

ASX Release

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PETRATHERM LIMITED
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EcoGen 2010 Conference

Later this morning, Petratherm's Managing Director, Terry Kallis, will present to the EcoGen 2010 Conference.

The conference is being held at the Sydney Convention & Exhibition Centre and the topic of the presentation is "Geothermal Energy – the cheapest new base load solution".

The presentation is attached.

Yours faithfully

Terry Kallis
Managing Director

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ECOGEN2010

Sydney Convention & Exhibition Centre

Geothermal Energy

“The cheapest new base load solution”

Paralana Geothermal Energy JV Project

Terry Kallis, Managing Director

September 2010

CLEAN ENERGY FOR FUTURE GENERATIONS

Disclaimer and competent persons statement

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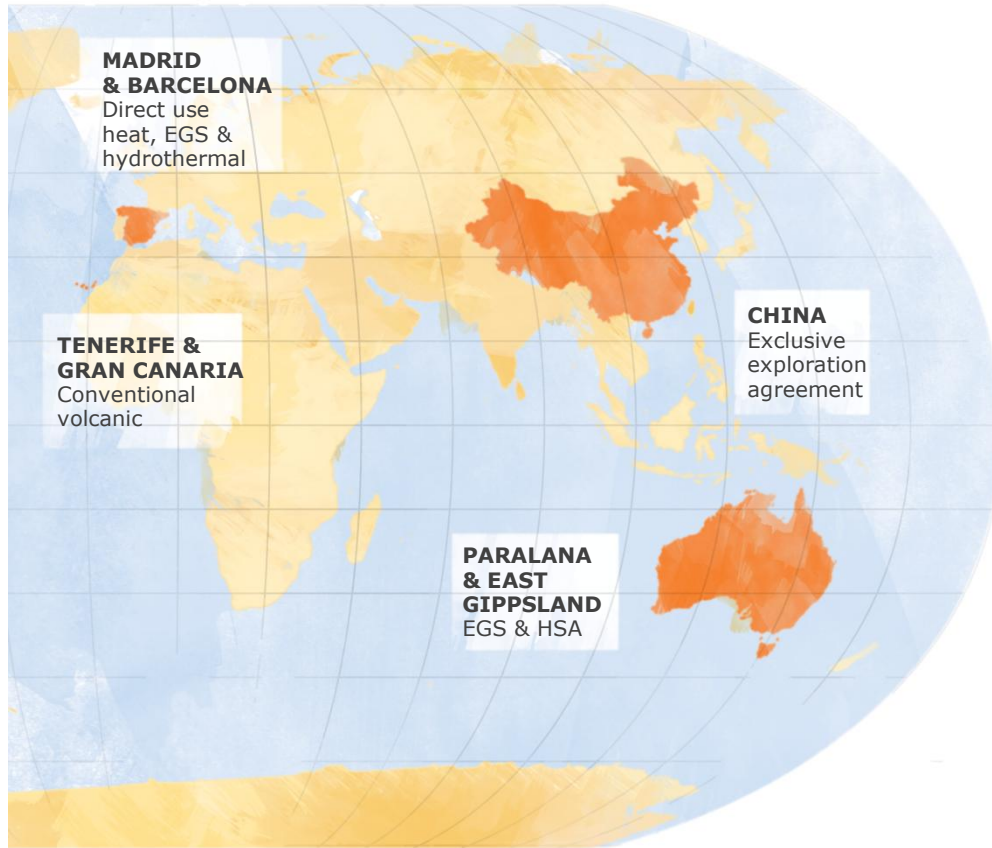
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All amounts in Australian dollars (AUD) unless stated otherwise.

