



NEWS RELEASE

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UK'S LARGEST ELECTRIC VEHICLE TRIAL - FIRST FINDINGS

The first results of a UK-wide electric and low carbon vehicle testing project are published today. The West Midlands-based CABLED project reports on the first quarter¹ of use of 25 Mitsubishi i-MiEVs (Mitsubishi innovative Electric Vehicles).

Over the course of the project, the CABLED (Coventry and Birmingham Low Emission Vehicle Demonstrators) consortium will test 110 vehicles, as part of the £25 million Technology Strategy Board's Ultra Low Carbon Vehicle Demonstrator competition.

Some of the key findings of the report are outlined below:

Distance -

- Electric vehicle drivers use their cars like the typical UK driver – the majority of journeys are less than five miles (at similar distances, when warming up conventional car engines are at their most polluting, and catalytic converters are at their least effective)
- Average daily mileage is 23 miles (well within the i-MiEVs's 80 mile range)

Drivers -

- Drivers use the entire speed range of the car, showing they are happy to drive at motorway speeds when required
- The vehicles were driven in all temperatures as low as -10 degrees Celsius, throughout the winter period. There was a drop-off in usage at very low temperatures, likely to be the result of reduced car usage during extremely cold weather, when only essential journeys are made

Energy use and charging -

- Vehicles are parked for 97% of the time, typically overnight and during school hours, allowing lengthy battery charging periods at home and work
- Although vehicles only use the electricity needed to charge them they were left plugged in for more than 20% of the time, occasionally for several days at a time

Led by global engineering consultancy Arup, CABLED is the largest of eight consortia from across the UK to participate in the £25 million Technology Strategy Board's Ultra Low Carbon Vehicle Demonstrator competition as well as being the first to begin vehicle trials. Data is being collected and analysed by Aston University. Regional Development Agency Advantage West Midlands has

¹ Data was collected between 00.01am 13 December 2009 – 23.59pm 12 March 2010

supported the CABLED consortium from the start and has invested £2.5million in the project, ensuring the Region's participation in the competition.

Andrew Everett, Lead Technologist in Low Carbon Vehicles for the organisation overseeing and funding the project, the Technology Strategy Board said, "It's great to see data starting to come out of the demonstrator trials and the findings from the CABLED project are very positive. Seven other consortia will be collecting the same sort of data from onboard computers in around 340 test vehicles. It's all going to be collated and published by the Technology Strategy Board in an act of open innovation. The information will be available to all and the aim is that the findings help drive innovation and development in Low Carbon Vehicles Technology as well as to inform future UK activities related to Ultra Low Carbon vehicles."

Neil Butcher, Arup's project leader of the CABLED consortium said: "Vehicles are quick and easy to plug in and this becomes a habit, even if the battery is still mostly full; so vehicles are usually fully charged at the start of the day. With the mass usage of vehicles, we will need to carefully consider how energy tariffs can be used to promote overnight charging and smooth demands on the grid."

Brian Price, Aston University comments, "Collecting real-world usage of electric vehicles (EV) through our satellite mapping and analysis has been essential in understanding actual demands and requirements of EV vehicles for consumers. The journey data gathered is already showing that the current generation of ultra low carbon vehicles are cheap to run as well as being comparable to petrol & diesel vehicles for speed, ease of use and daily journey distance; using less than 30% of total charge in typical daily use. The next phase of the study will allow us to map out an optimal charging point network to further extend range and improve the convenience of electric cars.

Lance Bradley, Mitsubishi Motors' Managing Director comments, "The i-MiEV is certainly proving itself in real-world tests. It is interesting that the British motorists involved in this trial don't seem to be showing any significant signs of 'range anxiety' and are using their cars just as they would a normal vehicle. Altogether, this is good news for Mitsubishi and the future of electric vehicles in the UK, and justifies Mitsubishi Motors' vision to lead the way in electric vehicle research, design, and manufacture."

Drivers selected for the trials of the Mitsubishi i-MiEV and the 85 other consortium vehicles were chosen through an application process led by Coventry University. Five other manufacturers within CABLED will roll out vehicles in 2010, including Mercedes Benz/smart, Tata, Jaguar/Land Rover, LTI and Microcab industries.

Ends

A full copy of the research is available on request.

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NOTES TO EDITOR

About the research

Each vehicle in the trial will be fitted with a GPS and data logger, designed and installed by Coventry based RDM Automotive. These loggers will record the usage, location and charging habits of each vehicle.

From this information certain results can be attained:

- Frequency of individual journeys
- Length and duration of journeys
- Date & time of journeys
- Energy used per journey
- Duration and amount of energy transferred during charge
- External temperature
- Location of charging/parking, i.e. home, work, public etc.
- Average speed

Data for Quarter 1

On 12th December 2009, 22 Mitsubishi iMievs were handed over to members of the public who were part of the CABLED trial. These users will keep the vehicle for a minimum of 12 months and use it as they would any other vehicle.

The data being recorded at this stage includes information regarding the frequency, length and duration of each journey. Also being recorded is the ambient temperature and the speed of the vehicle. Data is sent out every minute when the car is in use (i.e. ignition is on) and every 15 minutes when it is parked.

About the CABLED consortium

The West Midlands consortium, called CABLED - short for Coventry and Birmingham Low Emission Demonstrators – is made up of 13 organisations, led by Arup, a company with experience that crosses all areas that touch this project, from vehicle design to planning to infrastructure and energy. The consortium will develop and demonstrate 110 road-worthy vehicles to be trialled in the two cities over 12 months. Part funding for the project has been approved from the regional development agency, Advantage West Midlands.

Each of the six vehicle manufacturers – Jaguar/Land Rover, Mitsubishi/Colt, Mercedes Benz/smart, Tata Motors, LTI and Microcab Industries – are contributing their own vehicles towards the low carbon scheme, which includes a mix of fully electric vehicles, plug-in hybrids and hydrogen fuel cell cars.

Electricity providers E.ON are delivering charging points for the trial with assistance from the city councils of Birmingham and Coventry.

Three of the Midlands' leading universities play a major role in the scheme with Coventry University undertaking the selection process of drivers, Aston University analysing vehicle usage data and the University of Birmingham contributing access and expertise gained from its hydrogen fuelling station, which is currently one of the very few of its kind in UK. A new hydrogen station is planned for Coventry University.

The Technology Board's Ultra Low Carbon Vehicle Demonstrator Competition

As part of the Low Carbon Vehicles Innovation Platform, £25 million has been allocated to eight highly innovative, industry-led collaborative research projects in the field of ultra low carbon vehicle

development and demonstration. The competition, which culminated in June with the announcement of successful applicants, focused on encouraging the development of industry-led consortia that can deliver in bringing significant numbers of vehicles onto roads quickly. The competition winners will deliver over 340 new innovative cars on the road in eight locations around the UK in the next year.

To meet the UK's commitment to an 80% cut in carbon emissions by 2050, the carbon output of transport - currently a quarter of all UK emissions - has to be significantly reduced. The vehicles that we drive need to be part of the solution.

The journey towards low carbon transport will not be easy but the demonstrator programme is a major step in the right direction. With over 340 cars being trialled in several regions across the UK, and with the involvement of large and small manufacturers, RDAs, local authorities, universities and infrastructure companies, it is the biggest project of its kind to date.