STC Procedures Definition Review

National Grid Analysis

National Grid has undertaken a review of the following STCPs and has highlighted areas of potential change:

STCP08-1 (Protection Testing)

1. <u>GB Transmission System</u> STC definition used.

Action: No change

 <u>Operational Effect</u> There is STC and Grid Code definition, STC explanation currently used.

Action: No change.

3. <u>Protection</u> STC definition refers to Grid Code i.e. as at the Code Effective Date.

Action: No change.

4. <u>User</u> STC definition used.

Action: No change.

STCP08-2 (Circuit Live Trip & DAR Tests)

1. <u>GB Transmission System</u> STC definition used.

Action: No change.

2. <u>Operational Effect</u> There is STC and Grid Code definition, STC explanation currently used.

Action: No change.

3. <u>Apparatus</u> There is STC and Grid Code definition, Grid Code explanation currently used.

Action: Move to STC definition list.

4. <u>Circuit Breaker</u> There is no STC or Grid Code definition, term currently under Grid Code list.

Action: Remove from Grid Code list. Defined in Section 2 (Key Definition).

 <u>Circuit Breaker Fail</u> There is no STC or Grid Code definition, term currently under Grid Code list. It is defined within Section 2 (Key Definitions).

Action: Remove from Grid Code list.

6. Good Industry Practice

There is STC and Grid Code definition (both the same), Grid Code explanation currently used.

Action: Move to STC definition list

7. <u>Operational Intertripping Scheme</u> There is no STC or Grid Code definition, term currently under Grid Code list. There is a definition within the Grid Code for Operational Intertripping.

Action: Operational Intertripping Scheme to be defined in Key Definitions. Operational Intertripping to be to Grid Code definition list.

 Plant There is STC and Grid Code definition (both the same), Grid Code explanation currently used.

Action: Move to STC definition list.

 Protection Grid Code definition used. STC definition refers to Grid Code i.e. as at the Code Effective Date.

Action: Move to STC definition list.

STCP08-3 (Operational Tests and System Tests)

- 1. <u>Swim Lanes</u> Action: Swim Lanes (currently Appendix B) be transferred to Appendix A.
- 2. <u>GB Transmission System</u> STC definition used.

Action: No change.

3. <u>Operational Effect</u> There is STC and Grid Code definition, STC explanation currently used.

Action: No change.

 Service Reduction Risks There is no definition for Service Reduction Risks, there is a STC description for Service Reduction Risk.

Action: Service Reduction Risks be replaced with Service Reduction Risk – Committee to agree.

5. <u>System</u>

There is a STC, CUSC and Grid Code definition for System, STC definition is currently used. STC definition refers to CUSC i.e. as at the Code Effective Date. CUSC definition is the same as Grid Code description.

Action: No change required, STC definition to be used.

6. <u>User</u>

STC definition used.

Action: No change.

STCP08-4 (User Tests)

- 1. <u>Swim Lanes</u> Action: Swim Lanes (currently Appendix B) be transferred to Appendix A.
- 2. <u>Abbreviations</u> Action: Remove lines from table.
- 3. <u>GB Transmission System</u> STC definition used.

Action: No change

4. <u>Operational Effect</u> There is STC and Grid Code definition, STC explanation currently used.

Action: No change.

5 <u>System</u>

There is a STC, CUSC and Grid Code definition for System, STC definition is currently used. STC definition refers to CUSC i.e. as at the Code Effective Date. CUSC definition is the same as Grid Code description.

Action: No change required, STC definition to be used.

STCP11-1 (Outage Planning)

- 1. <u>Defined Terms in STCP</u> Action: Information contained with the Defined Terms table to be transferred to 'Key Definitions' section.
- <u>NGC Outage Database</u> Action: Defined in Section 2 (Key Definitions). Replace Outage Database with NGC Outage Database.
- <u>Operational Capability Limit</u> There is no definition for Operational Capability Limit, there is a STC description for Operational Capability Limits.

Action: Operational Capability Limit is replaced with Operational Capability Limits. Committee to agree.

 Protection Grid Code definition used. STC definition refers to Grid Code i.e. as at the Code Effective Date.

Action: Move to STC definition list.

5. <u>Plane Freeze</u> Action: Defined in Section 2 (Key Definitions)

STCP11-2 (Outage Data Exchange)

1. Swim Lanes

Action: Swim Lanes (currently Appendix B) be transferred to Appendix A. Committee to agree.

2. Defined Terms in STCP

Action: Information contained with the Defined Terms table to be transferred to 'Key Definitions' section. Committee to agree.

3. <u>Freeze Date</u> Not defined in STC, Grid Code or CUSC.

Action: Remove from STC definitions list. Term to be defined in Section 2 (Key Definitions).

STCP11-3 (Outage Change Costing)

- <u>Swim Lanes</u> Action: Swim Lanes (currently Appendix B) to be transferred to Appendix A. Committee to Agree.
- 2. <u>GB Transmission System</u> STC definition used.

Action: No change.

3. Plant

There is STC and Grid Code definition (both the same), Grid Code explanation currently used.

