

# **STCP 04-1 Issue 003 Real Time Data Change Management**

## **STC Procedure Document Authorisation**

<b>Company</b>	<b>Name of Party Representative</b>	<b>Signature</b>	<b>Date</b>
National Grid Electricity Transmission plc			
SP Transmission Ltd			
Scottish Hydro-Electric Transmission Ltd			

## **STC Procedure Change Control History**

Issue 001	21/12/2004	BETTA Go-Live Version
Issue 002	20/04/2005	Issue 002 incorporating STCPAP004
Issue 003	25/10/2005	Issue 003 incorporating PA034 & PA037

## **1 Introduction**

### **1.1 Scope**

1.1.1 It is essential that all changes to real time data that involve modification to SCADA databases or displays are reported to, and co-ordinated with, affected Party(s). Affected Parties must be notified of changes in sufficient time to permit sufficient discussions to manage change effectively.

1.1.2 This document applies to NGET and the TO for real time data changes brought about by events such as:

- new Plant and/or Apparatus connected to the GB Transmission System;
- Plant and/or Apparatus reconnected to the GB Transmission System;
- Plant and/or Apparatus disconnected from the GB Transmission System;
- changes to Protection Apparatus or control equipment;
- changes to numbering or nomenclature of existing Plant and/or Apparatus;
- temporary changes made to the GB Transmission System;
- emergency changes to the GB Transmission System;
- User's System changes; and
- any other changes

that require modification to the NGET and TO SCADA database displays.

1.1.3 This procedure applies to NGET and each TO.

1.1.4 For the purposes of this document, TOs are:

- SPT; and
- SHETL.

1.1.5 At NGET sites that connect with SPT sites, certain real time data is provided to SPT via local Data Transmission equipment that is owned and maintained by SPT. Any changes that may affect this data are subject to the provisions of this document.

1.1.6 TO - TO data change management is outside the scope of this document. It is anticipated that a similar procedure shall be followed.

1.1.7 The procedure for the management of the Datalink is detailed in STCP 4-2 (Real Time Datalink Management) and is outside the scope of this document.

### **1.2 Objectives**

1.2.1 This document specifies the requirements and responsibilities placed on NGET and TOs for ensuring that changes to real time data and displays are captured and made available to the other affected Parties in good time.

### **1.3 General Provisions**

1.3.1 The change management process for SCADA data shall apply during the Commissioning and De-commissioning process (see STCP 19-4) and shall also apply to changes to equipment outside the scope of the Commissioning and De-commissioning process.

- 1.3.2 The TOs and NGET shall each nominate a contact point for data co-ordination, including a dedicated email account, to facilitate data co-ordination between NGET and TOs.
- 1.3.3 Communication of TO SCADA database changes shall be through a pro-forma providing a description of the change and a real time data spreadsheet detailing the actual changes to the data points. The format and content of the pro-forma as agreed from time to time is in Appendix B. Similarly, the format and content of the real time data spreadsheet as agreed from time to time is in Appendix C.
- 1.3.4 Parties will acknowledge receipt of data via the agreed contact points.

## **2 Key Definitions and Interpretation**

### **2.1 For the purposes of STCP04-1:**

- 2.1.1 **Data Transmission Equipment** means equipment that collects indications and data from an NGET site and relays it to the relevant TO through a communications route.

## **3 Procedure**

### **3.1 Changes not associated with Plant and/or Apparatus**

- 3.1.1 Following changes to SCADA real time data that are not associated with Plant and/or Apparatus, such as modifications to an outstation or a database legend change, the TO shall prepare a pro-forma (Appendix B) identifying the change and provide a supporting real time data spreadsheet (Appendix C) listing the changes made to the SCADA database including the relevant point number, record number, attributes and date of change. Where relevant an operational or display diagram shall also be included.
- 3.1.2 The information detailed in 3.1.1 shall be sent by the nominated TO contact point to the nominated NGET contact point as soon as reasonably practicable, which shall normally be not less than 4 weeks in advance of the implementation date. NGET shall provide acknowledgement of receipt of the relevant information to the TO via the agreed contact point. NGET shall ensure that its database is updated in line with the supplied information.
- 3.1.3 Where NGET requires changes to real time data at NGET sites where the TO has Data Transmission Equipment installed NGET shall identify the changes and provide the information to the TO using the pro forma Appendix B via the respective contact point, to enable changes to be made to the TO SCADA database. Where relevant an operational or display diagram shall also be included.
- 3.1.4 NGET shall notify the relevant TO(s) of any User initiated changes of which NGET has been made aware and which may require modification to that TO database or displays. Notification shall take place as soon as reasonably practicable which shall normally be not less than 4 weeks in order to allow sufficient time for the TO to satisfy its obligations under 3.1.1 and 3.1.2. NGET shall co-ordinate the change process between all parties.
- 3.1.5 Appropriate and timely testing shall be completed using agreed points of contact, at the request of either party, to validate the transmission of real time data from the TO to NGET following changes made to either or both the TO and NGET database.

