

**PRESS RELEASE**

7 January 2010

**CARBON ABATEMENT TECHNOLOGIES TO BE STIMULATED BY  
£15 MILLION NEW GOVERNMENT INVESTMENT**

The development of innovations to help reduce emissions from power stations and CO<sub>2</sub> intensive industries is to receive a major boost after the Technology Strategy Board announced today that it is to invest £15 million on behalf of the government in over 30 new research and development projects and studies.

The Technology Strategy Board is joining with the Department for Energy and Climate Change (DECC) and the Northern Way partnership to invest in innovative technologies which, once fully developed, will contribute significantly to meeting UK and EU climate change targets, whilst providing significant global market opportunities for British companies.

The innovative carbon abatement technologies will tackle CO<sub>2</sub> emissions from large single point sources, primarily fossil-fuel power plants and large process industries such as those related to petrochemicals, cement and metals production. As well as ten major collaborative research and development projects, twenty-one small and medium-sized companies with technologies they believe could provide innovation and added value to carbon abatement technologies will receive funding to undertake technical feasibility studies to support their business case.

Explaining the background to the investment decision, the Technology Strategy Board's Chief Executive, Iain Gray, said:

“The introduction of renewable energy technologies will, over time, reduce our dependence on fossil fuels. However, these will continue to dominate our energy supply for at least another 40 years. In addition, the continuing drive and increasing political and regulatory pressure to reduce CO<sub>2</sub> emissions means that our large process industries also need to urgently address this challenge.

Given these scenarios, it is clear that the development and demonstration of innovative, cost effective technologies which reduce CO<sub>2</sub> emissions are essential if our fossil-fuel power plants and large process industries are to remain viable. Working in partnership with DECC and the Northern Way, we hope to put the UK in a position to take advantage of the emerging global market in CO<sub>2</sub> capture and storage.”

Commenting on the support provided by the Northern Way, its Chairman Hugh Morgan Williams said:

“Businesses across the North of England have seen particular benefit in this programme, and we were delighted to support the Technology Strategy Board in promoting a positive response from firms based in the North. We have a huge potential to use our existing capacity in areas such as advanced manufacturing to play a leading role in this vital new technology, securing economic benefits while at the same time supporting the transition to a low carbon economy”.

(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 more information please visit [www.innovateuk.org](http://www.innovateuk.org).
2. The **Department of Energy and Climate Change** (DECC) brings together much of the Climate Change Group, previously housed within the Department for Environment, Food and Rural Affairs (Defra), with the Energy Group from the former Department for Business, Enterprise and Regulatory Reform (now the Department for Business, Innovation and Skills – BIS). The Environmental Transformation Fund is a new initiative to bring forward the development of new low carbon energy and energy efficiency technologies in the UK. The fund formally began operation on 1 April 2008, and is jointly administered by Defra and BIS.
3. The **Northern Way** is a unique initiative, bringing together the cities and regions of the North of England to work together to improve the sustainable economic development of the North towards the level of more prosperous regions. Formed as a partnership between the three northern Regional Development Agencies (Yorkshire Forward, Northwest Regional Development Agency and One North East), they also work with local authorities, universities, the private sector and other partners to secure a strong coalition in support of this goal.
4. The *Carbon Abatement Technologies* funding competition (£15m) is co-financed by the Technology Strategy Board, Department for Energy and Climate Change and the Northern Way, and is managed by the Technology Strategy Board. The work funded by this investment will focus on the development of technologies which will offer significant improvements in:
  - Efficiency of conversion processes to reduce the amount of fuel consumed and associated CO<sub>2</sub> emissions;
  - Technologies which significantly reduce emissions from process industries (such as petrochemicals, cement and metals production);
  - Fuel switching to lower carbon alternatives such as co-firing with biomass or waste;
  - Carbon capture technologies, CO<sub>2</sub> transport, storage and use;
  - Development of underpinning technologies that support carbon abatement technologies such as those relating to materials, non-destructive inspection, instrumentation, modelling and condition monitoring.

