

## STCP 08-4 Issue 0034: User Tests

### STC Procedure Document Authorisation

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

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### STC Procedure Change Control History

Issue 001	16/03/2005	BETTA Go-Live Version
Issue 002	26/05/2005	Issue 002 incorporating PA009
Issue 003	25/10/2005	Issue 003 incorporating PA034 and PA037
<u>Issue 004</u>	<u>24/11/2009</u>	<u>Issue 00x incorporating changes for Offshore Transmission</u>

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## 1 Introduction

### 1.1 Scope

- 1.1.1 This procedure describes the arrangements and process across the NGET-TO interface to facilitate User Tests and is complementary to the User compliance Test requirements specified under the Grid Code.
- 1.1.2 User Tests carried out under this procedure may involve Plant and Apparatus forming part of the **GBNETS** Transmission System or make use of TO resources or be of interest to the TO as part of the operation of their assets.
- 1.1.3 A proposal for a User Test may be made by either NGET or a User. If a TO identifies a need for a User Test, the TO shall request that NGET proposes such a Test on its behalf.
- 1.1.4 This procedure covers Tests of:
- User Plant and Apparatus returning to service following maintenance or overhaul that requires Tests as part of or following energisation;
  - User Plant and Apparatus requiring compliance or monitoring Tests that are not required to be carried out under STCP 19-3: Operational Notification and Compliance Tests or STCP 19-4: Commissioning / Decommissioning;
  - Any other Tests proposed by a User or NGET to confirm the satisfactory performance of the User Plant and Apparatus.
- 1.1.5 This procedure describes the data exchange requirements between NGET and the TOs to facilitate planning and implementation of User Tests.
- 1.1.6 This procedure applies to NGET and each TO and for the purposes of this process TO means;
- SPT; **and**
  - SHETL; **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.

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### 1.2 Objectives

- 1.2.1 This process specifies the following:
- the responsibilities of NGET and the TO in relation to User Tests;
  - the requirements for exchange of information across the NGET / TO interface; and
  - the means of communication to be used across the NGET / TO interface.
- 1.2.2 This procedure is designed to enable Parties to discharge their responsibilities under the STC and to ensure that responsibilities are clear.

## 2 Key Definitions

### 2.1 For the purposes of STCP08-4:

- 2.1.1 **Operational Effect** is as defined in the Grid Code as at the Code Effective Date and for purposes of this STCP only, not as defined in the STC.
- 2.1.2 **Tests Proposer** means either NGET or a User .
- 2.1.3 **Tests Proposal** means an outline provided in writing of the actions proposed to be carried out as part of an investigation into some aspect of the User Plant and Apparatus or network.
- 2.1.4 **Tests Programme** means a detailed sequence of actions provided in writing to be carried out as part of an investigation into some aspect of the User Plant and Apparatus or network.
- 2.1.5 **User Test** means a test proposed by NGET or a User on a User's Plant or Apparatus.

### 3 Process

#### 3.1 General

- 3.1.1 All User Tests shall be planned to ensure all Plant and Apparatus remains within the applicable capability limits specified by the asset owner and carried out in such a manner that there is minimal impact on the [GBNETS](#) Transmission System.
- 3.1.2 As part of the User Tests Programme operation of some Plant and Apparatus may be temporarily transferred to a TO by formal agreement between NGET and the TO, and that TO shall then become the point of contact for the operation of that Plant and Apparatus.
- 3.1.3 NGET shall be responsible for operational liaison in order to obtain agreement with each affected TO or affected User for User Tests to proceed. Where NGET intend to transfer operation of Plant and Apparatus to a TO as part of the agreed Tests Programme, NGET shall inform each affected User and/or each affected TO. Prior to the transfer of operation NGET shall advise all affected parties. When NGET have given permission for a TO to act as a point of contact, NGET shall contact and advise each affected User that the TO has become the point of contact and that the Tests will commence shortly.
- 3.1.4 The category of User Tests (either minor or major) will be agreed with the parties involved as part of operational liaison. Tests proposed by a User or involving User's Plant or Apparatus will normally be considered as major Tests unless agreed otherwise by NGET. Major Tests are those Tests considered sufficiently complex by a party to require a Tests Programme to be submitted in accordance with Section 3.2. Tests considered to be minor shall not require a Tests Programme.
- 3.1.5 If a TO identifies a need for a User Test, the TO shall request that NGET proposes such a Test on its behalf. If NGET receives such a request from a TO, NGET shall propose a User Test as soon as reasonably practicable unless NGET believes that the TO's request is unreasonable in which case it will provide TO with its reasons in writing.

