ASX ANNOUNCEMENT
14 APRIL, 2009

High Modelled Geothermal Temperatures Below Davenport Substation, Port Augusta

HIGHLIGHTS

- **High heat flow values returned from drilling at Davenport Substation, Port Augusta**
- **Excellent modelled temperature of 200°C at 4300m depth**
- **Ideal electricity connection point for Northern Transmission Network**
- **Connection cost for early stage development ~$10m**
- **Drilling supported by REDI ($3m) matched funding**

Watson Drilling casing operations at Port Augusta, with 275kV transmission line in background.

SUMMARY

Torrens Energy announces significant results from heat flow drilling completed in February 2009, at its wholly owned Port Augusta Project, South Australia.

Final heat flows calculated from diamond drill hole Theoden 2 recorded **101mW/m²**. This result is well above the Company's target of 90mW/m².

Modelled temperature estimates from this hole are approximately **200°C at 4300m** depth, well within the range required for geothermal power production, and above geothermal production temperatures being deployed overseas.

In addition Theoden 2 is located just **400 metres from the Davenport Substation**, the distribution node for the nearby Port Augusta Power Stations - an ideal connection point to access the National Grid. An independent study concluded that the connection cost to the National Power Grid may be as little as **$10m.**

Ongoing exploration activity is supported by a matching $3m Federal Government grant under the Federal Government REDI programme (ASX Announcement 27 August 2007).

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DRILLING 2009

Results were recorded from a diamond drill hole completed by Watson Drilling Pty Ltd, in February 2009. A combination of rotary mud and diamond core drilling was undertaken at Theoden 2 for a total depth of 372m, to enable temperature measurements to be taken from intervals where rock core was obtained.

MEASURED HEAT FLOW

Torrens Energy Vehicle mounted temperature logging equipment.

At Theoden 2 continuous temperature logging was conducted at 2m intervals using the Company's vehicle mounted thermistor probe and motorised cable winch.

Resistance was measured downhole and then converted to temperature using a standard calibration. Temperature recordings were taken from holes that had been allowed to equilibrate for five weeks after drilling.

Thermal gradient and thermal conductivity data was then used to derive heat flow values from cored sections of each hole, summarised as follows:

Hole	Northing	Easting	Depth	GEL	mW/m^2
Theoden 2	6396816	764480E	372m	285	101 ± 4.1

Coordinates are in the GDA 94 Datum, UTM (Zone 53) projection.
GEL = Geothermal Exploration Licence number.

The final equilibrated value from Theoden 2, located just 400 metres from the Davenport Substation, is significantly high and above the Company's stated target of $90mWm^2$.

Transmission towers with Torrens Energy drilling to left, background.

TEMPERATURE MODELLING

"Conductive heat flow modelling" or "temperature modelling" is an industry-standard method for estimating temperature at undrilled depths, using measurements made in shallow boreholes.

The method is based on thermodynamic principals that dictate that thermal energy, measured as conductive heat flow, remains relatively constant and predictable with depth.

In Australian examples where wells have been drilled to geothermal target depths, temperature modelling has been found to reliably predict average temperature gradient to within 5% of the actual value.

Conductive temperature modelling assumes however, that there is no significant disturbance of the thermal gradient in the shallow boreholes. Such a disturbance of the thermal gradient is known as advection, and can be caused by the active flow of ground water due to, for example an hydraulic head on an unconfined aquifer, or an elevated heat source lying beneath vertically permeable units.

In the areas under exploration for "hot rock" in South Australia, advective heat flow is the exception, and at Port Augusta it has not been observed to date.

The Company's principal consultant, Hot Dry Rock Pty Ltd (HDRPL), having reviewed the results collected for drill holes reported here, concluded that there is no evidence for advective heat flow in the Port Augusta drilling.

The drilling at Theoden 2 has produced sufficient core samples to adequately characterise the thermal conductivity of the well. In combination with measured precision temperature logs, these data have allowed reliable estimates of heat flow (101mW/m^2) for the location.

Port Augusta power station (above) with Theoden 2 drill site in right foreground.

Once the heat flow is established, the depth at the target temperature (200°C) can be predicted by building up a "thermal conductivity profile" to the target temperature.

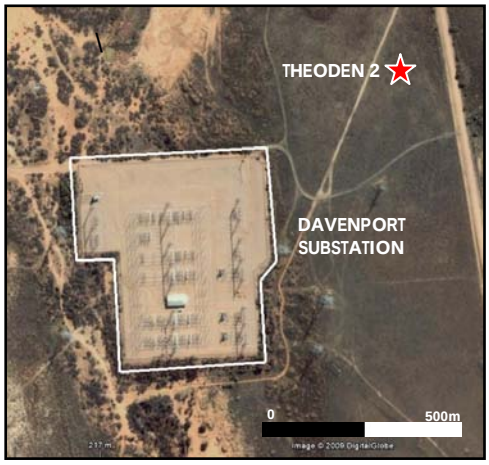
At the Port Augusta Project, core samples representing all of the deeper geological units have been sourced and measured. The sub-surface geology for the Port Augusta area was inferred from regional geological mapping conducted by the South Australian Government Department of Primary Industries and Resources. Thermal conductivities for 9 interpreted geological formations are based on direct measurement from core samples.