Competent Persons Statement

The information in this report relating to geothermal exploration results and geothermal resources is based on information compiled by P.W. Reid, a full-time Petratherm employee. Mr Reid 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). Mr Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Petratherm overview



Our company

- > Leading Australian geothermal exploration and development company
- > Projects spanning Australia, Spain and China
- > Projects across the spectrum of geothermal technology
- > Flagship project – Paralana in SA's northern Flinders Ranges

Petratherm - Corporate and financial

Listed ASX:PTR

- > Shares on Issue: 111.7 m
- > Share Price: \$ 0.18
- > Market Cap: \$ 20.11 m
- > Cash Position: \$ 2.67 m (30 June 2010)
- > Shareholders: 3,655 shareholders
 - > Minotaur Exploration 18.4 %
 - > Australian Ethical Investments 5.1 %

Paralana JV Funding and Grants

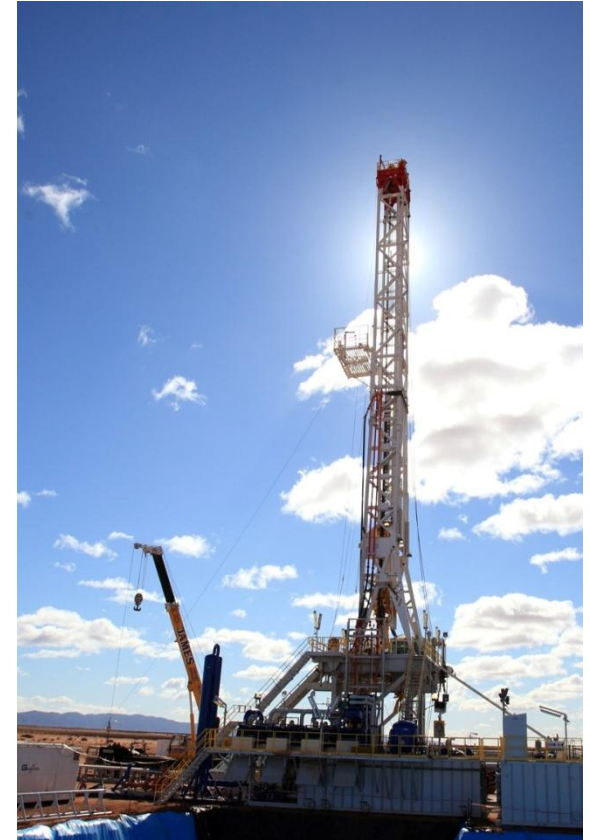
- > JV Funding: up to \$87 million plus equity share of project costs – staged investment
- > Government grants of \$69.8 million toward drilling and commercial demonstration



Sound business model

"To explore for and develop emission free geothermal energy projects that are commercially sustainable"

- > To develop a portfolio of quality geothermal energy projects
- > Explore both conventional and engineered geothermal systems – for power and heat
- > Find a favorable combination of geology and market conditions - *"shallow hot rocks close to market"*
- > Introduce joint venture partners with the right skills, risk appetite and funding ability



Highly capable array of joint venture partners

> Beach Energy

- > Top four Australian ASX listed oil and gas company located in Adelaide and with interests in Australia, Europe and Africa



> TRUenergy Geothermal

- > Wholly owned subsidiary of CLP group – listed on the Hong Kong stock exchange – and the largest utility in the Asia Pacific region



> Enel Green Power

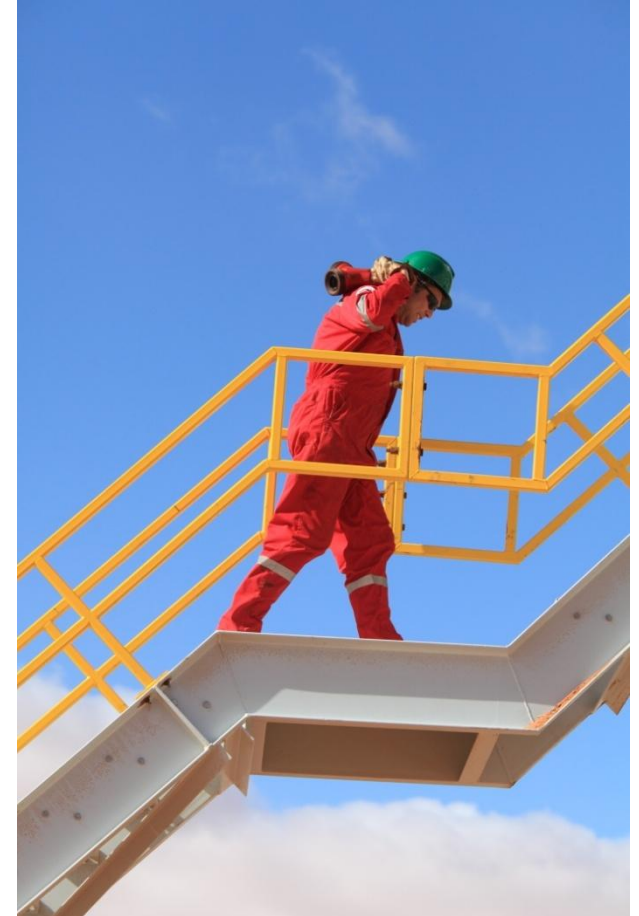
- > Wholly owned subsidiary of Enel Group – second largest listed utility in Europe and a world leader in geothermal power production



