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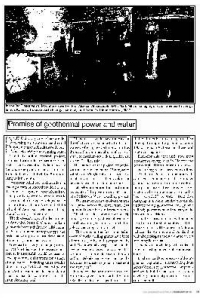

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Promise of geothermal power and water

RMIT University researchers are developing an all-in-one geothermal system that can simultaneously produce electricity and drinking water.

The $1.12 million research project, conducted with industry partner Greenearth Energy, was officially launched by Victorian energy and resources minister Peter Batchelor at RMIT's Bundoora campus last month.

Professor Aliakbar Akbarzadeh is leading a team of researchers developing the innovative system. Researchers have seen promising results from a small-scale concept prototype developed at the Thermo-Fluids Laboratory in RMIT's School of Aerospace, Mechanical and Manufacturing Engineering.

The three-year project, funded through an Australian Research Council Linkage grant and Greenearth Energy, will focus on further development of the prototype, and performance improvement and evaluation of the dual geothermal system.

Greenearth Energy managing director Mark Miller said the research outcomes, if successful, would be used to develop commercial systems for a range of applications, including units capable of producing 0.1MW of electrical power and 75kL of water per day, suitable for small and isolated communities off the main electricity grid.

"This project could pave the way for the effective use of suitable hydrothermal waters, offering export opportunities through the commercial manufacture of small to medium-scale dual geothermal systems," Miller said.

The launch of the project coincided with an announcement that 12 companies will share in $700,000 of Victorian government funding to assist them explore for new geothermal and mineral resources.

Batchelor announced the third round recipients of the government's $2.5 million Rediscover Victoria drilling project.

"The grant recipients' exploration sites are spread across the state, from East Gippsland to northern and western Victoria," Batchelor said. The grants would help industry search for geothermal resources as well as a range of minerals, including gold, silver, copper, and nickel.

"This round is the first time Rediscover Victoria drilling grants have been offered to geothermal companies," he said. "Geothermal energy is one of the few renewable energy sources that has the potential to provide base-load power to the state's electricity grid and has the potential to create regional investment and new jobs."

Batchelor also announced that the Victorian government had allocated $500,000 to develop a geothermal atlas that will involve measuring the heat flowing through the ground at about 100 locations in Victoria's northwest and southwest regions.

Batchelor said that until now most geothermal energy data in Victoria had been compiled from temperature data collected during previous petroleum drilling.

"While this historic temperature data can give a good idea of the estimated geothermal resource in some exploration permit areas, there are gaps across Victoria where no temperature data has been recorded," he said. "Heat flow mapping is a more precise process for understanding geothermal energy, and will help government and industry make investment decisions."

The first measurements will be taken near Colac in the state's southwest. Other measurements will be done near Mildura, Echuca, the Wimmera and Portland. It will take geologists about a year to collect and compile the data.

The new data will largely be collected from an existing network of groundwater bores.

Batchelor said the project would complement exploration activity being done across Victoria by geothermal companies and would build a state-wide assessment of where geothermal projects of the future could be built.

In the RMIT geothermal laboratory were (l-r) Prof Aliakbar Akbarzadeh, RMIT; Mark Miller, managing director Greenearth Energy Simon Molesworth, Greenearth Energy chairman; and Assoc Prof John Andrews, RMIT.