

Project ID	DIP031		
Long Title	Energy Local Storage Advanced System		
Short Title	ELSA		
Keywords	Site; Non-domestic; Electricity; Solar PV; Direct Electric Storage; Smart Grids; Demand Response; Smart Devices;		
Location (Town, Region, Country)	Sunderland	Tyne and Wear	England
Latitude and Longitude	54.92N	1.47W	
OSGB code	NZ 340 588		
Status	Complete		
Start Date	2015		
End Date	2018		
Description	<p>At the SASMI site, an ELSA battery energy storage system consisting of three 2nd life Nissan Leaf batteries with a total capacity of 48 kWh has been deployed. Additionally, a 50 kWp photovoltaic system has been installed on SASMI's rooftop – consisting in total of 191 solar panels covering an area of 320 m². The existing BMS was upgraded to include a number of new meters, sensors and weather instruments that are also incorporated within the ELSA Building Energy Management System (EBEMS) enabling more efficient control of the building services with SASMI.</p> <p>The complete list of services that will be trialled at the pilot site at the SASMI is:</p> <ul style="list-style-type: none"> • Increasing self-consumption • Maximise usage from a fluctuating PV system • Demonstrate the 'plug and play' capability of the design of the battery storage system • Cost minimisation • Flexibility • Peak shaving (simulation) 		
Sectors	Non-domestic		
Funding Sources	Horizon2020		
Budget £	£680,000		
Partners	Gateshead College		
Energy vectors	Electricity		
Scale (lab/site/ small/community/region/national)	Site		
Technologies demonstrated	Smart controls, demand response devices, solar PV, battery storage		
Economic models demonstrated			
Other concepts demonstrated	Demand response, low carbon retrofit, generation-demand		

	matching
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	http://www.elsa-h2020.eu/Library.html Paper: https://ieeexplore.ieee.org/abstract/document/7856178/ Paper: https://arxiv.org/abs/1704.01308
Datasets (incl. links)	
Website/social media	http://www.elsa-h2020.eu/Gateshead_College.html
Information sources	https://cordis.europa.eu/project/rcn/194415_en.html