STCP 06-3 Issue 006 System Incident Management

CM089 – Electricity System Restoration Standard
19 April 2023

STC Procedure Document Authorisation

Party	Name of Party Representative	Signature	Date
National Grid Electricity System Operator Ltd			
National Grid Electricity Transmission plc			
SP Transmission Ltd			
Scottish Hydro-Electric Transmission Ltd			
Offshore Transmission Owners			

STC Procedure Change Control History

Issue 1	15/12/2004	BETTA Go-Live version
Issue 2	04/07/2005	Issue 002 incorporating PA020
Issue 3	25/10/2005	Incorporating PA034 and PA037
Issue 4	30/09/2010	Incorporating changes for Offshore Transmission
Issue 5	01/04/2019	Incorporating changes for National Grid Legal Separation
Issue 6	06/04/2022	Incorporating PM0123 changes
Issue 7	19/04/2023	Incorporating changes to facilitate the Electricity System Restoration Standard

1 Introduction

1.1 Scope

1.1.1 This procedure applies to NGESO and each TO and describes:

- the processes required to manage Significant Incidents or those incidents that have the potential to become Significant Incidents on or affecting a Transmission Owner's (TO's) Transmission System; and
- the arrangements required for enhanced communication including the activation of System Incident Centres, when Significant Incidents have occurred or are anticipated to occur or affect the TO's Transmission System.

1.1.2 For the purposes of this document, TOs are:

- NGET;
- SPT;
- SHETL;
- Offshore Transmission Licence holders as appointed by OFGEM

1.2 Objectives

1.2.1 The objective of this STCP is to specify the roles and responsibilities for the management of Significant Incidents which may arise from such events as (the following is not an exhaustive list):

- adverse weather;
- accumulation of snow / ice;
- terrorist threat / action;
- major asset loss;
- major safety incident;
- System Restoration~~Black Start~~;
- De-synchronised Island;
- voltage and or load reduction; and
- partial system shutdown.

that has had, or may have a widespread impact on any part of a TO's Transmission System.

1.2.2 In the case of System Restoration~~Black Start~~ this STCP should be read in conjunction with STCP 06-1: System Restoration~~Black Start~~.

1.2.3 In the case of Islanding, this STCP should be read in conjunction with STCP 06-2: De-synchronised Island Management.

1.2.4 An Affected TO or NGESO may decide to set up a System Incident Centre (SIC) in response to, or in anticipation of, a Significant Incident. Further objectives of this STCP with regard to the SIC are to define:

- the functions of the SIC;
- the associated communication channels of the SIC;
- the instances where a SIC would be invoked;
- the minimum facilities to be made available in each SIC; and
- the equipment testing and exercise procedures for each SIC.

2 Key Definitions

2.1 For the purposes of STCP06-3:

2.1.1 **Affected TO** means a TO whose Transmission System is affected by or may be affected by a Significant Incident.

2.1.2 **Duty Manager** means a senior operational manager with sufficient authority to fulfil the obligations placed upon them by this STCP 06-3.

2.1.3 **Event** is as defined in the Grid Code as at the Code Effective Date and for the purposes of this STCP only, not as defined in the STC

2.1.4 **National Electricity Transmission System Warning** means a warning issued by NGESO pursuant to OC7.4.8.4 of the Grid Code.

2.1.5 **Other TO** means a TO other than an "Affected TO"

2.1.6 **System Incident Centre (SIC**) means facilities set up in the event of an incident or emergency on the National Electricity Transmission System to support the relevant Control Centre

3 System Incident Centre

3.1.1 NGESO and each TO shall have in place procedures to ensure that each can set up a SIC when circumstances dictate. The key function of each SIC is to take on a supporting role to the respective Control Centre through:

- the communication of the Significant Incident and its progress to affected Parties, media and government organisations as appropriate;
- the communication of the Significant Incident and its progress to affected Users as appropriate in accordance with the Grid Code;
- the analysis of the Significant Incident impact and development of longer term operational plans for the management of the Significant Incident; and
- the mobilisation and deployment of resources.

3.1.2 NGESO and TOs shall be responsible for ensuring that an appropriate number of telephone lines, fax machines and other appropriate equipment are provided for use in their respective SIC(s). Such equipment shall be tested on a regular basis as agreed by NGESO and TO, or in line with 3.1.5 as a minimum.

3.1.3 The name and contact details of a Party's Duty Manager shall be held by each Party in their respective Control Centre, shall be updated by the relevant Party as appropriate and shall be made available on request to NGESO or TO as appropriate.

