

# GEO THERMAL ENERGY

Review of the Australian Geothermal Index<sup>TM</sup>  
& update on the Australian Geothermal Industry

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5<sup>th</sup> June 2009



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# Agenda

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- Declared Geothermal Reserves
- Australian Geothermal Index™
- Geothermal Market Capitalisation
- Southern Gold (ASX:SAU)
- Additional Information
- Additional Resources

# Introduction

- Australian continent hosts large geothermal energy reserves
- Supportive regulatory environment - state & federal
- Abundant industry expertise due to petroleum industry
- Relatively inexpensive entry costs
- Mix of conventional (HSA) and engineered (EGS) systems
- Large potential power-generation capacity
- Prospect of remote or 'direct use' power generation

# Australian Geothermal Reserves

Recently, Resource Minister Martin Ferguson told Reuters:

“ Geothermal energy which is sometimes known as hot rocks has got a huge potential for Australia, both as a solution to climate change and in terms of national energy security.”

In another recent report, according to Geoscience Australia’s Anthony Budd,

“One percent of geothermal reserves could produce 26,000 years of energy supplies.”

## 1.9 x 10<sup>25</sup> Joules

The amount of energy contained in the upper 5km of Australia’s crust according to Geoscience Australia.

- Geothermal prospectivity validated by previous hydrocarbon exploration activity across Australia
- Reporting of resources needs to be compliant with the:
- Australian Code for Reporting Exploration Results, Geothermal Resources and Geothermal Reserves - 2008 edition.

# Declared Geothermal Reserves

There are approximately 50 geothermal exploration licence holders across Australia that have collectively committed to spending in excess of \$1 billion on geothermal exploration and development.

Only 7 companies have declared geothermal resources since the launch of the Geothermal Code in August 2008.

## Australian Geothermal Resources

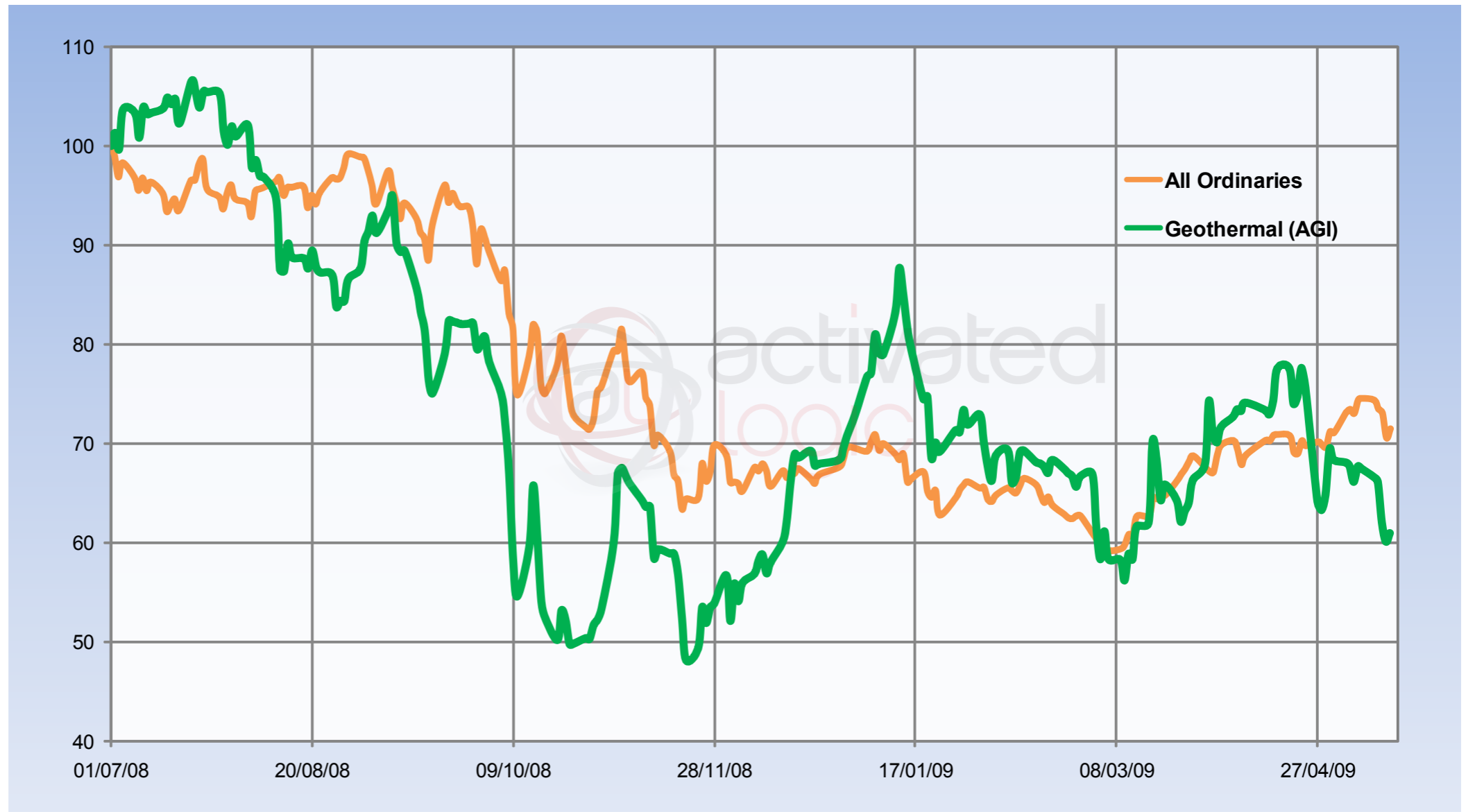
ASX Code	Company	Project	Geothermal Resource* (PJ)	Category*
GDY	Geodynamics Ltd	Innamincka & Hunter Valley	244,680	various
GER	Greenearth Energy Ltd	Geelong & Gippsland	263,600	inferred
GRK	Green Rock Energy	Olympic Dam Region	120,000	inferred
PAX	Panax Geothermal Ltd	Limestone Coast	332,000	various
PTR	Petratherm Ltd	Paralana	230,000	inferred
TEY	Torrens Energy	Parachilna	780,000	inferred
SAU	Southern Gold Ltd	Roxby Geothermal Project	260,000	inferred
HRL	Hot Rock Ltd	Penola Trough	Undisclosed	various

