
Grid Code (GC) GC0183: Generator and Interconnector Availability During a Severe Space Weather Event (GC0183)

Decision: The Authority¹ directs² that the proposed modification to the Grid Code be made

Target audience: National Energy System Operator (NESO), the Grid Code Review Panel, Grid Code users and other interested parties

Date of publication: 20 November 2025

Implementation date: 10 business days

Background

Over the last year, the National Energy System Operator (NESO) and industry stakeholders have been working together to better understand the effects of space weather events on the electricity system and are currently preparing a Space Weather Industry Protocol (SWIP). They discussed the potential significant impact of space weather events on the functionality of electricity system. The sun experiences 11 year cycles of solar activity, the most recent peak of this was reached in late 2024. Solar storms, which have the potential to have a high impact on the electricity system, are more likely during periods close to this peak and in the descending phase of the solar cycle which can be 2 or 3 years after the peak. Solar storms can also occur at other times in the solar activity cycle.

Following discussions around the SWIP, a risk was identified that some Generators, Interconnector Owners and Restoration Contractors may potentially alter the

¹ References to the “Authority”, “Ofgem”, “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) support 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.

operational status of some assets in the energy market based on their understanding of the risk to their assets from solar storms. This could potentially lead to a shortfall in supply and system instability. As it stands, under the current information-sharing processes, there may be insufficient time for NESO to be made aware of the change in status and thus manage any changes in Generators, Interconnector Owners and Restoration Contractors planned availability during an anticipated or actual severe space weather event. Therefore, it has been proposed to make changes to the Grid Code to mandate Generators, Interconnector Owners and Restoration Contractors to notify NESO of their intended position in the event of severe space weather.

The modification proposal

NESO (the ‘Proposer’) raised the Grid Code Modification Proposal GC0183: Generator and Interconnector Availability During a Severe Space Weather Event (the ‘Proposal’) on 09 July 2025 and requested the Grid Code Review Panel Secretary for this modification to be treated as Urgent. On 17 July 2025, the Grid Code Review Panel ("the Panel"), considered the Proposal and the associated request for Urgency and unanimously agreed that the Proposal should be treated as Urgent. Following this we received a request from the Acting Independent Chair of the Panel to grant the Proposal the status of Urgent Modification Proposal. We approved this request for Urgency on 25 July 2025.³

The Proposal seeks to make an amendment to the Grid Code to obligate Generators, Interconnector Owners and Restoration Contractors to issue a ‘Space Weather Outage Declaration’ to NESO and advise the market, via REMIT⁴, setting out their anticipated availability during and after a severe space weather event. This would be required following a space weather notification being issued by NESO and posted to the Balancing Mechanism Reporting Service (BMRS).

³ [Grid Code GC0183: Generator and Interconnector Availability During a Severe Space Weather Event | Ofgem](#)

⁴ Regulation for Energy Markets Integrity and Transparency

An industry workgroup was convened to develop the Proposal further and a workgroup consultation was held. The respondents to the workgroup consultation were broadly supportive of the Proposal. However, we note that some did not agree with the implementation approach, concerns were raised about processes and IT systems. The Proposer clarified that Users will not need new IT systems, as existing systems and communication channels will be used such as the BMRS notifications.

Grid Code Review Panel recommendation

At its meeting on 30 October 2025 the Panel agreed unanimously that the Proposal better facilitates the Grid Code objectives compared to the baseline and recommended the adoption of the Original proposed solution.

Our decision

We have considered the issues raised by the modification proposal and in the Final Modification Report (FMR)⁵ dated 30 October 2025. We have reviewed and taken account of the responses to the industry consultation on the modification proposal which are included in the FMR. We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the Applicable Code Objectives of the Grid Code⁶
- approving the modification is consistent with our principal objective and statutory duties⁷

⁵ Grid Code proposals, final reports and representations can be viewed on NESO's website at: [Grid Code Modifications](#)

⁶ As set out in Standard Condition E3 of the Electricity System Operator Licence.

⁷ The Authority's statutory duties are wider than matters which the Grid Code Panel Review must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

Reasons for our decision

We consider this modification proposal will better facilitate Applicable Code Objectives (i), (ii) and (iii), and has a neutral impact on the other applicable objectives.

Applicable Code Objective (i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;

We agree with the Panel that the Proposal positively impacts this objective. It will enable the prompt provision of critical operational information to NESO regarding the planned availability of Generators, Interconnector Owners and Restoration Contractors during an anticipated or actual severe space weather event. Access to this information will allow NESO to reflect on the availability of key assets, supporting the reliable and efficient operation of the transmission network under such circumstances

Applicable Code Objective (ii) to facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the National Electricity Transmission System being made available to persons authorised to supply or generate electricity on terms, which neither prevents nor restricts competition in the supply of generation of electricity);

We agree with the Panel that the Proposal positively impacts this objective. We acknowledge that both NESO and the market participants will be informed, in a timely manner, of the potential market situation if a space Weather Possible Notification is issued. Early awareness of potential system conditions allows Generators, Interconnector Owners and Restoration Contractors to plan their operations effectively, reducing uncertainty and maintaining fair access to the National Electricity Transmission System. This will support a competitive market environment by ensuring that no party is disadvantaged during these circumstances.

Applicable Code Objective (iii) subject to paragraphs E3.2(b)(i) and E3.2(b)(ii), to promote the security and efficiency of the electricity generation, transmission and Distribution Systems in the National Electricity Transmission System Operator Area taken as a whole;

We agree that the Proposal positively impacts this objective. The modification aims to ensure that NESO, for potentially critical operational reasons, has timely visibility of the intended positions of Generators, Interconnector Owners and Restoration Contractors during a severe space weather event.

Decision notice

In accordance with Standard Condition E3 of the Electricity System Operator Licence, the Authority hereby directs that Grid Code Modification Proposal Grid Code GC0183: *‘Generator and Interconnector Availability During a Severe Space Weather Event’* be made.

Gurpal Singh

Head of Asset Health & Network Resilience

Signed on behalf of the Authority and authorised for that purpose