

Project ID	DIP119		
Long Title	Trial Evaluation of Domestic Demand Side Management (DDSM)		
Short Title	DDSM		
Keywords	Small-scale; Domestic; Electricity; Heat; Thermal Storage; Power Quality & Grid Integration; Smart Grids; Demand Response; Smart Devices; Social Impacts;		
Location (Town, Region, Country)	Lerwick	Shetland	Scotland
Latitude and Longitude	60.15N	1.14W	
OSGB code	HU 4746 4143		
Status	Complete		
Start Date	2010		
End Date	2012		
Description	<p>This Project will trial a small number of Domestic Demand Management Solutions (DDMS) in the Shetlands. By working collaboratively with their partners, this project is seen as the first step towards a larger roll out of the solutions under Northern Isles New Energy Solutions (NINES) Project.</p> <p>This submission seeks to install DDMS in 6 houses with suitable control and signalling back to a central control hub, the aim being to control domestic electrical heat demand during times of network strain such as, at times of exceptionally low or high demand. Heat storage devices (immersion water heaters & space storage heaters) will be installed with control systems enabling them to become inertial energy storage devices on the electrical network, thus allowing the local DNO to have a degree of control over local demand response and frequency response.</p> <p>Any information gathered during this project will inform the larger Tier 2 proposal along with other modelling/projects/products around GB, regarding DDMS.</p> <p>Linked to NINES project (precursor).</p>		
Sectors	Domestic		
Funding Sources	Low Carbon Network Fund		
Budget £	£280,000		
Partners	Smarter Grid Solutions, Glen Dimplex, Hjaltland Housing Association, Shetland Islands Council		
Energy vectors	Electricity, Heat		
Scale (lab/site/ small/community/region/national)	Small		
Technologies demonstrated	Thermal storage, active network management, efficient storage heating		
Economic models demonstrated	Grid services		

Other concepts demonstrated	Grid constraint mitigation, demand response, energy efficiency retrofits
Industry engagement	Industry led
Consumer engagement	6 homes involved
Project Reports (incl. links)	https://www.ssepd.co.uk/WorkArea/DownloadAsset.aspx?id=5231 Library: http://www.smarternetworks.org/project/sset1003/documents
Datasets (incl. links)	
Website/social media	
Information sources	http://www.smarternetworks.org/project/sset1003/documents