

A smart grid game changer? OpenLV gets the funding green light from Ofgem

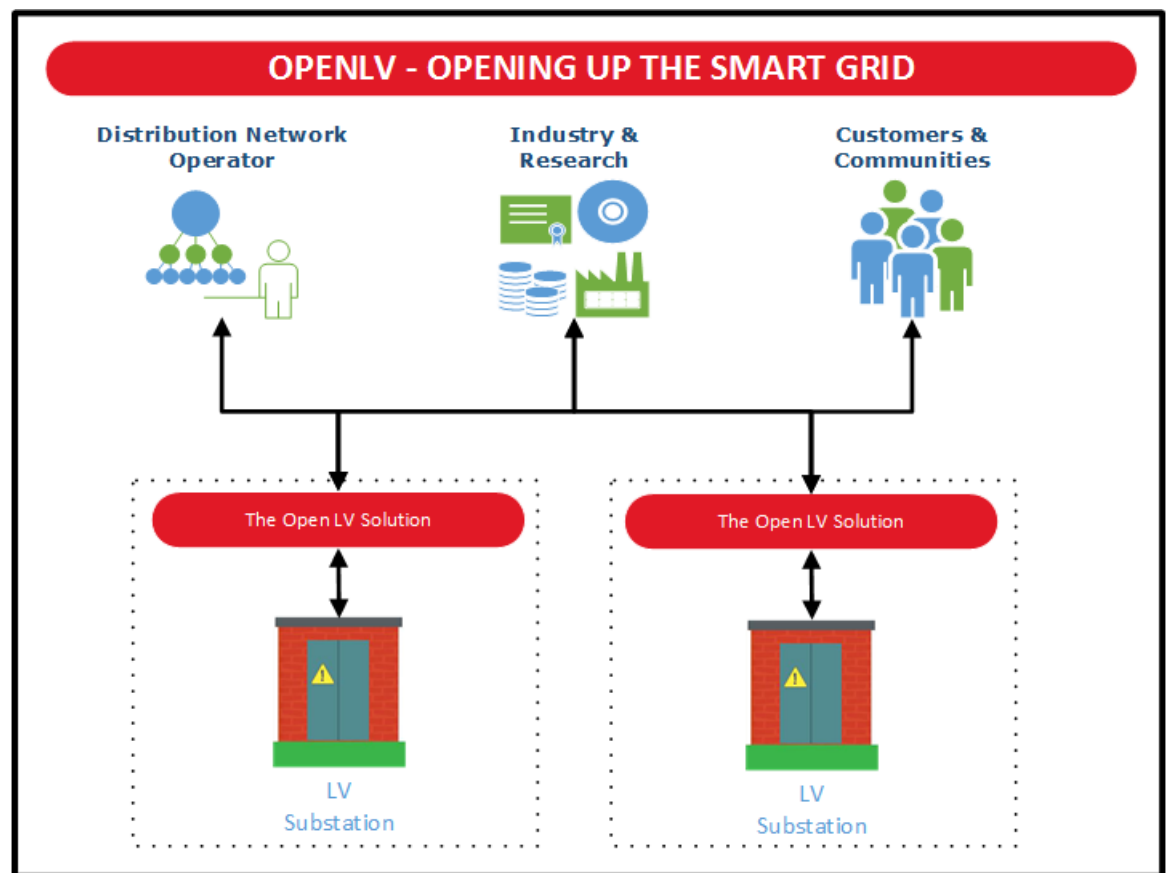
The project will trial a new open and flexible solution that will be installed in Low Voltage substations

Western Power Distribution

Western Power Distribution's (WPD's) OpenLV project has been awarded \$6,232,285 (£4.9 million) funding as part of Ofgem's Network Innovation Competition (NIC).

The project will trial a new open and flexible solution that will be installed in Low Voltage (LV) substations, providing a much-needed enhanced data platform for local electricity grids.

This platform will enable the development of Apps to provide benefits to customers, community energy groups, Distribution Network Operators (DNOs) and wider industry. The project will start in January 2017 and run until April 2020.



