CM089 – Electricity System Restoration Standard
9 June 2023

STCP 04-2 Issue 007 Real Time Datalink Management

STC Procedure Document Authorisation

Company	Name of Party Representative	Signature	Date
The Company			
National Grid Electricity Transmission plc			
SP Transmission plc			
Scottish Hydro Electric Transmission plc			
Offshore Transmission Owners			

STC Procedure Change Control History

Issue 001	21/12/2004	BETTA Go-Live Version
Issue 002	20/04/2005	Issue 002 incorporating STCPAP003
Issue 003	25/10/2005	Issue 003 incorporating PA034 & PA037
Issue 004	12/11/2009	Issue 004 incorporating changes for Offshore Transmission
Issue 005	26/02/2014	Issue 005 incorporating PM076
Issue 006	01/04/2019	Issue 006 incorporating National Grid Legal Separation changes
Issue 007	25/04/2023	Issue 007 incorporating use of 'The Company' definition as made in the STC PM0130
Issue 008	08/06/2023	Issue 008 incorporating changes to facilitate the Electricity System Restoration Standard

1. Introduction

1.1 Scope

1.1.1 The provision of a resilient Datalink is essential for the continuous transmission of real time data from the TO to The Company to enable The Company to have an overview of the TO's Transmission System. This document details the responsibilities and obligations on The Company and the TO with regard to the management and support of the Datalink.

1.1.2 This document applies to The Company, as defined in the STC and meaning the licence holder with system operator responsibilities, and each TO.

1.1.3 for the purposes of this STCP, TOs are:

- NGET;
- SPT;
- SHE-T; and
- All Offshore Transmission Licence holders as appointed by OFGEM

In the event that specific conditions or exceptions are made in the document relating to an Onshore TO or Offshore TO these will be prefixed appropriately

1.2 Objectives

1.2.1 This process specifies the responsibilities and obligations on The Company and the TOs in relation to the Datalink, including:

- infrastructure ownership boundaries;
- management in real time; and
- change management.

2 Key Definitions

2.1 For the purposes of STCP04-2:

2.1.1 Onshore Datalink means the infrastructure that enables the transfer of real time SCADA data from the relevant Onshore TO to The Company, as defined in Appendix B for Onshore Transmission Systems and Appendix D for Offshore Transmission Systems.

3 Procedure

3.1 Datalink Provisions

3.1.1 The diagrams in Appendix C and Appendix E illustrates the ownership and support boundaries of the infrastructure associated with the real-time Datalink for Onshore and Offshore Transmission Systems respectively .

3.1.2 Any changes to the configuration of the infrastructure illustrated in Appendices C and E shall be agreed between The Company and the relevant TO prior to implementation.

3.1.3 Each TO shall provide a resilient Datalink to interface with The Company Datalink, in line with Good Industry Practice.

3.1.4 The specification of the TO Datalink infrastructure, its level of resiliency, supporting services and facilities shall be included in that TO's Services Capability Specification

which as a minimum include a mains independence period of up to 72 hours (or such longer period as agreed between the TO and The Company) from the start of a Total Shutdown or Partial Shutdown. For OFTOs please refer to STC Section K and STCP 04-6 (Offshore Datalink Functional Specification for Telecontrol Communication Interface).

3.1.5 The Company shall provide a resilient Datalink to interface with each TO's Datalink, in line with Good Industry Practice.

3.2 Alarm & Fault Management of the Datalink

3.2.1 When a TO receives a Datalink alarm or is made aware of a fault that affects Datalink equipment at a TO site, the relevant TO shall notify The Company of such alarm or fault.

3.2.2 Where the alarm or fault is on the TO Datalink, the TO shall report any Service Reduction or Service Reduction Risk in accordance with STCP 2-1 Alarm and Event Management.

3.2.3 Where The Company is in receipt of an alarm, or is made aware of a fault that affects the TO Datalink The Company shall notify the relevant TO of the alarm or fault in accordance with STCP 2-1 (Alarm and Event Management).

3.2.4 Where the TO owns the equipment associated with the alarm of fault, it shall arrange, through communication with The Company, for resolution in line with the standing Service Restoration Proposal.

3.2.5 Where The Company is in receipt of an alarm, or is made aware of a fault that affects The Company Datalink, they shall notify the relevant TO as soon as reasonably practicable and arrange for resolution in line with agreed support arrangements.