Action: Move to STC definition list.

4. Apparatus

There is STC and Grid Code definition, Grid Code explanation currently used.

Action: Move to STC definition list.

STCP16-1 (Investment Planning)

- <u>Appendices</u> Action: Swim Lanes (currently Appendix B) to be transferred to Appendix A. Definitions (currently A) to be transferred to Appendix D.
- 2. <u>Commissioning</u> Not a definable term in the STC, CUSC or Grid Code.

Action: Remove from STC definitions list and defined term in Key Definitions section.

3. <u>GB Transmission System</u> STC definition used.

Action: No change.

4. <u>Host TO</u> Not a defined term in STC. It is defined in STCP18-1

Action: Remove from STC definitions list. Add to 'Terms defined in other STCPs' list.

5. <u>Replacement Notice</u> Not a definable term in the STC, CUSC or Grid Code.

Action: Remove from CUSC definitions list and defined term in Key Definitions section.

6. <u>Reference to STC22-1</u>

There are a number of terms used within the STCPs that are defined within STCP22-1. STCP22-1 is still to be incorporated into Schedule 2 of STC.

Action: Reference to STC22-1 to remain. Once STCP22-1 has been agreed, definitions to be reviewed for consistency.

STCP17-1 (Feasibility Study)

1. <u>Appendix B</u> Action: Remove sections B.3 and B.4 which are not used in this STCP and renumber B.5 accordingly.

STCP18-1 (Connection and Modification Application)

- 1. <u>General Formatting</u> Action: Front first page in line with other STCPs and Disputes section be deleted. Committee to agree.
- 2. <u>Business Day</u> There is STC and CUSC definition (both the same), CUSC explanation currently used.

Action: Move to STC definition list.

3. <u>Modern Equivalent Asset Valuation</u> Not a definable term in the CUSC.

Action: Remove from CUSC definitions list and defined term in Key Definitions section.

4. <u>Connection Site</u> STC definition used.

Action: No change.

5. <u>GB Transmission System</u> STC definition used.

Action: No change.

6 Power Station

There is a STC, CUSC and Grid Code definition for Power Station, STC definition is currently used. STC definition refers to CUSC i.e. as at the Code Effective Date. CUSC definition is the same as Grid Code description.

Action: No change required, STC definition to be used.

7. Transmission

There is a STC, Grid Code and CUSC definition for Transmission, STC definition is currently used. CUSC definition is the same as the Grid Code description.

Action: No change required, STC definition to be used.

8. Project Listing

There is no definition for Project Listing in STCP16-1, there is for Project Listings.

Action: Project Listing is replaced with Project Listings. Project Listings to be within STCP instead of Project Listing, cross reference accordingly.

9. Schedule of GB Location Codes

Not a definable term in the STC, CUSC or Grid Code. It is not defined in STCP16-1 as indicated in the procedure.

Action: Term to be defined in Section 2 (Key Definitions).

10. Boundary of Influence

Boundary of Influence is defined within STCP22-1. STCP22-1 is still to be incorporated into Schedule 2 of STC.

Action: Reference to STC22-1 to remain. Once STCP22-1 has been agreed, definitions to be reviewed for consistency.

STCP18-2 (Use of System Application)

- 1. <u>General Formatting</u> Action: Front first page in line with other STCPs and Disputes section be deleted. Committee to agree.
- <u>Abbreviations</u> Action: SBN – remove reference to STCP18-1. SPTL - remove brackets from 'limited'
- 3. <u>Connection Site</u> STC definition used.

Action: No change required unless the Committee would prefer the Grid Code or CUSC term to be used.

4. <u>GB Transmission System</u> STC definition used.

Action: No change.

5 <u>System</u>

There is a STC, CUSC and Grid Code definition for System, STC definition is currently used. STC definition refers to CUSC i.e. as at the Code Effective Date. CUSC definition is the same as Grid Code description.

Action: No change required, STC definition to be used.

6. Transmission Licence

There is a STC, Grid Code and CUSC definition for Transmission, STC definition is currently used.

Action: No change required, STC definition to be used.

7. <u>Generator</u> There is STC and CUSC definition (both the same), CUSC explanation currently used.

Action: Move to STC definition list.

STCP18-3 (TEC Changes)

1. <u>GB Transmission System</u> STC definition used.

Action: No change.

2. <u>Transmission Licence</u>

There is a STC, Grid Code and CUSC definition for Transmission, STC definition is currently used.

Action: No change required, STC definition to be used.

STCP18-6 (Variation to Agreements)

- 1. <u>Schedule 9 Definitions</u> Action: Following Schedule 9 Definitions:
 - Affected Party
 - Affected Party's Works
 - Defaulting Party

be referred to in Section J of the STC. Precedent already set e.g. Transmission Construction Works.

 <u>TO Termination Notice</u> There is no definition for TO Termination Notice in STCP19-2, there is for Termination Notice.

Action: Term to be defined in Key Definitions section.

