

Project ID	DIP091		
Long Title	Smart grid storage and system integration technologies enabling an increase in renewables		
Short Title	inteGRIDy		
Keywords	Region; Multi-sector/Grid; Electricity; Transport; Solar PV; Power Quality & Grid Integration; Smart Grids; Demand Response; Active Network Management; LV Grid Monitoring; Electric & Hybrid Vehicles; Smart Transport Networks; Stakeholder Engagement & Behaviour Change;		
Location (Town, Region, Country)	Isle of Wight		England
Latitude and Longitude	50.69N		1.30W
OSGB code	SZ 49 89		
Status	Ongoing		
Start Date	2017		
End Date	2020		
Description	<p>inteGRIDy aims to integrate cutting-edge technologies, solutions and mechanisms in a scalable Cross-Functional Platform connecting energy networks with diverse stakeholders, facilitating optimal and dynamic operation of the Distribution Grid (DG), fostering the stability and coordination of distributed energy resources and enabling collaborative storage schemes within an increasing share of renewables.</p> <p>The Isle of Wight Council (IWC) has produced a Community Strategy to be self-sufficient in electricity produced from local renewable energy sources.</p> <p>This will require an installed capacity of Renewable Energy Sources of 170MW. To date, approximately 80MW has been installed, but the Island is now subject to a grid constraint by the large amount of Distributed Generation. This adds cost and complexity, with impacts on the economy &amp; environmental targets. Reinforcement through an additional interconnector is unaffordable and potentially unachievable; therefore, IWC has started to investigate smarter solutions which will allow it to achieve its ambitions and future-proof the electricity network.</p> <p>At IWC case the involved partners will contribute to field trials, devise a detailed model of the existing power grid, an optimum smart grid facilities as well as Electric Vehicle charging stations for rapid charging that can also help in balancing the network. The work will also include a study on new models for community-led Demand Side Response delivery.</p>		
Sectors	Grid		
Funding Sources	Horizon2020		
Budget £	€2.7 million (UK element)		

Partners	Siemens, Teeside University, Isle of Wight Council, University of Newcastle, Minus7, EMSc, A.T.Kearney
Energy vectors	Electricity, Transport
Scale (lab/site/ small/community/region/national)	Region
Technologies demonstrated	LV grid monitoring, smart controls, solar PV, active network management, large-scale smart grid, EV charging
Economic models demonstrated	Consumer behaviour change incentives
Other concepts demonstrated	Demand response, grid constraint mitigation
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	<a href="http://www.integrity.eu/content/resources">http://www.integrity.eu/content/resources</a>
Datasets (incl. links)	
Website/social media	<a href="http://www.integrity.eu/">http://www.integrity.eu/</a>
Information sources	<a href="https://cordis.europa.eu/project/rcn/207020_en.html">https://cordis.europa.eu/project/rcn/207020_en.html</a>