

# LCNF Full Submission

## Supplementary Answer Form

<b>DNO Name:</b>	SEPD	<b>Question Number:</b>	SSE016
<b>Question Date:</b>	16/09/2010	<b>Answer Date:</b>	midday 20/09/2010
<b>Question Topic:</b>	Project description		

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

<b>Question:</b>	Can you explain the extent to which key elements are novel including Tracking and inferencing model, Active network management, intelligent switchgear, real time ratings?
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<b>Answer:</b>	<p>We have tried to stress the integrated and holistic nature of our “flagship” Project – to provide early and readily scaleable solutions for DNOs. Through our monitoring we will identify what network issues (eg: thermal load; voltage drop) arise where and at what time. We will then evaluate which network management application (including energy storage) and customer Demand Side Response provides the optimum low carbon and lowest cost solution to each particular identified network issue. The Tracking and Inferencing Model then allows the forecasting of where and when these network issues arise over a range of forecasting horizons. This will allow the determination of the cost effective level of monitoring, and the application of network solutions and capacity planning within the timeframe of our Project, and in preparation for the early advance of low carbon technologies in particular areas identified by the modelling.</p> <p>We therefore believe our overall solution and the approach we are taking with our partners is novel, but in addition new algorithms for the instigation and operation of these management solutions will need to be developed. It will not be possible to optimise distributed energy storage or DSR control without intelligent forecasting. The T&amp;I Model is highly novel in the mathematical approach it will take to energy forecasting, based on proven experience and success in the retail sector. Based on an assessment of how diverse end customer use is, and through individual dynamic forecasting, we will determine the very localised implications this has on the network. This is achieved without any “smoothing” characteristics which would negate the real threats to the system of coincident high demand or export generation. This will allow us to determine the appropriate control solutions, but also ensure we have a vision of the future as to what network and customer DSR solutions should be promoted for maximum effect.</p>
<b>Attachments:</b>	

