Media Release

In November 1999, CSIRO and Liquatech formed a partnership in which $1.5 million was outlaid to build a prototype plant.

The partners guided the project through the costly development phase, gaining financial backing from the Australian Coal Association Research Program and the New South Wales Sustainable Energy Development Authority to design and develop the 1.2-megawatt pilot plant at the Queensland Centre for Advanced Technologies in Brisbane.

The plant demonstrated a flexible system combining existing technologies in a way that enables waste coal and methane to be burnt efficiently to power mines, with the surplus fed into the grid for general consumption. The system has the potential to significantly reduce greenhouse gas emissions by displacing hundreds of megawatts of conventionally produced power with electricity fuelled by burnt methane.

Previous attempts to convert methane to fuel in mine ventilation systems have failed because methane concentrations were too low to enable self-sustaining combustion, or methane levels fluctuated too much to maintain a constant fuel supply. The new system uses variable fuel supplies to maintain a constant temperature – adding waste coal from the stockpile if the methane concentration gets too low.

Now the partners have brought the project to the point of commercialisation, with two major backers signalling their preparedness to invest $13 million to build a mine-scale plant at the United Colliery near Singleton in the Hunter Valley, New South Wales.

A joint venture company, ComEnergy, has been formed with CSIRO, which will be owned equally, and the partners have taken out a 20-year patent in 80 countries.

The plant is designed to generate 10 megawatts of electricity and burn 112,000 tonnes a year of carbon dioxide equivalent (greenhouse gas emissions).

ComEnergy has also signed a Memorandum of Understanding with the Chongqing Electric Power Corporation, The Chongqing Municipal Water and Electric Power Group, and the Hebi Coal Group in China.

John Ward
Chairman