

Press Release



Monday 20 May

23 PROJECTS ELIGIBLE TO GO THROUGH TO FINAL STAGE OF OFGEM'S INDUSTRY LEADING INNOVATION COMPETITIONS

- **23 projects eligible to go through to final stages of Ofgem's Low Carbon Networks Fund and Network Innovation Competitions**
- **Innovation schemes help network companies work in partnership with others to rise to the challenges of the transition to a low carbon economy**
- **Innovation can help cut the cost for consumers of modernising Britain's electricity and gas networks**

Ofgem has today announced that 23 projects can go through to the final stage of its three innovation competitions for the regulated network companies. This is the first year of the network innovation competitions (NICs), which make available up to £27 million of funding per year for onshore and offshore electricity transmission companies and up to £18 million for gas distribution and transmission companies. The Low Carbon Networks (LCN) Fund is in its fourth year and is worth up to £64 million per year for electricity distribution companies (DNOs).

The gas and electricity NICs have seen submissions from the majority of energy network companies and the LCN Fund continues to attract interesting projects from DNOs. All 23 projects have shown that they are open to new ideas from across and outside the industry, with many using expertise from a range of partners to provide innovative ideas, services and technologies as well as contributing additional funding.

Hannah Nixon, Senior Partner, Smarter Grids said: "Innovation is integral to the future development of Britain's energy networks. Ofgem is leading the way in preparing the network companies for the future through our three funding competitions. There is clearly an appetite for innovation, with all three competitions oversubscribed this year. It is great to see these companies work in partnership with others to produce a diverse range of projects that have great potential to deliver carbon, environmental and financial benefits for consumers."

The three competitions follow the same timeline and network companies can now submit more detailed proposals in August to compete for a share of up to £109 million available. The proposals will be scrutinised by independent expert panels for each competition, which will provide their recommendations to Ofgem. At the end of 2013, Ofgem will make the final decision on the winning projects.

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Notes to editors

A summary of all the projects which can go to the final stage of the competition are listed below. Full details of the projects can be viewed via our website at:

Network Innovation Competitions - <http://www.ofgem.gov.uk/Networks/nic/Pages/nic.aspx>

Low Carbon Networks Fund - <http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/Pages/lcnf.aspx>

A network company group may submit a maximum of two bids at the final stage of the competition.

Ofgem may decide not to allocate all the potential funds.

Summary of Electricity NIC projects:

Funding Licensee	Project name	Summary
TC Ormonde OFTO Ltd	Universal subsea joint	Develop and test a new cable jointing system that can be used to connect different types of transmission voltage subsea cables.
TC Ormonde OFTO Ltd	Modification of a Telecommunications Repair Vessel for Power Cable Repairs	Modify a telecom-cable repair vessel so that it can be used to repair transmission voltage subsea power cables.
TC Ormonde OFTO Ltd	Innovative Seabed Scour Protection Method	Test the installation of a new type of submarine cable protection system based on connecting mats made from used car tyres.
Scottish Power Transmission Ltd	Visualisation of Real Time System Dynamics using Enhanced Monitoring (VISOR)	Use enhanced monitoring techniques to provide potential benefits associated with the secure integration of new technologies onto the transmission network. The project aims to provide visibility of system voltage and stability limits.
National Grid Electricity Transmission Ltd	Mobile Extra High Voltage Substation Bays (MSB)	Develop and demonstrate a rapidly deployable and removable mobile substation bay on 400kV transmission network.
National Grid Electricity Transmission Ltd	Mechanism for Enhanced Transmission Capacity (MEdiCi)	Develop and demonstrate new smarter asset models and commercial mechanisms to improve useable thermal capability limits.

Scottish Hydro Electric Transmission plc (SHE Transmission)	Multi-Terminal Test Environment for HVDC Systems	Establish a facility to demonstrate and test multi-terminal and multi-vendor High Voltage Direct Current transmission solutions.
Scottish Hydro Electric Transmission plc (SHE Transmission)	New Tower Suite	Develop smaller transmission towers (for 275kV) using insulated cross-arms and low-sag conductors.

Summary of Gas NIC projects

Funding Licensee	Project name	Summary
Scotland Gas Networks and Southern Gas Networks	Hydrogen Blending	Investigate real network-wide regulatory and physical impacts of injecting hydrogen into the network.
Scotland Gas Networks and Southern Gas Networks	Robotics	Develop new robotic technologies that operate inside live gas network, in order to repair leaking joints, manage risk of pipe fracture in larger diameter pipes and repair and replace pipeline assets.
Scotland Gas Networks and Southern Gas Networks	Opening up the Gas Market	Demonstrate whether gas that meets EASEE Gas specification but sits outside the characteristics of gas specified within UK Gas Safety (Management) Regulations, can be distributed safely and efficiently.
Wales and West Utilities Limited	Clean Energy Balance (CEB) - Hydrogen Injection for Carbon Displacement	Test storage and injection technologies which will allow the hydrogen generated by an electrolyser (developed under the Low Carbon Networks Fund) to be injected into the natural gas network and transported beyond electricity network constraints. This project forms part of a wider project that is also requesting funding from the LCN Fund.

National Grid Gas Plc	Variable Envelope Compressors: Trial Optimisation and Review - 'VECTOR'	Develop and demonstrate the technology and process for retrofitting new turbo engine technology to make the envelope on existing compressors larger.
Northern Gas Networks Ltd	Low Carbon Gas Pre-heating	Testing new and emerging pre-heating technologies and associated operating systems.
National Grid Gas Distribution	Bio SNG Demonstration Project	Construct a demonstration plant that will investigate the techno-economic feasibility of the thermal gasification of waste to produce a pipeline quality renewable gas.

Summary of LCNF projects

Funding Licensee	Project name	Summary
Scottish and Southern Energy Power Distribution	Solent Achieving Value from Efficiency (SAVE)	The project will produce an industry model to appraise use of energy efficiency measures to reduce constraints.
Scottish and Southern Energy Power Distribution	Isle of Wight Integrated Network Solution (WINS)	Demonstrate how 2 mature smart technologies (Distribution Automation and Active Network Management) can be combined to avoid curtailment of distributed generators following a fault or network reconfiguration.
UK Power Networks	Vulnerable customers and energy efficiency	Investigating how DNOs can engage with fuel poor and vulnerable customers within a novel end-to-end system partnership to trial technologies from simple time switches to smart meters in order to facilitate energy efficiency and provide network services, such as, DSR.
UK Power Networks	Flexible urban LV networks	Use of new technology to trial more flexible operation of urban LV networks incorporating LCTs with the aim of smarter utilisation and better system visibility to balance supply and demand.
Electricity North West	Eta	Employ innovative voltage control on alternative network configurations to show that a DNO can increase the capacity and voltage headroom available for LCTs, lower

Limited		network losses and reduce overall energy consumption.
Northern Powergrid	Activating Customer Engagement (ACE)	Develop and trial innovative commercial methods and operational practices aimed at increasing DNOs' access to cost-effective localised demand side response (DSR) from end customers without the use of tariffs.
Scottish Power Energy Networks	Anglesey Community Energy (ACE)	The use of independent community engagement partners, behavioural research and novel business models to establish an innovative commercial approach to mitigate the need for network reinforcement.
Western Power Distribution	Clean Energy Balance (CEB) - Circumventing Electricity Network Constraints	Conversion of electrical energy into hydrogen gas. Will use electrolysis to absorb excess electrical energy beyond network capacity avoiding curtailment of generators. This project forms part of a wider project that is also requesting funding from the Gas NIC.