

Project ID	DIP096		
Long Title	Smart Street		
Short Title			
Keywords	Region; Multi-sector/Grid; Electricity; Power Quality & Grid Integration; Active Network Management; Stakeholder Engagement & Behaviour Change;		
Location (Town, Region, Country)	Wigan	Lancashire	England
Latitude and Longitude	53.55N	2.63W	
OSGB code	SD 58 05		
Status	Complete		
Start Date	2014		
End Date	2018		
Description	<p>As we become more reliant on electricity as our main source of power, our customers will use more new low carbon technologies such as electric vehicles, heat pumps and photovoltaics/solar panels.</p> <p>These technologies tend to occur in clusters, which has a dramatic effect on the electricity network. While electric vehicles and heat pumps could cause voltage to fall below statutory limits, new generation from photovoltaics exporting electricity to the network will have the opposite effect. If voltage levels fall outside statutory limits, the way our customers' appliances perform will be affected.</p> <p>Using new controllable switching devices, called the Weezap and Lynx, integrated into our network management system, Smart Street will stabilise voltage and avoid it falling above or below statutory limits.</p> <p>We will then reduce the supply voltage to our customers to an optimum level so that our networks and our customers' appliances work more efficiently, a technique known as conservation voltage reduction.</p> <p>Smart Street will demonstrate a step change in the co-ordination and operation of electricity networks in Great Britain and is the first demonstration of a fully centralised low voltage network management and automation system.</p> <p>This innovative approach will enable low carbon technologies to be connected to the network more quickly, keep costs down for customers, reduce carbon emissions and help get the most from the existing network.</p>		
Sectors	Multi-sector/Grid		
Funding Sources	Low Carbon Network Fund		
Budget £	£11.476 million		

Partners	Electricity North West, Kelvatek, Siemens, Impact Research, TNEI, University of Manchester, Queen's University Belfast, Tyndall Centre
Energy vectors	Electricity
Scale (lab/site/small /community/region/national)	Region
Technologies demonstrated	Active network management
Economic models demonstrated	
Other concepts demonstrated	Grid constraint mitigation, consumer impact analysis
Industry engagement	
Consumer engagement	67,000 households
Project Reports (incl. links)	Library of extensive project reporting. https://www.enwl.co.uk/innovation/smart-street/smart-street-library/
Datasets (incl. links)	Trial data. https://www.enwl.co.uk/innovation/smart-street/smart-street-trials/
Website/social media	https://www.enwl.co.uk/innovation/smart-street/
Information sources	http://www.smarternetworks.org/project/enwt205