



CACHET PRESS RELEASE

CACHET is a 3-year, integrated research project, funded by the European Commission that aims to develop technologies to reduce greenhouse gas emissions from power stations by 90%. CACHET is a strong and diverse international consortium of highly experienced research institutes, universities, energy businesses, engineering and manufacturing companies.

CACHET is co-ordinated by BP with participants from EU Member states and EU Acceding and Associated countries, USA, Canada, China and Brazil and is related to the joint industry/government CO₂ Capture Project (CCP). Carbon dioxide capture and geological storage has the potential to contribute significant reductions in global Greenhouse Gas emissions. The objective of the project is to develop innovative technologies for hydrogen production from natural gas, halving the cost of low-carbon energy. The hydrogen produced can be used to provide energy, with water as the only by-product. Several promising technologies will be further developed, evaluated and cost estimated on a consistent, integrated basis within the framework of the CACHET project. If successful, the new technologies could be ready for pilot-testing by 2009, followed by pre-commercial demonstration, with commercial use expected around 2015.

Please see 'www.CACHETCO2.eu' for further information and a full list of participants.

CACHET will focus on developing four pre-combustion carbon capture technologies that have been identified as the most promising for conversion of natural gas to H₂ while simultaneously capturing CO₂. All of the selected technologies are still in the development phase and further resource is required to generate sufficient technical performance and cost data for economic assessment and technology risk analysis. The technologies developed will reduce CO₂ emissions in the power generation sector where substantial cost reductions will be available to zero-emissions fossil fuelled CCGT power plants. Any improved economics may also interest industrial processes which use H₂ at large scale, such as crude oil refining, chemical manufacture, and fuel cells for use in transport. The project will provide an opportunity for the development of an H₂ fuelled economy ahead of the emergence of cost-effective renewable-based H₂ supply.

Operating within EC FP6 Integrated Project guidelines, technologies in development and testing include; HyGenSys (Power-Gen Steam Methane Reforming), Redox Technologies (One-Step decarbonisation, and Chemical Looping Reforming), Hydrogen Membrane Reactors for Natural Gas Reforming and Sorption-Enhanced Water Gas Shift. A review will also consider external developments that may enhance the main technologies being developed. A further team will focus on integration and optimisation both of individual technologies and of combined applications of these technologies. The project's activities and major outputs will be disseminated effectively to all interested parties. A co-ordination team will complement the technical excellence of the participants with first-class project management delivering CACHET's technical goals within budget and on schedule.

The CO₂ Capture Project (CCP) is an international cooperative partnership between leading energy companies, governments, academics and environmental interest groups which is focused on technology development of CO₂ Capture and Geological Storage. This consortium aims to reduce the cost of CO₂ capture from combustion while developing methods for safely storing CO₂ underground.