



Petratherm Ltd (ASX:PTR) - UPDATE

Speculative Buy

Pre-feasibility results from Spain and drilling deep in Australia

\$0.88

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Capital Summary

Issued Capital	57.7 m ordinary 12.56 m options
Market Capitalisation (dil.)	\$58.3m
Share Price (16/05/08)	\$0.88
52 week low	\$0.60
52 week high	\$1.61

Cash (31/03/2008) \$5.4 m

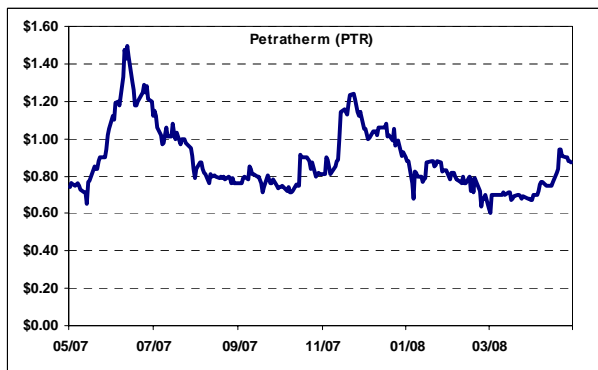
Directors

Mr Derek Carter	Chairman
Mr Terry Kallis	Managing Director
Mr Lloyd Taylor	Non-Exec Director
Mr Richard Hillis	Non-Exec Director
Mr Richard Bonython	Non-Exec Director
Mr Simon O'Loughlin	Non-Exec Director
Mr Donald Stephens	Company Secretary

Major Shareholder

Minotaur Exploration Ltd 33.9%

Share Price Graph (A\$)



Summary

The geothermal sector is rapidly being populated with many new entrants entering the market. Presently there are 33 companies that have applied for 283 geothermal permits around the country.

By developing a business model that focuses on both long and short term deliverables we feel that Petratherm is well positioned to positively differentiate themselves within the geothermal sector.

The release of the Madrid Pre Feasibility study indicating favourable economic project parameters is a positive step forward for Petratherm to develop a revenue stream in the short term. This would make them one of the first geothermal players to do so.

Key Points

- Petratherm has a portfolio of 11 geothermal energy projects in Australia and Spain, and soon in China
- The projects are both Engineered Geothermal Systems (EGS) and also Conventional geothermal projects. Products include both electricity and direct-use heat.
- The results of a Pre-feasibility study on the Madrid Geothermal District Heating (GDH) Project has been released indicating favourable project economics.
- Design is underway of a deep well at Paralana, South Australia, to be drilled in 2H08. The company has reported that Paralana has the highest heat flow measured on mainland Australia and an expected temperature of 200°C at a shallow depth of 3,600 metres.
- An agreement with Swiss consulting firm Geothermal Explorers, specialist EGS Consultants, to assist with the development of the Paralana project has been put in place.
- Petratherm has been granted two new licences in Tenerife, Canary Islands, for conventional geothermal projects.
- The advancement of the European projects strengthens the first mover advantage that Petratherm has in Spain and the potentially lucrative European geothermal market.
- A A\$5m Commonwealth Government REDI grant has awarded to Petratherm for its Paralana project
- Beach Petroleum have an up to A\$30m JV for the Paralana Project
- The State Government of South Australia recently granted \$100,000 in funding under the PACE Program towards the development of the Paralana Project.
- Petratherm has an exclusive Agreement with four Chinese government institutions to identify and evaluate EGS projects across China

Projects

Australia

The Paralana Project is located approximately 600kms to the northeast of Adelaide and approximately 300kms northeast of the electricity transmission grid at Port Augusta and 280 kms east of Olympic Dam. Since floating in 2004 the company has progressed their flagship project from conceptual studies to drill testing.

Key points associated with the Paralana Project to date are:

