

Project ID	DIP107		
Long Title	Sunderland Low Carbon Energy Demonstrator Project		
Short Title			
Keywords	Community; Urban; Domestic; Electricity; Heat; Solar PV; Bioenergy; Gas; Smart Grids; District Heating; Social Impacts; Alternative Suppliers & Tariffs;		
Location (Town, Region, Country)	Washington	Tyne and Wear	England
Latitude and Longitude	54.90N	1.53W	
OSGB code	NZ 305 560		
Status	Complete		
Start Date	2014		
End Date	2015		
Description	<p>The objectives of the project were to:</p> <ul style="list-style-type: none"> • Enable SMEs to achieve the recognised accreditations for the various sustainable energy technologies • Increase demand for new energy efficiency applications, by highlighting the substantial energy savings benefits of the interventions through community engagement, evaluation work and deployment activities. • Test, deploy and monitor a range of innovative energy and renewable technologies in Gentoo Group Ltd social housing in the City of Sunderland, responding both to market failure and future demand. • Promote social cohesion and reduce fuel poverty by ensuring that the 'hardest to treat' social housing properties and the most vulnerable groups and communities benefit from this flexibility in the use of ERDF funding. • Engage with residents to educate in the effective use of new, low carbon technologies and to raise awareness of the steps to be taken towards true low carbon communities. <p>The rationale for the project was to provide a test case for a supply and use model in establishing low carbon communities, while building opportunities in an emerging sector in the local economy. The twin track approach was designed to simultaneously stimulate both the supply and demand side of low carbon technologies for domestic and commercial use, by installing and demonstrating low carbon technologies and</p>		

	<p>increasing the capacity of the private sector.</p> <p>The area is relatively compact, with central space that was capable of being adapted to house the central boiler. Gentoo commissioned the design and installation of a communal energy centre and district heating network, powered by biomass – such as wood chippings - and by gas to provide the heat and hot water to the properties. In addition, the thermal performance of the properties was improved by installing insulated external cladding, double glazed windows and a pitched roof system with loft insulation. The components of the project therefore comprised:</p> <ul style="list-style-type: none"> • District Heating (biomass & gas) • Insulated Pitched Roof with PV • Improved Windows and Doors • Insulated Cladding • Programmable Heating Controls • Flexi Pay Billing System
Sectors	Domestic
Funding Sources	European Regional Development Fund
Budget £	£3.9 million (£1.85m from ERDF)
Partners	Sunderland City Council, Gentoo Group
Energy vectors	Electricity, Heat
Scale (lab/site/ small/community/region/national)	Community
Technologies demonstrated	Smart controls, solar PV, heat network, biomass boiler
Economic models demonstrated	New commercial models, community engagement
Other concepts demonstrated	Energy efficiency retrofits
Industry engagement	
Consumer engagement	100 households
Project Reports (incl. links)	http://www.councils.coop/wp-content/uploads/2017/06/Low-Carbon-Social-Housing-Demonstrator-Project-%E2%80%93-Sunderland-City-Council.pdf
Datasets (incl. links)	
Website/social media	
Information sources	As above