SP Transmission

SP Transmission has undertaken a review of the following STCPs and has highlighted areas of potential change and/or additional clarity:

STCP06-1 (Black Start)

1. <u>Duty Manager</u> Should point to STCP06-3

STCP06-2 (Power Island Management)

- 1. <u>Key Definitions</u> There is no key definitions section in the STCP
- Event Event – should probably be moved from Grid Code section to STC section. [However, if Grid Code version intended which includes "Events" on User Systems – then should be put into key definitions section].

STCP06-3 (Incident Management)

- 1. <u>Key Definitions</u> 2.1.1 to 2.1.5 key definitions should be emboldened.
- 2. <u>Black Start</u> Should be under STC List.
- 3. <u>De-synchronised Island</u> Not in STCP06-2, should be in Grid Code list.

STCP06-4 (Control Location Evacuation & Disaster Recovery Contingency Arrangements)

- 1. <u>Earthing</u> Should be under STC List.
- 2. <u>Isolation</u> Should be under STC List.

STCP12-1 (Data Exchange Mechanism)

No change

STCP13-1 (Invoicing Payment)

- 1. <u>Abbreviations</u> Change "Scottish Power Transmission" to SP Transmission in abbreviations.
- Schedule 10 Definitions referring to Schedule Ten - it is not clear in STC schedule Ten that there are definitions rather paragraphs.

STCP14-1 (Data Exchange for Annual Charging)

 <u>Charging Methodologies</u> Charging Methodologies should probably be GB Charging Methodologies for consistency with 14-2 & 14-3. Affects paragraph 3.3.1. 2. Charging Contact

TO Charging Contac & NGC Charging Contact not used. Compare usage in paragraph 3.2.1 with similar 3.1.2 in 14.1.

STCP14-2 (Data Exchange for charging consultations)

- 1. <u>Key Definitions</u> Key definitions should be emboldened.
- 2. <u>User</u> Should be in STC list.

STCP14-3 (Customer Charging Queries)

1. <u>Key Definitions</u> Key definitions should be emboldened.

STCP19-2 (CAP Construction Process)

- 1. <u>Scheme Briefing</u> Defined in STCP 18-1 not 18-2.
- 2. <u>Transmission Infrastructure Assets</u> Remove from STC list (not defined in STC, but has been put into key definitions).

STCP19-3 (Operational Notification and Compliance)

- 1. <u>Bilateral Agreement</u> Not defined in STC.
- 2. <u>Compliance Testing</u> Specific to the STCP with definition included.
- 3. <u>Host TO</u> Not defined in STC, suggest point to STCP18-1 like Affected TO.
- 4. <u>Safety Rules</u> Should be in STC list.
- 5. <u>SRS</u> Should be in STC list.

STCP19-4 (Commissioning / Decommissioning)

- 1. <u>NGC Outage Database</u> No definition available in STC or STCP11-1.
- 2. <u>Protection</u> In STC list, delete from Grid Code list.

STCP19-6 (Application Fee)

- 1. <u>Financial Year</u> Should be in STC list.
- Lead Person Is NGC Lead Person and TO Lead Person the same as NGC/TO Revenue Person in STCP 13-1?

- 3. <u>GB Charging Statement</u> In CUSC list. Defined in key definitions in STCPs 14-1 to 14-3
- 4. <u>Completion Date</u> Should be in STC list.
- 5. <u>Other Definitions</u> SUoSC – remove from "others"

Bilateral Agreements, Bilateral Connection Agreements, Bilateral Embedded Generation Agreement – should be in CUSC list

1 Introduction

1.1 Scope

- 1.1.1 In the Control Phase, appropriate co-ordination between NGC, TOs and Affected Users is essential during the Operational Switching process. This document specifies the responsibilities of NGC and TOs in relation to Operational Switching of Plant and/or Apparatus on the TOs' Transmission Systems and the procedures to be followed by each Party:
 - NGC shall be responsible for directing the configuration of the GB Transmission System;
 - TOs shall be responsible for instructing Operational Switching on their Transmission Systems; and
 - TOs shall be responsible for the management of any part of their Transmission Systems released from operational service under a Transmission Status Certificate (TSC).
- 1.1.2 For the purposes of this document, the TOs are:
 - SPT; and
 - SHETL.
- 1.1.3 This document excludes the obligations and processes associated with the testing of Plant and/or Apparatus on the TOs' Transmission Systems. These are specified in STCPs 08-1 to 08-4.

1.2 Objectives

- 1.2.1 The objective of this document is to provide for efficient co-ordination between NGC and TOs in relation to Operational Switching on the TOs' Transmission Systems.
- 1.2.2 To meet this objective, this document specifies the following:
 - the responsibilities of NGC and TOs in relation to Operational Switching on the TOs' Transmission Systems;
 - the requirements for exchange of information between NGC, TOs and Affected Users related to Operational Switching; and
 - the lines of communication to be used.