#### 3.2 Tests Procedure Preparation

##### Tests Proposal

3.2.1 NGET or a User may propose User Tests.

- 3.2.1.1 If NGET receives a proposal for User Tests from a User, NGET shall procure that the User provides to NGET, as soon as reasonably practicable;
- a Tests Proposal; and
  - any updates required to the Tests Proposal as a result of agreed changes.

Where ver practicable, NGET shall request that the Tests Proposal shall be submitted to NGET a minimum of 13 weeks prior to the date of the Tests but as soon as practicable in all circumstances.

- 3.2.1.2 If the Tests Proposer is NGET, NGET shall prepare a Tests Proposal and be responsible for change control of the Tests Proposal, providing any updates required to the Tests Proposal as soon as reasonably practicable. Where practicable, NGET shall prepare the Tests a minimum of 13 weeks prior to the date of the Tests but as soon as practicable in all circumstances.

3.2.1.3 Tests agreed and proposed by NGET on behalf of a TO shall be treated as a Tests proposal by NGET.

3.2.2 Irrespective of whether the Test Proposer is NGET or a User, NGET shall:

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- provide a copy of the Tests Proposal to each affected TO and/ or affected User as soon as reasonably practicable in accordance with this procedure. NGET shall use reasonable endeavours to ensure sufficient detail is included in the Tests Proposal to allow each party to assess the impact of the Tests Proposal;
- issue to each affected TO and/or affected User of a copy of all updates to the Tests Proposal as soon as reasonably practicable;
- liaise with each affected User and/or affected TO to seek their agreement to the Tests Proposal and any updates thereof;

3.2.3 If the Tests Proposal is not acceptable to an affected User or an affected TO NGET may:

3.2.3.1 if the User Tests have been proposed by a User:

- procure that that User submits a revised Tests Proposal to NGET as soon as reasonably practicable; and
- re-issue the revised Tests Proposal to each affected TO and/or affected User as soon as reasonably practicable.

3.2.3.2 if the User Tests have been proposed by NGET, NGET shall revise and re-issue the Tests Proposal to each affected TO and/or affected User as soon as reasonably practicable.

3.2.4 In the event that a Tests Proposal cannot be agreed any Party may raise a Dispute.

3.2.5 On agreement of the Tests Proposal by all parties, NGET shall agree the Plant and Apparatus involved with each relevant TO. That TO shall submit an Outage request in accordance with STCP 11-1 Outage Planning and STCP 11-2 Outage Data Exchange. When a User's Plant and Apparatus is directly involved in the User Tests, NGET shall prepare and approve an Outage request with outline details of the User Tests for information purposes only.

3.2.6 Where:

- no TO Plant and Apparatus is directly involved in the User Tests; or
- the involvement of a TO is limited to providing resources; or
- a TO is being made aware of the User Tests for information only,

NGET may choose to prepare and approve an Outage request with outline details of the User Tests for information purposes only.

## Tests Programme

3.2.7 On agreement by all parties of a Tests Proposal for major Tests, a Tests Programme that includes, but is not limited, to the content shown in Appendix A shall be prepared:

3.2.7.1 If the Tests Proposer is a User, NGET shall procure that the User provides to NGET, as soon as reasonably practicable;

- a Tests Programme; and
- any updates required to the Tests Programme.

