

PRESS RELEASE

7 January 2010

NEW GOVERNMENT INVESTMENT WILL SPEED UP DEVELOPMENT OF CARBON REDUCTION TECHNOLOGY FOR ROAD VEHICLES

Over £12 million is to be invested by the government-backed Technology Strategy Board to develop new technology that will speed up the reduction of CO₂ emissions from road vehicles.

The investment will be made in sixteen proof of concept studies, which will last up to one year, and six longer-running full research and development projects. The total value of the research will be in the region of £25 million, with the remaining funding provided by the UK organisations taking part in the work.

John Laughlin, the Technology Strategy Board's Low Carbon Vehicles programme manager, commented:

"This investment is part of our ongoing strategy to put the UK at the forefront of low carbon vehicle technology.

We are funding innovative projects in a number of key areas which include internal combustion engine technologies, energy storage and management, lightweight structures and new propulsion technologies. The work will help to accelerate the reduction of carbon emissions and deliver mass-market low carbon road vehicles within 5 to 15 years.

In addition to helping to meet UK and EU climate change targets, we anticipate this research and development work will create significant market opportunities for UK-based companies."

Since 2007, the Technology Strategy Board's Low Carbon Vehicle Innovation Platform, sponsored by the Department for Business Innovation and Skills, with strong support from the Office for Low Emission Vehicles, Regional Development Agencies and the Engineering and Physical Science Research Council, has invested £74 million in over 50 innovative research, development and demonstration projects, including the road-testing of 340 low carbon vehicles across the UK during 2010.

Including contributions from the participating companies, the total value to date of investment in low carbon vehicle research and development managed through the Innovation Platform is nearly £150 million.
(ends)

Notes to Editors

1. The Technology Strategy Board is a business-led executive non-departmental public body, established by the government. Its role is to promote and support research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve the quality of life. It is sponsored by the Department for Business, Innovation and Skills (BIS). For further information please visit www.innovateuk.org.

2. The funding competition is managed by the Technology Strategy Board's Low Carbon Vehicles Innovation Platform (LCVIP). The Platform is the key delivery agent for the government's funding of low carbon vehicle research and development. The Platform aims to promote low carbon vehicle research, design, development and demonstration in the UK in order to deliver:

- Carbon reduction in domestic and international vehicle markets
- Accelerated introduction of low carbon vehicle technology and vehicles
- A UK automotive sector benefiting from growing domestic and international demand for low carbon vehicles.

3. This competition is the second funding activity under the LCVIP's Integrated Delivery Programme (IDP). This is a 5 year programme which will integrate the innovation chain, from the science base, through collaborative R&D to fleet level demonstration. The IDP has secured £120m of public sector funding – from the Technology Strategy Board, Office for Low Emission Vehicles, Engineering and Physical Sciences Research Council (EPSRC), One North East (ONE) and Advantage West Midlands (AWM). Contributions from commercial partners will match the public funding, bringing the total amount available for investment to £250 million. There will be at least two further competitions in 2010 and more will be run in subsequent years.

4. The projects to be funded include:

Name of Project: Ultra Lightweight Range Extender for Electric Vehicles

Names of consortia members: Bladon Jets (lead), SR Drives, Jaguar Land Rover

Total project cost: £2,206,784

Amount of funding provided to the project by the Technology Strategy Board: £1,103,392

Description of project: The aim of this project is to develop an ultra-lightweight, gas turbine powered, electric vehicle range extender that will enable vehicle weight savings of 100kg or more and a modest reduction in CO2 emissions on the UNECE101 drive cycle. More substantial CO2 savings can be achieved in real world use. The small size, multi-fuel capability and potential low cost of the ULRE could also help speed adoption of electric vehicles.

Contact details: Paul Barrett, Bladon Jets, paul.barrett@bladonjets.com, 0207 193 0959

Name of Project: Development of high energy Li-S prototype battery cells

Names of consortia members: Oxis Energy Ltd (lead), ABSL Power Solutions

Total project cost: £470,000

Amount of funding provided to the project by the Technology Strategy Board: £235,000

Description of project: (EVs).

