

Bulletin 1 February 2007

Latest News

Welcome to the first electronic bulletin on the Callide Oxyfuel Project! These bulletins will be emailed periodically to report on key activities of this exciting clean coal project.

This bulletin contains information on recent government funding support for the project, activities at site and future work planned.



CS Energy project engineer Franco Montagner inspects the Callide A boiler, which will be retrofitted with oxy-firing technology.

Project background

The Callide Oxyfuel Project has two parts:

1. Retrofitting a coal-fired boiler at Callide A with oxy-firing technology so it can burn coal in a mixture of oxygen and recirculated flue gases. This will create a highly concentrated stream of carbon dioxide.
2. Capture and storage of the carbon dioxide deep underground in suitable geological formations west of Callide using a process known as geosequestration.

CS Energy has partnered with a Japanese consortium comprising JCOAL, JPower and IHI; the Australian Coal Association; Xstrata Coal; Schlumberger; the CO2 CRC; and the CRC for Coal in Sustainable Development.

Recent highlights

In recent months, the Callide Oxyfuel Project has secured funding from the Federal Government, completed a major plant condition assessment of Callide A and undertaken a preliminary project design review.

On 30 October, Federal Industry Minister Ian Macfarlane announced \$50 million in funding for the project from the Australian Government's Low Emissions Technology Demonstration Fund (LETDF). In the same quarter, CS Energy and its project partners completed a major plant condition assessment of Callide A, which has been in storage since 2001. The plant condition assessment is an essential part of the front end engineering and design work for retrofitting oxy-firing technology at Callide A.

On site for the inspection were approximately 30 personnel from CS Energy, project partners IHI and contractors Clyde Babcock Hitachi, Siemens, Energen, Austpower and Air Liquide. They focussed most of their attention on unit 4, which is where the oxy-firing technology will be retrofitted.

Preliminary results indicate the plant is in generally good condition. A detailed report on the assessment is due soon, along with costings for the refurbishment of Callide A, which will be carried out at the same time as the retrofit of oxy-firing technology.



The Callide A condition assessment included checks of the integrity of welds in the boiler. Grinding preparation work was the first step in this process.

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Inside the Callide A furnace during the condition assessment in October 2006.

Other highlights to date

In mid-2006, the project team completed a two-year study into the commercial and operational feasibility of converting one of Callide A's units to oxy-firing technology. This work included tests of the combustibility of Queensland coal in a pilot oxyfuel test facility at Aoi in Japan. The tests confirmed the improved combustibility of coal in oxyfiring conditions and also found significant reductions in other emissions such as oxides of nitrogen and sulfur.

Studies were also carried out to identify and characterise the CO₂ storage potential of a number of geological formations to the west and south west of Callide.



CS Energy's Dr Chris Spero (right) discusses the condition of the unit 4 generator at Callide A with a Siemens crew.

In addition, a Memorandum of Understanding was signed in March 2006 between CS Energy and its project partners to initiate the front end engineering and design work for the demonstration project. Also in 2006, the Asia Pacific Partnership on Clean Development and Climate recognised the Callide A Oxyfuel Project as a project of significance.

Next steps

The Callide Oxyfuel Project team will incorporate results from the condition assessment into final front end engineering and design work for the project. The project will also execute an incorporated joint venture agreement between the partners.

Construction is then scheduled to commence at Callide A in 2008, with electricity generation from the oxyfuel process from early 2009. The demonstration project will continue for up to five years, during which the project team will assess the potential commercial applications of oxyfiring technology to other plant.

For more information, please visit www.csenergy.com.au.

Oxyfuel Project Partners