3.1.4 NGESO and each TO shall ensure that media relations staff for their organisations are available at all times and shall share information to produce timely and consistent media statements as and when required. All media statements relating to Significant Incidents affecting the Transmission System or National Electricity Transmission System Warnings shall be agreed by NGESO and an Affected TO prior to release.

3.1.5 NGESO and each TO shall ensure that joint SIC exercises with each TO are carried out annually. The objective of such joint SIC exercises shall be to test the procedures outlined in this document and any other relevant internal procedures. Where such exercises do not involve external parties either the TO or NGESO (as agreed) shall lead in the planning of such exercises. All exercises that involve external parties must be by prior notice and shall be co-ordinated by NGESO.

4 Significant Incident Management Process

4.1 Weather Reports

4.1.1 NGESO shall ensure that it receives appropriate weather reports including advanced severe weather warnings for Great Britain.

4.1.2 Each TO shall ensure it receives appropriate weather reports including advanced severe weather warnings for its respective licensed area.

4.2 Anticipated Significant Incidents

4.2.1 On receipt of a weather warning or acting upon other information as appropriate, NGESO may issue a National Electricity Transmission System Warning - Risk of System Disturbance warning to the TO(s). When NGESO issues a National Electricity Transmission System Warning - Risk of System Disturbance warning to Users then NGSOT shall also copy this warning to any relevant TO.

4.2.2 On receipt of such National Electricity Transmission System Warning - Risk of System Disturbance warning each TO shall then evaluate the situation. Where deemed necessary by NGESO or the TO each Party shall contact its Duty Manager. Each respective Duty Manager shall then evaluate the situation and make contact with other relevant parties where necessary. Each respective Duty Manager shall arrange for all non-operational communication to be directed away from their Control Centre(s) as required.

4.2.3 An Affected TO Duty Manager shall consider and review the need for SIC activation and advise NGESO accordingly. NGESO may request that an Affected TO activates its SIC but the final decision regarding the activation of an Affected TO's SIC rests with an Affected TO.

4.2.4 The NGESO Duty Manager shall consider and review the need for SIC activation and advise an Affected TO accordingly. An Affected TO may request that NGESO activates its SIC but the final decision regarding the activation of NGESO's SIC rests with NGESO

4.2.5 The formal activation of a SIC shall be notified by faxed pro-forma (Appendix B). Following the activation of a SIC, the content of this fax shall be updated as and when there are any changes to SIC information and such updates shall be communicated to each Party as appropriate. Where necessary NGESO shall then inform as appropriate the Other TO, and affected Users using appropriate methods of communication that one or more SICs has been established.

4.2.6 Affected TO(s) shall review and provide updates on Outage Emergency Return to Service Times and circuit availability to NGESO.

4.2.7 NGESO shall review system configuration, circuit availability and develop an operational strategy. Actions may be agreed with an Affected TO using the processes specified in STCP 01-1: Operational Switching, which may include:

- returning circuits to service where appropriate; and/or
- adoption of non-standard running arrangements to improve security.

For the avoidance of doubt the above list is non-exhaustive and other actions may be agreed between the Parties.

4.2.8 An Affected TO shall implement actions agreed pursuant to section 4.2.7 in accordance with STCP 01-1: Operational Switching.

4.3 Unanticipated Significant Incidents

4.3.1 The procedure as detailed in this section 4.3 shall be followed for Significant Incidents on or affecting a TO's Transmission System where it is unlikely that NGESO or a TO shall receive any advance warning.

4.3.2 Following receipt of information relating to a Significant Incident on or affecting the TO's Transmission System, the recipient (NGESO or an Affected TO) shall inform the other Party without delay. Both Parties shall record the receipt and exchange of such information.

4.3.3 The TO may take emergency action in accordance with STCP 09-2: Public and Site Safety.

4.3.4 Where appropriate NGESO shall identify any further Operational Switching actions required and implement them, using the processes specified in STCP 01-1: Operational Switching.

4.3.5 An Affected TO or NGESO where appropriate, shall inform their respective Duty Manager of the information referred to in section 4.3.2. Each respective Duty Manager shall then evaluate the situation and make contact with other relevant Parties where necessary. Each respective Duty Manager shall arrange for all non-operational communication to be directed away from their Control Centre(s) as required.

4.3.6 The NGESO Duty Manager (where appropriate) shall establish communication links to an Affected TO and Users. Where relevant, National Electricity Transmission System Warnings shall be issued to the TOs and to Users in line with Grid Code requirements. Where NGESO issues a warning to Users under OC7.4.8.8 of the Grid Code, NGESO shall also copy this warning to the Affected TO.