### **3.2 Commissioning / De-Commissioning**

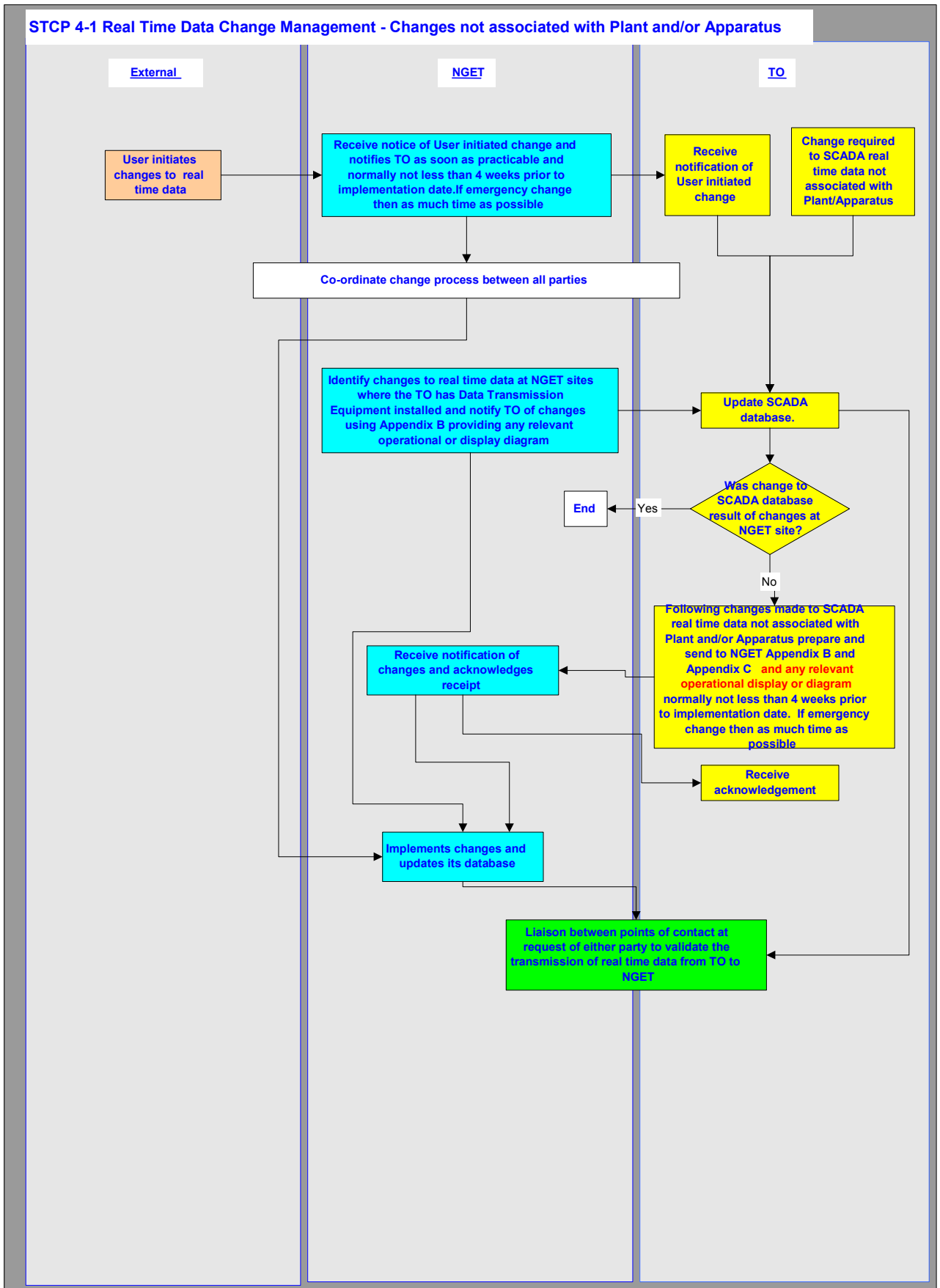
- 3.2.1 STCP 19-4 Commissioning / De-Commissioning specifies the process for initiating and completing changes to the GB Transmission System. Changes to real time data are an essential part of that process.
- 3.2.2 The key dates in the Plant and/or Apparatus change process are:
- the planned date on which equipment becomes subject to or is removed from the TO safety rules
  - the planned date of commissioning or de-commissioning of equipment
- 3.2.3 The TO and NGET shall plan the change process to allow sufficient time for all parties to evaluate and co-ordinate the changes. This shall normally be not less than 6 weeks prior to the planned database change implementation date that aligns with the key dates in 3.2.2
- 3.2.4 The TO shall supply the relevant real time data (specified in STCP 4-3: Provision of Real Time Data) via the respective contact point. This shall be in the format specified in 3.1.1 showing the proposed / amended /deleted data, including point ID, record number and associated attributes and proposed date of change. Where applicable operational and or display diagrams shall be supplied.
- 3.2.5 NGET shall supply the TO, via the agreed contact point, details of any changes to the real time information (specified in STCP 4-3) for NGET sites that contain TO Data Transmission Equipment using Appendix B. Where applicable operational and or display diagrams shall be supplied.
- 3.2.6 Where major changes to the GB Transmission System are to take place in stages, the TO shall provide data relevant to each stage of the change along with the proposed implementation dates.
- 3.2.7 As soon as reasonably practicable, NGET shall notify the relevant TO(s) of any User initiated Commissioning / De-commissioning of which they have been made aware that may require amendment to the TO SCADA database and/or operational / display diagrams.
- 3.2.8 All real time data changes associated with Commissioning/ De-Commissioning on the TO Transmission System or User System shall be the subject of close liaison between NGET and the TO in order to ensure that changes are co-ordinated. All Parties shall agree the time and date of implementation.
- 3.2.9 The TO shall ensure transmission of real time data to the Datalink in accordance with STCP 4-2 (Real Time Datalink Management).
- 3.2.10 In order to validate the transmission of alarms and indications from the TO appropriate and timely testing shall be undertaken using agreed points of contact, at the request of either party, following changes made to either or both the TO and NGET database

