Project ID	DIP061		
Long Title	Low Voltage (LV) Network Connected Energy Storage		
Short Title			
Keywords	Single Site; Town; Multi-sector/Grid; Solar PV; Direct Electric Storage; Smart Grids; Active Network Management; LV Grid Monitoring; Transport System Enablers; Energy Strategy Development;		
Location (Town, Region, Country)	Slough	Berkshire	England
Latitude and Longitude	51.51N	0.61W	
OSGB code	SU 96 79		
Status	Complete		
Start Date	2012		
End Date	2014		
Description	Southern Electric Power Distribution seek to understand the potential benefits, practicalities and costs of installing Electrical Energy Storage (ESS) connected via 4 quadrant Power Conversion Systems (PCS) on the Low Voltage (LV) network. The main objective is to inform and de-risk the larger scale deployment of street batteries as detailed in the New Thames Valley Vision Tier 2 project. The ESS units with associated PCS have the potential to aid power quality, to manage reactive power flows and to reduce the peak demand / peak generation real power flows, through peak lopping. This has the potential to delay or reduce the need for traditional network reinforcement, thereby preventing the local DNO network from becoming a barrier to the deployment of low carbon technologies. In order to understand the operation of an ESS with relevant low carbon technologies such as solar PV and Electric Vehicles (EVs), Southern Electric Power Distribution has identified a site with established solar generation and electric vehicle charging points. Southern Electric Power Distribution is proposing to install 3 single phase 25 kW / 25 kWh lithium-ion batteries at this strategic location on the LV network. Linked to TVV and Greenwatt Way projects		
Sectors	Grid		
Funding Sources	Low Carbon Network Fund		
Budget £	£310,000		
Partners	SSE, S&C Electric, EA Technology		
Energy vectors	Electricity		
Scale (lab/site/ small/community/region/national)	Site		
Technologies demonstrated	LV grid monitoring, smart controls, solar PV, active network		

	management, battery storage, EV charging
Economic models demonstrated	
Other concepts demonstrated	Grid constraint mitigation, generation-demand matching
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	Closedown report: https://www.ssepd.co.uk/WorkArea/DownloadAsset.aspx?id=7306 Plus other reports at: https://www.ssepd.co.uk/InnovationLibrary/Distribution/
Datasets (incl. links)	
Website/social media	
Information sources	http://www.smarternetworks.org/project/sset1008