4.3.7 An Affected TO Duty Manager shall consider and review the need for SIC activation and advise NGESO accordingly. NGESO may request that an Affected TO activates its SIC but the final decision regarding the activation of an Affected TO's SIC rests with an Affected TO.

4.3.8 The NGESO Duty Manager shall consider and review the need for SIC activation and advise an Affected TO accordingly. An Affected TO may request that NGESO activates its SIC but the final decision regarding the activation of NGESO's SIC rests with NGESO.

4.3.9 The formal activation of a SIC shall be notified by faxed pro-forma (Appendix B). Following the activation of a SIC, the content of this fax shall be updated as and when there are any changes to SIC information and such updates shall be communicated to each Party as appropriate. Using appropriate methods of communication, NGESO shall then inform (as appropriate) the TOs and affected Users that one or more SICs has been established. Where NGESO issues information to Users, NGESO shall also copy this information to the TOs.

4.4 Significant Incident Management

4.4.1 As events occur on or affecting a TO's Transmission System that lead to a Services Reduction, an Affected TO shall have responsibility for developing the Services Restoration Proposal and NGESO shall have responsibility for directing the configuration of those parts of the Transmission System made available.

4.4.2 In practice, NGESO and an Affected TO shall liaise and take into consideration each others concerns when developing a suitable operational recovery strategy. This shall include information with regard to asset condition, weather conditions, safety and deployment of resources, and operational conditions normally based on the following hierarchy:

1) Main Interconnected Transmission System security
2) Customer supply restoration
3) Commercial & market issues

4.4.3 System conditions may dictate that NGESO and an Affected TO may agree to an alternative hierarchy to that in 4.4.2.

4.4.4 Should disputes arise with respect to a suitable operational recovery strategy every reasonable attempt to resolve the disagreement shall be made at the time. If agreement cannot be reached, the matter shall be referred to higher authority within each organisation to try to reach agreement. Otherwise, the disputes process described in Section H of the STC shall be followed.

4.5 Standdown

4.5.1 As the situation improves, NGESO may decide to close its SIC. The NGESO Duty Manager or other appropriate manager, shall communicate this decision to the Affected TO and all other parties notified of the existence of the SIC. The formal notification of the stand down of NGESO SIC shall be by fax (Appendix C).

4.5.2 As the situation improves in its licensed area an Affected TO may decide to close its SIC. An Affected TO Duty Manager shall communicate the decision to close the SIC to NGESO who shall then inform all Parties and Users notified of the existence of the SIC. The formal notification of the stand down of an Affected TO's SIC and the return to normal communication channels shall be by fax (Appendix C).

5 Significant Incident Roles and Responsibilities

The table below is indicative of the action(s) that shall normally occur for a given Event. **It is included for guidance only.**

Event	NGESO	TO
Advanced Warning of severe weather conditions received	Consider issuing System warning notice, Risk of System Disturbance Review staffing levels in E &W Liaise with NGET, SHETL~~SE~~ & SPT Consider System configuration and circuit availability. Inform Duty Manager, consider setting up SIC.	Liaise with NGESO Review staffing levels Inform key staff of situation Review Availability of circuits on outage. Carry out agreed switching to re-configure System and/or return circuits to service. Inform Duty Manager, consider setting up SIC.
Localised or widespread System disturbance on SPT and/or SHETL~~SE~~ Distribution network		Duty Manager / SIC role established. Mobilise resources. Manage asset availability. Liaise with NGESO on Transmission issues.
Localised System disturbance on any TO Transmission Network.	Respond to TO escalation or Initiate response via Duty Manager / SIC role. Manage System security. Liaise with Ofgem /DESNZ~~DTI~~/ other System users on transmission issues.	Where normal communication links are insufficient set up Duty Manager point of contact/ SIC role and establish communication with NGESO Duty Manager / SIC. Mobilise resources. Manage asset availability.
Widespread System disturbance on the Transmission System	Respond to TO escalation or Initiate response via Duty Manager / SIC role. Manage System security. Liaise with Ofgem / DESNZ~~DTI~~ other System users on transmission issues.	Set up Duty Manager point of contact/SIC role and establish communication with NGESO Duty Manager / SIC role. Mobilise resources. Manage asset availability
Major asset failure or terrorist incident on the Transmission System	Set up or receive request to set up Duty Manager /SIC role. Manage System security. Liaise with Ofgem/DESNZ~~DTI~~ and other users	Set up Duty Manager/ SIC role. Mobilise resources. Inform NGESO Manage asset availability

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Appendix A: Flow Diagrams

Note that the Process Diagrams shown in this Appendix A are for information only. In the event of any contradiction between the process represented in this Appendix and the process described elsewhere in this STCP, then the text elsewhere in this STCP shall prevail.

