the standard set out in paragraphs 5.3 and 5.4 only where a robust, Authority-approved risk-based assessment process has been applied; and
- limit such relaxations to clearly defined outages, background conditions, and durations.

Implementation date: Q2 2027.

What is the impact if this change is made?

The modification is expected to have a medium overall impact on industry parties, while enabling a risk-based probabilistic approach to managing transmission outages to be applied consistently across Great Britain (GB).

Interactions: This modification interacts with the Grid Code and the System Operator Transmission Owner Code (STC). It also forms part of the wider System Access Reform (SAR) programme and aligns with strategy objectives of the Transmission Acceleration Action Plan¹. The Workgroup recognised that introducing a probabilistic approach might have implications for Grid Code Operating Code Number 2 (OC2) or other sections, in terms of affected parties providing associated data to enable any proposed relaxation. NESO recognises the need to raise a Grid Code modification for any consequential amendments that might be required.

¹ Transmission Acceleration Action Plan, Public Consultation pages 24–37, page 79.

What is the issue?

What is the defect the Proposer believes this modification will address?

The current operational criteria for the National Electricity Transmission System (NETS) can make it difficult to take outages, which might block essential maintenance works or network upgrades, even when the probability of a subsequent significant and high impact fault is very low. Illustrations of the potential impacts can be found in the case studies. Application of the current criteria as set out in paragraphs 5.3 and paragraph 5.4 of the SQSS might slow down network development progress and might delay network upgrade projects. This proposal is expected to benefit end consumers by enabling a bespoke risk assessment which includes a cost benefit analysis to be carried out so that a balance can be made between the costs associated to ensure system security and benefits being derived from the essential maintenance works or network upgrade.

SQSS Section 5, which is applicable to onshore transmission systems, requires that all secured events are assessed under the same criteria. The criteria in Section 5, whilst ensuring security of supplies, might restrict the number of outages that otherwise could be admissible at any point in time.

The operational criteria in SQSS Section 5, offers limited flexibility when it comes to assessing the acceptability of outages where the probability of a secured event is low and the costs of meeting certain SQSS criteria are disproportionate to the risks it prevents. As a result, costs associated with securing some low probability secured events can become excessive. The current limited flexibility applies across GB but is more pronounced in onshore transmission system in England and Wales. In Scotland, relaxed SQSS criteria apply, so there are fewer instances where the limited flexibility causes concerns. This modification aims that such secured events can be assessed on a case-by-case bases, and when required.

Why change?

The Electricity Networks Commissioner (ENC) published a report in June 2023 that focused on the need to accelerate electricity transmission network build². In November 2023, NESO initiated a project with TOs to deliver the outage planning recommendations

² Electricity Networks Commissioner – Companion Report Findings and Recommendations, 2023:
<https://assets.publishing.service.gov.uk/media/64c8e85219f5622360f3c0ee/electricity-networks-commissioner-companion-report.pdf>

from the Electricity Network Commissioner's Report. Over the course of 2024, projects were run in parallel to determine the actions and recommendations required to deliver the recommendations in each of the four outage planning areas identified in the Electricity Network Commissioner's report. There was a public consultation subsequently released in February 2025. The consultation included a detailed summary of each of the project workstreams and can be found on the NESO website³.

The Clean Power 2030 (CP30) Action Plan report also highlighted that the current system access process is insufficient to support the scale and pace of the transmission network development⁴ required to meet the UK's 2030 Clean Power⁵ aspirations. It stated that:

- to meet CP30, network build must proceed at more than four times the rate of delivery achieved in the last decade, requiring twice as much infrastructure development in half the time. However, to deliver infrastructure at four times the historical rate, a strategic overhaul of system access arrangements is needed.
- such strategic measures would eventually enable the achievement of the Net Zero 2050 targets.
- system access will play a key role in the deliverability of CP30.

The CP30 Action Plan indicated that industry stakeholders should work together to understand how system access can be improved to facilitate CP30 without having a detrimental impact on consumers.

In this regard, system access should be seen as an enabler to meet CP30 and not a blocker.⁶

The Workgroup recognises that the benefits of GSR035 should be explicitly aligned with those identified in the Transmission Acceleration Public Consultation, particularly in terms of increasing outage deliverability, reducing constraint costs, and enabling accelerated network build in support of CP30 objectives. To ensure these benefits are transparent and objectively demonstrated, it is proposed that a formal annual reporting mechanism be established, documenting the application of the proposed new SQSS paragraph 5.11.3, the volume and type of outages enabled through the risk-based assessment, and the resulting system and consumer benefits. This reporting would support ongoing monitoring of whether the modification is delivering the intended transmission acceleration outcomes, provide transparency of the view of the proportionality between

³ Transmission Acceleration Action Plan, Consultation Report, 2025

⁴ Transmission Acceleration Action Plan, 2025. Government Response to the Electricity Networks Commissioner, 2023

⁵ Clean Power 2030 Action Plan, 2024

⁶ Electricity Networks Commissioner – Companion Report Findings and Recommendations, please consult the reference material. <https://assets.publishing.service.gov.uk/media/64c8e85219f5622360f3c0ee/electricity-networks-commissioner-companion-report.pdf>

risk and benefit, and enable regulatory oversight and iterative refinement the proposed SQSS Appendix K over time, consistent with the Workgroup’s expectation of periodic reporting to the Authority.

