

Industry Participants and Interested Parties

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Dear Colleague

### **GB SQSS Review of Infeed Loss Risks**

On behalf of the Great Britain Security and Quality of Supply Standard (GB SQSS) Review Group, I am pleased to provide details of the GSR007 Consultation Document<sup>1</sup>. The GSR007 Review has been undertaken by a Working Group comprising the three GB transmission licensees, namely: National Grid Electricity Transmission plc (NGET), SP Transmission Ltd (SPT); and Scottish Hydro-Electric Transmission Ltd (SHETL) with assistance of certain generating companies. The Working Group has been reviewing the threshold levels of the Loss of Power Infeed permitted within the criteria of the GB SQSS.

The GB transmission licensees are required to plan, operate and maintain the GB transmission system in an efficient and economic manner and to facilitate competition in the electricity market. Compliance with the requirements of the GB SQSS is a GB Transmission Licence requirement.

An aim of the GB SQSS planning criteria is to ensure that there is sufficient investment or purchase of services in planning timescales to enable secure and efficient real time operation in accordance with the operational criteria. With regard to system frequency, the planning criteria are concerned with designing the GB transmission system such that, consistent with statutory frequency requirements, a loss of power infeed of up to the 'Normal Infeed Loss Risk' (currently 1000MW) is considered as a 'normal' event (relatively frequent) and a loss of power infeed up to the 'Infrequent infeed loss risk' (currently 1320MW) is considered as an 'infrequent' event (i.e. occurring no more than in the region of four times per year).

The actual containment of frequency to within statutory limits is the subject of the GB SQSS operational criteria, which are consistent with the GB System Operator's (GBSO) frequency containment policy. The operational criteria together with GBSO's frequency containment policy are used to ensure that frequency remains within acceptable limits given the

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<sup>1</sup> The Consultation Document is available at <http://www.nationalgrid.com/uk/Electricity/Codes/gbsqsscode/reviews/> under the section headed "GB SQSS review GSR007"

investment and/or purchase of services provided in planning timescales. The operational criteria do not refer to either normal or infrequent infeed loss risk. Given the system as designed in planning timescales, the operational criteria require that, under prevailing system conditions and for the secured event of the 'most onerous loss of power infeed' occurring, unacceptable frequency conditions shall not arise. Sufficient frequency reserve and response is held in operational timescales to contain the system frequency to within statutory limits to mitigate effects of the most onerous loss of power infeed. Where there is a perceived risk of an infrequent event, which could lead to a frequency deviation outside the statutory limit of 49.5Hz, sufficient reserve is held in operational timescales to contain such frequency deviations to within 49.0Hz and to limit their duration outside the 49.5Hz limit to 60 seconds.

GB SQSS Review Request GSR007 was raised by EDF Energy in February 2008, to review the Normal and Infrequent Infeed Loss limits in the GB SQSS.

It is argued that the current limits of 1000MW and 1320MW for normal and infrequent infeed loss risk respectively will become inappropriate in the event that new generating units of capacity in the range 1400-1650MW were to connect to the GB transmission system. Generating units of this size are currently proposed by several parties.

The Transmission Licensees are minded to recommend to Ofgem, that the Authority endorse the change proposals to the GB SQSS, which are set out in Annex 3 of the Consultation Document. Those recommendations include that the Normal Infeed Loss Risk shall be increased from 1000MW to 1320MW and that the Infrequent Infeed Loss Risk shall be increased from 1320MW to 1800MW on a defined 'Infeed Change Date'. The 'Infeed Change date' is the date on which a single generating unit, CCGT module or nuclear reactor of Registered Capacity greater than 1320MW connects to the GB transmission system and commissions. It is further recommended that paragraph 2.6.3 of the GB SQSS be amended immediately to refer to the Infrequent Infeed Loss Risk rather than the Normal Infeed Loss Risk.

In view of the breadth of the material, specific questions have not been posed in the Consultation Document. However, in this covering letter a number of general issues have been highlighted upon which we would welcome, invite and encourage your comments:

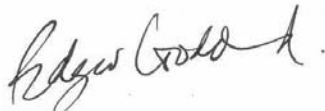
1. Do you agree with the overall form and broad magnitude of the cost-benefit analyses? Are there any particular costs or benefits which you think have been omitted? (Annex 4 refers.)
2. In view of the possible advent of large units (greater than 1320MW) connecting to the GB transmission system, do you agree that it would constitute undue discrimination to continue with the current arrangements (contained in the 'variations to connection designs' clause of the GB SQSS), whereby a generator wishing to connect such units would meet the cost of any additional response required to enable the GBSO to meet its statutory obligations on frequency containment? (Annex 5 refers.)

3. Do you have any concerns on the impact on Quality or Security of Supply arising from increasing the Normal and Infrequent Infeed Loss risk to 1320MW and 1800MW respectively? (Annex 6 refers.)
4. Do you agree with the recommendation to increase the Infrequent Infeed Loss Risk from 1320 to 1800MW?
5. Assuming the Infrequent Infeed Loss Risk were to be increased from 1320MW to 1800MW, do you agree that it is appropriate to increase the Normal Infeed Loss Risk from 1000MW to 1320MW. If not, what level do you recommend for the Normal Infeed Loss Risk, and why?
6. Do you agree with the recommendation to modify paragraph 2.6.3 of the current GB SQSS to refer to the Infrequent Infeed Loss Risk rather than the Normal Infeed Loss Risk?
7. The recommended change proposals to the GB SQSS introduce the concept of an Infeed Change Date. This is the date from which the GBSO will hold additional response to ensure that frequency continues to be contained to within statutory limits. Do you agree with the recommended implementation option A3, the Infeed Change Date is left contingent on the date of commissioning of the first new large unit? If not, which other of other implementation options considered, or any other option, do you favour, and why?
8. Do you agree with recommended change proposals to the text of the GB SQSS as set out in Annex 3?

Should you have any queries on any of the above, please contact your Transmission Licensee representative who will be pleased to discuss any matters with you. Contact details are: Paul Plumtre (01926 653424) within NGET; Cornel Brozio (01698 413420) within SPT; or Richard Lowe (01738 456341) within SHETL.

We welcome your views, in particular in relation to the above questions, but also in general on any matters relating to the Infeed Loss Limits within the GB SQSS. Please reply by close of play on **Friday 6<sup>th</sup> March 2009** to: [GBsqss.Review@uk.ngrid.com](mailto:GBsqss.Review@uk.ngrid.com)

Yours sincerely



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