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## 780,000 PJ Inferred Resource Parachilna Project, South Australia

### HIGHLIGHTS

- Geothermal Resource of 780,000 PJ established at Parachilna Project
- World's first compliant 'hot rock' estimate, based on the new Code for Reporting
- Located 150 km north of Port Augusta, and intersected by the Power Grid
- Substantial commercial advantage over projects unsupported by infrastructure
- 1200 km<sup>2</sup> area identified, heat anomaly open to north and south
- Potential for Parachilna to be developed into a substantial geothermal field

Torrens Energy today announced the results of its resource estimation work, completed for drilling results returned earlier this year. This represents the world's first 'hot rock' Inferred Resource estimate to comply with the recently endorsed *Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (2008 Edition)*.

The estimate of 'stored heat' was independently derived using data collected from recently completed drilling by Torrens Energy, at the Parachilna Project in South Australia. An Inferred Resource Statement was completed by independent experts, Hot Dry Rocks Pty Ltd.

### Target Reservoirs

Two geological divisions with potential for 'hot rock' development were identified; Basement, targeting crystalline volcanics or intrusives, and Intra-sedimentary targets (below). Inferred Geothermal Resource estimates (petajoules) for identified reservoirs are summarised below:

Primary Targets	Reservoir	Inferred Resource (PJ)
	Burra Group	66,000 ± 1,000
	Crystalline Basement	150,000 ± 10,000
Secondary Targets	Yerelina/Upalina Subgroups	310,000 ± 40,000
	Umberatana Group	250,000 ± 20,000
	<b>TOTAL</b>	<b>780,000 ± 70,000</b>

The Statement of Inferred Geothermal Resources, detailing the methodology and key assumptions for this resource can be supplied on request, or from the Company's web site [www.torrensenergy.com.au](http://www.torrensenergy.com.au) in the near future.

## Parachilna Project Inferred Resource - Methodology

Torrens Energy has used the 'stored heat' method to infer a Geothermal Resource in each of the target reservoirs identified, that together make up the Parachilna Inferred Geothermal Resource ("Parachilna Resource").

Heat flow values from drilling at Parachilna are very high, with temperatures of over 250°C predicted shallower than 5,000 m within an extensive 'hot spot' (ASX Announcement 15 May 2008). The assessment of stored heat utilised independently verified surface heat flow measurements (below) collected from drill holes earlier this year.

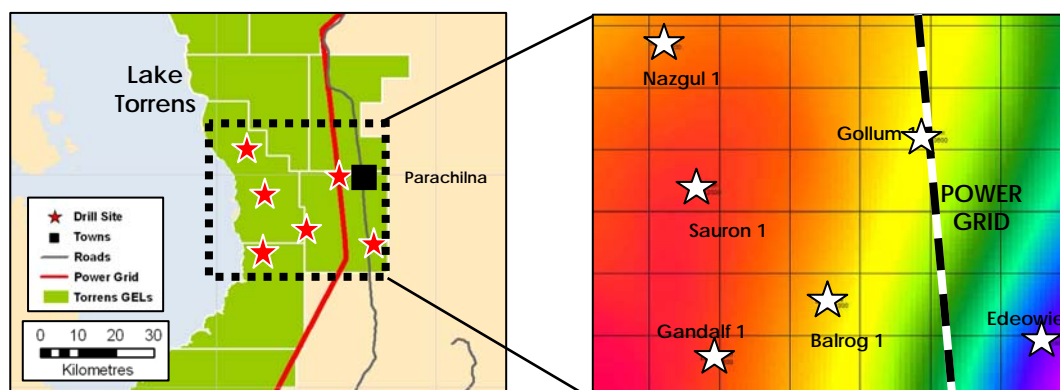
The stored heat method is a technique for estimating the total heat energy contained within a target volume, for which a realistic chance exists for economic extraction. The method requires the estimation of the volume, density, specific heat capacity and temperature of the target reservoir formations, a consideration of the realistic lowest economically extractable temperature ('cut-off temperature') and the amount of thermal energy that might be extracted from the resource fluids (related to the 'rejection temperature'). Principal variables are presented here:

Well	Heat flow (mW/m <sup>2</sup> )*
Sauron 1	120 ± 1
Nazgul 1	120 ± 1
Gandalf 1	116 ± 2 **
Balrog 1	110 ± 2
Gollum 1	106 ± 2
Edeowie 1	74 ± 7

Variable	Value
Av Surface T	25.5 ± 0.5°C
Base of Reservoir	5,000 m
Specific Heat Capacity <sup>+</sup>	750 J kg <sup>-1</sup> K <sup>-1</sup>
Basement A	10 μW/m <sup>3</sup>
Cut off Temperature	150°C
Rejection Temperature	70°C

\*Upgraded from previously reported due to a calibration error. \*\* Beneath 430 m, Gandalf heat flow is 83 ± 1 mW/m<sup>2</sup>.  
+ at surface. Specific heat is temperature-dependent

In order to derive the required information about the target reservoirs, Torrens Energy developed and utilized a three-dimensional temperature field modelling approach (3D-TFM), supported by a Federal Government REDI (Renewable Energy Development Initiative) Grant of \$3M. The 3D-TFM approach incorporates a three dimensional geological model of the Parachilna Geothermal Play with precision heat flow measurements from a number of purpose-drilled boreholes at the surface, and temperature inversion software.