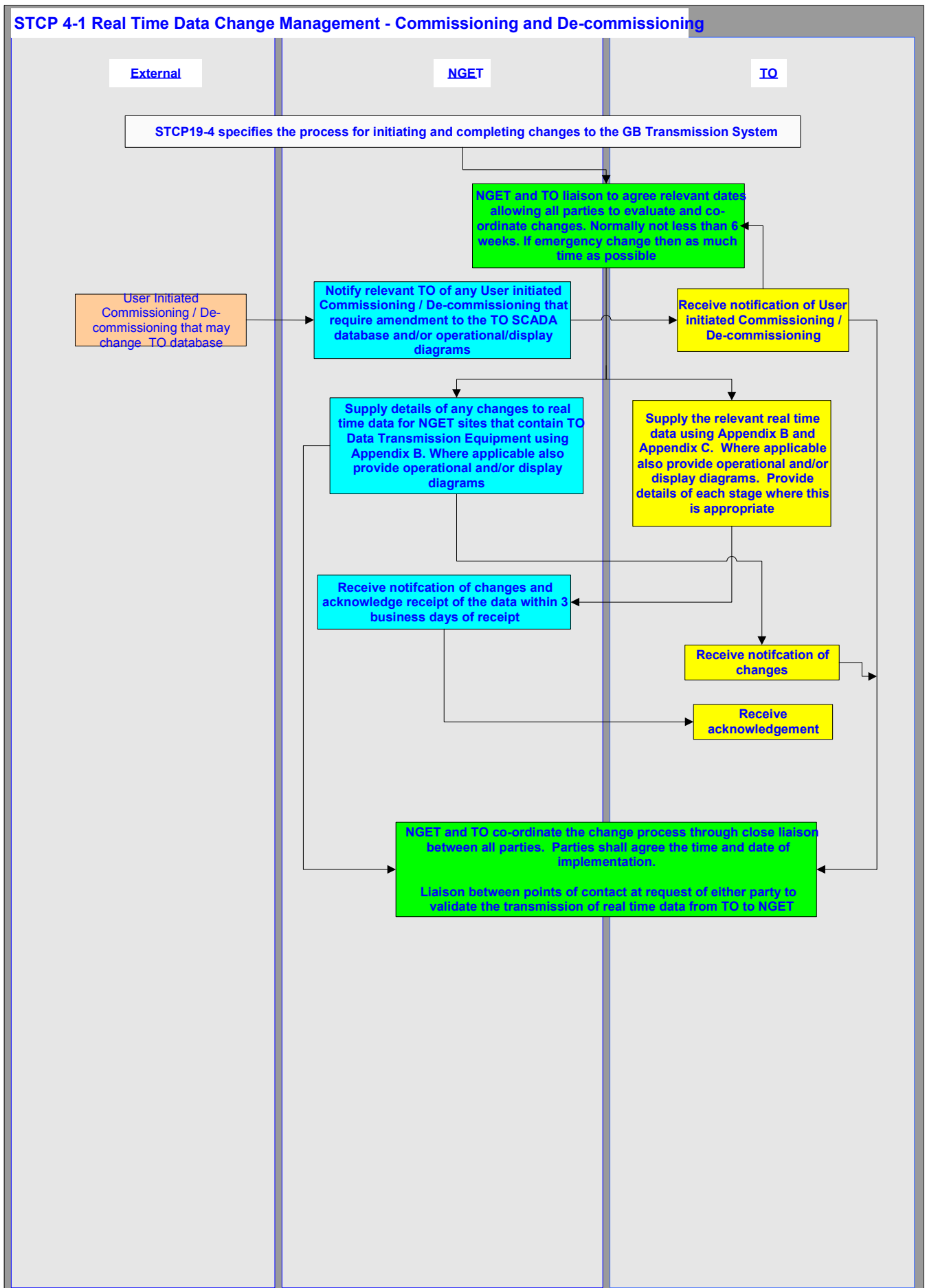
### **3.3 Emergency Changes**

- 3.3.1 Emergency changes are those required at very short notice to accommodate modifications initiated by events such as:
- emergency re-configuration of the GB Transmission System
  - urgent changes in control time scales.
- 3.3.2 When NGET or the TO is made aware of emergency changes in real time data that must be implemented in a shorter timescale than that specified as normal, the process detailed in 3.2 and 3.3 shall still be followed wherever reasonably practicable.

## Appendix A: Flow Diagram

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.





**Appendix B: Modification of Facilities Certificate**

Initiated by (Print Name)..... .... Contact No.....	Initiators Change Request No	Company
Date issued..... .. Date of Implementation..... Target Date for Testing... .....		
<b>Description of Required Change</b> Y/N	Diagram/Description of required change	
<b>Display Change</b> Display / Circuit Name/ Number		