There are inherent uncertainties related to sampling bias and measurement error for the thermal conductivity data described above, which can be carried into the temperature prediction. These uncertainties can only be completely eliminated through deep confirmation drilling to the target, but for the purposes of predicting temperature, they can be incorporated into the predictive models to constrain the probable range of temperature variation at depth.

HDRPL, having independently reviewed the results conclude:

"We are confident that the heat flow measured in Torrens Energy's holes, combined with the thermal conductivity data from deeper units, is a sufficient basis upon which to predict that temperatures at Port Augusta will range around 200°C at 4100–4500m".

INDUSTRY COMPARISON



Google Image of the Davenport Substation and Theoden 2 drill site.

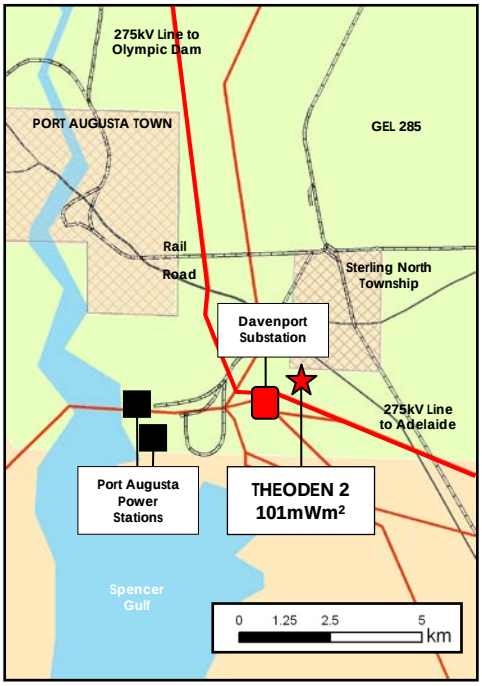
The result at Theoden 2 is highly significant, in that modelled temperatures compare favourably with other Australian geothermal plays. In addition target temperatures being reported for 'Hot Rock' geothermal projects in Europe are summarised here:

	Soultz (France)	Landau (Germany)	Basel (Switz.)	**Theoden 2 Modelled T**
Depth	5000m	3300m	5000m	**4300m**
Temp	175°C	160°C	200°C	**200°C**

"Geothermal Energy in the Rhine Valley", June 2008.
http://www.energy-base.org/fileadmin/media/regioner/docs...

Like conventional power generation, cooling is necessary for geothermal power conversion efficiency. In this respect the coastal location of the Port Augusta Project adds a significant competitive advantage, with the potential for a water cooled power plant to be established. The benefits of "wet versus "dry" (air) cooling include increased thermal efficiency, lower capital cost, reduced parasitic power demand and increased peak output.

GRID CONNECTION – DAVENPORT SUBSTATION



Plan of the Northern Transmission Network converging at the Davenport Substation.

The South Australian transmission system consists of a 275kV *"bulk transmission network"* between major load centres, and a 132kV *"low capacity peripheral"* network which connects regional centres and generators to the bulk network (left). Local supply networks are then stepped down to 33kV sections.

The Davenport Substation (left) connects the Northern Transmission Network at Port Augusta, to the Northern and Playford coal fired power stations. This central node has been the focus for the Company's geothermal exploration efforts in early 2009, and represents an ideal point to feed into the National Electricity Market (NEM).

An independent study completed by transmission experts John Thomson Inclusive Pty Ltd (JTIPL) concluded that network access for geothermal power production can be made via the Davenport Substation.

The projected customer demand growth within the Upper North Transmission Network is around 3.0%, and current upgrades are underway to the Substation that will result in transmission capacity to accommodate about 100MWe of new generation in the near future.

In addition there are substantial mining developments including the Olympic Dam expansion, which will require deeper network reinforcements and allow additional spare capacity in the future.

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The study completed by JTIPL confirms that connection via the 33kV network can be completed for approximately $10m for the first 50MWe of geothermal power production, and an additional $22m for up to 200MWe production.

Executive Director John Canaris commented:

"Port Augusta has been one of South Australia's most important power generation centres since the large coal-fired power stations were first commissioned in the 1950's. The power stations use water drawn from Spencer Gulf, and low-grade coal from the Leigh Creek coalfield to the north, to supply around 20% of the State's electricity."

"The discovery of high heat flow at Port Augusta represents an exciting new development in Torrens Energy's heat mapping programme; The predicted temperatures are well above those currently being exploited overseas, which when combined with commercial benefits created by seawater cooling and market access, make for a leading Australian geothermal play."

He added:

"It's clear that the next challenge faced by the rapidly advancing geothermal industry in Australia will be to cross the nexus from *"proof-of-concept"* to commercial development. Torrens Energy believes that the commercial drivers at locations like the Port Augusta will have far reaching benefits in this respect".

Follow-up exploration and drilling is planned at the Port Augusta Project for 2009.

For further information please contact:

John Canaris
Executive Director
Torrens Energy Limited

The information in this report that relates to geothermal exploration results has been compiled by Chris Matthews. Mr Chris Matthews, a full time employee of the Company, has sufficient experience in the style of geothermal play under consideration to qualify as a Competent Person under the Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (2008 Edition). Chris Matthews has consented in writing to the public release of this report in the form and context in which it appears.