

## **World's biggest commercial electric vehicle project announced in UK**

*Funding approved for industry-led Optimise Prime project to test the end-to-end impacts of the rollout of commercial electric vehicles and develop innovative solutions to accelerate the EV transition*

**LONDON, 00:01 GMT, Friday 30th November:** The world's biggest trial of commercial electric vehicles (EVs) has been given the green light by UK energy regulator Ofgem, bringing together leading power, technology, fleet and transport companies to test and implement the best approaches to the EV rollout for commercial enterprises.

With businesses buying 58% of all new vehicles in the UK, it will be commercial vehicles that determine the speed of the transition to low carbon transport.

This three-year innovation project will come up with practical ways of overcoming the up-front costs that are currently holding back many of the country's biggest commercial vehicle operators from making the switch to EVs.

Led by global data technology solutions provider Hitachi Vantara and electricity distributor UK Power Networks, the trial will see up to 3,000 electric vehicles from Centrica, Uber and a large UK depot-based parcel carrier take to the road, supported by distributor Scottish and Southern Electricity Networks, Hitachi Europe and Hitachi Capital Vehicle Solutions.

The project will deliver an end-to-end overview of what the switch to EVs means for the cables and substations that deliver electricity to the community, for the businesses that need to invest in new infrastructure, and for the end users that need to power their vehicles. It is intentionally vehicle agnostic and includes depot, home, and on-the-road charging scenarios.

Using large, real-life datasets and Internet of Things technologies, the project will create a detailed picture of the demands of electric fleet and private hire vehicles. This will make it possible to develop solutions that cut the cost of owning and running electric vehicles, such as charging EVs outside the electricity network's peak times.

Electric vehicle technology has now reached a maturity where the vehicles themselves are ready for day-to-day and long-distance commercial use. However, moving the energy source for transport from combustion engines is not something the electricity grid was designed for, whether charging happens in concentrated locations — such as depots — or is widespread at employees' homes or in public places.

The UK's big commercial vehicle operators must overcome several obstacles before they adopt electric vehicles on a large scale – all the way from the up-front capital hurdle to managing charging times.

Network operators, meanwhile, need to get a better understanding of the impact of commercial EVs on the country's electricity grid. They are also looking to understand whether these vehicles can support the electricity network and help keep costs low for customers by discharging during peak times and recharging off-peak.

The project is also vital if the UK wants to meet its carbon reduction targets. The accelerated adoption of commercial EVs will save 2.7m tonnes of CO<sub>2</sub>, equivalent to London's entire bus fleet running for four years<sup>1</sup> or a full Boeing 747-400 travelling around the world 1,484 times<sup>2</sup>. The flexibility provided by the project will also free up enough capacity on the electricity network to supply a million homes<sup>3</sup>.

Electric cars and vans must increase from 1.7% of new car sales today to 60% by 2030<sup>4</sup>. Around 3,000 electric vehicles will take to the roads in Greater London as part of project Optimise Prime to gather vital information that will help the UK to prepare for and speed up the transition to a greener and more efficient future.

The project will launch early 2019. Following a programme design and build phase, the first Optimise Prime vehicles will be on the road during the second half of 2019. The test area will include a range of urban, suburban and rural scenarios across the South East, South Central and East of England.

Shirley Rodrigues, the Deputy Mayor of Environment and Energy says: *"I welcome this ambitious project which will support the work of the Mayor's Electric Vehicle Infrastructure Taskforce and proves the wider roll out of electric fleets is both essential for cleaning up toxic air quality and vital to the good growth of our city. I'm pleased that trials begin early next year shortly before the 24 hour Ultra Low Emission Zone is introduced in April 2019 in central London."*

To help the wider industry prepare, the largest cross-industry datasets on commercial EV charging and use will be shared openly.

£18 million will be funded through partner contributions, and an additional £16.6 million will come from Ofgem via its Network Innovation Competition. Ofgem's funding will deliver total savings of more than £200 million – equivalent to 12 times the funded amount – in benefits to UK electricity customers.

## **Ends**

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### **Notes to editors:**

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<sup>1</sup> The TfL bus fleet in London emits 650,000 tCO<sub>2</sub> each year. Source: Cutting Carbon from the London Bus Fleet presentation by Finn Coyle, Environmental Manager (Transport Emissions) for TfL:

<https://tinyurl.com/y7whshug>

<sup>2</sup> Based on Earth circumference at equator and 101g of CO<sub>2</sub> produced per passenger per km flown:  
[http://www.carbonindependent.org/sources\\_aviation.html](http://www.carbonindependent.org/sources_aviation.html)

<sup>3</sup> Based on projections that the project could release 1.9GVA of capacity by 2030

<sup>4</sup> Table 5.2; Reducing UK Emissions, Committee for Climate Change <https://tinyurl.com/y74w9sbo>

## **Project roles:**

The project will be led by Hitachi Vantara, which will design, build and operate the project's IoT platform called Lumada, and will oversee delivery across all project workstreams, supported by Hitachi Europe Ltd.

Hitachi Capital's Vehicle Solutions division will input into the project methodology and advise on the applicability of solutions to the wider commercial vehicle market.

UK Power Networks will support Hitachi in the management and governance of the project, providing engineering and connections related resources.

Centrica is both a fleet and a technology partner. Its home-based British Gas fleet will participate in the Project; while Centrica will provide charging solutions for the home-based fleets as well as demand response services from its Centrica Business Solutions arm.

Uber is a technology and private hire partner. More than 65,000 licensed drivers use the app across the UK and Uber will provide aggregated and anonymised data from thousands of electric vehicle trips to quantify the impact on the private hire sector.