**Appendix C: Sample Real Time Data Spreadsheet**

S/S	display digits	engunits	exdesc	point id	point source	point type	rec no	span	step	typical value	zero
xxxxxx											
xxxxxx	2	AMPS	xxxxxx	22106	E	float32	22098	1400	1	1400	0
xxxxxx	0	AMPS	xxxxxx	136791	E	float32	76917	500	1	500	0
xxxxxx	2	MVAR	xxxxxx	22566	E	float32	22550	300	1	300	-150
xxxxxx	2	MW	xxxxxx	22567	E	float32	22551	89	1	89	1
xxxxxx	0	AMPS	xxxxxx	22591	E	float32	22575	1400	1	1400	0
xxxxxx	2	MVAR	xxxxxx	22610	E	float32	22594	300	1	300	-150
xxxxxx	2	MW	xxxxxx	22611	E	float32	22595	800	1	800	-400
xxxxxx	0	AMPS	xxxxxx	22681	E	float32	22665	800	1	800	0

## ***Appendix D: Abbreviations & Definitions***

### ***Abbreviations***

SPT	SP Transmission Ltd
SHETL	Scottish Hydro-Electric Transmission Ltd
SCADA	Supervisory Control and Data Acquisition
TO	Transmission Owner

### ***Definitions***

#### **STC definitions used:**

Apparatus  
GB Transmission System  
NGET  
Plant  
User

#### **Grid Code definitions Used:**

Protection Apparatus

#### **Definition used from other STCPs:**

**Datalink** STCP04-2: Real Time Datalink Management