5. Examples of major research and development projects funded through the *Carbon Abatement Technologies* competition are:

**Name of Project:** IMPACT - Innovative Materials, Design and Monitoring of Power Plant to Accommodate Carbon Capture

**Names of consortia members:** E.ON (lead), Goodwin Steel Castings Ltd, RWE Npower plc, Doosan Babcock Energy Ltd, NPL Management Ltd, Loughborough University, Alstom Power Ltd

**Total project cost:** £1,834,729

**Amount of funding provided to the project by the Technology Strategy**

**Board:** £908,652

**Description of project:** The key goal of this project is to improve the efficiency of future steel-based coal-fired power plant, and hence reduce carbon emissions. The outputs will be practical techniques for carbon abatement, applied immediately to make quantifiable carbon savings in new build plant and current plant retrofits, as well as higher efficiency plant for the longer term.

**Contact details:** David Allen, [david.allen@eon-engineering.com](mailto:david.allen@eon-engineering.com), 02476 192650

**Name of Project:** C Save: Carbon Storage – assessment and validation of emissions

**Names of consortia members:** Signal Group Ltd (lead), NPL Management Ltd, BP Alternative Energy International Ltd

**Total project cost:** £696,040

**Amount of funding provided to the project by the Technology Strategy**

**Board:** £347,171

**Description of project:** Carbon Capture and Storage (CCS) is a key accessible climate change mitigation measure which will enable current carbon based power production to continue, while reducing climate impact. There is a need for substantial new measurement capability to validate estimates of CO<sub>2</sub> losses from individual stages of the process. The overall aim for the project is to develop a suite of advanced CO<sub>2</sub> sensing technologies that combine to provide validated monitoring of each stage of the CCS process.

**Contact details:** John Clements, [john.clements@signal-group.com](mailto:john.clements@signal-group.com), 01276 682841

**Name of Project:** Fast REsponse Temperature Sensors for GAs Turbine Efficiency (FRETSGATE)

**Names of consortia members:** Oxsensis Ltd (lead), Rolls-Royce plc, Siemens Industrial Turbomachinery Limited

**Total project cost:** £1,195,268

**Amount of funding provided to the project by the Technology Strategy**

**Board:** £597,634

**Description of project:** FRETSGATE will develop a novel optical temperature sensor with the potential to reduce CO<sub>2</sub> emissions from UK power generation by >1 million tonnes per annum (mtpa) through efficiency gains. The project will develop an optical sensor head and matching interrogator. The system will be developed through proof of concept to a technology demonstrator suitable for testing in realistic environments.

**Contact details:** Stephen Fasham, [stephen.fasham@oxsensis.com](mailto:stephen.fasham@oxsensis.com), 01235 778120

6. Other major projects to be funded include:

**Title:** e-WaGS: Efficient Water Gas Shift Technology for Low-Carbon Electric Power Generation from Fossil Fuels

**Partners:** BP Alternative Energy International Ltd (lead), Johnson Matthey Catalysts

**Title:** Verified Approaches to Life Management & Improved Design of High Temperature Steels for Advanced Steam Plants - VALID

**Partners:** TWI Ltd (lead), Metrode Products Ltd, Centrica Energy, Scottish and Southern Energy plc, Air Liquide UK Ltd, Polysoude UK

**Title:** Carbon Abatement Using Surface Engineering Technologies (CASET)

**Partners:** Siemens Industrial Turbomachinery Ltd (lead), RWE npower, Cranfield University, Sermatech International UK Ltd, University of Birmingham

**Title:** Corrosion Lifing Methods And TEsting (CLIMATE)

**Partners:** Rolls-Royce plc (lead), Serco Ltd, trading as Serco Technical and Assurance Services (TAS), Cranfield University, Swansea University

**Title:** Nanoscale Gravity Sensors for Monitoring CO<sub>2</sub> Storage (NASCOM)

**Partners:** BP Alternative Energy International Ltd (lead), University of Cambridge

7. 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](mailto:pressoffice@tsb.gov.uk).
8. 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](http://www.innovateuk.org), email [competitions@tsb.gov.uk](mailto:competitions@tsb.gov.uk) or phone the Competitions Helpline at 01355 272155.

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