2 Key Definitions

2.1 For the purposes of STCP 01-1:

- 2.1.1 **Affected User** means a User whose System, in the reasonable opinion of either NGC or the relevant TO, will or may be subject to an Operational Effect caused by an Operation on a TO's Transmission System. **OK**
- 2.1.2 **Switching Method** means the high level methodology that identifies the actions required by NGC of the TO in a clear and unambiguous manner. OK
- 2.1.3 **Planning Phase** means the period covered by the Operational Planning Phase and the Programming Phase. **OK**
- 2.1.4 **Transmission Status Certificate (TSC)** means the form in Appendix C for Operational Switching OK
- 2.1.5 Operational Effect 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. THIS IS OK NEEDS TO BE DIFFERENT TO INCLUDE USER.

Appendix E - Definitions

Abbreviations

- SPT SP Transmission Limited OK
- SHETL Scottish Hydro-Electric Transmission Limited OK
- TO Transmission Owner **OK**
- STC System Operator Transmission Owner Code OK
- OCL Operational Capability Limits OK

Definitions (other than those listed in Key Definitions)

STC definitions used:

Apparatus OK Code Effective Date OK Event OK GB Transmission System STC refers to in Standard Conditions A1 ???? NGC OK Operational Capability Limits OK Outage OK Party OK Plant OK Protection In STC merely refers to GC definition suggest move to Grid Code Definition used Service Reduction Reads as ServiceS Reduction in STC suggest change here to serviceS Service Restoration Proposal Same comment as above System Refers to CUSC definition is this desirable? Transmission Owner OK Transmission System STC refers to in Standard Conditions A1 ????

STCP definitions used

STCP 19-4 Commissioning Switching Programme

Grid Code definitions used:

Control Phase **OK** Intertrip Apparatus **OK** Operation **OK** Operational Effect In STC but also in Key Definitions in this document suggest drop from here Operational Switching **OK** Programming Phase **OK** Protection Apparatus **OK** Safety Precautions **OK**

1 Introduction

1.1 Scope

- 1.1.1 STCP 02-1 specifies the requirements for the exchange of real time information between NGC and the TOs in relation to alarms and Events on each TO's Transmission System where, for the purposes of STCP 02-1, TO means:
 - SPT; and
 - SHETL.

1.2 Objectives

- 1.2.1 The objective of STCP 02-1 is to provide for exchange of information so both the TO and NGC can consider the implications of any alarm and/or Event, assess possible risks arising from it, and take appropriate actions to maintain the integrity of the GB Transmission System.
- 1.2.2 To meet this objective, STCP 02-1 specifies the following:
 - the responsibilities of NGC and TOs in relation to alarms and/or Events on the GB Transmission System;
 - the requirements for exchange of information related to these alarms and Events; and
 - operational liaison and the lines of communication to be used.

2 Key Definitions and Interpretation

2.1 Key Definitions

- 2.1.1 The following definitions apply for the purposes of STCP 02-1:
- 2.1.1.1 **Class 1 Alarm** means a protection, trip or sequence alarm on the TO's Plant and Apparatus created following an Event on a TO's Transmission System and automatically sent to NGC. This includes, but is not limited to the relevant categories listed in STCP 04-3, Provision of Real Time Data. **OK**
- 2.1.1.2 **Class 2 Alarm** means an asset integrity alarm on the TO's Plant and Apparatus that is automatically sent to NGC. This includes, but is not limited to the relevant categories listed in STCP 04-3, Provision of Real Time Data. **OK**
- 2.1.1.3 **Class 3 Alarm** means an alarm that is only available to the TO.
- 2.1.1.4 **Plant and Apparatus Impact Assessment** means an initial appraisal to establish the impact that an alarm or Event has, or may have, on any Plant and Apparatus that forms part of the GB Transmission System; and OK
- 2.1.1.5 **Transmission System Impact Assessment** means an initial appraisal to determine the impact that an alarm and/or Event has had, or may have on the operation of the GB Transmission System. **OK**
- 2.1.2 STC, STCP or Grid Code definitions used in STCP 02-1 not defined in section 2.1 are included in the attached Appendix C for ease of reference. OK

2.2 Interpretation

The swimlane attached in Appendix A is provided for information purposes only. In the event of any conflict between the swimlane and the text, the text shall take precedence

Appendix BC: Definitions and Terms

BC1: Terminology/Abbreviations	
NGC	National Grid Company plc Is defined in STC move to below
SPT	SP Transmission Ltd OK
SHETL	Scottish Hydro-Electric Transmission Ltd OK
ТО	Transmission Owner OK
STC	System Operator – Transmission Owner Code OK
STCP	System Operator – Transmission Owner Code Procedure OK

BC2: Definitions used (other than those defined in Key Definitions)

STC Definitions Used:

Apparatus OK Event OK GB Transmission System As defined in Standard Conditions A1 ????? Operational Capability Limit As defined within the STC main document OK Party OK Party OK Plant OK Safety Rules OK Safety Rules OK Services Reduction OK Services Reduction Risk OK Service Restoration Proposal Refers to ServiceS in STC change to serviceS here Significant Incident OK System STC refers to CUSC is this OK Transmission Transmission System STC refers to Standard Conditions A1 ????

