

Project ID	DIP088		
Long Title	Short-term discharge energy storage		
Short Title			
Keywords	Single Site; Multi-sector/Grid; Electricity; Wind; Direct Electric Storage; Smart Grids; Demand Response; Active Network Management; LV Grid Monitoring; Energy Strategy Development;		
Location (Town, Region, Country)	Hemsby	Norfolk	England
Latitude and Longitude	52.70N	1.69E	
OSGB code	TG 49 17		
Status	Complete		
Start Date	2011		
End Date	2014		
Description	<p>Electrical storage offers one means to manage intermittent demand and intermittent generation on a distribution network within existing network constraints, principally thermal capacity.</p> <p>UK Power Networks has previously explored with Durham University and ABB the benefits that storage can offer in managing intermittent generation. As a result, UK Power Networks purchased a Li-Ion storage device which was commissioned in April 2011.</p> <p>This project will take the existing results from network simulations and validate them by running progressive experiments on the storage device itself, throughout a number of seasonal, load and generation output variations on the network.</p>		
Sectors	Grid		
Funding Sources	Low Carbon Network Fund		
Budget £	£225,000		
Partners	UK Power Networks, Newcastle University, ABB, Durham University		
Energy vectors	Electricity		
Scale (lab/site/ small/community/region/national)	Site		
Technologies demonstrated	LV grid monitoring, smart controls, active network management, battery storage, wind		
Economic models demonstrated	Grid services, new commercial models, deferred network investment		
Other concepts demonstrated	Grid constraint mitigation		
Industry engagement			
Consumer engagement			
Project Reports (incl. links)	<p>Closedown Report: http://innovation.ukpowernetworks.co.uk/innovation/en/Projects/tier-1-projects/demonstrating-the-benefits-of-short-term-discharge-energy-storage/Project-Documents/Shor- </p>		

	<p>term+discharge+energy+storage+closedown+report.pdf</p> <p>Library at project website.</p> <p>Library: http://www.smarternetworks.org/project/ukpnt1001/documents</p> <p>Paper: https://www.sciencedirect.com/science/article/pii/S030626191400974X</p> <p>Paper: http://digital-library.theiet.org/content/conferences/10.1049/cp.2012.1952</p> <p>Paper: https://ieeexplore.ieee.org/abstract/document/6672820/</p>
Datasets (incl. links)	
Website/social media	<p>http://innovation.ukpowernetworks.co.uk/innovation/en/Projects/tier-1-projects/demonstrating-the-benefits-of-short-term-discharge-energy-storage/</p>
Information sources	<p>http://www.smarternetworks.org/project/ukpnt1001</p>