3.3 Change Management

3.3.1 Change management shall be carried out in line with STCP 4-1 (Real Time Data Change Management).

3.4 Outage Co-ordination

3.4.1 The Company shall notify the TO of any proposed outage on The Company Datalink.

3.4.2 The TO shall notify The Company of any proposed outages on the TO Datalink. The TO shall advise The Company on the works duration, content, its impact on the operation of the Datalink, and any other measures to mitigate the effect of the outage.

3.4.3 The Company or the relevant TO shall provide the other party with sufficient notice of a planned outage on any element of the Datalink, or data communication systems, where it may affect the resiliency of its operation.

3.5 Site Access and Support Arrangements

3.5.1 Site access and support arrangements between The Company and the relevant TO shall allow The Company access to The Company Datalink at TO sites for service restoration.

3.5.2 The TO shall ensure that there are support arrangements with associated levels of service to enable restoration or maintenance of the TO Datalink as part of the standing TO Service Restoration Proposal. The Company shall ensure that there are equivalent support arrangements with associated levels of service to enable restoration or maintenance of The Company Datalink.

3.5.3 Where User consent for access is required, The Company shall procure all necessary User consents.

3.6 Datalink Reporting

3.6.1 Failures of the Datalink may be assessed and reported in line with STCP 3-1 (Post Event Analysis and Reporting) and may include the following:

- Faults on the TO Datalink that causes loss of integrity or resiliency of the Datalink
- Faults on The Company Datalink that causes loss of integrity or resiliency of the Datalink

Appendix A: Flow Chart

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 4-2 Real Time Datalink Management
External
SO
TO
Management of the Datalink in real time
TO receives a Datalink alarm or aware of a fault affecting Datalink equipment at a TO site. Notify SO.
SO notified of Datalink alarm or fault
Yes
SO receives an alarm or aware of a fault that affects the TO Datalink. Notify TO in accordance with STCP2-1
TO notified of Datalink alarm or fault
Is alarm or fault on TO Datalink?
Yes
No
Report any Service Reduction or Service Reduction Risk in accordance with STCP2-1
Is alarm or fault on equipment owned by TO
Yes
Arrange, in discussion with SO, for resolution in line with the standing Service Restoration Proposal
No
Is there loss of integrity or resilience of the SO Datalink or other failure requiring assessment?
No
End
Yes
Assess and report in line with STCP 3-1
SO receives alarm or aware of a fault that affects SO Datalink. Notify TO and arrange for resolution in line with agreed support arrangements
Receive notification that there is an alarm or fault on the SO Datalink
Is there loss of integrity or resilience of the SO Datalink or other failure requiring assessment?
Yes
No
Assess and report in line with STCP 3-1
End

STCP 4-2 Real Time Datalink Management
External
SO
TO
Datalink Outage Management
SO provides TO with sufficient notice of any outages on the SO Datalink
TO notified of outages on the SO Datalink
SO notified of outages on TO Datalink
TO provides SO with sufficient notice of any outages on TO Datalink

Appendix B Onshore Datalink

This Appendix has been removed from this version of the STCP on the grounds of Confidentiality, in accordance with the decision taken by the STC Committee in February 2005.

For further information please email STC.Team@uk.ngrid.com

Appendix C

This Appendix has been removed from this version of the STCP on the grounds of Confidentiality, in accordance with the decision taken by the STC Committee in February 2005.

For further information please email STC.Team@uk.ngrid.com

Appendix D

Offshore Datalink

The OFTO will provide a data acquisition system to collect and deliver real time indications, alarms and analogues from the offshore transmission system and Users of the Offshore Transmission System.

The interface between the OFTO datalink and the NETSO i.e. the telecontrol communication interface will be located at an onshore location as agreed between The Company and the OFTO.
The functional specification for telecontol communication interface between the SCADA system and the NETSO energy management system is described in STCP 4-6.

Appendix E: Offshore Datalink Ownership and Support Boundaries

Note that in the diagram above a protocol converter may not be required in all cases.

Appendix F: Abbreviations & Definitions

Abbreviations

SPT	SP Transmission plc
SHE-T	Scottish Hydro Electric Transmission plc
TO	Transmission Owner
OFTO	Offshore Transmission Owner

Definitions

STC definitions used:
Apparatus
Good Industry Practice
NGET
~~The Company~~
Partial Shutdown
Plant Services Capability Specification
Services Restoration Proposal
Services Reduction
Services Reduction Risk
The Company
Total Shutdown
Transmission System
User