Paralana 2 well drilling – key success factors

Key success factors for the Paralana 2 well are:

- > Equal/better industry safety & environment benchmarks ✓
- > Target a minimum drill depth of 3600m ✓ and maximum drill depth of 4000m ✓
- > Achieve a minimum temperature of 170°C at 4000m, exceeded with a temperature of 191°C ✓
- > Formation evaluation and selection of zones for stimulation – permeability/in situ stress field - *observed inflows to well commencing at 3690m (to be assessed in fracture stimulation program during Sept 2010)*



Fracture stimulation programme – next stage of work

> **Injectivity test at base of well bore**

- > Inject small volume of water to confirm fracture initiation and propagation
- > Small volume, minimal induced seismic risk

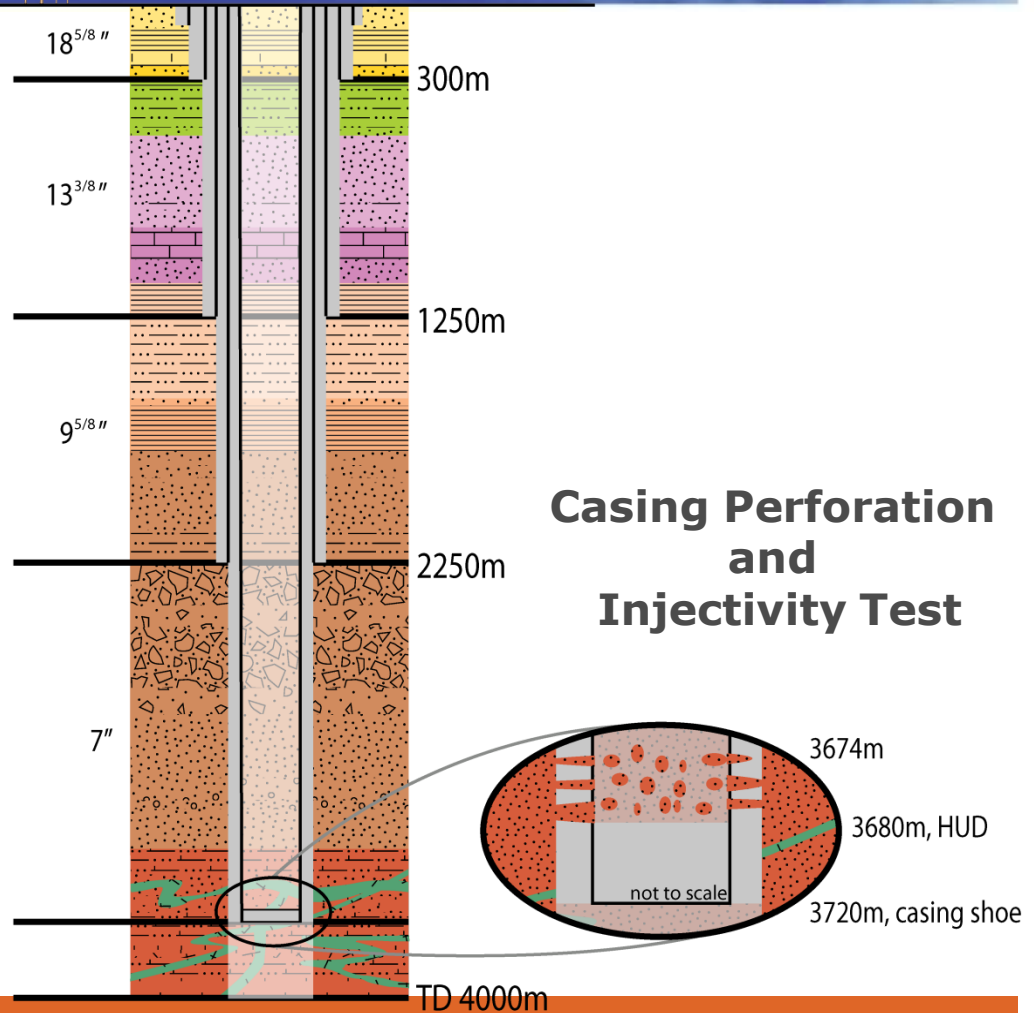
> **Fracture stimulation**

- > Inject larger volume of water at higher rates
- > Volumes and rates dependent on micro-seismic response
- > Aim to activate natural fracture network