WPD's OpenLV project will provide an enhanced data platform for local electricity grids

The OpenLV Solution will provide consumers with network demand information for their local network and offer them the ability to develop and deploy new Apps to meet their local energy needs.

OpenLV will be hosted by WPD and use data from their network, delivered in partnership with EA Technology, a trusted third-party innovation technology company. Nortech and Lucy Electric GridKey will provide monitoring equipment and power distribution equipment expertise for the project.

"The solution that will be tested through the OpenLV project can be likened to a smartphone," said Roger Hey, future networks manager for WPD. "In the case of a smartphone, the development and rapid acceleration seen in Apps has been provided by a wide variety of organizations, covering a huge array of services. While the platforms are common, the Apps used are highly tailored to suit the unique nature of a user's own needs — no two smartphones are identical, as no users are identical. This project, OpenLV, will trial a similar, open platform, but for a LV substation."

Mark Dale, WPD's innovation and low carbon engineer, explained: "One of the Apps that we will be developing

as part of the project will create more capacity on the LV Network. It will achieve this by utilizing real-time thermal ratings of underground cables and transformers, rather than relying on average assumptions of thermal ratings which can place restrictions on capacity levels.”

Dave Roberts, director-Smart Interventions, EA Technology, added: “OpenLV is set to revolutionize the smart grid in the UK. By opening up the solution to a wide variety of community and industry stakeholders, we will be transforming the way in which individuals and the energy industry interact with the electricity network. And perhaps most excitingly of all, we will be engaging with communities to offer them the opportunity to benefit from this pioneering solution.”

It is expected that the OpenLV project will deliver several benefits to a range of stakeholders. Examples of such benefits include reduced connection costs to customers, as the platform will allow the LV customer to connect new forms of generation or demand in a more flexible way. Benefits for the DNO may include direct cost reductions by using a standardized single platform rather than multiple overlaying solutions. Third-party developers and platform providers may also benefit.

The OpenLV Solution will be deployed in 80 LV substations. These devices will show how the overall solution can release additional network capacity from existing LV network assets, how they can be used to enable the development of community or customer driven Apps, as well as enabling companies (including non-energy companies) to develop innovative Apps.

About OpenLV

The OpenLV Project will trial an open, flexible platform that could ultimately be deployed to every LV substation in Great Britain. Through three key Methods, the Project will demonstrate the platform’s ability to provide benefits to the network, customers, commercial entities and research organisations.

The Ofgem announcement can be found [here](#).

A dedicated website for the project will go live in 2017.

Project Partners

Western Power Distribution

Western Power Distribution is the company responsible for electricity distribution in the Midlands, South West and Wales. Our business serves over 7.8 million customers and we employ over 6,000 members of staff to ensure the highest quality of service. We are regulated by Ofgem (the Office of the Gas and Electricity Markets) and we are very proud to have been awarded the Government's Charter Mark, now known as the Customer Service Excellence award, since 1992.

EA Technology

EA Technology is an employee-owned organisation offering high-tech instruments, software, electrical services and technical consultancy to the operators of power networks around the world. Through its Smart Interventions business it delivers innovative end-to-end solutions to facilitate the introduction of low carbon technologies to future proof electricity networks, resulting in lower cost connections, prompt adoption and reduced risk to business.

Project Suppliers

Nortech

Nortech supply specialist monitoring technology products and services to utilities, generators and system integrators. Our products and central software solutions enable customers to extend the reach of their data collection systems and improve the performance of their assets. We use the latest wireless communications technology including GPRS and GSM mobile phone networks, GPS satellite tracking and internet web-pages to provide real-time displays of what’s happening on your sites. For customers with 24 hour control rooms our systems link seamlessly with existing control systems to provide real-time alarm feeds. When you are away from your desk we keep you informed with email and SMS text message alerts for alarms and urgent conditions.

Lucy Electric GridKey

Lucy Electric GridKey is a leader in secondary power distribution solutions with over 100 years’ industry experience. Specialising in high-performance medium voltage switchgear for utility, industrial and commercial applications, we enable the safe and reliable distribution of energy to homes and businesses worldwide.