

## Outline Principles Document (OPD) Summary of Comments Received

The following notes are intended as a quick reference summary of the comments received to date on the Outline Principles Document (OPD) dated November 2008. However, it is recommended that readers also refer to the original relevant correspondence to obtain a more complete picture.

### Respondees

Gaynor Hartnell	Renewable Energy Association ( <b>REA</b> )
Chris Dent	Institute of Energy Systems, University of Edinburgh ( <b>IES</b> )
Paul Jones	EoN ( <b>EON</b> )
Paul Mott/Sebastian Eyre	EDF Energy ( <b>EDF</b> )
Mike Kay	Electricity North West ( <b>ENW</b> )

### General

Company	Comment	Outline Response
REA	<ul style="list-style-type: none"> <li>• Review should not shy away from taking longer, over any more fundamental aspects of the standards if additional time is needed.</li>   <li>• In planning, prefer criteria that must be met for both high and low wind generation conditions rather than application of a set factor to wind output.</li> </ul>	<p>Noted</p> <p>Noted</p>
IES	<ul style="list-style-type: none"> <li>• Add Chris Dent to mailing list for future updates on the GB SQSS review including for any Industry workshops</li>   <li>• Re: Section 5.2.2 (MITS)                      Need more clarity over derivation of circle diagram before its use is extended for intermittent generation.                      The Security Approach (described in Intermittent Generation Consultation) has well defined basis.                      The consensus view on capacity credit for wind generation is around 20% (not 40%).</li> </ul>	<p>Will add to list</p> <p>Noted</p>

	The wind availability factor of 72% is far higher than typical figures for capacity credits or load factors.	
EON	<ul style="list-style-type: none"> <li>The 4 SQSS models imply greater uncertainty such that a generation project will have greater difficulty in predicting cost and security of access relative to current processes. This will have implications for financial modelling at the project development stage.</li> <li>Model 3 appears to be the most transparent and offers the lowest risk.</li> <li>Urge team to include user representation at an early stage and to allow sufficient time for parties to respond to future consultations.</li> </ul>	<p>It is the intention to select the single most appropriate model. Assessment measures (Section 6.2 of the OPD refer) include complexity etc.</p> <p>Model 3 is most reflective of the current position</p> <p>Noted. The Industry Review Group includes representatives from across the industry. Additional DNO involvement in the Working Groups has now been arranged.</p>
EDF	<ul style="list-style-type: none"> <li>Renewables do not represent the only means of reducing green house gas emissions (others include CCC, nuclear and clean coal).</li> <li>The TAR is not only to ensure 2020 renewable targets are met but also to enable other low carbon generation to be connected.</li> <li>Model 4 differs from Model 3 in that more or less generation access may be provided. How will this be justified?</li> </ul>	<p>Agreed</p> <p>Agreed</p> <p>Through CBA to determine the overall economic optimum</p>
ENW	<ul style="list-style-type: none"> <li>Re: Alignment with ER P2/6 and treatment of demand transfer. To ensure that overall approach on demand security is on a common basis (as current SQSS and P2/6) it may be pragmatic to assume deterministic criteria should remain the same unless there is good reason for change.</li> <li>Re: Treatment of exporting GSPs. Do not believe there are technical issue in relation to direction of flow at GSP.</li> <li>Request DNO involvement in WG2 (TEE).</li> </ul>	<p>Noted</p> <p>Agreed</p> <p>Further DNO involvement has now been arranged</p>

**Summary of Responses to Questions Posed in OPD**

	<b>Question</b>	<b>Comment</b>	<b>Outline Response</b>
1	<i>Are the current GB SQSS security criteria adequately defined to reflect proposed changes to the commercial framework (in respect of each of the proposed TAR options)?</i>	<p><u>REA</u>: No current provision for generation connection without wider access. Suggest amend generation output to zero when planning MITS. For sharing (CAP 163), MITS criteria must be complied with for all sharing combinations.</p> <p><u>EDF</u>: TAR process presently too indeterminate to translate meaningfully into SQSS. CAP 161, 162, 163 potentially enable existing network to work harder without reducing security. Do not foresee adverse implications arising from Cap 164. Cap 165 &amp; 166 could have security implications if they 'scared off' investors in new large plant.</p>	<p>Referred to WG3 (MITS)</p> <p>Noted</p>
2	<i>How should transmission access arrangements translate into criteria and methodologies for the determination of transmission capacity?</i>	<p><u>REA</u>: TAR will specify level of access per condition. SQSS should provide transmission capacity in time to provide that access at minimum cost. Operational criteria should minimise the cost of operation (taking account of VLL).</p> <p><u>EDF</u>: The SQSS should be considered in the development of charging methods since SQSS drives engineering cost.</p>	<p>Noted</p> <p>Noted</p>
3	<i>How do we ensure that the GB SQSS provides the appropriate balance between demand security, generation access, transmission investment and operational costs?</i>	<p><u>REA</u>: Balance/minimise overall cost of generation access (compensation costs), operational costs (including losses and constraints), transmission investment and cost of unsupplied demand.</p> <p><u>EDF</u>: CBA (as used for GSR007) seems an appropriate means of assessing where balance lies.</p>	<p>Noted</p> <p>Noted</p>