**APPROX 2.25 million PJ's delineated by these seven companies in nine months!**

\* Resource Figures are Indicative Only. More information about Geothermal Resource categories can be obtained from:  
[http://www.pir.sa.gov.au/geothermal/ageg/geothermal\\_reporting\\_code](http://www.pir.sa.gov.au/geothermal/ageg/geothermal_reporting_code)

# Australian Geothermal Index™

Very  
Volatile  
> 50% swings



More info at:  
[www.geothermalindex.org/agi.html](http://www.geothermalindex.org/agi.html)

# Geothermal Market Capitalisation

Very volatile.  
Geodynamics  
~ 70% of industry  
capitalisation



More info at:  
[www.geothermalindex.org/agi.html](http://www.geothermalindex.org/agi.html)



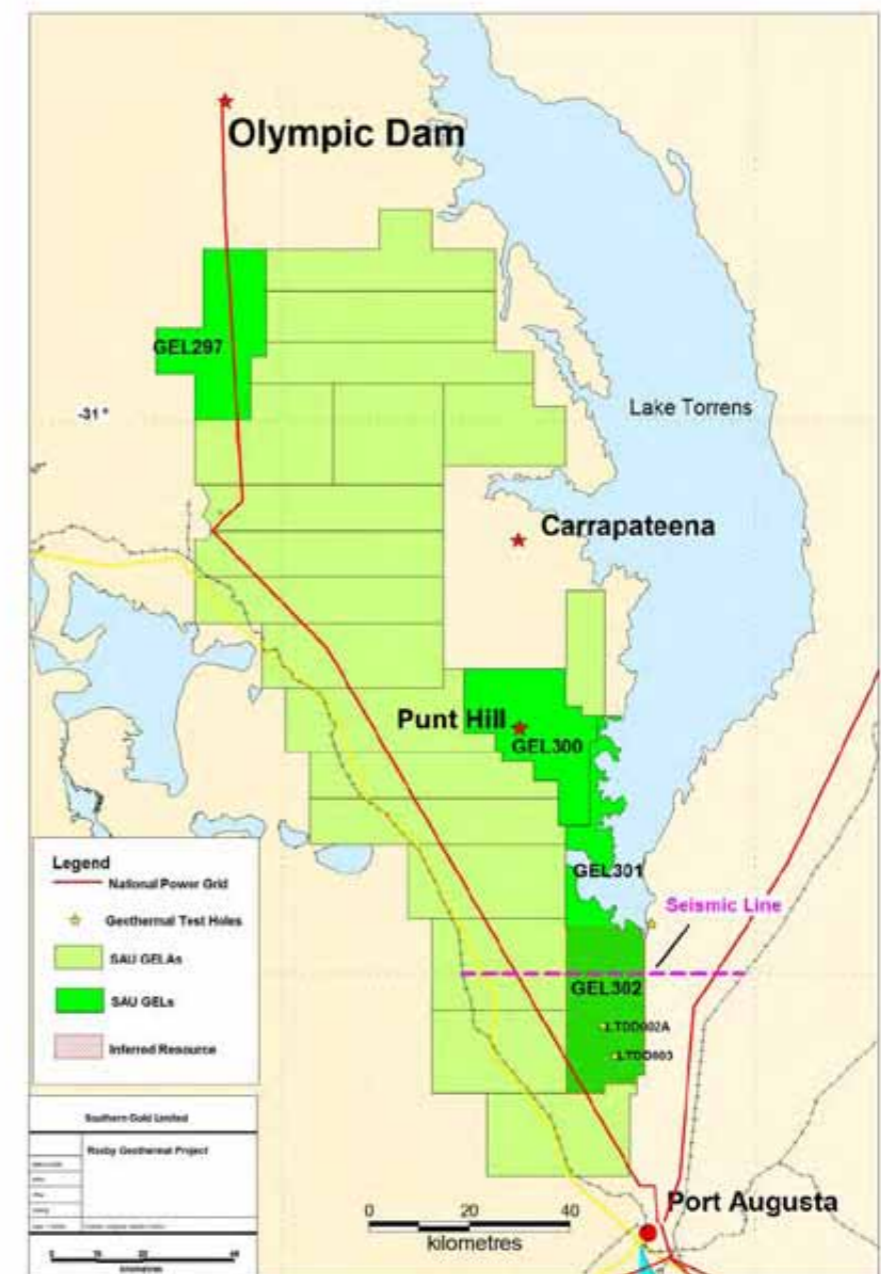
# Southern Gold (ASX: SAU)

- high heat flows established from two separate wells
- large tenement holding covering 10,000km<sup>2</sup> in SA
- initial geothermal resource estimate of 260,000PJ inferred resource released in June 2009 for GEL 302, an area covering only 5% of Southern Gold's geothermal exploration tenure
- close proximity to 275Kv powerlines and NEM
- pre-existing wells and recent seismic testing by Geoscience Australia facilitate fast-tracking

More info at:

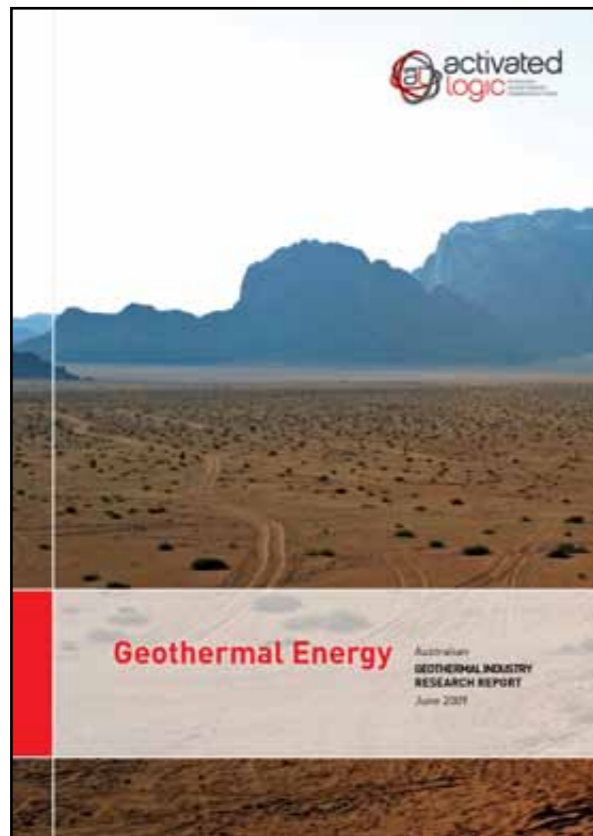
- [www.activatedlogic.com/GEOResearch.pdf](http://www.activatedlogic.com/GEOResearch.pdf)
- [www.southerngold.com.au](http://www.southerngold.com.au)

