



PROJECT STATUS REPORT FORM

Project Number: CFE-06-06	Task Force: Cleaner Fossil Energy
Title of Project: Assessing Post Combustion Capture (PCC) for Coal Fired Power Stations in APP Countries – Stage 1 and 2	
Project Objectives: The project aims to demonstrate Post-Combustion Capture (PCC) technologies by using purpose built mobile pilot plants to trial post-combustion capture technologies at existing coal fired power stations. The outcomes of this project will enable the economics of PCC technology to be determined and provide a roadmap for the demonstration and deployment of PCC technology.	
Project Description: The project consists of two components: The Australian component of the project will establish two mobile PCC pilot plants and a research laboratory that will test novel PCC processes and a range of different solvents to capture CO ₂ . The Chinese component of the project will involve Australian and Chinese technologists working together to deploy a mobile PCC pilot plant in China and carry out further PCC trials and research under different conditions at Chinese power stations. The technology transfer of current PCC technology and an enabling program for ongoing technical development will support the future concept design of a demonstration plant and full scale plants in China.	
Lead Partner Country: Australia	
Participating Partner Countries and Organizations: Australia: CSIRO, Delta Electricity, Tarong Energy Corporation China: Thermal Power Research Institute (TPRI), China Huaneng Group	
Project Location: Australia, China	
Project Manager Information Name: Paul Feron Phone: +61 2 4960 6022 Organization: CSIRO - Energy Technology Email: Paul.Feron@csiro.au Address: PO Box 330 Newcastle NSW 2300 Australia	
Project Start Date: November 2007	Date of Project Status Update: August 2010
Actions Since Last Update: <ul style="list-style-type: none"> Further experimental campaigns of pilot plant trials were completed at Munmorah Power Station with knowledge gained from previous campaigns successfully applied to the pilot plant. 	



- Construction of pilot plant at Tarong Power Station has commenced.
- Construction and assembly of the portable skid which holds the majority of powered equipment and the Gaset Gas Analyser System have been completed and delivered to the Tarong Power Station.
- Structural Tower has been constructed and painted and column segments, electrical and pipework installed. Onsite utilities well underway and plant control has been delivered to Tarong site.
- Australian research program is progressing including: further investigation into characteristics of the patented CSIRO 1 solvent; absorption experiments with enzyme promoted amines at high concentration of the amine have been completed; and further characterisation work with the candidate ion liquids which have identified the most promising combinations of anions and cations.
- High level officials meetings held in China with TPRI to: finalise the project scope, milestones and payments; finalise contractual issues; and discuss options to leverage relationships formed under the APP.
- Developed, with TPRI, a program and schedule for the establishment of the portable PCC plant including the contributions from each organisation.
- Formed linkages with two Chinese universities on capacity building in PCC at the academic level.
- Completed a scope of use study which forms the basis for a detailed plant design.
- Constructed a 'Novel Processes Test Facility', a pilot plant at ~~its~~ [CSIRO's](#) Newcastle Energy Centre that will provide the data and expertise needed to finalise construction and operation of the portable PCC plant.

Deliverables Since Last Update: as above

Date Completed: 31 May 2010

Milestones Reached:

- First pilot plant in Australia constructed, commissioned with the research programme underway and first CO₂ captured from flue gas on 3 February 2009.
- CSIRO has commenced detailed engineering and procurement costing to construct the pilot plant at Tarong Energy.
- First Chinese pilot plant constructed, commissioned with 1000 tonne CO₂ capture thus far.
- Definition of the detailed scope of use of the transportable PCC plant in China completed, design of the second Chinese pilot plant; and progress towards installation of the second pilot plant



Next Steps:

- Continue testing of pilot plant 1 at Munmorah.
- Progress the solvent development towards a solvent formulation ready to be tested in any of the CSIRO pilot plants.
- Develop an agreement with Texas University through URS Corporation for collaboration on pilot plant scale test of new solvent technology based on concentrated aqueous piperazine.
- Hold Fourth Workshop at-Pacifichem , to be held in Hawaii in December 2010.
- Explore opportunities for PCC deployment through the assessment of PCC costs in China.
- Organise a joint TPRI-CSIRO workshop on pilot plant operation in China during 2010–11.
- Detail design and construction of the transportable PCC plant.
- Commence commissioning of the transportable PCC plant.

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Proposed Project End Date: May 2011

Project Already Complete: Yes No X

Other Information:

Please attach any supplemental project information to this form.