Project ID	DIP064		
Long Title	My Electric Avenue (Innovation Squared)		
Short Title			
Keywords	Small-scale; Domestic; Transport; Power Quality & Grid Integration; Smart Grids; Demand Response; Active Network Management; LV Grid Monitoring; Smart Devices; Electric & Hybrid Vehicles; Smart Transport Networks; Transport System Enablers; Energy Strategy Development;		
Location (Town, Region, Country)	Various		UK
Latitude and Longitude	n/a	n/a	
OSGB code			
Status	Complete		
Start Date	2013		
End Date	2016		
Description	My Electric Avenue is a three-year Ofgem-funded project that has been carrying out trials to discover the impact that charging clusters of electric vehicles (EVs) might have on local electricity networks at peak times. As sales of plug-in cars continue to rise, and as EVs gain ever-larger battery capacities, the trial results show that collaborative action will be needed by the energy and automotive industries to support the growing demand for EV charging in some areas of the UK, and that some of the smart solutions that the industry is developing can help. My Electric Avenue has been hosted by Scottish and Southern Energy Power Distribution and led by EA Technology. The project has analysed the various kinds of low voltage networks in the UK and four types are expected to experience issues due to the uptake of EVs at differing penetration levels. By recruiting clusters of neighbours around the country who drove Nissan LEAF electric cars for 18 months, the project teams aimed to mimic a future scenario where many people in an area choose to use a pure electric vehicle or plug-in hybrid electric vehicle (PHEV). The results, which come at a time when sales of plug-in cars have increased by 716% over the past two years, show that across Britain 32% of low voltage (LV) feeders (312,000 circuits) will require intervention when 40% - 70% of customers have EVs, based on 3.5 kW (16 amp) charging. Susceptible networks are typically characterised by available capacity of less than 1.5 kW per customer. My Electric Avenue has been trialling a lower cost solution to this in the form of 'Esprit'. Esprit is an innovative piece of technology that can control the charging of EVs if the local electricity grid reaches a certain level of demand. By incorporating Esprit into networks, the project is the first real-life trial that has directly controlled domestic EV charging to prevent underground cables, overhead lines and		

	substations being potentially overloaded.
Sectors	Domestic, Transport
Funding Sources	Low Carbon Network Fund
Budget £	£4.175 million
Partners	SSE, EA Technology, Nissan, Fleetdrive Electric, Zero Carbon Futures, Northern Powergrid
Energy vectors	Electricity, transport
Scale (lab/site/ small/community/region/national)	Small
Technologies demonstrated	LV grid monitoring, smart controls, demand response devices, active network management, EV charging
Economic models demonstrated	Deferred network investment
Other concepts demonstrated	Demand response, grid constraint mitigation
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	Closedown report: https://www.ofgem.gov.uk/publications-and-updates/sse-s-innovation-squared-my-electric-avenue-project-closedown-report Library: http://www.smarternetworks.org/project/sset205/documents Paper: http://www.ingentaconnect.com/content/asp/asl/2016/00000022/00000009/art00009
Datasets (incl. links)	
Website/social media	http://myelectricavenue.info/
Information sources	http://www.smarternetworks.org/project/sset205