For immediate release – 21 November 2019

Western Power Distribution, ElectraLink and IBM to deliver Virtual Monitoring tool for electric vehicles and low carbon technologies on local electricity distribution networks

21 November 2019 – Western Power Distribution (WPD), ElectraLink and IBM are delighted today to announce their new, ground-breaking **Virtual Monitoring (VM) Data project,** funded through WPD's Network Innovation Allowance. This follows the landmark success of the [Low Carbon Technologies (LCT) Detection project](#) completed earlier this year.

The VM Data project will enable WPD to identify and monitor the status and distribution of **electric vehicles and LCTs** on its local, Low Voltage (LV) network by analysing data from ElectraLink's [Energy Market Data Hub](#) using IBM's advanced analytics services and IBM Watson Studio, an enterprise data science offering to build and scale AI. To do this, the project will investigate the feasibility of creating **half-hourly load profiles** for WPD customers, including those with electric vehicles and LCTs installed, that can be fed into a VM tool for WPD's local network.

The tool will use **cognitive analytics**, a variety of data sets and tested proof of concept models.

This is the first time in the UK that virtual asset monitoring, using customer data, has been attempted on an electricity network. The ability to virtually (as opposed to physically) monitor electric vehicles and LCTs that are connected at the local level at scale will increase the effectiveness of WPD's planning. Crucially, it will **facilitate the uptake of electric vehicles and other LCTs** in order to manage both increased load and generation. This will also allow WPD to demonstrate cost savings in line with **RIIO-ED2** protocols.

Visibility of electric vehicles and LCTs on the local electricity network is a major challenge for distribution network operators who need to know which technologies are connected at a local level so that they can plan their networks, identify 'hot spots' of technologies, and ultimately seek to benefit the customer through avoiding unnecessary reinforcement and deferral of costly and disruptive reinforcement work.

The number of electric vehicles in the UK is increasing exponentially, with **227,000 now driving on our roads**, the vast majority of which will charge at home overnight.

WPD Innovation Team manager Jonathan Berry, said, "The LCT Detection project really showed us what can be done to gain a widescale view of exactly what is happening on our network. The VM Data project takes this a step further – we will create robust and validated models which we can use to plan, forecast and reduce costs. This project will set the precedent for using data and machine learning to proactively improve, manage and operate electricity networks."

ElectraLink's Chief Executive Stuart Lacey said, "We are excited to be extending our partnership with WPD and IBM to work on this ground-breaking project. The VM Data project is another example of how data is revolutionising the traditional distribution network model, in this case through linking digitised energy network

assets with customer level retail market data. This project fits with ElectraLink's broader support of **data transparency** in the GB energy system as our shareholders move towards the **distribution system operator** archetype."

Laurence Carpanini, Energy Solutions Leader, IBM Global Business Services, UK and Ireland said, "Western Power Distribution is taking a lead in digitalising its network planning capability. This project will prove that intelligent use of data can successfully fuse advanced analytics and machine learning in Western Power Distribution's business to plan for the rapid uptake of electric vehicles and other technologies in the UK and maintain oversight of their network in the changing energy landscape."

---ENDS---

NOTES TO EDITORS

About ElectraLink

- ElectraLink is a central body regulated by Ofgem at the heart of the UK energy market. It is owned by the DNOs and for 20 years has been responsible for operating the Data Transfer Service (DTS) that underpins the UK energy market. ElectraLink ensures that this solution remains secure, low cost and facilitates vibrant competition. The company is currently implementing a new platform, the Energy Market Data Hub (EMDH), which brings together all of the data products, services and solutions it offers to facilitate innovation in a fast-changing energy market.
  https://www.electralink.co.uk/

- Western Power Distribution (WPD) is the distribution network operator for the Midlands, South West England and South Wales. It is responsible for delivering electricity to approximately 7.9 million customers in the UK.
  www.westernpower.co.uk

- IBM experts use advanced technology to help customers reduce cost and risk, achieve compliance, accelerate speed to market, create new revenue streams and establish a security-rich and reliable infrastructure that's ready for AI and hybrid cloud.
  http://www.ibm.com/services/

Media contact: communications@electralink.co.uk

VM Data project contact: gill.nowell@electralink.co.uk