- 3.2.7.2 If the Tests Proposer is NGET, ~~then~~ NGET shall ~~prepare a Tests Programme and~~ be responsible for ~~preparation and~~ change control of the Tests Programme, providing any updates required to the Tests Programme as soon as reasonably practicable.
- 3.2.8 Irrespective of whether a Tests Programme is prepared by NGET or a User, NGET shall:
- provide a copy of the draft Tests Programme to each affected TO and/ or affected User as soon as reasonably practicable. NGET shall endeavour to ensure sufficient detail is included in the Tests Programme to allow each party to assess the impact of the Tests Programme on their equipment.
  - issue, as soon as reasonably practicable, to each affected TO and/or affected User of a copy of all updates to the Tests Programme.
  - liaise with each affected User and/or affected TO to seek their agreement to the Tests Programme and any updates thereof.
- 3.2.9 NGET and each affected TO shall assess the implications of the Tests Programme. NGET shall assess the ~~GBNETS~~ Transmission System implications and each TO shall assess the implications of the Tests Programme on that TO's assets and advise NGET of any asset-related issues. NGET and the TO shall agree any changes required to the Tests Programme. NGET will liaise with each affected User and/or affected TO and confirm their agreement to the Tests Programme changes.
- 3.2.10 If the Tests Programme is not acceptable to an affected User or an affected TO then NGET shall require the Tests Proposal to be revised in accordance with any agreed changes and resubmitted as soon as reasonably practicable in accordance with this procedure
- 3.2.10.1 If the User Tests have been proposed by a User, NGET shall:
- procure that the User submits a revised Tests Programme with any agreed changes to NGET, as soon as reasonably practicable; and
  - re-issue the Tests Programme to each affected TO and/or affected User as soon as reasonably practicable.
- 3.2.10.2 If the User Tests have been proposed by NGET, ~~then~~ NGET shall revise and re-issue the Tests Programme to each affected TO and/or affected User as soon as reasonably practicable.
- 3.2.11 When all issues raised have been addressed to the reasonable satisfaction of all parties the agreed Tests Programme shall be issued by NGET to each affected TO and/or affected User. This shall normally be at least 15 Business Days prior to the commencement date of Tests, unless otherwise agreed.
- 3.2.12 In the event that NGET is informed that a party has identified a need for essential changes to the agreed Tests Programme, NGET shall inform the relevant TO as soon as reasonably practicable. NGET shall then obtain a copy of the amended Tests Programme in accordance with paragraph 3.2.10. Any essential changes made shall be agreed and acknowledged by NGET and each affected TO and NGET shall liaise with each affected User and/or affected TO to obtain their agreement to the Tests Programme changes.
- 3.2.13 In the event that a Tests Programme cannot be agreed any Party may raise a Dispute.
- 3.2.14 In the event that that there is a Dispute regarding the acceptability or otherwise of a Tests Programme or associated Outage the Tests shall not take place until the Dispute has been resolved.

### Planning Process Associated with Tests Requirements

- 3.2.15 NGET shall liaise with each affected TO to confirm that all relevant Outage requests have been included in the Outage Plan.
- 3.2.16 NGET shall assess the **GBNETS** Transmission System implications of the User Tests (including the proposed time, date and extent of the Tests Proposal). NGET shall liaise with and co-ordinate the response from each affected User and affected TO. Each affected TO shall assess the asset implications of the User Tests. The TO and NGET shall agree the acceptability or otherwise of the User Tests as part of normal operational liaison.
- 3.2.17 NGET and each affected TO shall use reasonable endeavours to ensure sufficient information is exchanged and facilities are provided, where reasonably requested, to support the planning and implementation of the User Tests and ensure that System conditions for the period of the Tests can be sufficiently modelled and monitored. NGET shall be responsible for obtaining information reasonably requested by the TO from a User.
- 3.2.18 Prior to commencement of the Tests, the viability of the Tests' requirements shall be regularly reviewed by NGET, the User and the TO and the Tests may be subject to a delay at any time. Where Tests are delayed the process to agree any alternative arrangements must follow the process outlined in this procedure. NGET shall be responsible for keeping the TO informed of any delays associated with or advised by other parties.
- 3.2.19 The TO shall confirm the asset Operational Capability Limits and notify NGET of any Services Reduction Risks on assets associated with the proposed User Tests.

