

Feds Provide \$5 MM Grant For Geothermal Project

The federal government has provided a \$5 million grant to hot rock developer, Petratherm Limited, to help accelerate the development of South Australia's Paralana hot rock or geothermal energy project in the Flinders Ranges.

Petratherm Managing Director, Terry Kallis, said the grant will cover most of the company's financial obligations over the next crucial stage of the project. "The funds will be used in the further development of our unique Heat Exchange Within Insulator (HEWI) model which is regarded as the most innovative approach to date to extracting hot rock energy", Kallis said.

"The grant offer reflects the fact our HEWI model has been recognised by the federal government as a new technique that represents a creative departure from existing approaches. The government has also noted that, if proven, the HEWI approach could become best practice and greatly accelerate the uptake of sustainable, large-scale, geothermal electricity generation."

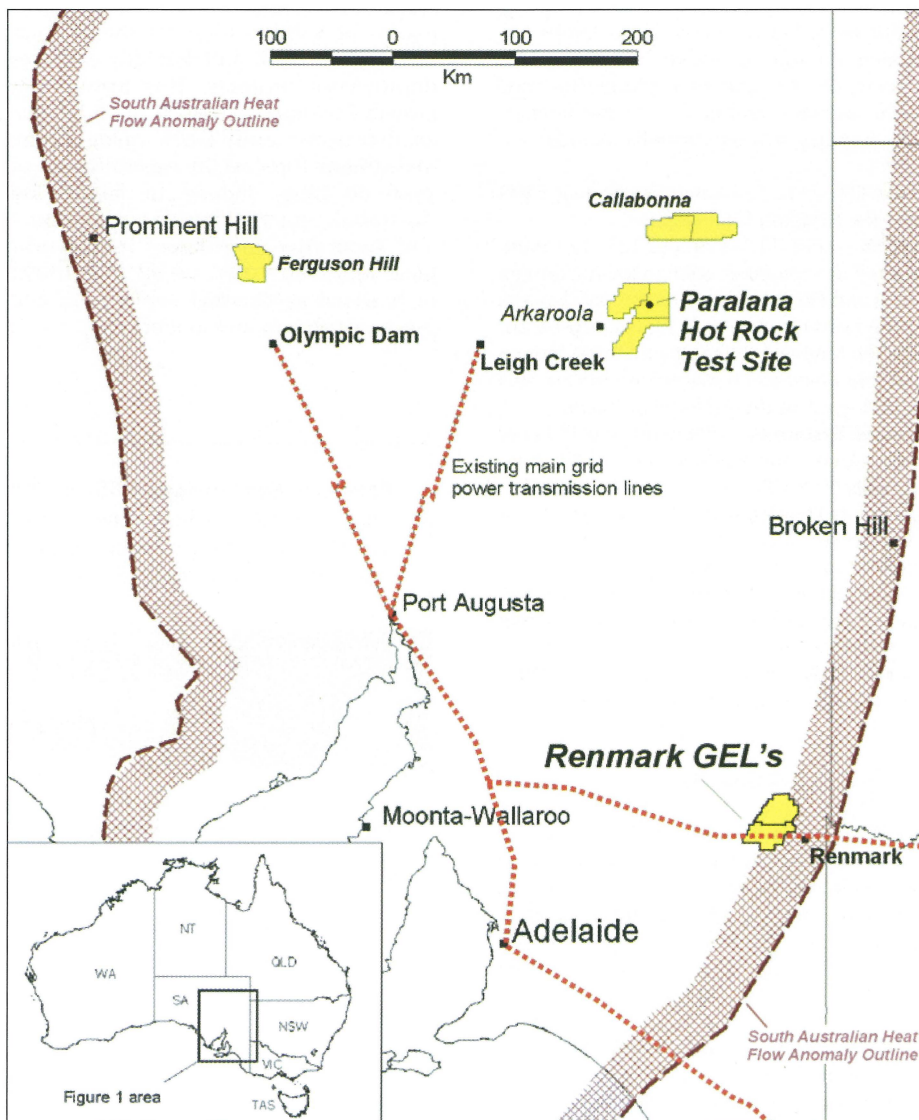
Kallis said the grant offer is the maximum available under the government's Renewable Energy Development Initiative (REDI) and is also the largest allocation announced jointly by Industry Minister, Ian Macfarlane and Environment and Water Resources Minister, Malcolm Turnbull.

“ Geothermal could provide secure and reliable energy for up to 10% of Australia's electricity consumption by 2050.”

Macfarlane said if the HEWI model is validated as a cost-effective option, it could significantly accelerate the building of sustainable, large-scale, geothermal electricity generation capacity in regional and remote areas, both here and overseas. "Australia has vast hot-rock energy resources and this project gives us a new path forward to use this energy source to make a very real contribution to Australia's future electricity requirements", he said.

Turnbull said while existing renewable energy sources in Australia are unable to provide base load electricity, geothermal does have potential base load capability and needs to be commercialised. "This project has the potential to prove the viability of geothermal projects across the country, including a number of geothermal systems planned in South Australia", he said.

"Large-scale geothermal power plants have the potential to substantially reduce Australia's CO₂ emissions. Geothermal could provide secure



Petratherm geothermal exploration license areas and high voltage transmission infrastructure.

and reliable energy for up to 10% of Australia's electricity consumption by 2050."

Paralana aims initially to provide base-load electricity to the local market, the growing needs of the Beverley Uranium Mine, from around 7.5 MW building to 30 MW, and then expanding to around 520 MW and supplying the national electricity market, via two entry points at Port Augusta and Olympic Dam.

Meanwhile, Petratherm has expanded its geothermal project portfolio in South Australia, following the acquisition of two new geothermal exploration licenses (GELs), 26 km northwest of Renmark, in South Australia's Riverland Region. The tenements cover the highly prospective Renmark Trough and are close to two major high voltage transmission lines, capable of carrying in excess of 220 MW of power. ■

HEWI model – How it works

The Heat Exchange Within Insulator (HEWI) process will see an underground heat exchanger (where one well is drilled into the target rock strata, the strata fractured to allow water to pass and heat up as it passes, and return via a second well to surface as super hot water/steam to be used in turbines) established within insulating

or hot sedimentary rock layers at 3-4 km depth but above deeper, harder layers of hot granites at Paralana.

Conventional hot rock energy thinking has such heat exchangers located within the hot granites themselves, generally a deeper and hence, higher risk, higher cost operation.