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BCIA will spend A\$650,000 on the pilot project

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Cutting energy costs of brown coal CCS Aim to cut 'parasite' costs by 40%

Richard Jansen

AN AUSTRALIAN research group is planning to develop technology that could cut the energy needed to capture emissions from brown coal power plants by up to 40%.

Brown Coal Innovation Australia (BCIA) says it will spend A\$650,000 (US\$605,000) on the pilot project, which aims to cut down the so-called 'parasite' energy needed to run the carbon capture equipment. The project will be based in the Latrobe Valley in the Australian state of Victoria, which has the second-largest and cheapest brown coal resources in the world.

Using funding provided by national research organisation CSIRO it will spend two years testing a combination of liquid absorbents, new process designs and an advanced gas/liquid contactor.

"The combination of these three aspects represents a significant step forward in post-combustion capture technology application for Victorian brown coal-fired power stations," says BCIA CEO Phil Gurney.

"The commercial success of such technologies would secure Victoria's - and indeed Australia's - future economic prosperity by enabling the continuation of low-cost power generation while also creating valuable new industries and employment opportunities in Latrobe Valley."

Initially the group will work on a pilot plant able to capture 500 kg/d of CO₂, potentially scaling up to as much as a 2,500 t/d demonstration-scale plant should the work prove successful.

Australia has large brown coal reserves, but it burns less efficiently than other coals and many researchers are working to improve this. CSIRO is already carrying out a trial of a 'direct injection carbon engine' designed to cut emissions from using the fuel. In May the Australian government provided A\$50m of funding to a pair of projects looking to use brown coal as a feedstock for producing high value products including oil, fertiliser and upgraded coal.

CSIRO executive director of energy and resources, Alex Wonhas, says that the project with BCIA is a major part of the group's commitment to developing low emission technologies.

"We expect coal will continue to contribute to Australia's and the global energy mix in the coming decades," he says. "It is therefore important that we work with industry to minimise its environmental impacts. CSIRO has a critical role to play in this space."

Source: http://www.tcetoday.com/latest%20news/2014/august/cutting-energy-costs-of-brown-coal-ccs.aspx#.U-w3TfmSySo