

**STC Modification Proposal Form**

# CM091: Implementation of Emergency and Restoration Code Phase II

**Overview:** This is a consequential modification required to align the STC with changes already being proposed to the Grid Code within [GC0148](#) to facilitate the implementation of Phase II of the EU Emergency and Restoration Code.

**Modification process & timetable**



**Status summary:** The Proposer has raised a modification and is seeking a decision from the Panel on the governance route to be taken.

**This modification is expected to have a: High impact**

Transmission Licensees and the Electricity System Operator.

<b>Proposer's recommendation of governance route</b>	Standard Governance modification with assessment by a Workgroup	
<b>Who can I talk to about the change?</b>	<b>Proposer:</b> Antony Johnson <a href="mailto:Antony.Johnson@nationalgride-so.com">Antony.Johnson@nationalgride-so.com</a> 07966 734856	<b>Code Administrator Contact:</b> Deborah Spencer <a href="mailto:Deborah.spencer@nationalgride-so.com">Deborah.spencer@nationalgride-so.com</a> 07752 466421

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## What is the issue?

The European Network Code Electricity Emergency and Restoration Code (EU 2017/2196) (NCER) is one of the European Network Codes which defines the requirements for Member States to implement defence and restoration measures. It aims to provide defensive measures to prevent a System shutdown occurring in the first instance and the implementation of restoration measures to enable the System to be restarted if a Total or Partial System Shutdown were to occur.

The EU Emergency and Restoration Code has two compliance dates. The first being 18<sup>th</sup> December 2019 which was completed and approved through Grid Code modifications GC0125<sup>1</sup>, GC0127<sup>2</sup> and GC0128<sup>3</sup>. The second was 18<sup>th</sup> December 2022 which has been developed through Grid Code modification GC0148<sup>4</sup>.

Although the UK has now left the EU, the requirements of the EU Emergency and Restoration has been implemented into UK law through Statutory Instrument SI 533 / 2019<sup>5</sup>.

Grid Code modifications GC0125, GC0127 and GC0128 did not necessitate any changes to the STC or STCPs. However, Grid Code modification GC0148 which specifically relates to Articles 15(5) – 15(8) (Low Frequency Demand Disconnection), Article 41 (Communications equipment) and Articles 42 (1), (2) and (5) (Critical Tools and Facilities) have an impact on the STC and STCPs, especially Article 42 and potentially some elements of Article 41. Other items which fall under Grid Code modification GC0148 including the treatment of Electricity Storage Modules under importing conditions during low system frequencies and how smaller Non-CUSC parties fall under the framework of the EU Emergency and Restoration Code are not relevant to the STC or STCPs and therefore fall outside this modification.

As part of Grid Code Modification GC0148, it was initially considered that if the Workgroup had sufficient time, consideration should be given to including the requirements of the Distributed Re-Start Project. At the GC0148 Workgroup Consultation phase, it was agreed unanimously that the Distributed Re-Start work should be taken out of the GC0148 modification and addressed through Grid Code Modification GC0156<sup>6</sup> (implementation of the Electricity System Restoration Standard). As such, changes to the STC and STCPs to implement the Electricity System Restoration Standard including Distributed Re-Start are being progressed through a separate STC modification (CM089<sup>7</sup>) and STCP Modification (PM0128<sup>8</sup>).

As a final point it is worth noting that GC0148 was originally submitted to the Authority in October 2022 after progressing through the Grid Code Governance process. Due to an issue with Aggregators which was identified in November 2022, the Authority sent GC0148 back to the Grid Code Review Panel in January 2023, which necessitated further Workgroup meetings and a second Code Administrator Consultation which closed on 3 May 2023. This has resulted in a delay to this STC modification being raised.

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<sup>1</sup> [GC0125 EU Code Emergency & Restoration: Black Start testing requirements for Interconnectors | ESO \(nationalgrideso.com\)](https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0125-eu-code-emergency-restoration-black-start-testing-requirements-for-interconnectors)

<sup>2</sup> [GC0127 EU Code Emergency & Restoration: Requirements resulting from System Defence Plan | ESO \(nationalgrideso.com\)](https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0127-eu-code-emergency-restoration-requirements-resulting-from-system-defence-plan)

<sup>3</sup> [GC0128 EU Code Emergency & Restoration: Requirements resulting from System Restoration Plan | ESO \(nationalgrideso.com\)](https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0128-eu-code-emergency-restoration-requirements-resulting-from-system-restoration-plan)

<sup>4</sup> [GC0148: Implementation of EU Emergency and Restoration Code Phase II | ESO \(nationalgrideso.com\)](https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0148-implementation-of-eu-emergency-and-restoration-code-phase-ii)

<sup>5</sup> [The Electricity Network Codes and Guidelines \(System Operation and Connection\) \(Amendment etc.\) \(EU Exit\) Regulations 2019 \(legislation.gov.uk\)](https://www.legislation.gov.uk/uk/legislation/regulations/2019/533)

<sup>6</sup> <https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0156-facilitating-implementation-electricity-system>

<sup>7</sup> <https://www.nationalgrideso.com/industry-information/codes/stc/modifications/cm089-implementation-electricity-system-restoration>

<sup>8</sup> <https://www.nationalgrideso.com/industry-information/codes/stc/modifications/pm0128-implementation-electricity-system-restoration>

**Why change?**

This modification is seeking to clarify the requirements on STC parties in order to implement the requirements of the EU Emergency and Restoration Code. The Grid Code is being updated through Grid Code Modification GC0148 and the changes proposed to the STC are to align with the Grid Code so that the requirements of the EU Emergency and Restoration Code can be implemented.