Scottish and Southern Electricity Networks is a grid partner. Inclusion of the Southern Electric Power Distribution area broadens project coverage to include all of Greater London. Working with a second DNO group will also help to ensure that project outcomes are applicable throughout the UK.

## **About the partners:**

**About Hitachi Vantara:** Hitachi Vantara, a wholly owned subsidiary of Hitachi, Ltd., helps data-driven leaders find and use the value in their data to innovate intelligently and reach outcomes that matter for business and society. We combine technology, intellectual property and industry knowledge to deliver data-managing solutions that help enterprises improve their customers' experiences, develop new revenue streams, and lower the costs of business. Only Hitachi Vantara elevates your innovation advantage by combining deep information technology (IT), operational technology (OT) and domain expertise. We work with organizations everywhere to drive data to meaningful outcomes. Visit us at [www.hitachivantara.com](http://www.hitachivantara.com).

### **About Hitachi Europe Ltd.**

Hitachi Europe Ltd., a subsidiary of Hitachi, Ltd., is headquartered in Maidenhead, UK. The company is focused on its Social Innovation Business - delivering innovations that answer society's challenges. Hitachi Europe and its subsidiary companies offers a broad range of information & telecommunication systems; rail systems, power and industrial systems; industrial components & equipment; automotive systems, digital media & consumer products and others with operations and research & development Laboratories across EMEA. For more information, visit <http://www.hitachi.eu>.

**About Hitachi Capital Vehicle Solutions:** Hitachi Capital Vehicle Solutions, a division of Hitachi Capital (UK) PLC, is one of the UK's top 10 largest leasing companies and has more than 25 years' experience in providing bespoke fleet finance and fleet management services for businesses across the UK. Hitachi Capital Vehicle Solutions has a fleet size of over 67,000 vehicles ranging from cars, small, medium and large vans to HGVs, with a combined asset value of more than £880m. The business provides all forms of funding, maintenance, accident and daily rental management, supporting customers across every stage of the vehicle life cycle. Hitachi Capital Vehicle Solutions is unique in the market in being able to offer every kind of asset, including large trucks and plant machinery, as well as car-based employee benefits for employees of medium and large corporates and a market-leading personal lease offering both directly and via a network of brokers.

**About UK Power Networks:** UK Power Networks is the country's biggest electricity distributor, making sure the lights stay on for more than eight million homes and businesses across London, the South East and the East of England. Network operators aren't the same as energy suppliers; network operators manage local power lines and substations, while energy suppliers sell the electricity that runs through the power lines. UK Power Networks is the first electricity distributor to be named in the Sunday Times' Top 25 Best Companies to Work For, and made industry history by becoming first company to win Utility of the Year two years running (2015 and 2016, also 2012). We are committed to providing excellent service to the over 18m people who use our network every day. We plan to invest more than £600m a year in our network, and spend over £6.6bn over eight years to 2023 to maintain a safe and reliable electricity supply. We also offer extra help to vulnerable customers at times of need, are undertaking trials to ensure that electricity networks support the transition to a low carbon future, move cables and connect new electricity supplies. If you have a power cut ring 105, see [www.ukpowernetworks.co.uk](http://www.ukpowernetworks.co.uk) or tweet us @UKPowerNetworks

**About Centrica:** Centrica plc is an international energy and services company. Our purpose is to provide energy and services to satisfy the changing needs of our customers. We've been serving customers for over 200 years and aim to be at the centre of their daily lives - central to helping them run their world. Our two global divisions, Centrica Consumer and Centrica Business, supply energy and energy-related services to over 25 million customer accounts in the UK, Ireland and North America, through brands such as British Gas, Direct Energy and Bord Gáis Energy. They do this with the support of 15,000 engineers and technicians. Innovation underpins everything we do, which is why we're investing £100m in Centrica Innovations, a new venture that aims to identify, incubate and accelerate new technologies and ideas for homes and businesses.

**About Uber:** Uber's mission is to create opportunity through movement. We started in 2010 to solve a simple problem: how do you get from A to B at the touch of a button? More than 10 billion trips later, we're building products to get people closer to where they want to be. With the Uber app, you can easily book a car with a licensed driver in more than 40 towns and cities across the UK. All drivers who use the app in the UK must be licensed for private hire by a local authority (e.g. TfL) and this includes the same enhanced background check (DBS) as black cab drivers. Earlier this year Uber announced details of a Clean Air Plan with a bold aim for every car on the app in London to be fully electric in 2025. To raise more than £200m to support the transition to electric vehicles, Uber will include a 15p per mile 'clean air fee' on every trip booked through the Uber app in London - every penny of which will go towards helping licensed drivers upgrade to an EV. More details on the Clean Air Plan can be found here: <https://www.uber.com/en-GB/newsroom/uber-helps-london-go-electric/>.

**About Scottish and Southern Electricity Networks:** Scottish and Southern Electricity Networks (SSEN), operating as Scottish Hydro Electric Power Distribution (SHEPD) and Southern Electric Power Distribution (SEPD) under license, is responsible for operating and maintaining the electricity distribution networks supplying over 3.7 million homes and businesses across central southern England and north of the central belt of Scotland, the Mull of Kintyre and the Scottish islands. Scottish and Southern Electricity Networks is the trading name of Scottish and Southern Energy Power Distribution Limited, Scottish Hydro Electric Transmission plc, Scottish Hydro Electric Power Distribution plc and Southern Electric Power Distribution plc.