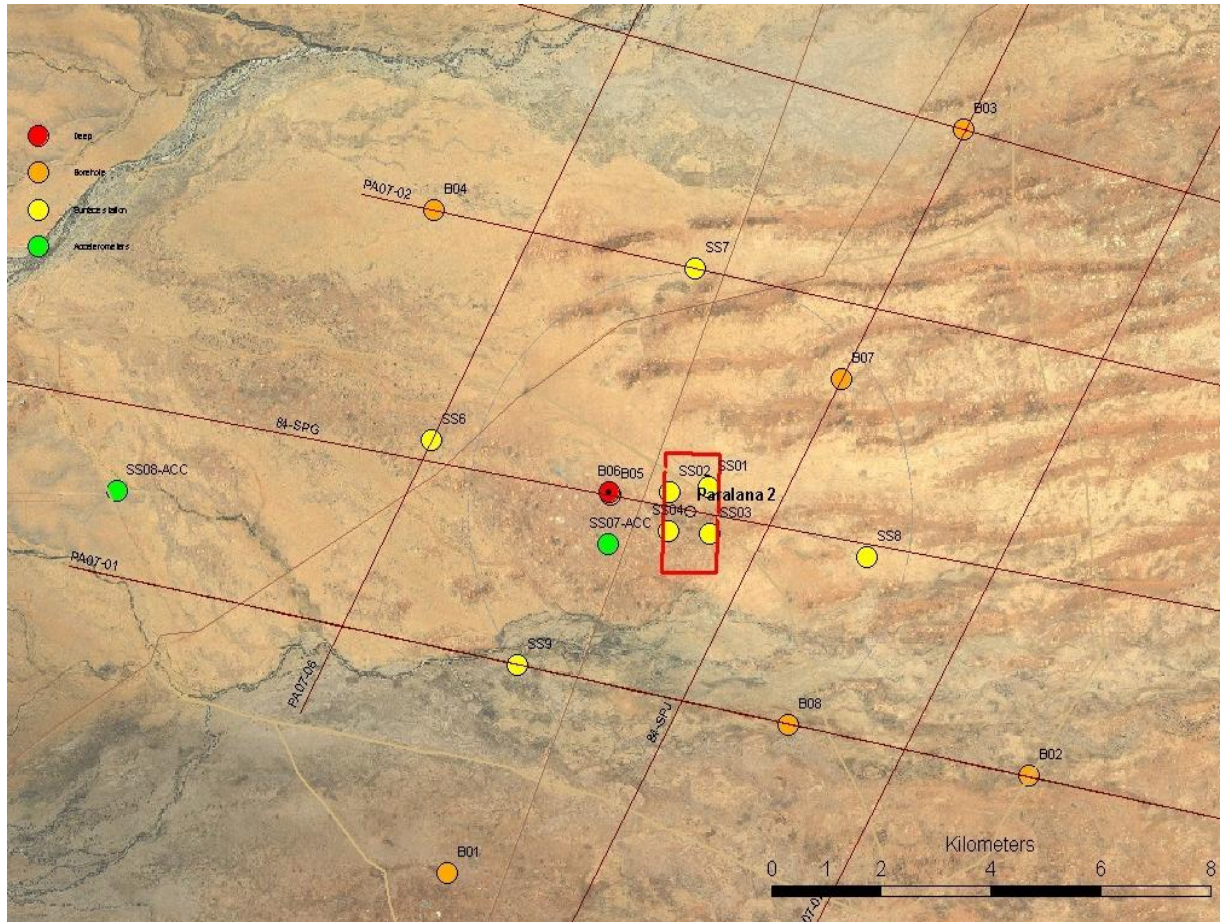
Paralana 2 well summary



- > Depth 4012m
- > Well cased and cemented to 3725m
- > Extrapolated bottom hole temperature ~ 190°C
- > High pressure geothermal brines intersected from 3690m
- > Zircon dating confirms old 1590Ma Reservoir Sequence
- > Contains numerous fractures and faults
- > 2D Seismic suggests fractured reservoir sequence may be regionally extensive



