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Hazelwood carbon capture project under way

The biggest carbon capture plant yet installed at an Australian power station has begun operation at International Power Australia's (IPRA) Hazelwood plant in the Latrobe Valley.

The \$10 million pilot project is designed to initially capture up to 25 tonnes of carbon dioxide (CO_2) per day from one of the power station's generating units. The plant has the potential to eventually capture up to 50 tonnes a day.

Following a comprehensive commissioning program, the pilot plant is now successfully capturing and sequestering CO₂.

The pilot project has received government support through the Federal Government's Low Emission Technology Demonstration Fund and the Victorian Government's Energy Technology Innovation Strategy.

IPRA Executive Director, Mr Tony Concannon said the carbon capture plant had produced promising results in its first month of operation.

"While the pilot project involves only one of the power station's eight generating units, it is operating to its design specifications and we have been capturing up to 25 tonnes of CO_2 on a daily basis," Mr Concannon said.

"The ability to capture and store CO_2 is obviously a key issue for the long-term future of the fossil fuel fired power generation industry as we move into a carbon-constrained future.

"This is an important and promising research and development project. However, it will be some time before IPRA is in a position to determine if this technology is suitable to be rolled-out to other Hazelwood generating units or, indeed, other fossil fuel fired power stations."

The carbon capture plant was designed and built by Process Group and technology support has been provided by the Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC).

The carbon capture technology absorbs CO_2 from the power station flue gas using a solvent solution. Captured CO_2 is then used to reduce the pH of the power station's ash water before it leaves the site. The CO_2 reacts with the ash water to produce an inert and commercially usable product, calcium carbonate. The pilot plant produces relatively small amounts of calcium carbonate.

The Hazelwood carbon capture pilot project will be regularly reviewed and assessed for its potential for larger scale research programs.

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