

News story: £30 million investment in revolutionary V2G technologies

New technology which will unlock the potential for electric vehicles to help power people's homes is being boosted by almost £30 million in government funding.

Through the Industrial Strategy the government is committed to becoming a world leader in shaping the future of mobility and in the design and development of the clean technologies of the future. This investment will help deliver on that ambition, supporting vehicle-to-grid (V2G) technologies that could enable electric cars and other vehicles to deliver electricity back to the smart grid, to light homes and power businesses.

The funding has been awarded to 21 V2G projects, to pay for research and design and development, with the aim of exploring and trialling both the technology itself and commercial opportunities.

These schemes, including EDF Energy's V2G0 scheme, will demonstrate how energy stored in electric vehicle batteries could be borrowed by the electricity system during peak hours, before being recharged during the off-peak in time for their drivers to set off on their next journey.

Using electric vehicles in dense urban areas like Oxford will significantly reduce local emissions and improve air quality, boosting the quality of life for residents and benefitting businesses. Led by EDF Energy R&D UK, the 'V2G0' is a large scale demonstration of V2G charging in Oxford using 100 electric fleet vehicles (cars and vans) from a number of organisations including several delivery and taxi companies.

The project will develop, trial and evaluate potential business models for fleet operators' use of electric vehicles and their suitability for vehicle to grid (V2G) charging.

The consortium is made up of 8 organisations with expertise in energy and power markets and systems, fleet operation value chains and electric mobility: EDF Energy R&D UK, University of Oxford, Oxfordshire County Council, Arrival, E0 Charging, Upside Energy, and Fleet Innovation.

At the same time these electric vehicles will provide a cleaner alternative to many of the fleet vehicles operated in UK cities, including Royal Mail vans, and Addison Lee taxis.

Transport Minister, Jesse Norman said:

As the number of electric vehicles grows and their battery capabilities increase, there is a huge opportunity for them to make a significant contribution to a smart grid.

These projects are at the cutting edge of their field. Just like the visionary designs of Brunel and Stephenson in transport, they could revolutionise the ways in which we store and manage electricity, both now and in the future.

Business Minister Richard Harrington said:

The UK's automotive industry is a great British success story, and as set out in our ambitious Industrial Strategy we are determined to lead the way in innovative, low-emission vehicle production.

We have shown that growing the economy while cutting emissions, can, and should, go hand in hand. Vehicle-to-grid technology provides another opportunity for the UK to showcase to the world our leading expertise in game-changing automotive and low carbon technologies.

Dan Bentham, Head of R&D, Smart Customers, EDF Energy said:

Electric vehicles will play an important role in the future of UK energy and its economy. They will have a beneficial impact on the environment by reducing emissions and improving air quality.

Through our research, EDF Energy will use new technologies, business models and smart systems to make low carbon transport, and the infrastructure and market conditions needed for its success, a reality.

The investment will help deliver on the government's ambition, set out in the recently published [Automotive Sector Deal](#), to be at the forefront of low-emission and electric vehicle production, powering the next generation of innovative, environmentally-friendly vehicles.

The competition for government funding, run by Innovate UK, saw a host of winners including SSE Services, Nissan, OVO Energy, Octopus Energy, Cisco, Flexisolar and AT Kearney.

Innovate UK recently concluded the assessment process, with OLEV and BEIS providing almost £30 million to grant fund industry led collaborative R&D in electric 'vehicle to grid' technology for up to 70% of project costs.