

Torrens grabs new Port Augusta GEL

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HOT rocks explorer Torrens has expanded its portfolio with a new geothermal exploration licence near Port Augusta, South Australia.

Torrens Energy today announced it had been offered GEL 285 following a consultation process with Primary Industries and Resources SA (PIRSA).

The newly offered GEL expands Torrens Energy's SA landholding to more than 7500 square kilometres, forming a southern extension of the company's Torrens Project Area which already has shown to contain high temperature gradients for geothermal energy.

The new lease encompasses both the Northern and Playford power stations with their associated electricity supply infrastructure.

"The licence acquisition opens up new possibilities for the company to bring forward commercial opportunities for potentially augmenting existing power infrastructure in SA and also driving a seawater desalination plant with geothermal energy," Torrens chief executive Chris Matthews said today.

"This new GEL consolidates our landholding in an area that has already been shown to have excellent geothermal prospects. We now have potential seawater access as well, which bring efficiencies to power production, as well as direct use possibilities. We have also secured tenure over an area of existing electricity supply infrastructure.

"Future energy requirements that will be created by the Olympic Dam mine expansion, located close by and connected by the power grid, underscore the strategic importance of our Torrens Project Area."

Direct geothermal seawater desalination

Torrens claims the acquisition of GEL 285 positions the company for access to seawater from Spencer Gulf at Port Augusta that could be used for direct geothermal desalination.

Studies reviewed by Torrens Energy have shown that it may be possible to use relatively low-temperature geothermal heat to desalinate seawater.

Test work completed overseas indicates that temperatures between 75 and 100oC can be used to flash desalinate seawater to great effect. The company said research projects to develop direct geothermal desalination were already underway in Australia.

Matthews also said there were potential coal-geothermal synergies that could be applied to improve the coal-fired power generation process.

"Such processes may have direct benefits with respect to efficiency, greenhouse gas abatement, and the lifetime of coal deposits," he said.

Technical studies completed overseas have showing that geothermal energy can be harnessed and applied directly to existing fossil-fuel powered power production.

This process has been termed "hybrid geothermal pre-heating", and involves elevating the water temperatures before being injected into the steam turbine process common to coal power generation.

Torrens claimed that studies reviewed by the company have indicated hybrid geothermal pre-heating can deliver significant increases in efficiency, capacity and operational cost reductions.

"Modelling indicates that using geothermal temperatures of around 150°C can have real benefits," Matthews said.

"This temperature is well within the Company's modelled temperature range for the area."