STCP 06-3 Anticipated Incidents
Page 1
External
SO
TO
SO receives advanced severe weather reports or other anticipated incident
TO receives advanced severe weather reports
Is a Risk of System Disturbance warning required?
No
End
Yes
Users notified of situation
Issue Risk of System Disturbance report
TO notified
SO liaison with Users
SO reviews Transmission System configuration and agrees actions with TO, in accordance with STCP1-1 - Operational Switching
SO/TO liaison
TO reviews and provides updates on outage ERTS times & circuit availability
TO completes agreed switching in accordance with STCP 1-1 - Operational Switching
O
End
SO Duty Manager evaluates situation and where appropriate, contacts relevant parties, and redirects all non-operational communication from Control Room
TO Duty Manager contacts interested parties and redirects, all non-operational communication from Control Room
SO Duty Managers consider need for implementation of SO S.I.C and advise TO. TO can request implementation of SO SIC, final decision rests withSO
SO/TO liaison
TO Duty Managers consider need for implementation of TO S.I.C and advise SO. SO can request implementation of TO SIC, final decision rests with TO
No
Is SO S.I.C required?
Is TO S.I.C required
No
End
Yes
Go to A
Yes
Go to B

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STCP 06-3 Unanticipated Incidents
Page 1
External
NGET
TO
Users advised of impending situation
NGET receives information relating to a serious incident on the Transmission System and informs TO.
Unanticipated Incident received
TO receives information relating to a serious incident on the Transmission System and informs NGET
Is there an immediate danger to life or equipment
No
End
Yes
Emergency action taken in line with STCP 09-2: Public and Site Safety
NGET reviews Transmission System configuration and agrees actions in accordance with STCP 01-1 Operational Switching
Is System Warning required?
No
End
Yes
TO completes agreed switching, in accordance with STCP 01-1 Operational Switching
User receives System Warning notiification
NGET issue System Warning to TO & Users
TO receives System Warningnotiification
NGET evaluates situation and where appropriate contacts relevant parties, and redirects all non-operational communication from Control Room
TO evaluates situation and where appropriate contacts relevant parties, and redirects all non-operational communication from Control Room
NGET Duty Managers consider need for implementation of NGET S.I.C and advise TO. TO can request implementation of NGET SIC, final decision rests with NGET
NGET/TO liaison
TO Duty Managers consider need for implementation of TO S.I.C and advise NGET. NGET can request implementation of TO SIC, final decision rests with TO
Is NGET S.I.C required?
No
End
Is TO S.I.C required
No
End
Go to C
Go to D

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Appendix B

SIC SET UP / UPDATE FAX PROFORMA

_____
(Company)

To: _____

From: _____

NOTIFICATION OF ACTIVATION OF THE
_____SYSTEM INCIDENT CENTRE
(Location)

The _____ System Incident Centre has been activated.
It is staffed by the following team, please use the telephone and fax numbers provided below for all communications with the System Incident Centre.
The System Incident Centre shall remain staffed until further notice.

Name / Role	BT Telephone Number	CTN Telephone Number

Fax Number(s) for all positions

_____

Date:_____ Time:_____

Signed: _____

END.

Appendix C

SIC STAND DOWN FAX PROFORMA

_____
(Company)

To: _____

From: _____

STAND-DOWN OF THE

_____ **SYSTEM INCIDENT CENTRE**
(Location)

The _____ System Incident Centre has now been closed.
All communications should now revert to normal Operational channels.
Thank You for Your Co-operation.

Date:_____ Time:_____

Signed_____

END.

Appendix D – Abbreviations & Definitions

Abbreviations

ERTS	Emergency Return To Service
SHETL	Scottish Hydro-Electric Transmission Ltd
SPT	SP Transmission Ltd
STCP	System Operator –Transmission Owner Code Procedure
TO	Onshore or Offshore Transmission Owner

Definitions

STC definitions used:

~~Black Start~~
Customer
Emergency Return to Service Times
NGESO
NGET

Outage
Party/Parties
Services Restoration Proposal
Services Reduction
Significant Incident
System Restoration
Transmission Owner
Transmission System
User

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Grid Code definitions used:

Control Centre
De-synchronised Island
Event
National Electricity Transmission System Warning - Risk of System Disturbance
Operational Switching

Definition used from other STCPs:

Main Interconnected Transmission System	STCP 11-1: Outage Planning