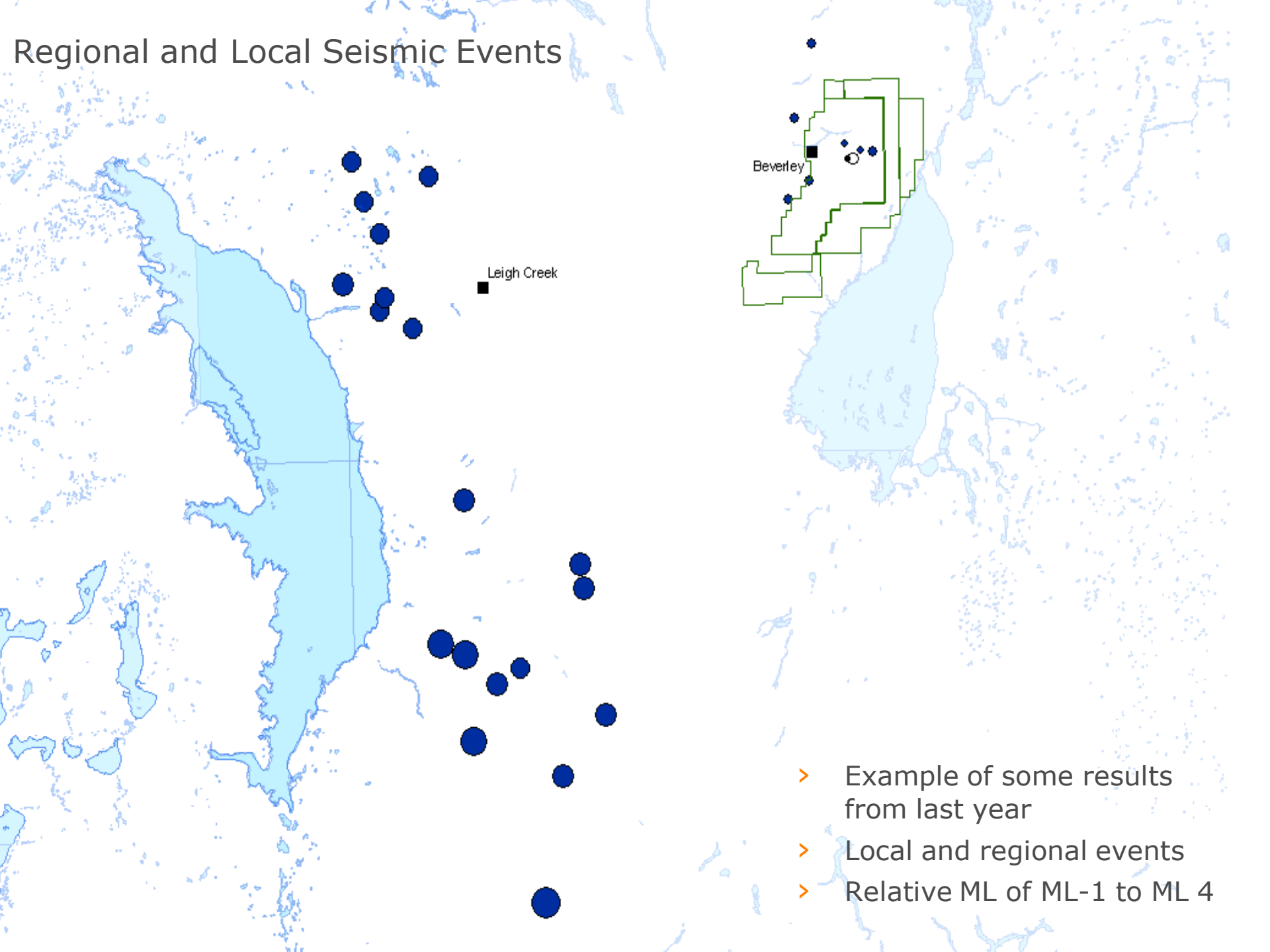
Passive seismic array



- > IESE (Institute of Earth Science and Engineering NZ)
- > one deep borehole sonde at 1790m in Paralana 1b
- > six borehole sondes at 200m
- > eight surface seismometers
- > two accelerometers

MEQ - Array Managed by IESE

Regional and Local Seismic Events



- > Example of some results from last year
- > Local and regional events
- > Relative ML of ML-1 to ML 4

