

# *LCN Fund Full Submission*

## *Supplementary Answer Form*

Tick if this answer is Confidential: ☐

Tick if this answer has been provided verbally: ☐

Project code:	ENWT205	Question Number	11
Question date	29 August 2013	Answer date	5 September 2013
Submission section question relates to	Section 2: Project Description – Early Bilateral		
Topic	Technical		
Question	What steps have been taken to avoid voltage spikes during circuit energisation and de-energisation?		
Notes on question			
Answer	<p>To safely tranform LV radial networks into interconnected networks we will fit the new WEEZAP and LYNX devices into LV fuseways and link boxes respectively. The capacitors, fitted for voltage regulation, the WEEZAP and the LYNX are designed to fail safe by opening on loss of supply and only the WEEZAP will attempt to reclose; this reclosing functionality is no different to the operation a REZAP fitted on an LV circuit today to manage faults. Once electricity supplies are restored the network management system will then instruct the LYNXs to close as necessary and inform the Spectrum software of network state; in turn the Spectrum will switch in the capacitors as necessary.</p> <p>The energisation and de-energisation of the capacitors across the normal load cycle will be a standard operation as the Siemens' Spectrum system optimises the configuration and voltage profile of the circuits. The capacitors are commodity products and come fitted with a damping/ compensation equipment to negate transitory voltage spikes on energisation and de-energisation.</p> <p>The on-load tap changing distribution transformers are fitted with diverters to ensure the smooth the step change when it changes from one tap to another and negate transitory voltage spikes. The voltage change resulting from a tap change will be visible on high frequency sampling monitoring equipment but will be invisible to customers.</p> <p>This active control of all re-energisation activities and equipment switching will effectively prevent voltage spikes.</p>		

Attachments	
Verbal Clarifications  (Consultants)	