Discussion Paper for the NETS SQSS Review Panel Should we initiate a Wider Review of NETS SQSS Offshore Criteria?

<u>Introduction</u>

Recently there have been a number of issues raised by project developers around the offshore criteria in the NETS SQSS. A number of Modification Proposals have been submitted to the NETS SQSS Review Panel. These include:

- GSR014: Review of Requirement of Onshore Connection Facilities for Offshore Wind Farm Connections;
- GSR019: Review of Chapter 7 Double Busbar Requirements, and
- GSR020: Review of Clause 7.8.1.1 to Allow Single Transformer Offshore Substations of Capacity Greater Than 90MW.

Further NETS SQSS Modification Proposals are anticipated. In part, these are motivated by new designs of offshore transmission facilities. In many other cases, offshore connections are being handled as "Variations to Connection Design" under the SQSS. This leads to additional complexity and uncertainty for project developers.

Given the pace of offshore development, there may be merit in undertaking a more comprehensive review of the NETS SQSS offshore criteria. This would enable wider industry participation and should avoid further working groups being raised to assess different offshore proposals.

The Current Offshore Criteria

The current standards were developed in 2006 and were underpinned by an extensive economic assessment of offshore generation and transmission costs. Since then, a number of changes to offshore generation and transmission are evident:

- Windfarm developments are generally larger and can be further offshore.
- Substation designs and costs have changed.
- Innovative approaches to windfarm installation and build are being used.

Different Approaches to Developing the NETS SQSS Offshore Criteria

A number of approaches are summarised in Table 1 below. Any significant review of the offshore criteria will require the commitment of resources by the transmission companies.

Table 1 – Pro's and Con's of Different Approaches

Approach to Offshore	Pros	Cons
Continue as now – Process further Modifications to the NETS SQSS as they are raised.	Further developments (eg technology innovation, ITPR arrangements) could mean that a review is better carried out in a few years' time. We continue to be responsive to specific issues as they arise.	Some lack of confidence around the existing standards. Continued use of "Variations to Connections Design" for many offshore developments. Further disparate proposals to review aspects of the NETS SQSS come forward.
2) Progress a review of the work carried out in 2006 – a wider assessment of offshore costs and benefits given recent developments. Take forward a focussed stakeholder workshop to inform our approach.	We gain greater understanding around the existing standards and whether there is a strong case for change. We better understand the desire for wider review among stakeholders. If a detailed review is taken forward, we have a firmer basis for wider review.	Further focussed NETS SQSS modifications may be required. Even a high level review of 2006 work and stakeholder workshop is likely to take a further 3-6 months so a major review would not be taken forward before then. Costs are likely to be incurred to engage support to review the work carried out in 2006.
3) Bring forward an early Modification Proposal to form a NETS SQSS workgroup to carry out a wider review of the offshore criteria.	This starts to address wider issues more quickly. Provides a firmer basis for a stakeholder workshop etc.	A workgroup would need to be resourced at this time. It is likely that review of the 2006 work would be needed as per approach 2). Costs are likely to be incurred to engage support to review the work carried out in 2006. Could delay other proposals (eg Siemens GSR020).