

Project ID	DIP062	
Long Title	LV Connect and Manage	
Short Title	LVCM	
Keywords	Small-scale; Domestic; Electricity; Transport; Solar PV; Direct Electric Storage; Power Quality & Grid Integration; Smart Grids; Demand Response; Active Network Management; Virtual Power Plant; LV Grid Monitoring; Electric & Hybrid Vehicles;	
Location (Town, Region, Country)	Milton Keynes and Nottingham	England
Latitude and Longitude	52.00N 0.76W	52.56N 1.07W
OSGB code	SP 85 34 / SK 59 38	
Status	Ongoing	
Start Date	2016	
End Date	2019	
Description	<p>The objectives of this project are to trial and demonstrate the following:</p> <ol style="list-style-type: none"> 1. Broadband over powerline, providing the communications solution between distribution substations and customers (enabling the bi-directional power flow control of LCTs); 2. ANM solutions with intelligence distributed into the LV network to monitor and control LCTs in real-time and optimize import/export patterns within operational limits; 3. ANM solutions, as a short or long term alternative to network reinforcement, in areas where network constraints are becoming a problem due to the localized uptake of LCTs; and 4. New business processes, based on proven, off-the-shelf technology, which can be quickly and cost effectively deployed to connect and manage LV customers' LCTs. 	
Sectors	Domestic	
Funding Sources	Network Innovation Allowance	
Budget £	£1.7 million	
Partners	Western Power Distribution, The Big Wheel, Alfen, Milton Keynes Council, Nortech, Power Plus Communication, Stratford Energy Solutions	
Energy vectors	Electricity	
Scale (lab/site /small/community/region/national)	Community	
Technologies demonstrated	LV grid monitoring, smart controls, active network management, EV charging, solar PV, battery storage	
Economic models demonstrated	Virtual power plant/market aggregation, grid services, deferred network investment,	
Other concepts demonstrated	Demand response, grid constraint mitigation, DNO-generator	

	engagement
Industry engagement	
Consumer engagement	c.100 households
Project Reports (incl. links)	https://www.westernpower.co.uk/docs/Innovation/Current-projects/LV-Connect-and-Manage/6-MONTHLY-PPR-LVCM-September-2017-v1-0-Final.aspx Library: http://www.smarternetworks.org/project/nia_wpd_014/documents
Datasets (incl. links)	
Website/social media	https://www.westernpower.co.uk/Innovation/Projects/Current-Projects/LV-Connect-and-Manage.aspx
Information sources	http://www.smarternetworks.org/project/nia_wpd_014