

Draft STCP Modification Proposal Form

PM0128: Implementation of the Electricity System Restoration Standard

Overview: This Modification is proposing a number of changes to the System Operator Transmission Owner Code to facilitate Special Condition 2.2 of National Grid's Electricity System Operator's Transmission Licence implementing an Electricity System Restoration Standard (ESRS) which requires 60% of electricity demand to be restored within 24 hours in all regions and 100% of electricity demand to be restored within 5 days nationally following a direction issued by BEIS in October 2021.

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 take.

This modification is expected to have a:

High Impact: on Restoration Service Providers, Generators Transmission Licensees, Interconnectors, Transmission Owners, Distributed Network Owners, Non-Embedded Customers and the Electricity System Operator

Who can I talk to about the change?

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What is the issue?

In April 2021, the Department for Business, Energy and Industrial Strategy (BEIS) released a [policy statement](#) setting out the need to introduce a legally binding target for the restoration of electricity supplies in the event of a total or partial shutdown of the National Electricity Transmission System (NETS) .

This new policy is called the Electricity System Restoration Standard (ESRS). As a consequence of BEIS's policy statement, Ofgem performed an [initial consultation](#) in April 2021 followed by a [statutory consultation](#) in July 2021 on licence amendments to facilitate the introduction of an ESRS, and to align the regulatory framework for procurement of restoration services with that of other balancing services.

On 24th August 2021, Ofgem published a [decision letter](#) stating that they made the decision to make the licence modifications. The modification decisions are publicly available and were implemented from 19th October 2021.

These licence modifications include but are not limited to:

- introducing the definition of “restoration services” in Standard Condition C1 and amending the definition of balancing services to include “restoration services”
- replacing all references to “black start” with “Electricity System Restoration” in the Electricity Transmission Licence, including in the ESO's Special Licence Conditions, to align the licence terminology with BEIS's policy
- introduction of updated Special Condition 2.2 of National Grid's Electricity System Operator's Transmission Licence requiring the introduction of an Electricity System Restoration Standard (ESRS) which requires 60% of electricity demand to be restored within 24 hours in all regions and 100% of electricity demand to be restored within 5 days nationally.

This modification is therefore necessary following a direction issued by BEIS. The date by which BEIS require the ESO to be compliant with the ESRS is 31 December 2026.

Why change?

This modification is seeking to clarify the requirements on CUSC parties, Restoration Service Providers (RSPs) and Transmission Licensees taking part in restoration activities of their obligations so that National Grid ESO can satisfy the new ESO Licence obligation.

What is the proposer's solution?

It is proposed to establish a STC modification Working Group to determine how implementation of the Electricity System Restoration Standard can be facilitated by code modifications.

The ESO's aim for implementation of the ESRS is to put in place measures, tools and procedures such that in the event of a total or partial shutdown, 60% of demand can be restored within all regions in 24 hours and 100% of demand can be restored in 5 days nationally. This is against the background that the Electricity System is in an intact and operable state and that there is not significant damage to electrical Plant and Apparatus.

This modification will build on the work completed through the implementation of the EU Emergency and Restoration Code (EU 2017/2196) which was in part introduced to the Grid Code through Grid Code modifications GC0125, GC0127 and GC0128 and further being implemented through Grid Code modification GC0148 (Implementation of EU Emergency and Restoration Code Phase II) and GC0156 (Facilitating the Implementation of the Electricity System Restoration Standard).

In particular, many of the requirements being introduced through Grid Code modification GC0156 (including Distributed Restart) provide essential tools in achieving the objectives of the ESRS.

The Proposer's solution is to replace all references to 'Black Start' with 'Electricity System Restoration' in line with the Licence changes described above. This would also be consistent with the proposals being put forward to change the CUSC and BSC.

The solution will also need to include changes to some STCPs below.