This Proposal aims to enable a beneficial increase in the number of network outages sanctioned – including those that facilitate critical network upgrades—without materially compromising system security.⁷

This Proposal aims to:

- Improve outage planning flexibility and efficiency;
- Permit a probabilistic and risk-based approach on a case-by-case basis, where an outage would not be sanctioned by applying the deterministic requirements, in certain situations. This flexibility is not intended to materially compromise system security; it allows for case-by-case assessments, which would be carried out by using a process developed in consultation with the impacted stakeholders, with a view to reaching agreement, and approved by the Authority;
- Reduce consumer costs and constraint impacts;
- Facilitate an increase in the number of network outages;
- Require consideration of the increase in risk to the electricity supply to consumers and demonstrate that any additional risk is acceptable; and

This SQSS modification proposal aligns with the Transmission Acceleration Action Plan⁸ and the SAR⁹, and aims to modernise network access planning, reduce emergency recalls, and support a consumer-centric approach leveraging digital technologies.

The Proposer’s initial solution as documented on the Original proposal form can be found in **Annex 01**.

What is the solution?

The Proposer’s initial solution was developed through several Workgroup meetings to make the Proposer’s Original solution which is the subject of this consultation. Both solutions are presented below for completeness.

⁷Transmission Acceleration Action Plan, Public Consultation 2025, pages 21–36

⁸ Transmission Acceleration Action Plan, 2023

⁹ System Access Reform Programme, <https://www.neso.energy/industry-information/system-access-reform>

Proposer's Initial solution

The initial solution was to update the SQSS to allow more flexible, risk-based decision-making for network outages and constraints. This would have been achieved by:

- Deleting clause 5.4 which requires that the onshore transmission system in England and Wales be secured for all double circuit faults. These events will continue to be secured if they have significant impact (as per clause 5.3) or if their probability is higher than usual (as per clause 5.5). The change provides consistent alignment with operational criteria across GB.
- Adding a new clause 5.11.3 to the legal text that provides for the relaxation of requirements for specific secured events under limited conditions if these are identified through a robust process approved by the Authority. This new process is likely to form a part of the network outage planning process so it will either be under the TOs Network Access Policy (NAP), in the STC, or a combination of both. Regarding clauses 5.3 and 5.5, the proposal does not recommend changes to the thresholds for the demand groups that must not be affected by such disturbance; however, there may be benefit in the Workgroup considering such an increase or decrease.

Proposer's Original solution

Following industry feedback received during the Workgroup phase, the initial solution was refined to apply a complementary approach, retaining the security standards in paragraphs 5.3 and 5.4 while establishing a new paragraph 5.11.3. This would enable the application of a risk assessment, where the functional requirements are described in Appendix K, to examine the relevant conditions and assess the impacts of applying such a relaxation. Accordingly, after integrating feedback from Workgroup meetings 1, 2, and 3, the Proposers initial solution was developed to form the Proposers Original solution i.e to update SQSS to allow more flexible, risk-based decision-making for network outages, including limited relaxation through the new paragraph 5.11.3.

The solution has been refined to preserve the integrity of existing security standards while enabling limited, evidence-based flexibility where strictly justified. Rather than deleting clauses 5.3 and 5.4, the introduction of a narrowly defined additional provision allows flexibility to be applied only in exceptional circumstances, subject to a robust assessment process approved by the Authority. This approach avoids unintended weakening of baseline security requirements while still addressing cases where securing specific events would be demonstrably disproportionate to the associated risk or could adversely affect delivery of essential construction works or security of supply.

To support a more flexible and efficient operational planning framework while preserving the integrity of the requirements of Section 5, the introduction of amended paragraph 5.11.3 is proposed as the most effective and proportionate solution. This would establish a clearly defined mechanism for allowing limited, exceptional relaxation of operational criteria where there is demonstrable system or consumer benefit that outweigh the consequences of permitting a ‘riskier’ outage. Crucially, this flexibility would only be granted following a structured and transparent risk-assessment process, ensuring that any deviation from standard requirements is justified, controlled, and auditable.

The proposed new paragraph 5.11.3 is:

In relation to 5.3 and 5.4, only if identified by a robust assessment process that is approved by the Authority, and only for the background conditions and duration identified by such process, for specific secured events which if secured would have an impact on a transmission licensee’s ability to complete their planned construction works or on the operational costs arising from these works that is significantly disproportionate to the risks arising from not securing them over a specific period of time, or where securing such event would unduly reduce the security of supply for one or more Demand groups.

The risk assessment approach must demonstrate, on a case-by-case basis, that the operational and/or economic benefits of allowing a specific outage to exceed the residual risks associated with not fully securing the relevant event, with such relaxations constrained to defined background conditions, durations, and system states.

Workgroup discussions clarified that the SQSS should codify only the high-level functional requirements (the “what”) of this risk assessment approach, including triggers, scope, and governance expectations, while the detailed methodology (the “how”)—including stakeholder engagement, data exchange, and decision-making steps will sit outside of the SQSS. It is the proposers view that this will be developed through a structured process governed by the Authority by NESO in collaboration with relevant parties from Network Operators, Generators and non-embedded customers, with additional STCP, and Grid Code provisions. Invitations to participate in the process will be issued via the existing outage planning contacts identified by the relevant organisations. This represents an alternative to modifying the SQSS itself to embed a structured exception process around it, ensuring that flexibility is introduced without weakening the underlying security principles or creating ambiguity in the interpretation of existing SQSS obligations.

