

## **IBM dirige une étude commanditée par l'Energy Technology Institute sur l'impact potentiel des véhicules électriques sur le réseau britannique.**

**Le projet évaluera notamment les mises à jour à effectuer au niveau de l'infrastructure ainsi que les problématiques liées aux contraintes réglementaires**

**Londres - 19 mars 2010:** IBM (NYSE: IBM) today announced an agreement with the Energy Technologies Institute (ETI) to evaluate the potential impact of electric vehicles on the UK electricity grid. The project will also assess the infrastructure required to achieve a mass market for electric and plug-in hybrid electric vehicles in the UK.

IBM will lead the co-ordination of a consortium of companies, EDF Energy, E.ON and Imperial Consultants, in conducting the study which is being undertaken at an important time. The UK government has already committed £300 million to create the infrastructure for plug-in vehicles and has provided consumer incentives. Supporting infrastructure has begun to be rolled out in London, the North East and Milton Keynes. In addition, the Office for Low Emission Vehicle's (OLEV) has said it will provide grants of up to £5,000 for consumers who buy ultra-low carbon cars.

The project will focus on a number of areas:

- Analysis of how growth in electric vehicle recharging could impact on electricity distribution networks, and what steps energy companies could take to overcome any barriers to supplying demand.
- Identification of the smart infrastructure needed for mass market uptake of electric vehicles in the UK.
- Design concepts for the 'intelligent architecture' of interconnected data and systems needed to enable local networks of electric vehicle charging points linked to the distribution networks.
- Planning for design changes which maintain distribution networks' effective operation and management.
- Assessment of current issues and likely future developments involving regulatory, legislative and commercial matters related to the recharging infrastructure.

Dr David Clarke, the Chief Executive Officer of the Energy Technologies Institute, said "Achieving these major milestones sets the ETI firmly on track to start extensive real-world testing of consumer attitudes to plug-in vehicles and the supporting infrastructure through 2010 and into 2011.

"With the Committee on Climate Change indicating in October 2009 a potential need for £1 billion of investment in vehicle price support, realising a self-sustaining mass market for plug-in vehicles is a huge challenge. By developing and robustly testing these pathways, we aim to act as a guiding light to support over £300 million of UK investment already committed to infrastructure deployment and consumer incentives for plug-in vehicles."

The IBM led research is one of three projects totalling £4.5 million that have been launched as part of the ETI's £11 million Electrification of Light Vehicles programme. The other projects will assess the economic and carbon benefits as well as the consumer behaviour patterns linked to the mass roll-out of plug-in vehicles. Together the projects are intended to propose an overall system architecture for integrating plug-in vehicles considering: electricity networks, charging points, and payment systems and helping to ensure compatibility across the UK.

The three projects will culminate in the largest electric vehicle analysis to date in the world with more than 3,000 vehicles owned and driven by consumers. Over 11,000 charge points will be installed across areas in London and the South East, the Midlands and the North East.

“Electric vehicles have enormous potential for creating a cleaner transport system to help the UK meet its 2050 carbon reduction targets. However, there is uncertainty over the pace of vehicle development, consumer take up and patterns of usage and charging. It is important we anticipate the likely requirements these developments will have for grid enhancement and the need for an intelligent architecture,” said Jon Bentley, Energy & Environment Partner, IBM Global Business Services.

He continued, “We need to take action now to ensure lead times are put in place for open and interoperable architectures, while allowing time to monitor the positive impact on the electric vehicle market. Furthermore, we need to achieve these goals alongside related programmes in smart grids and smart metering, the shift to a renewable generation and the development of smart homes which are already under-way and gaining momentum.”

IBM has a long history of expertise in smart grids and intelligent infrastructure, having been involved in more than 60 smart grid projects around the world - from innovative research projects to full scale deployments. IBM is currently partnering with the country of Malta to create the first nation-wide smart grid and has completed a pilot project with DONG Energy in Denmark to install remote monitoring and control devices to gain information about the state of the grid. This project alone reduced outage times in Denmark by 25% - 50%.

IBM is involved in e-mobility and electric vehicle projects around the globe. IBM's expertise extends from technology and business architectures to understanding how electric vehicles interact with the electricity network and renewable power generation. For example, IBM has undertaken a project with the EDISON research consortium in Denmark to explore how to turn millions of electric vehicles into a distributed storage system for the nation's ambitious wind energy plans. IBM is also researching commercially viable lithium air batteries that will enable electric vehicles to travel up to 500 miles on one charge.

## **About IBM:**

For more on e-mobility at IBM,  
see [http://www.ibm.com/ibm/ideasfromibm/us/electriccars/20090928/index.shtml?  
sa\\_campaign=message/leaf1/corp/smarterplanet/electriccar](http://www.ibm.com/ibm/ideasfromibm/us/electriccars/20090928/index.shtml?sa_campaign=message/leaf1/corp/smarterplanet/electriccar)

#### **About the ETI:**

The Energy Technologies Institute (ETI) is a UK based company formed from global industries and the UK Government. The ETI brings together projects and partnerships that create affordable, reliable, clean energy for heat, power and transport.

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