Dear Gaynor,

NETS SQSS – GSR008 text consultation

Thank you for your response of April 12th to the above consultation, we have found your comments very useful.

In respect of areas in which you have suggested modifications, or raised queries, our views are as follows.

Adjusted N-1 requirement

We agree with your comment that a group of generators should only be considered on simultaneous outage when they cannot be separately isolated, and will modify the wording of 4.6.6. as follows:

… or a generation unit (or several generating units, sharing a common circuit breaker, that cannot be separately isolated) …

Clarification regarding use of dynamic ratings

In developing the proposals we considered whether it is appropriate to use dynamic ratings in design timescales. In system design, a value of line rating needs to be assumed for the conditions being analysed. A dynamic rating would need to be based on probabilities, including ambient temperature and previous loading, which are very difficult to predict several years in advance. In design timescales we already make use of seasonal ratings, which are derived from the average ambient temperatures in each season, and are consequently a simple form of dynamic rating. They are probabilistic, and there is a possibility that in unseasonably warm conditions they will be insufficient, leading to constraints. It is our view that this use of seasonal ratings provides the correct balance between inefficient design resulting from pessimistic assumptions on ratings, and high operational constraint costs resulting from optimistic assumptions in the design.
**Assumed reactive power output of generators**

We agree with your proposal that, when assessing voltage levels and step changes, it is sensible to set the reactive power output of generators to levels that can reasonably be expected, as has been proposed for stability assessments. Clearly, there is no benefit in assessing system performance against unnecessarily onerous conditions, which may potentially lead to inefficient investment. We will include your proposed wording in our submission to the Authority.

**Clarification of Applicability of Generation Connection Criteria**

The difference that you have noted between the NETS SQSS text of clause 1.10 and the wording of section 7.3 of the WG2 report was first introduced in the WG2 report, in which the text in the appendix maintains the current wording "... into the MITS". The text we have consulted on matches that in Appendix 2 of the WG2 report. The aim of this change is to ensure that radial generation connection circuits at 132 kV do not become part of the MITS, as we do not believe that this would be appropriate. In some cases, the requirements of chapter two can lead to reinforcement of the MITS as well as determining the requirements of the generation circuits. Consequently, we consider that it is right to maintain the current wording of clause 1.10, which states that chapter two may have MITS implications.

**Clarification of the Overlap of Generation and Demand Criteria**

We note your support for the wording of clause 1.23.2. You are correct that the presence of generation will impact on the asset requirements identified under chapter 3. We will clarify this in the description of the issue in our report to Ofgem. This report will be published on our website.

**Consideration of generator trips**

Your comments on clauses 2.10.5, 3.9.2 and 8.8.2 relate to the same issue as that for clause 4.6.6 discussed above. We agree with your view, and will modify the wording as proposed for 4.6.6.

We will shortly be submitting our report to Ofgem. This report will discuss the proposals taken to consultation and the industry comments, and it will make recommendations on NETS SQSS amendments.

Once again, thank you for your comments. Please contact me (mark.perry@uk.ngrid.com – 01926 655468) should you wish to discuss any issues further.

Yours sincerely

Mark Perry