1 Introduction

1.1 Scope

- 1.1.1 This document describes the process required to provide post Event review and reporting, to meet statutory, licence and other obligations. In addition, it details the mechanism for post Event liaison and provision of relevant data and information to produce reports.
- 1.1.2 This process applies to Parties for post Event analysis, liaison and reporting, following Events on the GB Transmission System.
- 1.1.3 This procedure applies to NGC and each TO. For the purposes of this document, TOs are:
 - SPT; and
 - SHETL.

1.2 Objectives

- 1.2.1 This process specifies the roles and responsibilities of Parties with regard to post Event reports, including:
 - reports to affected Users and third parties;
 - incident investigation and reporting; and
 - statutory reports and reports in fulfilment of licence conditions.

Key Definitions

1.3 For the purposes of STCP03-1:

1.3.1 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. OK this to include user reference

2 Procedure

2.1 User and Third Party Reports

- 2.1.1 NGC shall provide reports for Events on, or affecting the GB Transmission System, User's Systems or external interconnection to affected Users and other third parties in accordance with the NGC Licence, Grid Code and statutory obligations.
- 2.1.2 Each TO shall assist NGC in complying with 2.1.1 by providing, where available, reasonably requested information regarding an Event associated with that TO's Transmission System.
- 2.1.3 Each TO shall provide reports for all Events on, or affecting its Transmission System, to third parties in accordance with its Transmission Licence and statutory obligations.
- 2.1.4 NGC shall assist each TO in complying with 2.1.3 by providing, where available, reasonably requested information, regarding an Event associated with that TO's Transmission System.

2.2 Event Fault and Significant Incident Reports

If NGC at any time becomes aware of an Event on the GB Transmission System or a User System, which has had, or may have, an Operational Effect on a TO's

Appendix D: Definitions

Abbreviations

- SO System Operator OK
- TO Transmission Owner OK
- SYS Seven Year Statement OK
- NGC National Grid Company plc Defined in STC

Definitions (other than those listed in Key Definitions)

STC definitions used: Apparatus OK Authority **OK** Code Effective Date OK GB Transmission System As Defined in Standard conditions A1 ?????? Party(ies) OK Plant OK Operational Effect OK Responding Party Not defined in STC Requesting Party Not defined in STC Services Reduction OK Service Reduction Risk to ServiceS in STC change to serviceS here Significant Incident OK Transmission Licence OK Transmission System As Defined in Standard conditions A1 ?????? Users OK User System STC refers to CUSC definition

Other STCPs:

STCP 01-1: Transmission Status Certificate OK

Grid Code definitions used: Event OK 1.1.1 The TOs and NGC shall each nominate a contact point for data co-ordination, including a dedicated email account, to facilitate data co-ordination between NGC and TOs.

1.1.2 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 C. Similarly, the format and content of the real time data spreadsheet as agreed from time to time is in Appendix D.

1.1.3 Parties will acknowledge receipt of data via the agreed contact points.

2 Key Definitions and Interpretation

2.1 The following definitions apply for the purposes of this document:

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

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 C) identifying the change and provide a supporting real time data spreadsheet (Appendix D) 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 NGC contact point as soon as reasonably practicable, which shall normally be not less than 4 weeks in advance of the implementation date. NGC shall provide acknowledgement of receipt of the relevant information to the TO via the agreed contact point. NGC shall ensure that its database is updated in line with the supplied information.

3.1.3 Where NGC requires changes to real time data at NGC sites where the TO has Data Transmission Equipment installed NGC shall identify the changes and provide the information to the TO using the pro forma Appendix C 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 NGC shall notify the relevant TO(s) of any User initiated changes of which NGC 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. NGC 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 NGC following changes made to either or both the TO and NGC database.

Appendices

Appendix A: General Terms/Conditions

A1: Terminology/Abbreviations

NGC	National Grid Company Already defined within the STC
ТО	Transmission Owner OK
SPT	SP Transmission Ltd OK
SHETL	Scottish Hydro-Electric Transmission Ltd OK
SCADA	Supervisory Control and Data Acquisition OK

A2: Definitions

STC definitions used:

- User **OK**
- GB Transmission System As defined in standard conditions A1 ??

CUSC definitions used:

- Plant Defined in STC use STC definition
- Apparatus Defined in STC use STC definition

Grid Code Definitions Used

Protection Apparatus OK

Definitions used in the document that are covered in other STCPs **Datalink** is as defined in STCP 4-2.

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 NGC to enable NGC to have an overview of the TO's Transmission System. This document details the responsibilities and obligations on NGC and the TO with regard to the management and support of the Datalink.
- 1.1.2 This document applies to NGC and each TO.
- 1.1.3 for the purposes of this STCP, TOs are:
 - SPT; and
 - SHETL.

1.2 Objectives

- 1.2.1 This process specifies the responsibilities and obligations on NGC and the TOs in relation to the Datalink, including:
 - infrastructure ownership boundaries;
 - management in real time; and
 - change management.