- A thermal resource at shallow depth – estimated at 200°C at 3.6 kilometres, based on results from drilling completed to 1807m.
- Highest recorded heat flow on mainland Australia at 128 mW/m² - 10% higher than the best recording in the Cooper Basin and typically 30% higher than other areas within the SA heat flow anomaly.
- The Company has stated the Paralana thermal resource has an estimated theoretical resource potential of 13,000 MWe which is approximately eight times South Australia's average daily capacity need.
- A stable geological formation with anticipated good drilling conditions at depth.
- Close proximity to a customer, Heathgate Resources – Beverley Uranium Mine, that currently pays 'off-grid' prices. Petratherm has an MOU to supply power to the Heathgate's Beverley mine and new nearby developments
- A joint venture with a leading oil and gas explorer and producer, Beach Petroleum Limited, for up to \$30 million in which Beach will take the lead role in the drilling operations required to create the underground heat exchanger.
- Petratherm has been granted a \$5 million Renewable Energy Development Initiative (REDI) Grant from the Federal Government to assist in the creation of the Heat Exchanger Within Insulator (HEWI) Exploration Model, the companies unique development concept.
- A major reflective seismic survey and magneto-telluric study have been completed and will be used to understand the basin architecture, to characterize the reservoir and to locate the deep wells.
- Petratherm has secured, on an exclusive basis, specialist Swiss-based EGS consultants – Geothermal Explorers, to assist the development of the HEWI model
- The project development path includes the establishment of a supplying electricity on a small scale (i.e. 7.5MW) to the nearby Beverly local market (up to 30MW) and into the National Electricity Market (NEM) (between 260 and 520MW).

The next steps in the development of the Paralana Project include:

- Drilling of the first deep well (up to 4 kilometres) in 2H08
- Application for Federal Government "Drilling Fund" support for the two deep well program – 2H08
- Drilling of second deep well – 3 to 6 months after the first well
- Application for Federal Government "Renewable Energy Fund" – for a 30 MW demonstration plant – in 2009
- Long term circulation test in mid-2009
- Production of first power to Beverley Uranium Mine – early/mid 2010.

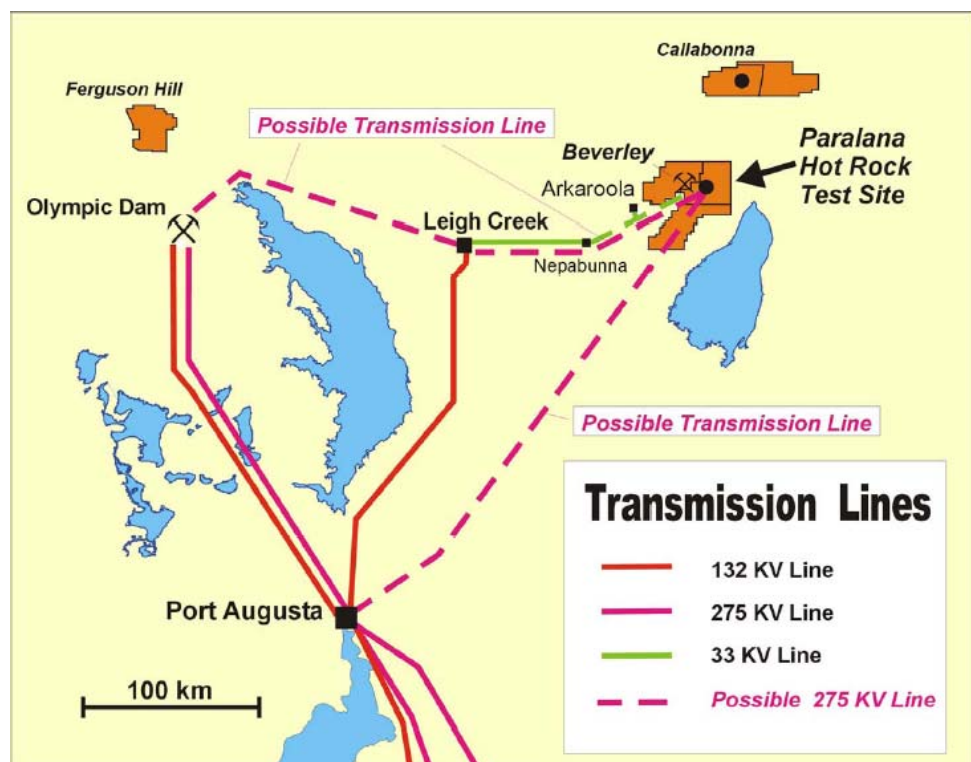
As the Paralana Project moves beyond supplying the Beverly Uranium Mine (and nearby expansion developments) the options available to access the National Electricity Market (NEM) will be investigated fully. At present the options are to access the NEM at Port Augusta and/or Olympic Dam.

Petratherm's two basic network solutions include:

- A double circuit 275kV transmission line from Paralana to Port Augusta capable of delivering 520MW into the NEM at Port Augusta. ("Radial network solution").
- A single circuit 275kV transmission line from Paralana to Port Augusta and a single circuit 275kV transmission line from Paralana to Olympic Dam, each capable of delivering 260MW to those entry points. ("Meshed network solution").

The meshed network solution would create a network in the north of the State and provide a backbone of electricity infrastructure for the remote community, but in particular the State's growing resources sector.