Workgroup considerations

The Workgroup convened nine times to discuss the issue as identified by the Proposer within the scope of the defect, develop potential solutions, and evaluate the proposal in relation to the Applicable Code Objectives.

Workgroup Discussion ahead of the Workgroup Consultation

Case Studies

The NESO Subject Matter Expert (SME) presented a series of case studies to the Workgroup. Case studies 1, 2 and 4 can be found in **Annex 02**. They explained that these case studies were intended to illustrate real or representative outage scenarios where the strict application of the existing SQSS requirements either prevents outages from proceeding or requires significant operational restrictions, despite limited wider system risk.

Case Study 3 – England & Wales: Mesh corner outage and voltage non-compliance

In this case study scenario, a mesh corner outage in England & Wales was required to address long-standing voltage issues, but a post-fault contingency caused unacceptable voltages at multiple Grid Supply Points (GSPs). The current SQSS clauses 5.4.2 and 5.4.4, require securing for mesh corner faults and prohibit unacceptable voltage conditions, therefore under SQSS requirements, the outage could not proceed. Workgroup members also debated whether reliance on post-fault mitigation could expose downstream Users to unacceptable risk, and how consent for the outage from affected users and their veto rights should operate. The details of the process are provided in Appendix K (**Annex 04**).

The SME explained that a risk-based assessment could allow the outage if:

- the probability of the fault is low,
- impacts are time-limited -and mitigated, and
- affected stakeholders are engaged and accept the risk.

In summary, the case study illustrates when the application of a risk-based approach proposed for clause 5.11.3 could be applied and might enable an otherwise unacceptable outage to be considered acceptable.

Interpretation of “unacceptable overloading”

There was significant debate in the Workgroup about the interpretation of “unacceptable overloading” and that it might be different between National Grid Electricity Transmission

(NGET) and the Scottish TOs. This was prompted by the case studies presented to the Workgroup. The case studies relied on the assumed operation of protection systems or cascade tripping to manage post-fault overloads. These debates included the following:

- Whether operation beyond short-term ratings is automatically unacceptable;
- Whether reliance on protection schemes or cascade tripping can legitimately be considered to be acceptable mitigation against unacceptable overloading; and
- Whether the interpretation of “unacceptable overloading” differs materially between NGET and the Scottish TOs.

Some Workgroup members questioned whether protection schemes or cascade tripping arrangements constitute an acceptable means of avoiding “unacceptable overloading”, or whether they represent operation beyond what the SQSS permits. The proposed new paragraph 5.11.3 would allow departures from the SQSS requirements that currently prohibit unacceptable overloading, in certain circumstances. The extent to which the requirement to avoid unacceptable overloading is already clear, or are applied differently in practice, affects both the justification for the modification and how frequently the proposed risk-based mechanism might be used.

Several Workgroup members emphasised that in their view the SQSS definition of unacceptable overloading is clear. In particular, unacceptable overloading is defined as operation of primary transmission equipment beyond its specified time-related capability. On this interpretation, any scenario in which an asset is knowingly operated beyond its specific declared time-related rating constitutes unacceptable overloading, irrespective of whether protection systems subsequently operate to remove the asset from service.

Workgroup members expressed concern that using protection systems as part of normal outage planning could blur the distinction between secure system design and emergency asset failure response. Other Workgroup members highlighted that, in practice, particularly in Scotland, outages have historically been managed on the basis that:

- Post-fault overloads may occur for very short durations;
- Protection systems or operational actions are expected to remove overloaded assets before damage occurs (i.e. before any overload becomes unacceptable); and
- The resulting system state has been assessed as not leading to widespread disturbance, unacceptable voltage conditions, or excessive loss of Demand.

Therefore, from this perspective, it was argued that overloading may be technically “beyond rating” but not necessarily “unacceptable” if it is short-lived, understood, and mitigated. The absence of damage, safety incidents, or wider system consequences suggests that such arrangements can be consistent with overall SQSS objectives and the distinction between “exceeding rating” and “unacceptable overloading” is not always binary.

The Workgroup discussed the differences between England & Wales and Scotland, particularly due to the application of SQSS paragraph 5.4, which prohibits unacceptable overloading of primary transmission equipment in England & Wales but does not apply in Scotland. Workgroup members noted that technical behaviours (short-duration overloads followed by protection-led disconnection) may be tolerated in Scotland but not permitted in England & Wales. This difference has contributed to inconsistent expectations and interpretations, and the case studies illustrated that outcomes considered operationally acceptable in Scotland would be prohibited in England & Wales under paragraph 5.4 of the SQSS.

The Workgroup debated whether the interpretation of unacceptable overloading should be addressed within GSR035 or treated as a separate SQSS clarification issue.

Some Workgroup members argued that, because GSR035 explicitly allows departure from requirements that prevent unacceptable overloading, the Workgroup must be clear on what that term means. Without a common understanding, stakeholders may be unclear when the new risk-based mechanism is genuinely required versus when existing SQSS provisions already allow certain behaviours. The view of the Proposer and some other Workgroup members is that clarifying the interpretation of unacceptable overloading is beyond scope of GSR035, and that on this basis, GSR035 should focus on creating a controlled exception process, leaving underlying definitions unchanged.

The Workgroup sought confirmation from the SQSS Panel members on whether clarifying or refining the existing definition of unacceptable overloading is within scope of GSR035 or if it should be addressed through a separate modification or guidance route.