2 Key Definitions and Interpretations

2.1.1 Datalink means the infrastructure that enables the transfer of real time SCADA data from the relevant TO to NGC, as defined in Appendix C. **OK**

3 Procedure

3.1 Datalink Provisions

- 3.1.1 The diagrams in Appendix D illustrates the ownership and support boundaries of the infrastructure associated with the real-time Datalink.
- 3.1.2 Any changes to the configuration of the infrastructure illustrated in Appendix D shall be agreed between NGC and the relevant TO prior to implementation.
- 3.1.3 Each TO shall provide a resilient Datalink to interface with the NGC 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.
- 3.1.5 NGC shall provide a resilient Datalink to interface with each TO's Datalink, in line with Good Industry Practice.

Appendices

Appendix A: General Terms/Conditions A1: Terminology/Abbreviations

- NGC National Grid Company Already defined in STC
- TO Transmission Owner **OK**
- SPT SP Transmission Ltd OK
- SHETL Scottish Hydro-Electric Transmission Ltd OK

A2: Definitions

STC definitions used:

User OK

Transmission System Refers to Standard Conditions A1 ???? GB Transmission System Refers to Standard Conditions A1 ???? Good Industry Practice OK Services capability Specification Defined within STC Service Restoration Proposal Should read services Service Reduction Should read services Service Reduction Risk Should read services

CUSC definitions used:

Plant This is defined within the STC use STC definition Apparatus This is defined within the STC use STC definition

1 Appendices

Appendix A: General Terms/Conditions

A1: Terminology/Abbreviations

- NGC National Grid Company Already defined in STC include below
- TO Transmission Owner **OK**

A2: Definitions

Other STCPs

Datalink: As defined in STCP 4-2. OK

STC definitions used:

User OK

Transmission System Refers to Standard Condition A1 ???

CUSC definitions used:

Plant **Defined in STC use STC definition** Apparatus **Defined in STC use STC definition** Connection Site **Defined in STC use STC definition** 1.1.1 A TO may notify NGC of OCLs that may exceed the NCLs, and of any conditions that apply to the use of such OCLs.

2 Key Definitions

2.1 For the purposes of STCP 4-4:

- 2.1.1 **Enhanced OCL**. means the temporary assignment of a higher OCL to a specific item of Plant and/or Apparatus. **OK**
- 2.1.2 **OCLR** is the document produced by the TO as per appendix C. **OK**

3 Procedure

3.1 Rating Limitations and Plant & Equipment Technical Limitations pertaining to Operational Capability Limit Records

- 3.1.1 Where the TO becomes aware of the need to issue, modify or cancel an OCL on any item of Plant and/or Apparatus that may affect the operation of its Transmission System the TO shall:
 - verbally inform NGC of the OCL and, if deemed appropriate by the TO, any other TO;
 - provide NGC with a Service Restoration Proposal unless otherwise agreed;
 - confirm as soon as practicable to NGC (and if deemed appropriate by the TO, any other TO) any enduring changes to an OCL through an OCLR. The OCLR of the issued, modified or cancelled OCL will include any limitations or conditions that apply; and,
 - along with NGC make a record of the issue, modification or cancellation of the OCL in accordance with internal procedures.
- 3.1.2 When informed of a change to an OCL, NGC shall immediately take such action as necessary to return the TO's Plant and/or Apparatus to the new OCL.
- 3.1.3 When NGC becomes aware of any Event or circumstance that could affect the TO's ability to provide Transmission Services, they shall inform the relevant TO(s).
- 3.1.4 Where NGC has exceeded an OCL, they shall inform the TO as soon as practicable. Where appropriate, NGC and the TO shall issue a report as described in STCP3-1 (Post Event Analysis). If the TO becomes aware that NGC has exceeded an OCL, that TO shall inform NGC.

3.2 General Conditions with respect to OCLR

- 3.2.1 For the avoidance of doubt, there may be more than one OCLR in respect of any piece of Plant or Apparatus.
- 3.2.2 The TO shall use all reasonable endeavours to ensure that two or more OCLRs in place simultaneously on the same piece of Plant or Apparatus contain consistent information. If two or more such OCLRs are in place all conditions shall apply simultaneously, i.e. the most restrictive condition shall apply.
- 3.2.3 If either a TO or NGC becomes aware that either any information in an OCLR is unclear, or that apparently inconsistent OCLRs for the same Plant or Apparatus are in place, they shall promptly inform the other Party. The TO shall, as soon as reasonably practicable, clarify the relevant OCLRs and remove any apparent inconsistencies. This may include, as appropriate, issuing new OCLRs and cancelling existing OCLRs.

4 Appendices

Appendix A: Definitions

Abbreviations

All defined in STC:

STCP System Operator –Transmission Owner Code Procedure (as defined as Code Procedures in the STC) **OK**

TO Transmission Owner OK

Definitions (other than those listed in Key Definitions)

STC definitions used:

Event OK Good Industry Practice OK Operational Capability Limit (OCL) Defined within STC Operational Effect OK Services Reduction **Defined within STC** Transmission Services Defined within STC Plant OK Apparatus OK Transmission System As contained in Standard Condition A1 ??? Normal Capability Limits Defined within STC Outage OK Services Restoration Proposal Defined within STC Party Defined within STC Services Capability Specification OK Grid Code definitions used: Event Shown above as coming from the STC delete Operational Effect Shown above as coming from the STC delete Control Phase OK Should the above not be sorted alphabetically????