Tenement map (left) & Parachilna Resource estimated temperature variation at 5000 m (right). High temperature zone is open to the north and south, and extends into areas inside the Company's GELs.

## AGL Deep Drilling

The estimation of the Parachilna Inferred Resource represents the first step toward the formation of a development JV with AGL. Under the terms of the recently signed Geothermal Alliance Agreement (ASX Announcement 9 July 2008), AGL can acquire a 50% stake in 'hot spots' identified by Torrens Energy through sole funding the completion of a deep well to target depth.

Projects will be brought to deep drill ready status by Torrens Energy using a combination of intermediary heat flow drilling (1000-2000 m) and geophysics (e.g. seismic) to pinpoint targets for AGL testing to full 'confirmation well' depth (estimated cost \$10m per well).

## Project Pipeline

Torrens Energy plans to test several more key areas in the next 12 months, to establish a 'project pipeline' of multiple inferred resources. The Port Augusta, Adelaide Plains and Port Adelaide Projects will be drilled under the Company's fully funded 2008-9 exploration programme, to estimate Inferred Resources. These inferred resources will be further tested by geophysics and intermediary drilling, before being offered to AGL for deep confirmation well testing.

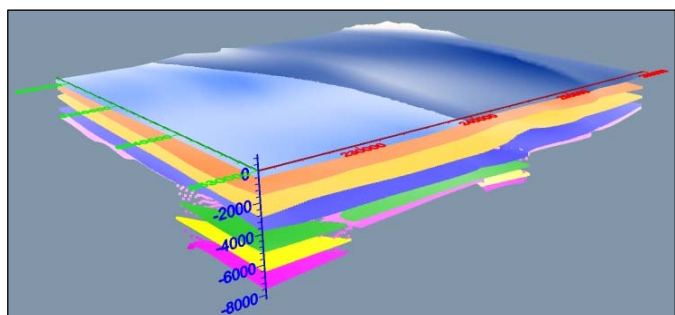
Once reservoir temperature and properties have been tested by the AGL confirmation well, Torrens Energy will establish a JV with AGL at each resource area to develop the project through to commercial power production.

## Large Resource Area, Power Infrastructure Support

The Parachilna Inferred Resource stretches across a large area of over 1200 km<sup>2</sup>, and has the potential to host a large producing geothermal field in the future. It is also intersected by the National Power Grid, and therefore has a substantial commercial advantage to projects located 'off-grid', such as those in the Cooper Basin, where massive capital expenditure is required to bring energy produced to market.

Torrens CEO Chris Matthews remarked:

"If we apply the same estimates for power production per square kilometre as other Australian geothermal companies, we end up with large figures for potential electricity production. Whilst we acknowledge that only a small proportion of the 780,000 PJ Inferred Resource might be ultimately contained in the extractable reserve for electricity generation in the future, the Parachilna Inferred Resource does demonstrate the enormous potential that hot rock geothermal carries".



3D Geological Model of the Parachilna Inferred Resource Area. The layers represent the top surfaces of the insulating cover sequences.

## SUMMARY

CEO Chris Matthews is excited about the Company's prospects and commented:

"Torrens Energy's planned exploration programmes will continue to push the frontiers and delineate new areas for geothermal resources to be established, right under the wires in South Australia. We are operating in a State where there are significant pressures on both the electricity supply and demand sides, as well as the crucial need for emissions free baseload power. With our projects advancing so quickly and our programmes fully funded, we are on track to identify quality 'hot spots' for deep testing."

He added:

"For now, and most importantly from a competitive point of view, the location of the Parachilna Resource and the other areas targeted, being located in the heart of existing power infrastructure, provide a real advantage over other geothermal plays in Australia. We have used innovation and clear thinking to gain prime geothermal real estate, and now are leading the sector in defining resources right where they will be most economic."

For more information, please contact:

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The information in this report relating to exploration results is reported in accordance with the Australian Geothermal Energy Group, Geothermal Code Committee "Draft Code for Geothermal Resources and Reserves Reporting", Version 2.0 (February 2008). The information is based on information compiled by Chris Matthews, who is a Competent Person as defined by the Draft Code. Chris Matthews is a full time employee of the Company and has more than 5 years experience in the reporting of resource exploration and geothermal. Chris Matthews has consented to the inclusion in this report of the numbers based on the information in the form and context in which it appears.