

# LCNF Full Submission

## Supplementary Answer Form

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<b>DNO Name:</b>	SHEPD	<b>Question Number:</b>	SSE013
<b>Question Date:</b>	16/09/10	<b>Answer Date:</b>	20/09/10
<b>Question Topic:</b>			

<b>Original Question No:</b>		<b>Original Answer Date:</b>	
<b>Original Question:</b>			
<b>Original Answer:</b>			

<b>Question:</b>	Box 15 provides an estimate of £1 bn per annum from DSM and avoided peaking generation development, whereas the net benefits as set out in the spreadsheet only apply to the Scottish Islands, and not to the GB-wide rollout of the solution. Please provide an NPV on a GB-wide basis. See answer overleaf
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<p><b>Answer:</b></p>	<p>The benefits show in our initial submission were intended to show the potential carbon savings which can be directly attributed to the Shetland Isles from the NINES project.</p> <p>We have attempted to illustrate the corresponding carbon benefits if this were to be extended across the UK. The extrapolation is based upon the relative size of the generation portfolios between Shetland and the GB network as identified in work carried out by University of Strathclyde. ( see Appendix B(iv) of the SHEPD submission – “description of Shetland electrical system and prospective projection of NINES project results to GB).</p> <p>The carbon savings are largely achieved from the additional wind generation enabled by demand side manage response displacing conventional generation. This is shown in the attached spreadsheet, which shows an NPV of <b>£28,181,417,461.</b></p> <p>The <b>£1bn</b> figure identified in the proposal is based upon a conservative estimate of the savings identified in both the Ofgem Demand Side Response Discussion Document of July 2010<sup>1</sup> and reports produced by National Grid on the future requirements for Ancillary Services in the UK<sup>2</sup>.</p> <p><i>1 - Ref: Ofgem Discussion Paper 'Demand Side Response'</i>  <a href="http://www.ofgem.gov.uk/Sustainability/Documents1/DSR%20150710.pdf">http://www.ofgem.gov.uk/Sustainability/Documents1/DSR%20150710.pdf</a></p> <p><i>2 – National Grid Reports -</i>  <a href="http://www.nationalgrid.com/uk/Electricity/Balancing/services/FutureRequirements/">http://www.nationalgrid.com/uk/Electricity/Balancing/services/FutureRequirements/</a>  <a href="http://www.nationalgrid.com/uk/Electricity/Operating+in+2020/">http://www.nationalgrid.com/uk/Electricity/Operating+in+2020/</a>  <a href="http://www.nationalgrid.com/uk/Electricity/Balancing/Summary/">http://www.nationalgrid.com/uk/Electricity/Balancing/Summary/</a></p> <p>We have not attempted to model national network losses savings (created by using local generation for local load) as this will be a key learning point of the project.</p>
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<p><b>Attachments:</b></p>	<ul style="list-style-type: none"> <li>- SSE013NINES– Full Submission Spreadsheet inc UK carbon enefits.xls</li> <li>- SSE013 NINES – carbon benefit model Sept 17.xls</li> </ul>
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