Appendix B: Definitions

Abbreviations

- TO Transmission Owner OK
- NGC National Grid Company plc Defined in STC
- SPT SP Transmission Limited OK
- SHETL Scottish Hydro-Electric Transmission Limited OK

Definitions (other than those listed in Key Definitions)

Licence definitions used:

GB Transmission System In STC as defined in Standard Conditions A1

STC definitions used: Generator OK Good Industry Practice OK Party OK Service Capability Specification Should be Services Service Restoration Proposals Should be Services Transmission OK User OK

Grid Code definitions used:

Control Centres OK

1 Key Definitions

1.1 For the purposes of STCP 09-1:

For the purpose of STCP 09-1 the following terms shall have the following meanings:

- 1.1.1 **"Isolation"** means the disconnection of Plant and/or Apparatus from the remainder of a System in which that Plant and/or Apparatus is situated by either of the following:
 - (a) an Isolating Device maintained in an isolating position. The isolating position must either be:
 - maintained by immobilising and Locking the Isolating Device in the isolating position and affixing a Caution Notice to it. Where the Isolating Device is Locked with a Safety Key, the Safety Key must be secured in a Key Safe and the Key Safe Key must be retained in safe custody; or
 - (ii) maintained and/or secured by such other method which must be in accordance with the Safety Rules of the relevant Party; or
 - (b) an adequate physical separation which must be in accordance with and maintained by the method set out in the relevant Party's Safety Rules;

OK is defined in GC but slightly different wording required

- 1.1.2 **"Earthing"** means a way of providing a connection between conductors and earth by an Earthing Device which is either:
 - (a) immobilised and Locked in the Earthing position. Where the Earthing Device is Locked with a Safety Key, the Safety Key must be secured in a Key Safe and the Key Safe Key must be retained in safe custody; or
 - (b) maintained and/or secured in position by such other method which must be in accordance with the relevant Party's Safety Rules;

OK is defined in GC but slightly different wording required

1.1.3 **"Safety From The System"** is that condition which safeguards persons working on or testing Plant and/or Apparatus when work or testing is to be carried out on a System from the dangers inherent in the System;

This definition is the same as GC except for the word testing

1.1.4 **"Safety Log"** is the record maintained by each Party under STCP 09-1 para 5;

This definition is little different from the GC

1.1.5 **"Safety Rules"** is the rules of each of the respective Parties which seek to ensure that persons working on Plant and/or Apparatus to which the rules apply are safeguarded from hazards arising from the System;

Defined in STC use STC definition

1.1.6 **"Location"** is any place at which Safety Precautions are to be applied in accordance with STCP 09-1;

This definition is little different from the GC

1.1.7 **"Locked"** is a condition of Plant and/or Apparatus that cannot be altered without the operation of a locking device;

Same as GC use GC reference

1.1.8 **"RISSP"** a written record of inter-system Safety Precautions to be compiled in accordance with the provisions of this STCP 09-1.

This definition is little different from the GC

1.1.9 **"HV Apparatus"** means High Voltage electrical circuits forming part of a System on which Safety From The System may be required or on which Safety Precautions may be applied to allow Work.

ΟΚ

These definitions require to be revised by the author to see what reason there has been for not using STC or GC definitions in this section.

Appendix A Definitions & Abbreviations

A.1 Abbreviations

NGC	National Grid Company defined in STC
SHETL	Scottish Hydro-Electric Transmission Ltd
SPT	SP Transmission
STCP	System Operator – Transmission Owner Code Procedure
ТО	Transmission Owner

A.2 Terms defined in the STC:

Apparatus **OK**

Boundary Not defined in STC or GC suggest it be included in the section of this document if required under key definitions.

High Voltage Merely refers in STC to GC consider enter below Party OK

Plant OK

System Merely refers to the CUSC

Transmission System Refers to Standard Condition A1 ???? User OK

A.3 Terms defined in the Grid Code:

Earthing Device **OK** Isolating Device **OK** Key Safe **OK** Key Safe Key **OK** Caution Notice **OK** Safety Key **OK** Safety Precautions **OK**

1 Introduction

1.1 Scope

- 1.1.1 This procedure applies to NGC and each TO and describes the processes required to be established by NGC and each TO:
 - to maintain public and site safety on a TO's Transmission System; and
 - to ensure appropriate actions are taken in response to safety information received regarding a TO's Transmission System.
- 1.1.2 The following are outside the scope of this document:
 - the application of safety measures for TO circuits released from service by a Transmission Status Certificate, which rests with the relevant TO and Users; and
 - the arrangements necessary between NGC and each TO to ensure the User compliance regarding safety matters, including Users' Grid Code obligations.
- 1.1.3 NGC and each TO recognise that safety is of paramount importance and that all decisions and actions shall be taken in light of this.
- 1.1.4 For the purposes of this document, the TOs are:
 - SPT; and
 - SHETL.