Roxby Geothermal Project Map



# Additional Information

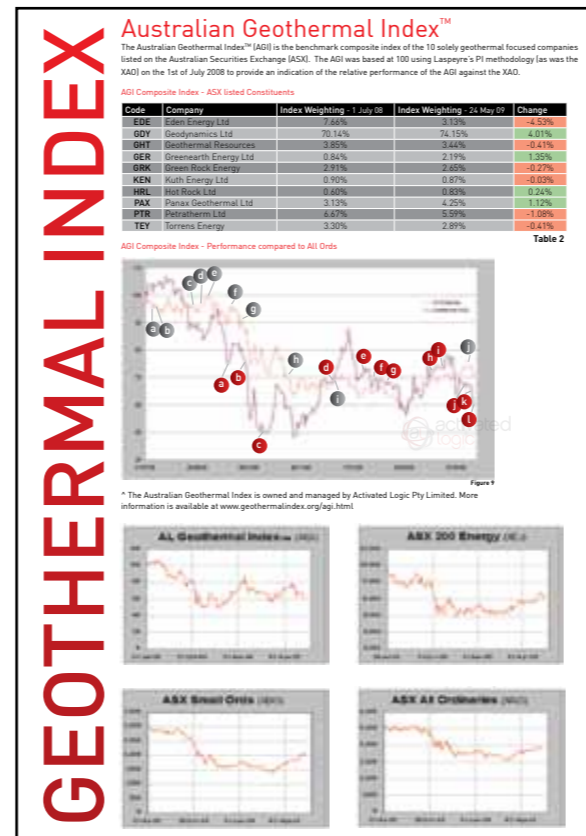
## STRATEGY



Geothermal Industry  
Research Report - June 2009

[www.activatedlogic.com/GEOResearch.pdf](http://www.activatedlogic.com/GEOResearch.pdf)

## INVESTMENTS



Detailed information on the  
Australian Geothermal Index™

[www.geothermalindex.org/agi.html](http://www.geothermalindex.org/agi.html)

## COMMUNICATIONS

**Media Release**

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**Key-stats**  
In excess of 2,000,000PJ of geothermal energy resources have been identified by 7 companies in Australia since August 2008. The recently discovered geothermal resources are potentially sufficient to provide the equivalent of all of Australia's residential energy requirements for a thousand years. The listed component of Australian geothermal sector is currently valued at approximately \$450 million, down from \$650 million a year ago. Australian Geothermal Index at 61pts, down 39% since the 1<sup>st</sup> of July 2008.

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Geothermal Industry  
Media Release - 4 June 2009

[www.activatedlogic.com/GEOMedia.pdf](http://www.activatedlogic.com/GEOMedia.pdf)

# Additional Resources

## STRATEGY



Create and maintain a strategic fit between the goals, resources and capabilities of your organisation. Adapt to rapidly changing marketing opportunities in the expected future business environment, to maximise your organisational effectiveness.

STRATEGY

## INVESTMENTS



Attract external investment in your organisation, capitalise on investment opportunities, reduce risks regarding funding uncertainty, lower your organisation's cost of doing business, provide leverage in commercial negotiations and maximise value realisation opportunities.

INVESTMENTS

## COMMUNICATIONS



Professional corporate communication allows your organisation to more effectively manage the perceptions and expectations of your stakeholders, assists in raising capital from shareholders, improves relations with industry partners and builds your corporate brand.

COMMUNICATIONS

Thank you.

Discover more about the  
**Australian Geothermal Index™**  
and the Australian Geothermal Industry at...

**[www.geothermalindex.org](http://www.geothermalindex.org)**