On the question regarding the interpretation of “unacceptable overloading”, some SQSS Panel members questioned the need for further refinement of the definition, noting that it is not explicitly within scope of GSR035 and could give rise to unintended consequences. SQSS Panel members considered that existing ambiguity may need to be addressed to distinguish between different types of operational flexibility through a separate modification.

Risk Assessment Process – Scope and Governance

The proposed risk-based assessment process has existing SQSS requirements in paragraphs 5.3 and 5.4 as the baseline from which the standard would be assessed. The conditions for the proposed probabilistic risk-assessment are covered under the proposed new paragraph 5.11.3 and Appendix K.

The Workgroup agreed that the purpose of the risk assessment is not to redefine SQSS standards, but to provide a structured means of assessing whether, in specific and exceptional circumstances, the residual risks associated with allowing an outage to proceed applying relaxation to the requirements of 5.3 and 5.4 are proportionate to the benefits delivered.

The proposed risk-based assessment is intended to support informed decision-making where strict compliance with SQSS requirements would prevent an outage from proceeding and preventing that outage would lead to disproportionate system costs, delays to critical works, or reduced overall system efficiency. It was emphasised that the proposed risk-based assessment is intended to apply only in exceptional cases, not as a routine alternative to SQSS compliance.

There was broad agreement from the Workgroup that the risk assessment must be multi-dimensional and go beyond purely technical power system analysis. The Workgroup discussed the following risks and impacts which included the following:

- **Security of supply:** including loss of Demand, system resilience, and the likelihood and consequences of wider system disturbances.
- **Safety:** covering risks to network assets, personnel, and the public, including reliance on protection systems or emergency actions.
- **Voltage and operational performance:** particularly where voltage limits or short-duration excursions might be tolerated under the proposed approach.
- **Asset risk:** including whether TOs or DNOs would be exposed to operation beyond declared equipment capability.
- **Customer and user impacts:** including impacts on Generators, DNO customers, and directly connected Users.
- **Financial impacts:** including constraint costs, potential compensation liabilities, and cost exposure transferred between parties.

Workgroup members noted that the SQSS itself may not be the appropriate place to specify a detailed methodology for assessing these risks/ impacts, but that there must be

sufficient clarity on what categories of risk/impact must be considered, even if the analytical detail is defined elsewhere.

The Workgroup discussed who owns and governs the risk assessment process. The Proposer's current view is that NESO could own the structured process and that the Authority would approve that structured process, but that the Authority would not approve individual outage decisions. This was seen as essential to avoid case-by-case regulatory approval while maintaining Authority oversight. Individual outage decisions would be taken in accordance with the Authority-approved process, developed by NESO involving relevant asset owners, and affected stakeholders. Some Workgroup members considered that a decision to sanction an outage should require the agreement of all affected stakeholders. The Workgroup agreed that some form of escalation mechanism would likely be necessary to maintain fairness, as frequent escalation to the Authority would undermine the intent of the modification. However, the approval process and escalation process will form part of the risk assessment process which will be developed by a structured process governed by Authority.

Workgroup members discussed where the detailed process should be codified, options included; an appendix to the SQSS, the Grid Code, STC/STCP arrangements, or a separate governance framework. Several Workgroup members expressed concern that placing the process solely within bilateral or policy-based arrangements (for example STCP) would be insufficient, given the potential impacts on DNOs and other Users.

Workgroup members agreed that the process must not place parties in a position where compliance with the SQSS (including the risk-based assessment proposed as in GSR035) would cause non-compliance elsewhere. This reinforced the view that cross-code coordination is likely to be required, as GSR035 itself is limited to SQSS changes.

Following Workgroup discussions, the Workgroup requested the SQSS Panel's clarification on the appropriate place to document the "what" and the "how" in relation to the proposed solution for GSR035. The Workgroup sought confirmation from SQSS Panel members on whether it is appropriate for the SQSS to define, at requirements level, the "what" of the risk assessment, with the detailed "how" set out elsewhere (e.g., in STC /or the TO's Network Access Policy/NESO Network Access Planning), potentially supported by an Authority-approved methodology document.

The following options were presented to the SQSS Panel Members:

Option 1

Content for inclusion in SQSS (the "What")

- The circumstances and triggers under which a risk assessment may be used to support a limited relaxation of SQSS requirements. The minimum scope and outputs that the risk assessment must address). This approach ensures SQSS remains the standard setter and avoids the term “risk assessment” being applied in an undefined manner.

Content to sit outside SQSS (the “How”)

- The detailed methodology (e.g., models, data sources, calculation approach, scenario library, thresholds, and tools/templates). The operational process mechanics (e.g., workflow, timelines, roles and responsibilities, escalation/dispute resolution, and stakeholder agreement of outcomes). Implementation detail that is expected to evolve as outage planning arrangements develop.

Content of the risk assessment template

- In the context of GSR035 (and the proposed new clause 5.11.3), an approach would be for SQSS to specify the minimum “what” and for NESO, TOs, DNOs, generators and stakeholders to set out the detailed “how” in Network Access Planning process document that (or in a referenced methodology document governed there) which would then be submitted to the Authority for approval.

Option 2

Content proposed to this Option

- “The What” and “the How” are all codified and included in the SQSS i.e. all listed in Option 1 will reside in the SQSS.