1.2 Objectives

- 1.2.1 The objectives of this document are to outline the roles and responsibilities of NGC and each TO for the management of public and site safety, including those required for:
 - safeguarding life;
 - communications with the public;
 - communications with the emergency services;
 - communications with TO staff and contractors;
 - re-energisation policy;
 - site safety;
 - potential switchgear over-stressing; and
 - the number of circuit breaker operations permissible before maintenance.

2 Key Definitions

2.1 For the purposes of STCP09-2:

2.1.1 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. This should be included in the appendix under Grid Code definitions

B.1 Abbreviations

SPT	Scottish Power Transmission Ltd
SHETL	Scottish Hydro Electric Transmission Ltd
NGC	National Grid Company plc Defined in the STC

B.2 Terms defined in the STC:

Apparatus OK

Code Effective Date OK

Operational Capability Limits OK

Plant OK

Services Capability Specifications OK

Transmission System As contained in Standard Conditions A1???

Users OK

B.3 Terms defined in the Grid Code:

Demand OK

Event Slightly different definition from STC includes embedded deliberate??

Safety Rules Slightly different definition from STC includes users deliberate??

B.4 Terms defined in other STCPs

Transmission Status Certificate

STCP 01-1 Operational Switching

ΟΚ

1 Key Definitions and Interpretation

1.1 The following definitions apply for the purposes of this document:

1.1.1 HV Apparatus, for the purpose of this process, shall include SF₆ Gas zones associated with any HV Apparatus as defined by OC11. To use this method HV and Apparatus will require to be defined as pointing at the STC in the appendix.

2 Procedure

2.1 Asset Nomenclature

- 2.1.1 HV Apparatus currently in operational service, shall retain its existing nomenclature and geographical naming where applicable, and shall not be renamed retrospectively for the introduction of BETTA.
- 2.1.2 Where the TO requires a change to numbering or nomenclature of existing HV Apparatus it shall notify NGC of any proposed changes. The notification shall be in sufficient time to allow changes to NGC and TO databases to be made in a coordinated manner, and where applicable, to allow NGC to notify other relevant Parties, in accordance with the Grid Code and the provisions of STCP 19-4 Commissioning and De-commissioning, or STCP 04-1 Real Time Data Change Management, as appropriate.
- 2.1.3 NGC shall notify the relevant TO of any proposed changes to User HV Apparatus numbering and nomenclature within the TO's licensed area or where it could reasonably affect the TO, as soon as it becomes aware. If the proposed change applies to HV User Apparatus within a transmission site, the TO shall agree the proposed changes with NGC, or suggest alternative numbering and nomenclature. Once agreement has been reached between NGC and the TO, NGC shall confirm the changes with the User. NGC shall notify the TO promptly to allow agreement to be reached between NGC and the TO and for NGC to respond to the User within a month of the User's notification. This is to allow changes to NGC, TO and User databases, to be made in a co-ordinated manner, in accordance with the provisions of STCP 19-4 Commissioning and De-commissioning or STCP 04-1 Real Time Data Change Management, as appropriate.
- 2.1.4 NGC shall notify the relevant TO of any proposed changes to HV Apparatus numbering and nomenclature at NGC~TO and TO~TO interface sites. The notification shall be in sufficient time to allow changes to NGC and TO databases to be made in a co-ordinated manner, and the provisions of STCP 19-4 Commissioning and De-commissioning, or STCP 04-1 Real Time Data Change Management, as appropriate.
- 2.1.5 Where reasonably practicable, existing HV Apparatus undergoing refurbishment or reconfiguration with nomenclature that does not conform to current standards shall be re-numbered and or re-named in accordance with the relevant Party's standard.
- 2.1.6 HV Apparatus under construction at existing transmission sites shall be named in accordance with the relevant TO standards for numbering, nomenclature, and geographical naming.
- 2.1.7 The naming of new HV Apparatus shall be completed by the TO and accepted by NGC, as part of the construction process. The TO shall ensure that NGC is notified of the proposed names in accordance with the provisions of 3.1.2.
- 2.1.8 Where reasonably practicable, when new HV Apparatus is to be constructed, that is outside the scope of the relevant Party's existing numbering and nomenclature standards, it should be named in accordance with an existing standard of another Party whose scope covers such HV Apparatus. Where the other Parties have a

common standard, it should be adopted. Where there is no common standard, then one of the existing standards, as agreed between the TO and NGC, should be adopted for numbering and nomenclature, where it is relevant and it exists.

Appendix B: General Terms/Conditions

B1: Terminology/Abbreviations

NGC National Grid Company **Defined in the STC move to below** TO Transmission Owner

B2: Definitions

STC definitions used:

- User **OK**
- Party **OK**
- Transmission System Refers to Standard Conditions A1???
- GB Transmission System Refers to Standard Conditions A1???
- Plant OK
- Apparatus **OK**
- User Sites **OK**
- ADD HV
- ADD APPARATUS