### Operational Process

- 3.2.20 NGET shall be responsible for operational liaison in order to obtain agreement from an affected User or affected TO for the Tests to proceed in the Control Phase.
- 3.2.21 The Tests shall be carried out in accordance with the requirements of STCP 1-1 Operational Switching and the Tests Programme. NGET shall inform each affected User and/ or each affected TO at the start of User Tests.
- 3.2.22 NGET shall co-ordinate the User Tests. Where operation of Plant and Apparatus is transferred to the TO as part of the agreed Tests Programme NGET shall inform each affected User and/or each affected TO prior to the transfer of operation.
- 3.2.23 When User Tests have commenced, if any party identifies a change in System, site or Test conditions that could affect or invalidate the User Tests or have an Operational Effect, that party shall inform NGET. NGET shall inform all other affected parties as soon as reasonably practicable. The User Tests shall be suspended until all parties involved have assessed the implications of the change in System, site or Tests conditions. Where operation of Plant and Apparatus had been transferred to the TO this shall be transferred back to NGET. NGET shall co-ordinate any communications with each affected User or affected TO on agreement reached to complete, delay or cancel the Tests Programme and inform of the transfer of operation of Plant and Apparatus back to NGET.

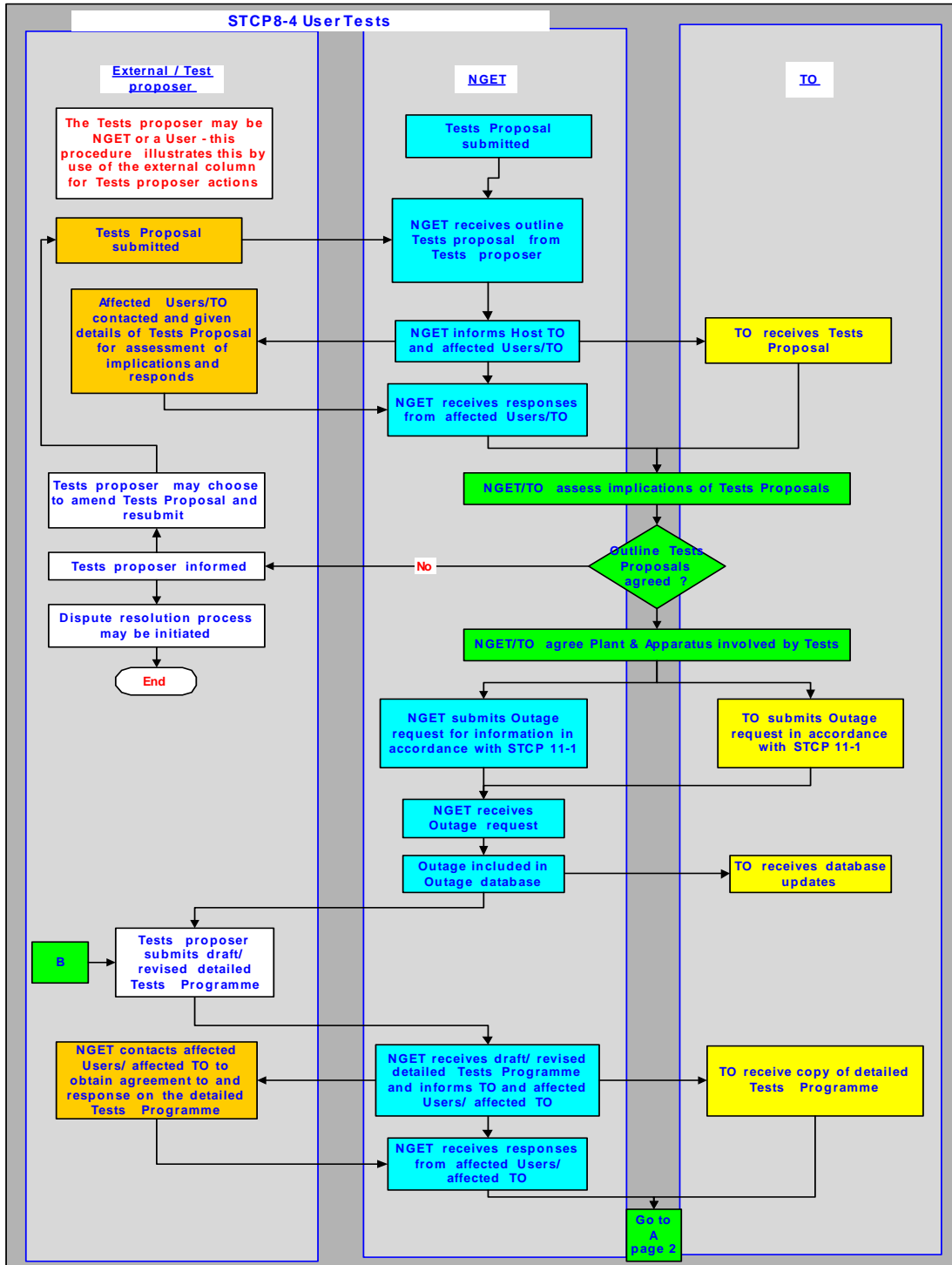
- 3.2.24 Tests may be suspended or cancelled by any party during periods of predicted or actual local adverse weather conditions. The TO shall be made aware by NGET as soon as reasonably practicable of any request by any party for suspension or cancellation of Tests.
- 3.2.25 In the event of a failure of communications between the TO and NGET or the Tests site during User Tests then the Tests Programme shall be suspended on completion of the agreed instruction until satisfactory communications are restored and agreement is reached with all affected parties to continue with the Tests Programme.
- 3.2.26 When User Tests are complete or operation of Plant and Apparatus is transferred back to NGET due to a suspension or cancellation of Tests NGET shall inform any affected User or affected TO as soon as reasonably practicable.