SQSS Panel members provided their views on the above, and a majority of Panel members expressed a clear preference for Option 1, whereby the SQSS would define the required outcome (the “what”), with the detailed risk assessment methodology (the “how”) documented outside the SQSS. This was considered a proportionate approach that maintains the SQSS as a high-level standard, while avoiding unnecessary administrative burden from frequent SQSS changes to accommodate changes in procedural detail. It was also noted that detailed processes could be more appropriately maintained within other industry codes or documentation (e.g. STC/STCPs), with broader stakeholder and SME involvement, rather than relying solely on SQSS Panel approval. This was then subsequently addressed through the development of Appendix K the proposed risk-based framework and the detailed implementation methodology, namely how the assessment is undertaken in practice, sitting outside the SQSS within established operational arrangements. This approach provides a clear distinction between the strategic requirements established in the SQSS and the operational processes through

which they are implemented, whilst retaining flexibility to accommodate future evolution and continuous improvement.

Proposed new SQSS paragraph 5.11.3

The Proposer explained to the Workgroup that the changes to paragraph 5.11.3 are intended to apply only where all of the following conditions are met:

- The issue arises in relation to secured events covered by SQSS paragraph 5.3 and/or 5.4;
- Full compliance with those sections would prevent a specific outage from proceeding;
- The outage is clearly defined, including its duration and background system conditions;
- A robust risk assessment process, approved by the Authority, has been applied.
- The benefits of allowing the relaxation on a secured event to grant an outage on a case-by-case basis are demonstrated to be significantly greater than the risks of applying a relaxation measure under the conditions established in 5.11.3 for the relevant event considered in 5.3 and 5.4.

The Proposer stated that the clause included is not intended to apply to normal operating conditions, high-probability faults, or routine outage planning.

Workgroup Consultation question 5: Do you agree that it is reasonable to retain the existing SQSS clauses 5.3 and 5.4 and supplement them with the proposed new clause 5.11.3?

Application of Approved Relaxations

The Workgroup recognised that any relaxation approved under paragraph 5.11.3 would remain dependent on the prevailing system conditions remaining consistent with those considered during the assessment. Workgroup members agreed that changes in operational conditions may require a previously approved relaxation to be reassessed, withdrawn or overridden in real time to maintain system security. The detailed arrangements for monitoring such conditions, identifying reassessment triggers and taking operational decisions will need to form part of the supporting Operational Criteria Relaxation Assessment (OCRA) methodology, which will be developed by NESO in conjunction with the Network Operators and other stakeholders. Appendix K of the SQSS includes the high-level requirements of what the OCRA methodology shall include.

Financial and Compensation Considerations

A Workgroup member questioned if any financial or compensation elements have been considered in the context of the proposed risk-based exception mechanism, particularly where the proposal could result in outages proceeding under conditions that involve higher residual risk than would not normally be permitted under the present SQSS requirements. It was noted that the practical consequences of allowing such outages could give rise to cost transfers, compensation liabilities, or financial exposure for certain parties.

The Proposer noted that financial mechanisms were not addressed directly within the SQSS and would need to be considered alongside SAR and potentially other code frameworks; this is consistent with the approach used for the Frequency Risk and Control Report (FRCR) in Appendix H of the SQSS. However, it is proposed that financial considerations are included as part of cost benefit analysis in the proposed risk-based assessment.

The Workgroup sought clarity about where financial impacts may arise, who may bear them, and how or whether these impacts should be addressed within the Proposer's solution.

A factor that was discussed was the potential reduction in constraint costs where certain outages are allowed to proceed. Workgroup members agreed that constraint cost reduction is a legitimate system-wide benefit and such benefits should be a key part of risk-based assessment.

However, it was also emphasised that constraint cost savings alone should not be the sole determination to apply the relaxation of the SQSS, and such evaluation must be weighed alongside safety, security, and stakeholder impacts.

Consideration of other Options

A Workgroup member highlighted that the proposed changes in GSR035 might still reduce security of supply and questioned whether temporary derogations or alternative tools (e.g., Connect & Manage style mechanisms) had been considered as options instead of modifying SQSS. The Proposer confirmed that the underlying intent of GSR035 is to explore whether recurring and predictable scenarios can be addressed through standardised, codified approaches rather than repeated temporary derogations.

The Workgroup emphasised that any alternative tool would need to be legally robust, clearly bounded, and transparent about when derogations would still be required.

The Workgroup clarified that such approaches typically rely on case-by-case, time-limited exceptions to the existing deterministic framework and are therefore not well suited to addressing the recurring and predictable scenarios identified as part of the defect. In contrast, GSR035 seeks to resolve this defect by introducing a structured, Authority-approved risk-assessment framework within the SQSS, enabling consistent and transparent decision-making where strict compliance would otherwise prevent efficient outages. This distinguishes the proposal from a derogation or quasi-derogation approach, as it embeds a repeatable and governed process within the enduring code rather than relying on ad hoc selection criteria.

Draft legal text

The draft legal text for this change can be found in **Annex 03** and **Annex 04**.

The following considerations were considered when creating the legal text:

- **Scope of modification:** It was agreed to retain existing SQSS paragraphs 5.3 and 5.4 as the firm deterministic baseline, with paragraph 5.11.3 introduced only as a limited and controlled exception mechanism rather than modifying core security standards. The SQSS legal text including Appendix K define only the high-level functional requirements (“what”) of the risk assessment, while the detailed methodology (“how”) is to be developed by a structured process governed by Authority.
- **Governance and regulatory oversight:** The risk assessment process should be developed in collaboration with industry and must be Authority-approved at a process level, ensuring governance, auditability, and transparency, while individual outage decisions are taken within that approved framework rather than requiring case-by-case regulatory approval.
- **Conditions and triggers for application:** It is also intended to be structured to ensure that the process applies only in limited and controlled circumstances, where there is a defined operational need and where costs or impacts of compliance with the requirements of paragraphs 5.3 and/or 5.4 are disproportionate to residual risk and this will be outlined in the OCRA methodology.