4	<i>Does application of the GB SQSS deliver an appropriate level of demand security?</i>	<p><u>REA</u>: Recommend use of VLL = £2/kWh, indexed up from 1989.</p> <p><u>EDF</u>: At present yes but SQSS must evolve with changing generation technologies.</p>	<p>A value of £35/kWh is also being considered. This value is in line with National Grid's transmission network reliability incentive scheme.</p> <p>Agree</p>
5	<i>Are the GB SQSS criteria relating to voltage, stability and frequency consistent and appropriate?</i>	<p><u>REA</u>: Losses of supply associated with instability can spread widely and difficult to predict. Possibly should investigate ways of reducing this consequence with a view to adopting less stringent criteria.</p> <p><u>EDF</u>: Yes</p>	Noted
6	<i>Should DC circuits from offshore networks connecting to the main interconnected transmission system (MITS) at more than one onshore substation be subject to MITS criteria or possibly less stringent offshore criteria?</i>	<p><u>REA</u>: Evaluate decisions involving the effects of offshore events on onshore MITS on an individual CBA basis.</p> <p><u>EDF</u>: Less stringent criteria are worth consideration</p>	The question relates to the treatment of paths which parallel the MITS
7	<i>Would the lack of transparency in planning be acceptable and how would consistency of planning be achieved?</i>	<p><u>REA</u>: Complex but not necessarily opaque. We note the difference between Models 1 &amp; 2 is that Model 2 includes deterministic demand criteria. No model should omit VLL and therefore we assume Model 1 contains VLL in operational standard.</p> <p><u>EDF</u>: Lack of transparency is not an automatic feature of Model 1 but could be an issue if adequate and comprehensible explanations are not given</p>	<p>Model 1 operational criteria will determined on the basis of CBA i.e. the balance between operational costs and the cost of not supplying demand (i.e. O + X where O = operational cost including losses and constraints, and X = cost of unsupplied energy.</p> <p>Noted</p>

8	<i>Would the removal of planning criteria for demand security from the GB SQSS be acceptable?</i>	<u>REA</u> : Acceptable to remove deterministic criteria but not VLL (VLL is basis for all). Plus need operational standards for voltage and frequency limits.	Noted
9	<i>Would the lack of transparency on how generation access signals are translated into transmission investment signals be acceptable?</i>	<u>REA</u> : Refer to response to Q7. Given transparency, a higher level of complexity can be justified if it provides more efficient design.	Noted
10	<i>Would it be acceptable for appropriate incentive schemes to displace the need for explicit criteria in the GB SQSS?</i>	<u>REA</u> : We expect planning criteria to minimise overall cost including cost of not supplying demand (cannot envisage planning sections disappearing under Model 1). <u>EDF</u> : Yes.	Noted
11	<i>Is it acceptable to satisfy the requirements of the GB SQSS through market arrangements (e.g. through buyback solutions)?</i>	<u>REA</u> : Yes as long as access arrangements allow generation and/or demand buy back rights. <u>EDF</u> : Potentially yes, although this could prove complex in practise. Simplicity does have merit in its own right where achievable.	Noted Noted
12	<i>Is it appropriate to consider relaxing planning criteria for demand security in order to facilitate the timely connection of renewable and other low carbon generation?</i>	<u>REA</u> : Given a fixed value for demand not supplied and a set amount of renewable generation to connect, the objective should be to minimise costs. <u>EDF</u> : Slight relaxations are likely to be necessary.	Noted Relaxation is not an aim but cannot be ruled out

13	<i>How will the level of demand security provided be measured and determined?</i>	<p><u>REA</u>: Need VLL.</p> <p><u>EDE</u>: Unlike Model 1, Model 2 includes deterministic planning criteria to provide demand security.</p>	<p>Agreed</p> <p>Agreed</p>
14	<i>If demand security were to be based on a value of lost load, what would be the appropriate VOLL?</i>	<p><u>REA</u>: Recommend use of VLL = £2/kWh, indexed up from 1989.</p> <p><u>EDE</u>: Difficult to determine appropriate VLL. This is not an attractive feature of Model 2 which would rely on a VLL.</p>	Refer to response to comment on Question 4
15	<i>Are the above assessment measures sufficient and appropriate?</i>	<p><u>IES</u>: measures should include the ability to explain underlying principles and not just simplicity of application.</p> <p><u>EON</u>: Include uncertainty and risk (in absolute terms and relative to existing position) that each option presents to the different transmission users: types of generator (large, medium, small, conventional, intermittent etc); DNOs and other demand customers.</p> <p><u>EDE</u>: Hard to disagree with assessment measures.</p>	<p>Agreed</p> <p>As far as reasonably possible</p> <p>Noted</p>