

Grid Code Connections Conditions CC.7.7 Maintenance Standards

1. At the Extraordinary GCRP meeting, held in December 2010, a paper was presented by SSE proposing amendment to Connection Condition 7.7 relating to Maintenance Standards. Specifically the notification of Scottish Transmission Licensees and Offshore Transmission Owners following the adjustment of system fault levels.
 2. The original GCRP paper is shown in the appendix of this paper.
 3. The Panel agreed that a draft Terms of Reference (ToR) should be written for discussion at the GCRP, to allow a Grid Code Working Group to be established.
 4. The Panel is asked to:
 - agree that a Working Group should be established;
 - agree the draft ToR contained in this paper; and
 - agree timescales for a) commencing the Working Group and b) reporting back to the Panel.
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Grid Code Working Group

DRAFT - Terms of Reference

It was agreed at the Extraordinary GCRP meeting, held on 22nd December 2010, to establish a Grid Code Working Group for review of CC.7.7 and Maintenance Standards. The Working Group would be tasked with assessing the current industry codes associated with the notification of Scottish and Offshore generators in relation to changes of system fault levels. The intention is to afford these generators with a similar notification and protection as given to generators connected in England and Wales.

Objectives

The Working Group will:

- I. Determine and assess:
 - a. The communication processes by which Scottish and Offshore transmission connected Users ensure their plant and apparatus on transmission sites are adequately rated for their intended purpose.
 - b. The mechanisms, timing and frequency by which system fault level changes are currently issued, especially in relation to new connections.
 - c. The code obligations on Relevant Transmission Licensees and OFTOs to notify Users of changes to faults levels and the obligation to minimise the requirement for a User to change existing plant or apparatus where economical to do so.
 - d. The appropriateness for a User to be able to recover costs associated with forced replacement of existing plant and agree outages for replacement of assets.
- II. Consider whether there are consequential changes required to the SO-TO Code (STC) and the CUSC.
- III. Produce a Working Group report to be presented to the [Panel to agree] GCRP meeting. The Working Group Report will also be presented to the subsequent STC Committee and the CUSC Panel meetings, if consequential action is required.
- IV. Membership will be invited from Grid Code, STC and CUSC distribution lists.
- V. A Working Group report will be delivered with the findings, recommendations and a summary of discussions.

Deliverables and timescales

The Working Group will produce a Working Group report outlining its analysis, findings and recommendations which will be submitted to the Grid Code Review Panel at the meeting in [tbd].

Appendix GCRP December 2010 Paper

Grid Code Review Panel

Grid Code Connections Conditions CC.7.7 Maintenance Standards

Summary

1. This paper proposes that a revision of **Connections Conditions CC.7.7 Maintenance Standards** of the Grid Code is required to ensure Generators in Scotland and Offshore are notified in an efficient manner in relation to changes to system fault levels. This is to afford them similar notification and protection given to similar Generators in England and Wales.
2. The proposed revision relates to
 - a. The communication process which ensures Users in Scotland and Offshore meet the requirement that all **User's Plant and Apparatus** on **Transmission Sites** in Scotland or Offshore remain adequately rated for the purpose for which it is intended.
 - b. The mechanism by which changes to system fault levels are issued
 - c. The obligation on Relevant Transmission Licensees or Offshore Transmission Owners to notify Users of changes to fault levels using the Modification Notice Process
 - d. The obligation on Relevant Transmission Licensees or Offshore Transmission Owners to minimise the requirement to change Users existing plant or apparatus where economical to do so.
 - e. The ability of impacted Users to recover costs associated with a forced replacement of existing rated plant and apparatus
 - f. The agreement of Users on Outage timing to replace impacted assets

Introduction

3. CC.7.7.1 of the Grid Code states

It is a requirement that all **User's Plant and Apparatus** on **Transmission Sites** is adequately maintained for the purpose for which it is intended and to ensure that it does not pose a threat to the safety of any **Transmission Plant, Apparatus** or personnel on the **Transmission Site**. **NET** will have the right to inspect the test results and maintenance records relating to such **Plant and Apparatus** at any time. In Scotland or **Offshore**, it is the **User's** responsibility to ensure that all the **User's Plant and Apparatus**, including protection systems, are tested and maintained and remain rated for the duty required. An annual update of system fault levels is available as part of the **Seven Year Statement**.

4. The unprecedented number of new connections and the variations to connection design makes the information published on fault levels in the seven year statement arbitrary and misleading to existing Users as it is liable to change annually
 5. New Users connection design revisions and subsequent plant and apparatus changes could significantly revise the fault levels published in the SYS. The SYS is only published on an annual basis and subsequently existing users may make investment decisions on out of date information.
 6. Only when the final design is agreed between the RTL and a new User will final fault levels be known. Existing Users particularly Users with Clause 10 availability restrictions within their BCA may have to change ahead of the final fault level being known via the SYS to avoid further restrictions on availability. If a user waits till the final fault levels are published this may not give sufficient time to procure and
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implement the required change of Plant or Apparatus. In addition a User may make changes to plant or apparatus which are subsequently not required by the final design revision or termination of the project.

7. The Relevant Transmission Licensee or Offshore Transmission Owners are not required to notify any potentially impacted Users of planned new connection or replacement of plant or apparatus which may change the fault levels of their existing plant and apparatus.
8. The Relevant Transmission Licensee or Offshore Transmission Owners are not required to take account of the existing plant and apparatus in the design offered to new Users or for replacement of existing Plant and Apparatus.

Way Forward

Invite the Panel to agree to a joint Grid Code, CUSC and STC Working Group to propose changes to industry Codes to establish good industry practice for Health and safety of **Users Plant, Apparatus** and personnel on a **Transmission Site**.