- **Risk-based cost-benefit justification:** A set of requirements was incorporated for a comprehensive cost-benefit analysis demonstrating that the benefits of a relaxation outweigh the associated risks, including impacts on consumers, system operation, and stakeholders. However, this list is not included in the proposed Appendix K on the basis that this detail should be included in the OCRA methodology.
- **Stakeholder engagement and data exchange:** The process for developing the OCRA methodology and the application of that OCRA methodology must ensure engagement with affected parties (TOs, DNOs, Generators, Non-Embedded customers) through existing frameworks (e.g. Grid Code, STCP), while avoiding over-prescription of roles within SQSS and relying on established coordination mechanisms. The Workgroup recognised that there would need to be changes to associated industry codes to facilitate such engagement.
- **Alignment with existing codes and processes:** The legal text was developed to ensure consistency with Grid Code, STC, and STCP arrangements, recognising that consequential modifications may be required to enable implementation and data exchange.
- **Discussion Application and proportionality:** The process is intended to apply only in exceptional, non-routine scenarios, ensuring that it does not become a standard alternative to deterministic planning but remains a controlled, proportionate tool, while it is anticipated that there will be a sufficient number of scenarios where the OCRA methodology would be beneficial, we note that the process is intended to apply in a minority of cases.

Review of Appendix K: OCRA Methodology

The Workgroup reviewed Appendix K: Operational Criteria Relaxation Assessment (OCRA Methodology).

Appendix K establishes the governance framework, high-level principles and minimum requirements (i.e. the "what") of the OCRA methodology, whilst the detailed OCRA methodology and operational arrangements (i.e. the "how") are developed, maintained and applied through supporting processes.

Workgroup Consultation question 6: Appendix K is written to contain high-level principles, while the detailed operational arrangements will be contained outside of the SQSS in the OCRA methodology. Do you think this is a good approach? Please explain your rationale. *(Note that the OCRA methodology will go through a separate industry consultation process).*

The Proposer advised that Appendix K should set out the “what”, while the detailed “how”—including how disagreements are handled, should be developed later through a structured process governed by the Authority.

The Workgroups discussed three main aspects of Appendix K, these being, governance, agreement and veto rights. Several Workgroup members highlighted that the draft of Appendix K did not clearly explain what happens if a TO, DNO or other affected stakeholder does not agree with the outcome of the assessment. Workgroup members debated that this was a fundamental issue that should be explicit in Appendix K, with suggestions that the text should be clear that if affected parties do not agree, the default SQSS requirements continue to apply. Workgroup members also raised concerned that affected parties, especially DNOs and connected customers bearing operational or safety consequences, must have a meaningful ability to block or reject a proposal.

The Proposer disagreed to putting an explicit veto mechanism into the SQSS itself, adding that, the detailed process, documented as part of the OCRA methodology, should instead be agreed by teams involved in outage planning from the industry and then approved by the Authority. The Proposer also explained that the practical operation of outages already relies on affected network owners and stakeholders being engaged through existing planning processes.

The Workgroup expressed differing views on the role of stakeholder agreement within the proposed framework. Some Workgroup members supported a process requiring agreement from affected parties before a risk assessed outage could proceed, whilst others considered that affected parties should just have the opportunity to raise objections which would be considered through the Authority-approved decision-making process. Some Workgroup members proposed that Appendix K should be written on the basis that NESO and affected parties should reach agreement on any relaxation and mitigations emerging from a risk assessment, rather than a process that would allow affected parties to raise objections, and for a final decision on whether to sanction an

outage being taken without them. The Workgroup did not reach a common view on this issue and recognised that further stakeholder feedback would be valuable. Stakeholder views are therefore sought through this consultation on the appropriate treatment of stakeholder agreement, objections and the role they should play within the proposed governance framework.

The Workgroup discussed the purpose of the proposal. The Proposer advised that the intent is primarily to allow TOs to request reassessment of outages that NESO would normally reject under deterministic SQSS rules, where broader benefits (such as development or wider network impacts) justify a more flexible assessment. This prompted questions from Workgroup members about whether application of the OCRA methodology is TO-initiated only, whether it could be initiated by NESO, and how this aligns with earlier Workgroup understanding. It was agreed amongst the Workgroup that this would be a TO only initiated mechanism and where NESO may see a benefit, will put that to the TO for consideration.

The Proposer explained that NESO discretion to vet initiation of the process is intended to prevent routine or inappropriate use and keep the process focused on significant strategic projects.

Several Workgroup members supported the introduction of periodic reporting to improve transparency and monitor whether the modification is delivering the anticipated benefits. Stakeholder views are sought on the form, frequency and governance of any reporting arrangements.

A Workgroup member suggested the inclusion of an annual reporting requirement (with flexibility if directed otherwise by the Authority), similar to the FRCR approach. Noting that individual case records and overall reporting were different things and should be distinguished clearly.

The Workgroup did not resolve the core issues, there was some acceptance that the draft may need to be restructured or clarified, particularly around:

- the clarity in interaction between parties,
- what “agreement” means in practice,

- and whether the document should say more explicitly what happens when agreement is not reached.