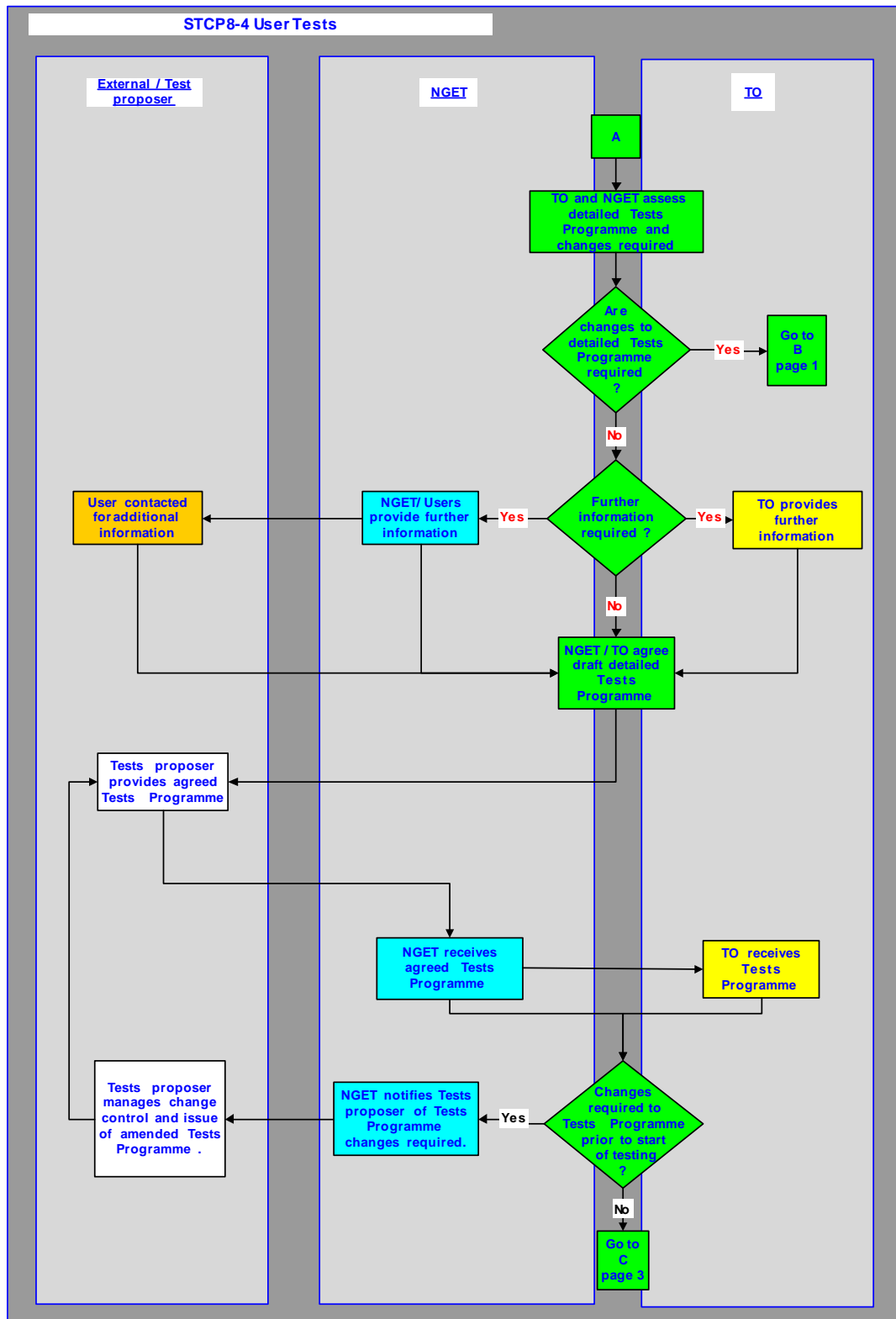
#### **4 Other Considerations**

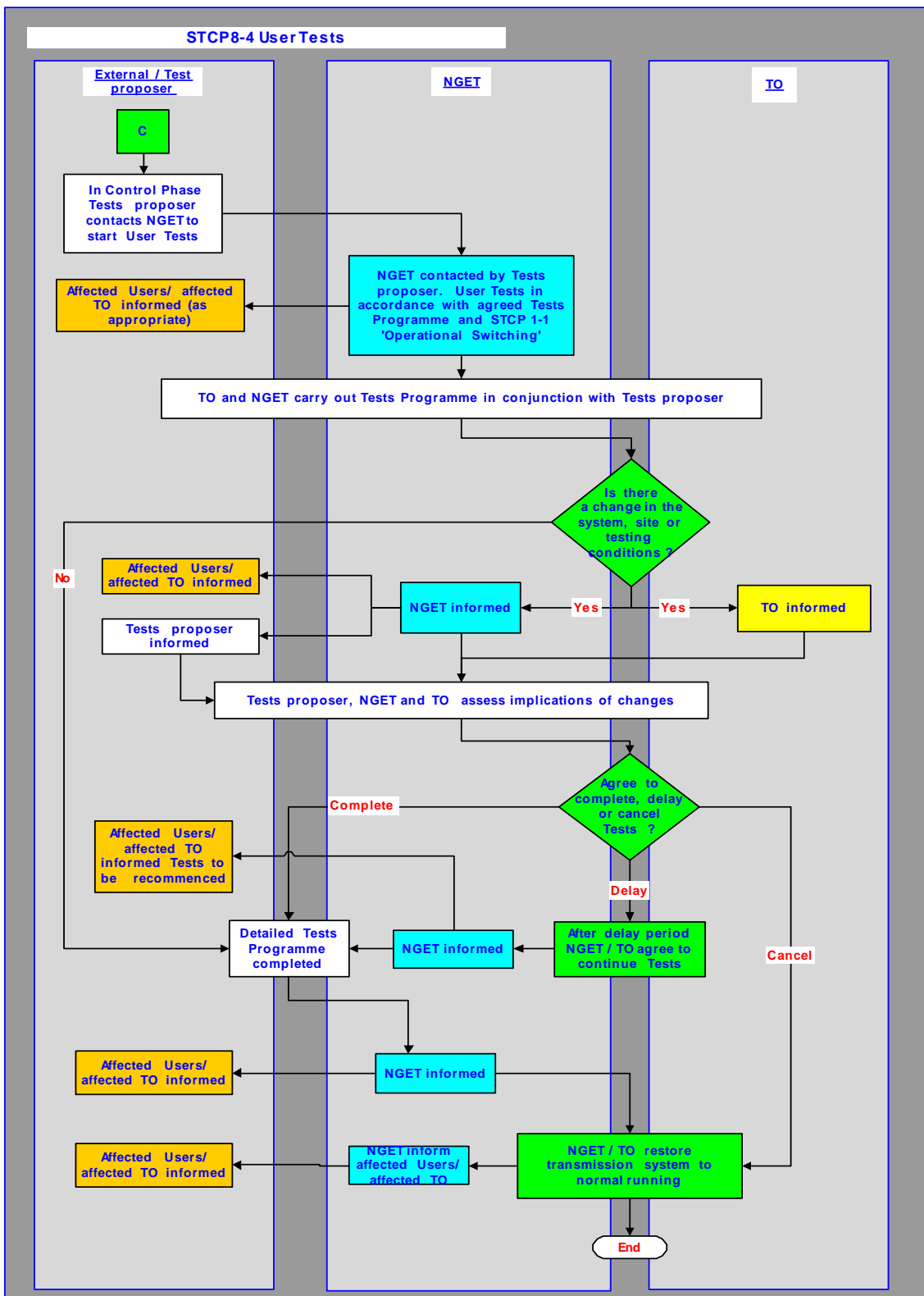
- 4.1.1 User Tests shall normally only be carried out by NGET or a User on Plant and Apparatus in operational service when the results of off-load Tests would not be sufficiently rigorous in the reasonable opinion of either party to confirm the continued satisfactory performance of the Plant or Apparatus involved.
- 4.1.2 NGET and the relevant TO shall give consideration to relevant existing operating restrictions or notified Services Reductions or Services Reduction Risks when evaluating a Tests Proposal or Tests Programme.
- 4.1.3 No User Tests shall take place that could result in operation of an Operational Intertripping scheme unless this is the stated purpose of the Tests and agreement has been reached with all affected parties.
- 4.1.4 Where testing of an Operational Intertripping scheme is not the stated purpose of testing then no Tests shall take place involving a circuit associated with an Operational Intertripping scheme unless the Operational Intertripping scheme is not required in service in the opinion of NGET for the duration of the Tests. The scheme must be deselected from service by a means agreed with all affected parties.