Lithium-metal Sulphide (Li-S) is a highly innovative battery chemistry ideally suited to electric vehicles. The project will focus on improving the durability and quality of Lithium-

metal Sulphide (Li-S) 1Ah prototype pouch cells with specific energy of 220 - 250 Wh/Kg and combining these in series to create a 20-40 volt module. These battery cells are expected to have improved cycle life stability and safety features superior to those of Li-ion batteries. Our objectives are: (a) develop and demonstrate Li-S prototype cells with specific energy of 250 Wh/Kg and improved cycle life stability; (b) demonstrate Li-S cell tolerance to mechanical, electrical and thermal abuse; (c) demonstrate a bill of materials of \$800/KWh (in volume production).

Contact details: Ken Pelton, Oxis Energy Ltd, kenpelton@aol.com, 07979 594778

5. Other projects to be funded include:

Title: 2nd Generation Zero Emissions 12t Battery Electric Truck.

Partners: Leyland Trucks (lead), MAGTEC, Valence Technology.

Title: LOPEPS - Low Power Electric Power Steering to provide steering assist during parking for small, ultra-efficient vehicles

Partners: TRW Conekt (lead), Tata Motors European Technical Centre, Brook Crompton

Title: High Efficiency Transmission (HET) for Electric Vehicles

Partners: Antonov Automotive Technologies Ltd (lead), MIRA, JLR

Title: High energy sodium-nickel battery cell for EV application (Acronym: NINACELL)

Partners: Ionotec Ltd (lead), Dynamic-Ceramic Ltd, Birmingham University, University College London, Aloxxsys Inc.

Title: High energy density TMO/Si-alloy battery for PHEVs

Partners: Axeon Technologies Ltd (lead), University of St Andrews, Nexxon Ltd, Ricardo UK Ltd

Title: GKN Eco-Trailer

Partners: GKN AutoStructures Ltd (lead), Magnetic Systems Technology Ltd

Title: BladeBoost - A Novel Rotary Supercharger for Ultra-Efficient Downsized Gasoline Engines

Partners: Ricardo UK Ltd (lead), Lontra, Ford Motor Company

Title: MU2IC

Partners: Ptech Engines Ltd (lead), Tickford Powertrain Test Ltd, MUSI Engines Ltd, Concept Group International

Title: FLYBUS - Flywheel Based Mechanical Hybrid System for Bus & Commercial Vehicle Applications including Retrofit Programme

Partners: Torotrak (Development) Ltd (lead), Ricardo UK Ltd, Optare Group Ltd, Allison Transmission Europe (UK)

Title: Low CO2 High Efficiency Diesel Fuel Injector Nozzle (LOCOFIN)

Partners: Delphi Diesel Systems UK Ltd (lead), University College London

Title: Flexible Multiport Converter Technology

Partners: Prodrive (lead), Scisys, Raytheon Systems Ltd, Tata Motors European Technical Centre, International Transformers, University of Manchester

Title: EDS TurboClaw

Partners: AVL Powertrain UK Ltd (lead), Dynamic Boosting Systems Ltd, TURBOCAM Europe Ltd

Title: Demonstration of Aggressive Downsizing a Truck Engine with Epicam Supercharger - ESTED (Epicam Supercharger Truck Engine Downsizing)

Partners: Epicam Ltd (lead), J C Bamford Excavators Ltd, The Hardstaff Group, Birmingham City University

Title: eDCT - Low Cost High Efficiency Transmission Actuation: Electric Moving Magnet Linear Actuator

Partners: Ricardo UK Ltd (lead), TRW Ltd, Raicam Clutch Ltd

Title: Syner-D - Integration of Synergistic Cost Effective CO2 Technologies for Diesel

Partners: Ricardo UK Ltd (lead), Jaguar Cars Ltd, Shell Global Solutions (UK), Lontra, SKF (UK) Ltd, Valeo Engine Cooling UK Ltd

6. Any media enquiries should be addressed to the Technology Strategy Board's media relations consultant or manager (see below) or to pressoffice@tsb.gov.uk.

7. Companies and other organisations seeking further information about these and other funding competitions should visit the Competitions page of the Technology Strategy Board website – www.innovateuk.org, email competitions@tsb.gov.uk or phone the Competitions Helpline at 01355 272155.

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