**What is the proposer’s solution?**

As part of the solution, the ESO is proposing the establishment of a Working Group whose responsibility will be to do the following:

- Identify aspects of the STC code and STCPs that must change as a consequence of GC0148.
- Ensure that these arrangements are also applied to Transmission Licensees and reflected in the STC/STCPs.

At a high level, the key minor consequential changes expected to the STC/STCPs are:-

- Article 41 – A review of communications systems – in particular mains resilient telephony systems.
- Article 42(1), (2) and (5) - Introduction of Critical Tools and Facilities – i.e. the ability to operate critical systems and assets during a System Shutdown or Partial Shutdown including data and communications systems.

**Draft legal text**

The proposer foresees the following areas of the STC code will be affected following the work of the Working Group.

- Section D – (Planning Coordination)
- Section J (Interpretation and Definitions)
- Section K (Technical, Design and Operational Criteria and Performance for Offshore Transmission Systems)

**What is the impact of this change?**

<b>Proposer’s assessment against STC Objectives</b>	
<b>Relevant Objective</b>	<b>Identified impact</b>
(a) efficient discharge of the obligations imposed upon transmission licensees by transmission licences and the Act	<b>Positive</b> The new obligation is a requirement of the EU Emergency and Restoration Code.
(b) development, maintenance and operation of an efficient, economical and coordinated system of electricity transmission	<b>Positive</b> Provides a level playing field for STC Parties and to put measures in place to comply with the requirements of the EU Emergency and Restoration Code.

(c) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity	<b>Positive</b> Transmission Licensees will be a fundamental part of ensuring the EU Emergency and Restoration Code can be facilitated.
(d) protection of the security and quality of supply and safe operation of the national electricity transmission system insofar as it relates to interactions between transmission licensees	<b>Positive</b> Provide a greater level of System Defence at times of System stress and ensure the System is better equipped to be restored in the event of a Total or Partial Shutdown.
(e) promotion of good industry practice and efficiency in the implementation and administration of the arrangements described in the STC	<b>Positive</b> Provide consistency for Transmission Licensees
(f) facilitation of access to the national electricity transmission system for generation not yet connected to the national electricity transmission system or distribution system;	<b>Positive</b> Provide assurance that the NETS is adequately assessed, designed and maintained to support defensive and restoration measures.
(g) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.	<b>Positive</b> Ensure compliance with the EU Emergency and Restoration Code which has now been moved into UK legislation through Statutory Instrument SI533 / 2019

<b>Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories</b>	
<b>Stakeholder / consumer benefit categories</b>	<b>Identified impact</b>
Improved reliability of the system	<b>Positive</b> Under these provisions there will be greater system robustness and reliability as a result of enhanced defensive and restoration measures.
Lower bills than would otherwise be the case	<b>Neutral</b>
Benefits for society as a whole	<b>Positive</b> Improve the reliability and resilience of the National Electricity Transmission System resulting in lower risks of a System Shutdown and an increase in the speed at which the System were to be restored if a Shutdown were to occur.

Reduced environmental damage	<b>Neutral</b>
Improved quality of service	<b>Positive</b> Improve the reliability and resilience of the National Electricity Transmission System resulting in lower risks of a System Shutdown and an increase the resilience at which the System were to be restored if a Shutdown were to occur.

**When will this change take place?**

**Implementation date**

10 working days after an Authority decision.

**Date decision required by**

At the same time/or shortly after a decision on GC0148.

**Implementation approach**

No changes anticipated to any existing systems or processes.

**Proposer’s justification for governance route**

Governance route: Standard Governance modification with assessment by a Workgroup.

**Interactions**

- Grid Code
- BSC
- CUSC
- SQSS
- European Network Codes
- Other modifications
- Other

This is a consequential change as a result of GC0148.

This modification is linked to the STCP modification PM0132. They will both be progressed together to a Workgroup and then sent to the Authority for a decision.

**Acronyms, key terms and reference material**

Acronym / key term	Meaning
BEIS	Department for Business, Energy and Industrial Strategy
BSC	Balancing and Settlement Code
CUSC	Connection and Use of System Code
DNO	Distribution Network Operator
EBR	Electricity Balancing Regulation
ESO	Electricity System Operator
ESRS	Electricity System Restoration Standard
EU	European Union
GC	Grid Code
NCER	Network Code Electricity Emergency and Restoration Code
NETS	National Electricity Transmission System
STCP	System Operator Transmission Procedures

**Reference material**

- Grid Code modification [GC0125](#)
- Grid Code modification [GC0127](#)
- Grid Code modification [GC0128](#)
- Grid Code modification [GC0148](#)
- Grid Code modification [GC0156](#)
- STC modification [CM089](#)
- STCP modification [PM0128](#)