



AGL AND CSIRO EXPLORE LOW-ENERGY CO2 CAPTURE

04 August 2014 3:47pm

AGL has established a syndicate to explore a lower-cost process to capture CO2 from brown coal-fired power stations.

The energy company is teaming with CSIRO and Japanese technology provider IHI Corp to install and test a pilot plant at its Loy Yang brown coal-fired power station that could use up to 40% less energy to capture CO2 emissions for storage.

Brown Coal Innovation Australia ([BCIA](#)) today announced it would provide \$650,000 towards the \$5 million project, which will capture up to half a tonne of CO2 each day.

The energy-intensive nature of the post-combustion capture of greenhouse gases from power plants is a major barrier to its widespread use, and a number of pilot projects around the world are exploring ways to overcome the problem.

The CSIRO/AGL/IHI project will trial different solvents to capture the CO2, and will also incorporate new design features that aim to make the process much less energy-intensive.

The three-year project aims to use 40% less energy than a CCS plant using standard solvent-based capture technology – a goal that BCIA chief executive Phil Gurney said would take the technology further towards widespread deployment.

Commercialisation would also be aided if Victoria's brown coal was converted to products such as hydrogen or fertiliser, which have larger profit margins and could therefore more readily sustain the cost of capturing emissions, he told *CE Daily*.

The new pilot plant would also explore measures to prevent sulphur in the emissions stream reducing the efficacy of the carbon-capturing solvents, Gurney said.

The new pilot plant – which can operate 24-hours a day – will be the second on the Loy Yang site, which already hosts a CSIRO-operated [pilot carbon capture plant](#) that can't operate continuously.

Scope for major cost reductions: Institute

CEO of the Global CCS Institute, Brad Page, told *CE Daily* that the project was an excellent example of globally-coordinated R&D on carbon capture and storage.

"The Institute is tracking similar instances where learnings from individual large-scale projects can bring significant cost reductions," he said.

An example of this is the world's first large-scale CCS project in the power sector, SaskPower's US\$1.35 billion Boundary Dam [project](#) in Canada that will capture one million tonnes of CO2 annually and is expected to become operational later this year.

Lessons from Boundary Dam indicate that, were a similar project to be carried out again, "the CAPEX cost could be 30% less", Page said.