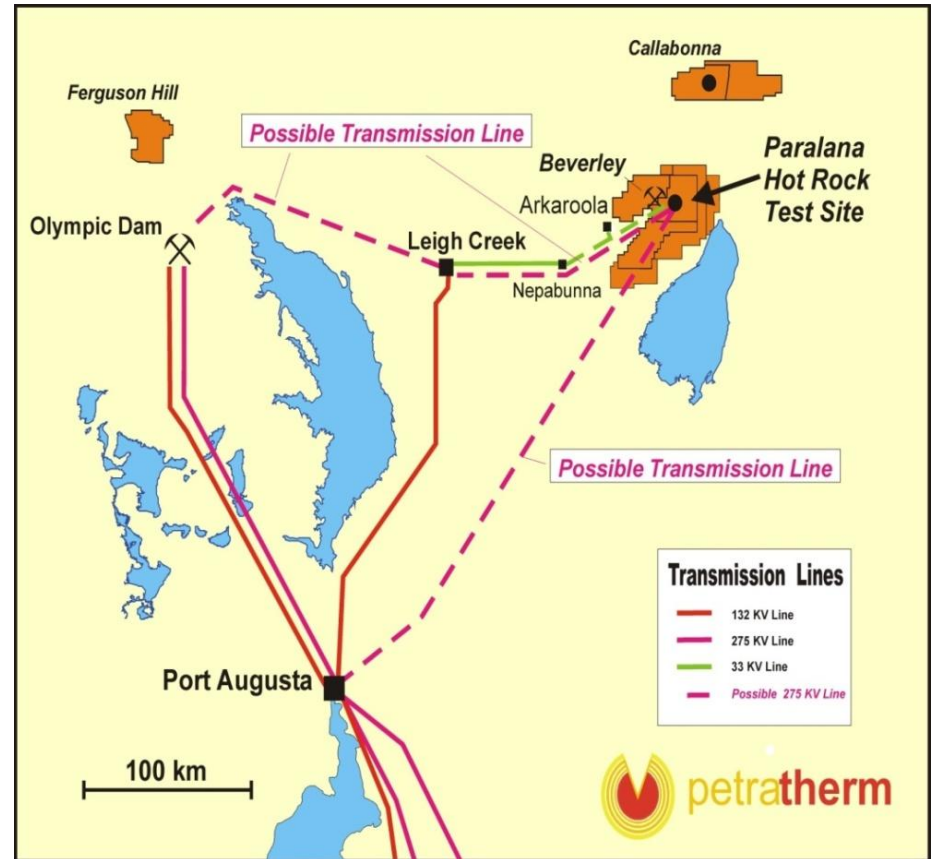
Regional community consultation – May 10-13, 2010

- > Petratherm and PIRSA
- > Port Augusta, Leigh Creek, Hawker, Nepabunna, Arkaroola and Quorn
- > Update on project and outline of next work stage – fracture stimulation
- > Consultation well received by community
- > Common questions
 - > Employment and economic development opportunities
 - > Access to, and use of water
- > Questions and Answers posted on PTR website