## Appendix A: Swimlanes

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: Test Programme contents

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- B.1 A Tests Programme for major testing shall :-
  - B.1.1 Have a unique identifier allocated by the Tests Proposer and indicate the current version and issue number.
  - B.1.2 Define the means of communication between all parties involved in the Tests.
  - B.1.3 Follow an agreed change control process for changes to the Tests Programme.
  - B.1.4 Specify any associated documentation and diagrams forming part of the Tests Programme and these shall be accessible to all recipients of the Tests Programme.
  - B.1.5 Identify any Plant and Apparatus subject to the Tests and any other Plant and Apparatus that could be affected.
  - B.1.6 Identify any Operational Effects or potential Operational Effects associated with the Tests.
  - B.1.7 Identify any Services Reductions or Services Reduction Risks associated with the Tests.
  - B.1.8 Outline the initial conditions of the Plant and Apparatus subject to the Tests.
  - B.1.9 Detail any temporary protection required for the purposes of the Tests together with the settings applied.
  - B.1.10 Provide a detailed Tests schedule with location, action, any expected result and/or Operational Effect identified for each item of the Tests Programme.
- B.2 For complex Tests breakpoints should be identified where the Tests Programme can be suspended and restarted without undue risk and with minimum disruption.

## **Appendix C: Abbreviations & Definitions**

### **Abbreviations**

SHETL	Scottish Hydro-Electric Transmission Ltd
SPT	SP Transmission Ltd
STC	System Operator –Transmission Owner Code
STCP	System Operator –Transmission Owner Code Procedure
TO	Transmission Owner

### **Definitions**

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

Apparatus  
| **GBNETS** Transmission System  
Grid Code  
NGET  
Operational Capability Limits  
Outage  
Outage Plan  
Party  
Plant  
Services Reduction  
Services Reduction Risk  
System  
Tests  
User

#### **Grid Code definitions used:**

Control Phase  
Operational Effect  
Operational Intertripping