

Project ID	DIP078		
Long Title	PowerVault (Domestic Energy Storage - Technical Demonstration Project)		
Short Title			
Location (Town, Region, Country)	London		England
X and Y coordinates	51.50648		-0.095972
OSGB code			
Status	Completed		
Start Date	2014		
End Date	2015		
Description	<p>Following a successful 'Proof of Market' study undertaken with support from the Technology Strategy Board's SMART Scheme, a limited company, PowerVault Ltd, has been formed to commercially exploit the novel energy storage technology. Powervault aims to be the UK's first specialist provider of cost-effective distributed energy storage solutions to domestic homes and SMEs, lowering consumers' electricity bills whilst reducing peak grid electricity demand.</p> <p>The Powervault device is designed to work with most battery storage technologies. Our background IP, for which we have patent applications in process, lies in the control and integration elements of the storage device and in its interface with the existing household electrical system. The device allows consumers to benefit from low demand/marginal prices thereby delivering lower average tariffs to the individual household. The device is capable of remote dispatch via existing household Wi-Fi links; ultimately allowing additional benefits to be derived from grid services. The primary objective of the Proof of Concept project is to demonstrate the technical performance and economic benefits of the "Alpha" device. This will address a number of questions raised during the 'Proof of Market' study on actual performance in the domestic environment. These include the perceived technical and commercial limitations of small scale storage devices, consumer acceptance of a novel technology, and the applicability across a range of household demand profiles. Up to 20 of the devices will be deployed, primarily within properties with solar PV installed.</p> <p>We will conduct base-lining, usage monitoring and behavioural analysis to identify direct benefits to the householder.</p> <p>Overall, this Proof of Concept project will provide a showcase for the operation of distributed energy storage and help establish a UK based company which will</p>		

	facilitate the electricity grid to absorb greater quantities of intermittent renewable energy.
Sectors	Domestic
Funding Sources	Innovate UK
Budget £	£84,408
Partners	Powervault Ltd
Energy vectors	SMART device
Scale (lab/small/community/region/national)	Community
Technologies demonstrated	SMART device coupled with solar PV
Economic models demonstrated	
Other concepts demonstrated	
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	
Datasets (incl. links)	
Website/social media	http://gtr.rcuk.ac.uk/projects?ref=710414
Information sources	As above