



PRESS RELEASE

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Test site confirmed for advanced EV charging technology trial

- **Taunton in Somerset identified for trial by the DC Share project – in which Ricardo is collaborating with Western Power Distribution**
- **£5.6m project aims to deliver urban EV charging without need of upscaling electricity infrastructure**
- **Technology could deliver £162m in network savings if rolled out across UK**

Today, Western Power Distribution (WPD) in partnership with Ricardo Energy and Environment, confirmed the site for its innovative DC Share project, trialling a new method which will help deliver an estimated 217,000 electric vehicle (EV) chargers in urban spaces across its licence area by 2023. The technology will help to get over 3 million EVs moving across the Midlands, South Wales and South West by 2023.

If expanded across other electricity networks in the UK, DC Share's technology could save customers across the UK an estimated £162 million in network reinforcement costs by 2050. These savings will be made as a result of network providers not needing to invest millions into new infrastructure, as they harness existing substations and capacity.

The DC Share project, which has received over £4.7 million in funding through Ofgem's Network Innovation Competition will test a new method of pooling extra network

capacity from several local substations. This will enable low carbon infrastructure, such as EV charge points or battery energy storage, to be quickly connected without the need for expensive network reinforcement.



DC Share's approach will be particularly useful in dense urban communities, where the adoption of low carbon technologies can be slowed by constraints and a lack of available space for building a larger network of substations.

DC (Direct current) is a constant electrical electric charge similar to the output of a battery and is used by nearly all Low Carbon Technologies. Using DC technology rather than the more commonly used AC (alternating current) means that the use of electricity is more efficient as it does not have to go through the conversion process, which results in a loss of energy. DC charge also means that there is the flexibility to move power to where there is a high load, something which is more difficult to achieve with AC.

The trial in Taunton, Somerset, which will be led by project partners Ricardo Energy and Environment, will use smart DC meshing technology to link four local substations from across the town centre, sharing their unused capacity to power 15 EV chargers. This will include five 100kW rapid chargers able to fully recharge the average electric vehicle in around 30 minutes. Taunton was selected due to site suitability and the proactive engagement of the council.

Following today's site confirmation, work will now begin preparing the local plans for the EV charge stations in central Taunton. With building work scheduled throughout 2021, the charge points are due to open late next year. Throughout the trial, local residents will enjoy 12 months of free charging. Following the conclusion of the DC Share project, the EV charge stations will be passed onto a local service provider so that visitors and residents can continue to reap the benefits of this increasingly essential low carbon infrastructure.

If successful, DC Share technology will be rolled out across WPD's network to enable rapid installation of EV charging in towns and cities. With a high proportion of WPD's 7.8 million customers living in highly built-up towns and cities, this technology will ensure that network constraints will not limit or delay customers' access to ultra-low emission transport, renewable generation, and local energy storage.

By reducing the need for costly network reinforcement, the DC Share approach will also help keep customer bills down, with initial savings from implementing the technology rising from £50 million in 2030 to an estimated £162 million a year in 2050, across the UK.



Ricky Duke, WPD Innovation & Low Carbon Network Engineer and DC Share project lead, commented: “Today’s confirmation of Taunton as DC Share project site is an important step to securing the massive savings and decarbonisation benefits that DC meshing technology could bring to the UK.

“As we look beyond COVID-19 towards the UK’s goal of Net Zero by 2050, innovative, low carbon technologies will be at the heart of the UK’s green recovery. Insights from DC Share will have a key role in helping us to build a stronger and cleaner UK economy.

“DC Share is a win-win: this technology will allow us to rapidly decarbonise transport by making smarter use of existing infrastructure. That means less carbon emissions, while reducing the need for expensive infrastructure and network reinforcements in urban communities.”

Ricardo’s Sarah Carter, manager of power planning and solutions, added: “The identification of the Taunton test site for DC Share is a significant milestone for this important project. By installing a local DC equalization network to support the existing infrastructure, the project aims to demonstrate that the increased demands of rapid EV charging can be accommodated in urban environments without the need for more costly traditional network reinforcement measures. Ricardo is pleased to be bringing our smart grid expertise to this important UK project and look forward to working with WPD on the trial installation of the DC Share system at Taunton.”

For more information on the DC Share project, visit
www.westernpower.co.uk/projects/dc-share

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NOTES TO EDITORS:

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