The Workgroup noted that the effectiveness of the proposed framework will depend upon clear definition of roles, responsibilities and decision-making accountabilities. Workgroup members generally agreed that clear definitions of roles and responsibilities should form part of the process to develop the OCRA methodology.

The Workgroup held a detailed discussion on the purpose, scope and governance of Appendix K, particularly in relation to the proposed OCRA methodology. The Workgroup considered whether Appendix K should set out a high-level framework of minimum requirements only, or whether it should include more detail on the operational process. The emerging view was that Appendix K should not attempt to describe every operational step, but should provide sufficient clarity on the principles, minimum requirements and governance expectations that any future methodology must meet.

Governance and Approval Route

A key area of discussion was the governance and approval route for the OCRA methodology. Workgroup members considered whether both the initial OCRA methodology and any future amendments should be subject to industry consultation and Authority approval. A suggestion made from a Workgroup members were to make clear in the legal text that future changes should follow the same governance route, rather than being made outside formal industry oversight. This was linked to wider Workgroup concerns about transparency, assurance and ensuring stakeholders have confidence in how the process will operate.

The Workgroup also discussed the level of industry involvement required in developing the OCRA methodology. Some Workgroup members felt the drafting should go further than saying parties would be “consulted” or invited to provide input. Workgroup member requested clearer wording to ensure that relevant parties would be actively involved in shaping the methodology, particularly network operators, Generators, non-embedded customers and other affected or interested parties. This was seen as important because the methodology could affect how outage relaxations are assessed and whether certain parties are exposed to additional operational or compliance risks.

Reporting Requirements

Workgroup members questioned whether reporting requirements should sit directly in Appendix K or elsewhere, such as licence obligations or supporting methodology documents. The Workgroup agreed that this issue should be captured in the Workgroup Consultation so that stakeholders can comment on the proposed reporting approach, including what information should be reported, how often reporting should take place, and in what format.

Workgroup Consultation question 7: Do you think the proposed annual reporting schedule to the Authority is sufficient?

The Workgroup also considered how OCRA methodology would interact with existing FRCR arrangements where a proposed outage relaxation could have frequency-related consequences. The Workgroup suggested that frequency-related impacts would continue to be assessed under the FRCR process. Where those impacts are material, this may mean that the OCRA process cannot proceed. This point was important because Workgroup members wanted assurance that the new process would not unintentionally bypass or weaken existing frequency risk controls.

Implementation

Workgroup members discussed how control room engineers would manage an approved OCRA outage in real time, particularly where background system conditions change after an outage has been approved. The Workgroup agreed that acknowledgement of this practical risk should be documented and make clear that control room engineers may need to override or step away from a relaxation if system conditions change or if system security cannot be maintained.

Roles and Responsibilities

Workgroup members wanted greater clarity on who would initiate an OCRA assessment, who would own the process, who would apply the methodology, and who would make the final decision on whether a relaxation should proceed. The Workgroup considered whether these matters should be set out in Appendix K at a high level or left to the detailed methodology.

The Workgroup discussion concluded that Appendix K should include high-level principles and the OCRA methodology needs to include the more detailed topics such as roles and responsibilities.

Workgroup Consultation question 8: Do you agree that the description of the principles to be included as part of the risk assessment in Appendix K (Annex 04) are sufficient to reassure affected stakeholders?

Other Considerations

The Workgroup debated the assessment approach, including whether the methodology should require “probabilistic or otherwise” assessments. Workgroup members supported an evidence-based approach, with quantitative assessment used where possible. However, the Workgroup also recognised that flexibility may be needed where data is limited or where a more qualitative assessment is appropriate. This reflected a balance between making the process robust and avoiding overly rigid requirements that could make the methodology difficult to apply in practice. The treatment of consequences and benefits was another point of focus. Workgroup members raised concern that wording such as “likely consequences” could understate or fail to capture worst-case impacts. The Workgroup therefore considered whether the drafting should make clear that both potential consequences and benefits need to be assessed, including the impact on affected parties. This would help ensure that the methodology considers not only the wider benefits of enabling an outage but also the risks and impacts that may arise for individual parties.

The Workgroup discussed how affected parties should be able to register agreement or objection to the assessment outcome. Workgroup members were concerned that objections could simply be recorded without influencing the decision-making process. This led to a wider unresolved issue about whether safety or legal compliance concerns should act as a clear barrier to proceeding with an outage relaxation. Workgroup members questioned whether a relaxation should not be allowed if it prevents a party meeting safety or legal obligations.

Workgroup Consultation question 9: Are there any other matters relating to this proposal that you would like to raise? The Workgroup welcomes views on any aspect of the proposal, including topics not explicitly covered in this consultation.

What is the impact of this change?

Proposer's assessment against Code Objectives

Original Proposer's assessment against SQSS Code Objectives	
Relevant Applicable Objective	Identified impact
(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;	Positive Faster and more cost-effective network upgrades and maintenance. Improved reliability and affordability for consumers. Better coordination across the industry by means of a joint agreement of the relevant stakeholders on the standard assessments to manage operational risks.
(b) ensure an appropriate level of security and quality of supply and safe operation of the National Electricity Transmission System;	Neutral The proposal is expected to support improved coordination and risk assessment, which may contribute to maintaining appropriate levels of system security, quality of electricity supply, and safe operation of the NETS. These outcomes are consistent with the objectives of the reform but are contingent on effective implementation and stakeholder collaboration.
(c) facilitate effective competition in the generation and supply of electricity, and (as far as consistent therewith) facilitating such competition in the distribution of electricity; and	Positive Facilitates a more open and flexible system, making it easier for new and existing companies to compete in generating and supplying electricity. Encourages more competition in electricity generation and supply, making it easier for new

	entrants to participate, driving innovation and potentially lowering costs for consumers.
(d) facilitate Licensees to comply with any relevant obligations under Assimilated law	Neutral

When will this change take place?