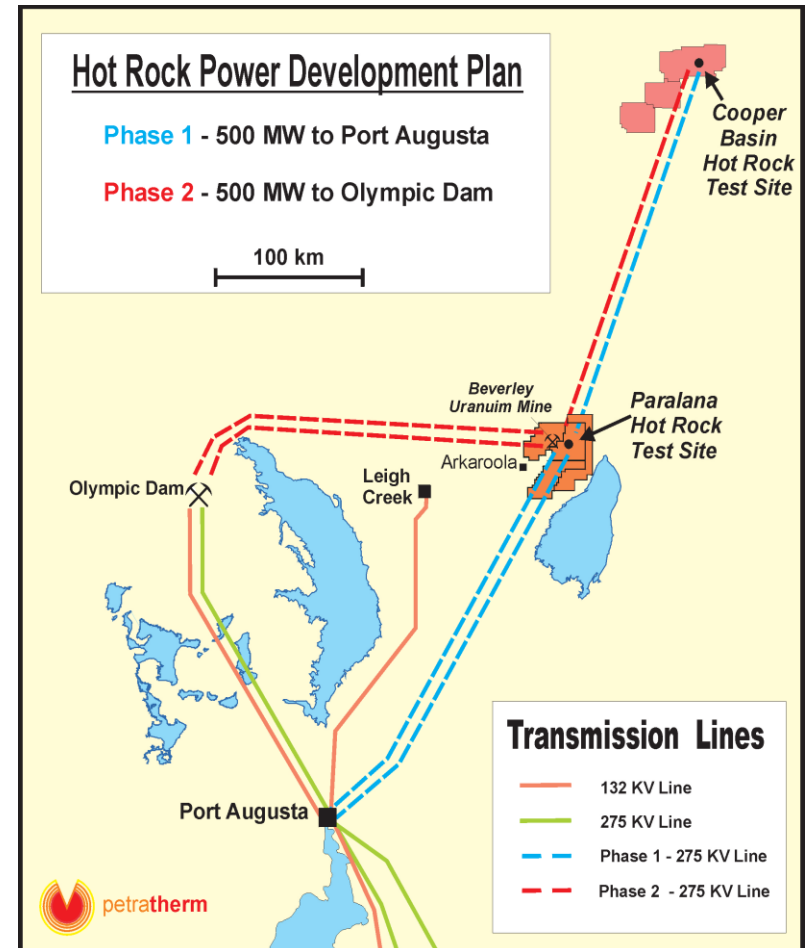
Paralana Project – commercial overview

- > Potentially commercially viable at all stages of development
- > Close (10kms) off grid local customer (5-30MWe) followed by large on grid development (260 MWe+)
- > Transmission rule changes to support low cost connection to market
- > Long term price to NEM of 260 MW lower cost than with wind – including transmission cost
- > MMA estimate power price at less than \$100/MWh delivered to Olympic Dam

