

Grid Code Review Panel**9th September 2003****Operational Intertripping Schemes****Paper by Innogy plc, Powergen plc, British Energy plc,
Association of Electricity Producers*****Introduction***

1. At the GCRP meeting on the 22nd May 2003, NGC requested that Generator representatives clarify their concerns regarding the requirements for system to generating unit intertripping schemes.
2. This paper responds to that request by reiterating the concerns that have previously been raised by Generators regarding the provision and use of such intertripping schemes.

Background

3. At the GCRP meeting on the 5th September 2002, the Grid Code changes that might be necessary as a result of BSC Modification Proposal P87 were discussed. It was noted that the Grid Code was silent on the technical need for intertripping schemes to be provided by a Generator as a condition of connection.
4. In response to a question of how the need for an intertripping scheme and the associated technical requirements were identified, NGC agreed to clarify whether the specification of the need and technical requirements for an intertripping scheme were standard conditions in connection agreements.
5. Paper GCRP 02/27 was produced by NGC at the GCRP meeting on the 21st November 2002. The paper outlined the various requirements that exist for intertripping schemes and the issues that are addressed by P87. Generator representatives generally felt that the paper should include more detail on the type and need for intertripping schemes. It was considered that the provisions of the Grid Code should underpin the technical requirements such as intertripping schemes that might be specified by the Bilateral Agreements. NGC agreed to expand paper GCRP 02/27 to include more detail on the types and use of intertripping schemes.
6. At the GCRP meeting 6th February 2003, NGC expressed the view that there seemed to be no convincing argument that the Grid Code was the appropriate document to identify the need for specific intertripping schemes. The Generator representatives felt that, unless intertripping schemes had been installed to allow new plant to connect early, their utilisation should be seen as a commercial service. NGC agreed to update paper GCRP 02/27 as soon as possible.

Intertripping Schemes

7. Intertripping schemes, as installed by either the Generator or by NGC with the Generator's agreement, generally fall into 3 main categories: -
 - (i) Those installed in order to facilitate early connection to transmission system, before transmission infrastructure reinforcement is completed, or to reduce the cost of connection.
 - (ii) Those installed at the choice of the Generator and operated as a commercial service to NGC.
 - (iii) Those at a number of Power Stations where the scheme is specified by NGC in the Bilateral Agreement although the connection is compliant with the Security and Quality of Supply Standard. In most cases, these schemes are not subject to a balancing service agreement with NGC.
8. The Bilateral Agreement will normally specify either the requirement to install an intertripping scheme or the existence of such a scheme. The intertripping scheme would be armed by the issue of an instruction from NGC under the provisions of Grid Code BC2.10.2 (a). In the absence of an appropriate commercial agreement, no payment would be made in respect of arming the intertripping scheme.
9. In the event of an intertripping scheme operating, NGC would issue a Bid- Offer Acceptance in accordance with Grid Code BC2.5.2.3 and BC2.10.3. This Bid-Offer Acceptance may not extend beyond the end of the Settlement Period for which Gate Closure had most recently occurred.
10. The utilisation of intertripping schemes imposes significant costs on Generators. The arming of an intertripping scheme creates the possibility of the scheme operating. The actual operation of the scheme and consequent rapid de-load of the generating unit can create a significant risk of incurring major plant damage, loss of plant availability and opportunity cost for the Generator. Furthermore, the Generator would be exposed to imbalance costs for any period it was unable to generate beyond the end of the Settlement Period for which Gate Closure had most recently occurred, unless NGC issued a Bid-Offer Acceptance covering this period.
11. The availability and utilisation of an intertripping scheme provides significant commercial benefit to NGC. Whilst a Generator is not obliged to accept an instruction from NGC to arm an intertrip scheme under certain circumstances, the current provisions are such that the Generator in most cases is effectively precluded from entering into an appropriate commercial agreement with NGC for the utilisation of an intertripping scheme as a commercial service. Consequently, NGC is not exposed to the full economic cost of its actions when utilising these schemes.

Proposal

12. It is proposed that the Grid Code be amended such that the separate existence of intertripping schemes installed and operated by the Generator as a commercial service and those schemes installed as a condition of connection to the transmission system would be recognised. These amendments would include changes to the Connection Conditions, such that the technical circumstances under which a Generator would be required to install and then arm an intertripping scheme as a condition of connection would be clearly identified. In all other circumstances the Generator would be free to choose whether an intertripping scheme would be installed and/or armed as a commercial service.
13. This proposal would have the following benefits:
 - (i) Create clarity and transparency for new and existing Generators regarding the circumstances under which the Generator would be required to install and make available an intertripping scheme as a condition of connection.
 - (ii) Clarify the conditions under which an intertripping scheme may be utilised as a commercial intertrip/balancing service, as described in NGC's Special Licence Condition AA4 statement "Procurement Guidelines".
 - (iii) Facilitate the development of appropriate commercial arrangements covering the utilisation of intertripping schemes as either a mandatory service, where the scheme is required as a condition of connection, or as an optional commercial service provided by the Generator.
 - (iv) Better meet the Grid Code objectives set out in NGC's Licence Condition 7.1(b) in respect of:
 - (a) Permitting the development, maintenance and operation of an efficient, co-ordinated economical system for the transmission of electricity by ensuring that the System Operator is exposed to the commercial consequences of its actions when utilising intertripping schemes.
 - (b) Facilitate competition in the generation and supply of electricity by clarifying the Grid Code requirements relating to intertripping schemes and ensuring that certain Generators are not discriminated against.

Recommendation

14. After considering the contents of this paper the Grid Code Review Panel is invited to:
 - (i) Agree that the proposal would better meet the Grid Code objectives and that the Grid Code be appropriately amended.
 - (ii) Invite NGC to propose draft text to amend the Grid Code for consideration at the next GCRP or appoint a Working Group to consider the relevant issues and propose draft text for consideration by the GCRP.