A meshed approach has the potential to provide offset capex options due to the broader community benefits and hence could be covered under the Australian National Electricity Rules (NER).



Network Connection options from the Paralana Project. (Source Petratherm)

Spain

Petratherm's move into Spain is a significant advancement of the company's business plan. The company has secured strategic 'first mover' advantage with seven projects, including projects near the large electricity consumption markets of Madrid and Barcelona.

The Madrid project has potential for both conventional style geothermal plays to provide district heating and EGS developments. The Madrid license area has five wells drilled to depths of between 1.5 to 3.4 kilometres – providing critical temperature, hot water flow rate and geological data.

A Pre-Feasibility Study of the Madrid Geothermal District Heating (GDH) Project has indicated that the development of the project is economically viable under current market conditions. The PFS undertaken by GPC IP, French expert consultants, utilised temperature, depth and flow information from four existing deep wells across Petratherm’s 330km² geothermal exploration license (GEL).

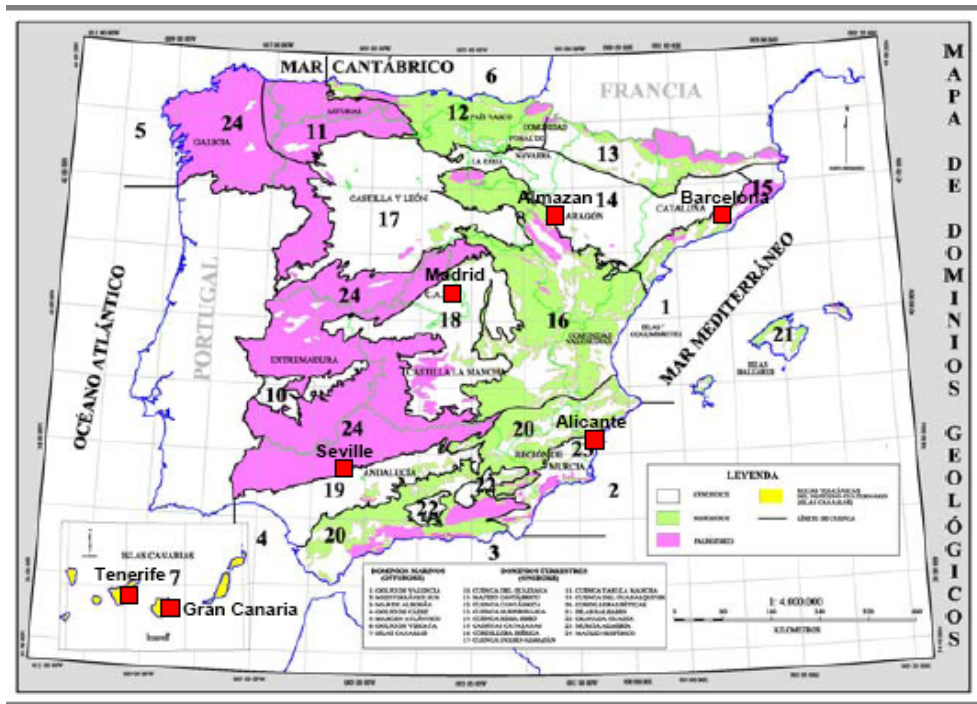
The Madrid GDH project exhibits similar temperatures and flows at similar depths to those of the Paris basin where district heating has been operating for over 20 years and around 260 MW of thermal capacity is installed in 34 doublets.

Based on the PFS results first construction could commence by November 2009, with geothermal heat production and project revenues flowing by July 2010.

The examination of the GDH Project concluded that 8 MW of thermal capacity could be extracted from a doublet system (assuming two wells to be drilled) and delivered to nearby building complexes with attractive project returns, even under a set of conservative technical and commercial assumptions – that exclude potential available subsidies.

Modelling of the production possible from a well doublet with 8 MW thermal capacity shoed that annual production of around 45,000 MWh (thermal) is possible. This would be enough energy to support the heating needs of a town with around 4,000 households.

Based on the PFS results the Geo-Madrid GDH project can move forward to front end engineering and design (FEED), targeting a final investment decision within the next six months.



Location of Petratherm’s European projects (source Petratherm)

From its Spanish base Petratherm has ventured into the Canary Islands. The Tenerife project is a conventional geothermal project designed to exploit high temperatures at shallow depths. The project is also within close proximity to existing power line infrastructure.

China

Petratherm has an exclusive cooperative agreement to identify high prospect geothermal energy projects in China with four Chinese Government Institutions.

The four institutions include:

- Chinese Geothermal Energy Society
- Geological Survey of China
- Chinese Academy of Sciences
- China Institute of Geo-Environment Monitoring

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