- STCP02.1 (Alarm and Event Management)
- STCP 04-3 (Real Time Data Provision)
- STCP 04-4 (Provision of Asset Operational Information)
- STCP 04-5 (Operational Telephony)
- STCP 04-6 (Offshore Datalink Functional Specification for Telecontrol Communications Interface)
- STCP 06-1 (Black Start)
- STCP 06-4 (Contingency Arrangements)
- STCP08-1 (Protection settings)
- STCP 08-3 (Operational Tests and System Tests)
- STCP16-1 (Investment Planning)
- STCP 18-1 (Connection and Modification Application)
- STCP 19-3 (Operational Notification and Compliance Testing).

Legal text

The Legal text for this solution will be developed on the legal text drafted for GC0156 which includes changes to Glossary and Definitions, Planning Code, Connection Conditions, European Connection Conditions, Operating Code 2 (Operational Planning and Data Provision), Operating Code 5 (Testing and Monitoring - in particular OC5.7), Operating Code 9 (Contingency Planning) and Balancing Code 2 (in particular BC2.9 which relates to Emergency Circumstances), Balancing Code 4 (TERRE Processes) and the General Conditions,.

What is the impact of this change?

Proposer's assessment against STC Objectives	
Relevant Objective	Identified impact
(a) efficient discharge of the obligations imposed upon transmission licensees by transmission licences and the Act	Positive The new obligation is not within Transmission Licence
(b) development, maintenance and operation of an efficient, economical and coordinated system of electricity transmission	Positive Provides a level playing field for STC Parties and to put measures in place to restore the NETS as soon as possible following a total or partial national power outage.

(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	Positive Competition for Restoration Services is encouraged via the tender process to ensure a good availability of services at strategically located points which provides value for money. Transmission Licensees will be a fundamental part of delivering this process.
(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	Positive Provide assurance of restoring the System following a total or partial national power outage as quickly as possible
(e) promotion of good industry practice and efficiency in the implementation and administration of the arrangements described in the STC	Positive Provide assurance that the new licence obligation issued in Oct 2021 can be efficiently discharged.
(f) facilitation of access to the national electricity transmission system for generation not yet connected to the national electricity transmission system or distribution system;	Positive Provide assurance that the NETS is adequately assessed, designed and maintained to support restoring the System following a total or partial national power outage.
(g) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.	Positive Provide assurance of restoring the System following a total or partial national power outage.

¹ STCP changes may only be made if they meet the requirements in Section B, 7.3.2

(a) the amendment or addition does not impair, frustrate or invalidate the provisions of the Code	Requirement met
(b) the amendment or addition does not impose new obligations or liabilities or restrictions of a material nature on Relevant Parties which are not subsidiary to the rights and obligations of the Relevant Parties under the Code	Requirement met
(c) the amendment or addition is not inconsistent or in conflict with the Code, Transmission Licence Conditions or other relevant statutory requirements	Requirement met
(d) the Relevant Party Representatives deem that the amendment or addition is appropriate to support compliance with the Code	Requirement met

When will this change take place?

Implementation date

Implementation timeline in line with GC0156

Implementation approach

New Restoration Decision Support Tool, Local Joint Restoration Plans, Distributed Restoration Zone Plans & Annual Restoration Strategy

Interactions

<input checked="" type="checkbox"/> Grid Code	<input checked="" type="checkbox"/> BSC	<input checked="" type="checkbox"/> CUSC	<input checked="" type="checkbox"/> SQSS
<input checked="" type="checkbox"/> European Network Codes	<input type="checkbox"/> Other modifications	<input type="checkbox"/> Other	

This is a consequential change as a result of GC0156

Panel Determination

Party	Determination
National Grid (ESO)	To be updated following Panel determination
National Grid (TO)	To be updated following Panel determination
Offshore Transmission Owners (OFTOs)	To be updated following Panel determination
Scottish Hydro Electric Transmission plc (SHET)	To be updated following Panel determination
SP Transmission Limited (SPT)	To be updated following Panel determination

Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
BEIS	Department for Business, Energy and Industrial Strategy
BSC	Balancing and Settlement Code
CUSC	Connection and Use of System 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
NETS	National Electricity Transmission System
PM	Procedure Modification
RSP	Restoration Service Providers
SQSS	Security and Quality of Supply Standards
STC	System Operator Transmission Owner Code
T&Cs	Terms and Conditions
TO	Transmissions Owner

Reference material

- [GC0156 Modification](#)