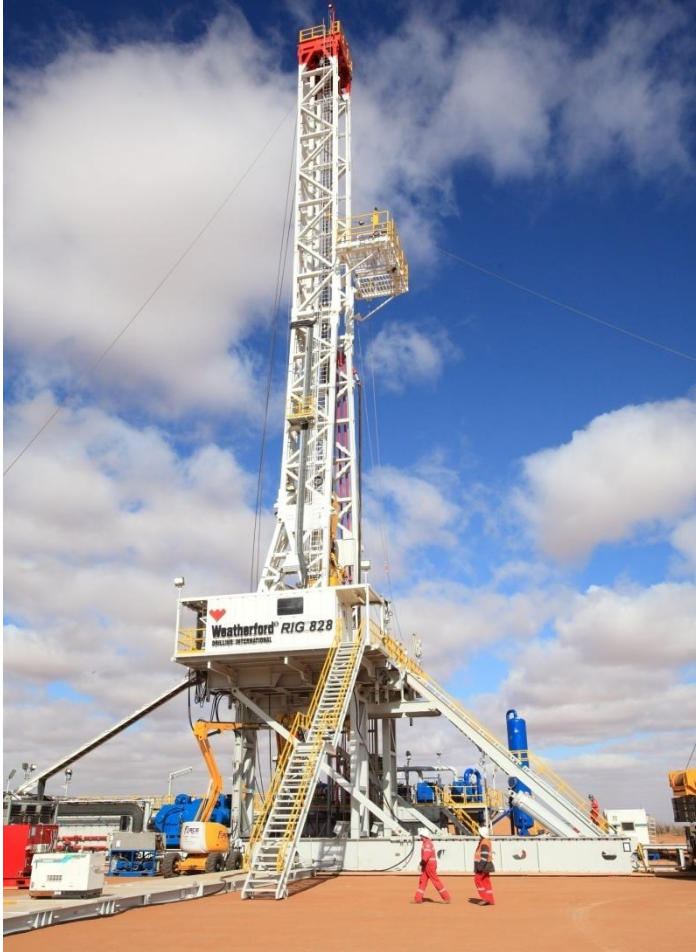


Industry transmission plan – northern SA

- > 2009 independent report by McLennan Magasanik & Associates (MMA) shows savings in linking geothermal projects in the northern part of South Australia early to the National Electricity Market (NEM)
- > MMA estimates benefits of \$860 million for South Australian customers and \$2.8 billion for customers across the Australian market
- > Geothermal energy to displace higher cost forms of renewable energy
- > Potentially the first 'SENE' – *scale efficient network extension* - efficient connection of clusters of generation proposed by AEMC



Outlook for 2010 and beyond



Paralana JV project milestones

- > 3rd Qtr 2010: Mini fracture program/fracture stimulation design
- > 4th Qtr 2010: Multi-zone fracture stimulation
- > 1st half 011: drilling of the Paralana 3 deep producer well
- > 2nd half 2011: Circulation Test – Proof of Concept
- > 2011/12: Commission first stage 3.75 MW power plant

BE PART OF
PETRATHERM'S
BLUE SKY
FUTURE

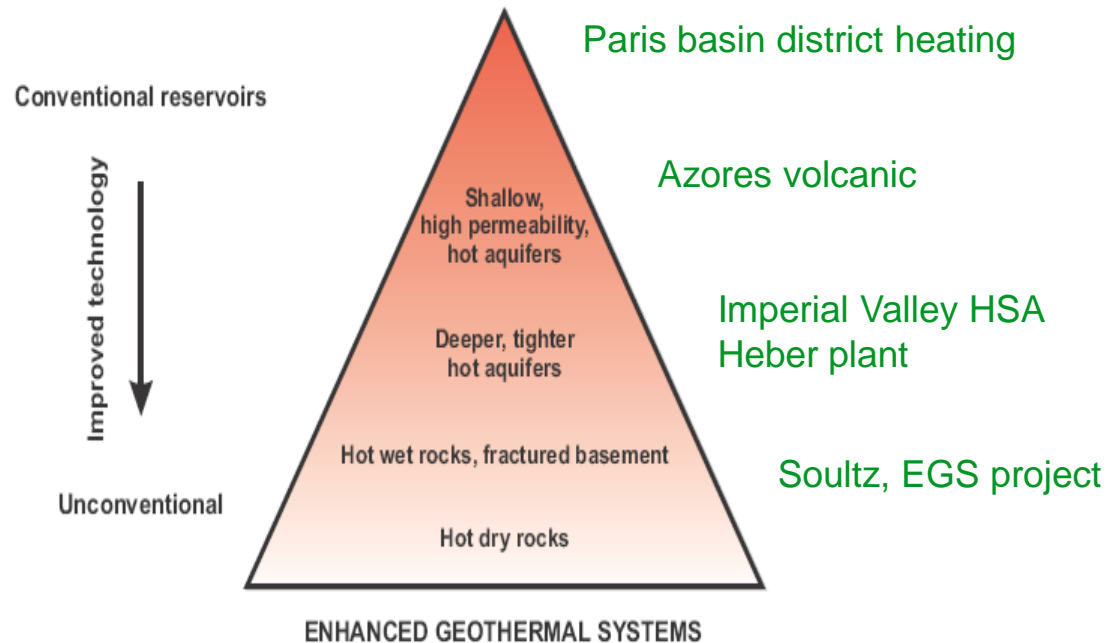
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Diverse portfolio of quality geothermal projects

Key Project Parameters

- > Temperature
- > Drilling depth
- > Flow rate
- > Network connection
- > Generation plant type
- > Market/Customer
- > **Optimization of parameters** to achieve commercial return against competitive alternatives in target market (heat or power)

Operating Project Examples



Each project has specific project parameters that when optimized enable viable operation