Implementation date

Q2 2027.

Date decision required by

As soon as possible.

Implementation approach

Text has been updated to clarify that, while existing arrangements are in place for assessing measures such as cascade tripping to manage unacceptable overloading, the proposed risk-based assessment under clause 5.11.3 represents a new structured process that is not currently formalised. As such, additional processes and governance arrangements will need to be developed and defined—principally through Appendix K, the development of the OCRA methodology and associated operational frameworks (e.g., Network Access Policy, Grid Code and/or STC).

The Workgroup supported an implementation based on a risk-based, case-by-case assessment process, rather than prescriptive changes to SQSS limits. The solution is structured such that the “what” is defined within the SQSS (i.e. the requirement for a risk-assessed framework and associated governance), while the “how” sits outside the SQSS, to be delivered through Network Access Planning processes and operational arrangements.

The implementation approach includes the need to raise supporting modifications to the Grid Code (Operational Code) and STCPs, ensuring alignment between planning standards, outage coordination, and real-time system operation, while maintaining overall system security.

Interactions

Interactions

☒ Grid Code ☐ BSC ☒ STC ☐ CUSC
☐ European Network ☒ Other ☐ Other
 Codes modifications

This proposal is part of a broader programme of work under SAR and is expected to interact with other code modifications. Concurrent changes to the STC and Grid Code are being considered to ensure alignment across the industry’s technical and governance frameworks. The text has been revised to clarify that, while specific changes to the Grid Code are still under development, it is anticipated that targeted amendments—particularly to provisions such as OC2—may be required to reflect the application of the risk-based assessment and the need for stakeholder agreement where it is invoked. These interactions are being actively scoped and coordinated to support a consistent and efficient implementation pathway, with stakeholder engagement already underway across all relevant Panels.

There is also another SQSS Modification which has been submitted to the Authority, this is [GSR036: System Access Reform: Review of the voltage limits.](#)

How to respond

Standard Workgroup Consultation questions

1. Do you believe that the Original Proposal better facilitate the Applicable Objectives versus the current baseline?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Does the draft legal text satisfy the intent of the modification?

Specific Workgroup Consultation questions

5. Do you agree that it is reasonable to retain the existing SQSS clauses 5.3 and 5.4 and supplement them with the proposed new clause 5.11.3?
6. Appendix K is written to contain high-level principles, while the detailed operational arrangements will be contained outside of the SQSS in the OCRA methodology. Do you think this is a good approach? Please explain your rationale. *(Note that the OCRA methodology will go through a separate industry consultation process).*
7. Do you think the proposed annual reporting schedule to the Authority is sufficient?
8. Do you agree that the description of the principles to be included as part of the risk assessment in Appendix K (Annex 04) are sufficient to reassure affected stakeholders?
9. Are there any other matters relating to this proposal that you would like to raise? The Workgroup welcomes views on any aspect of the proposal, including topics not explicitly covered in this consultation.

The Workgroup is seeking the views of SQSS Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to box.sqss@neso.energy using the response pro-forma which can be found on the SQSS [GSR035 modification page](#).

If you wish to submit a confidential response, mark the relevant box on your consultation proforma. Confidential responses will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel, Workgroup or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
CMP	CUSC Modification Proposal
CP30	Clean Power 2030

CUSC	Connection and Use of System Code
DNO	Distribution Network Operator
EBR	Electricity Balancing Guideline
ENC	Electricity Networks Commissioner
FRCR	Frequency Risk and Control Report
GB	Great Britain
GSP	Grid Supply Point
NAP	Network Access Policy
NESO	National Energy System Operator
NETS	National Electricity Transmission System
NGET	National Grid Electricity Transmission
OC	Over Current
OC2	Grid Code Operating Code Number 2
OCRA	Operational Criteria Relaxation Assessment
PFC	Post Fault Continuous
SAR	System Access Reform
SGT	Super Grid Transformer
SME	Subject Matter Expert
SQSS	Security and Quality of Supply Standards
STC	System Operator Transmission Owner Code
STCP	System Operator Transmission Owner Code Procedures
STR	Short Term Rating
TO(s)	Transmission Owner(s)

T&Cs	Terms and Conditions
UK	United Kingdom

Reference material

- [Clean Power 2030 Action Plan](#)
- [Electricity Networks Commissioner – Companion Report Findings and Recommendations](#)
- NESO: National Access Policies, Case Study Repository, NAP Team, Case Study 1 and Study 2, Ignoring DC Trips on a Specific Location. Confidential, consulted for the purposes of this Proposal only.
- [System Access Reform](#)
- [Transmission Acceleration Action Plan](#) – Government Responses to the Electricity Networks Commissioner, 2023
- [Transmission Acceleration Action Plan](#)

Annexes

Annex	Information
Annex 01	GSR035 Proposal form
Annex 02	GSR035 Terms of Reference
Annex 03	GSR035 Case Studies
Annex 04	GSR035 Draft Appendix K – OCRA Methodology
Annex 05	GSR035 Draft Legal Text