

14 October 2010

ASX Code: PTR

ABN 17 106 806 884

Level 1, 129 Greenhill Road
Unley SA 5061

T: +61 8 8274 5000

F: +61 8 8272 8141

W: www.petratherm.com.au/

E: admin@petratherm.com.au



PETRATHERM LIMITED
ABN 17 106 806 884

Spain Update – Tenerife Project

Highly prospective geothermal target identified on Tenerife

Petratherm España in conjunction with its 50% exploration partner Enel Green Power (refer later section) has finalized the selection of a highly prospective geothermal target on the active volcanic island of Tenerife. Petratherm España is now undergoing the drilling approval process in preparation for a planned geothermal test well scheduled for the 2nd quarter of 2011.

The Tenerife Regional Government has expressed support for the drilling program and potential future exploitation of geothermal energy, following a recent presentation by Petratherm España and Enel Green Power.

Several tenders to undertake the contract drilling works have been received and negotiations are underway to secure a drilling contractor.

The Tenerife conventional volcanic geothermal energy project

Tenerife provides a major opportunity to build a conventional geothermal project. The island has a permanent population in excess of one million that can increase to 1.5 million during peak tourist season - placing a large demand on peak power generation, in excess of 800 MW. The island also has substantial transmission infrastructure close to Petratherm España's exploration licenses.

Importantly, the island's current primary source of power generation is based on imported diesel resulting in very high priced electricity (above AUD \$140/MWh and potentially as high as \$240/MWh) with a significant carbon signature. The Tenerife project is aimed at displacing and/or avoiding the island's reliance on imported fuel sources while concurrently reducing the island's carbon footprint.

The potential for a high temperature hydrothermal source in excess of 240°C coupled with high electricity prices makes the Tenerife project commercially attractive.

Conventional volcanic based geothermal projects are commercially established in many parts of the world accounting for more than 10,000 MW of installed power generation capacity – more than three times the peak demand of the state of South Australia.

Rationale for Tenerife Geothermal Drill Target

The drill target was identified from the large regional magneto-telluric study carried out across Tenerife in late 2009 (refer Figures 1 & 2). Conventional geothermal systems typically produce a hydrothermal clay alteration cap over the top of the upwelling fluid/steam zone. The clay cap is highly conductive and usually easily identifiable using magneto-telluric measurements which record conductivity changes in the sub-surface.

The regional magneto-telluric study identified a large conductive zone beneath the volcano typical of the response recorded by a hydrothermal alteration clay cap. The conductive zone is large relative to other known hydrothermal clay caps systems and may record several hydrothermal alteration events.

The central conductive zone has been largely obliterated possibly by the same process that led to the formation of the central caldera, interpreted to have been caused by explosive volcanic eruptions, gravitational slumping or collapse of the volcanic caldera approximately 200,000 years ago. The chemistry of fumaroles on the summit of the current volcanic cone suggests a liquid hydrothermal system exists.

The only historical well drilled to some depth, Tenerife 1 drilled into the top 65 metres of the conductive zone on the western flank of the volcano in the early 1990's. The geological log recorded clay alteration indicative of a hydrothermal cell and a high temperature gradient of 100 degrees per kilometre through basal conductive zone. These observations are consistent with conductive zone representing an active hydrothermal cell.

The magneto-telluric study indicates the interpreted hydrothermal system close to sea level (refer Figure 2), which may account for why the active fumarole activity is only seen in the central cone area (top of upwelling zone) and not on the flanks of the volcano as the out flow zones may be occurring below sea level off the coast.

The preferred target site (Figure 2) is based on identifying an upward doming portion of the interpreted clay cap (a potential hydrothermal upwelling zone) and at a location where the depth to base of the conductive zone is shallowest. The planned slim-hole well aims to drill into the interpreted hydrothermal system beneath the clay alteration cap. Modelling indicates the final well depth will be at least 1500m and may be extended as deep as 2 km.

The slim-hole well is designed to allow testing of temperature, pressure, flow and brine chemistry to characterise the potential geothermal energy resource. If the well is successful, Enel Green Power under the terms of the memorandum of understanding agreement with Petrathem, has the option to fully fund the first production grade well in exchange for 50% equity in the project.

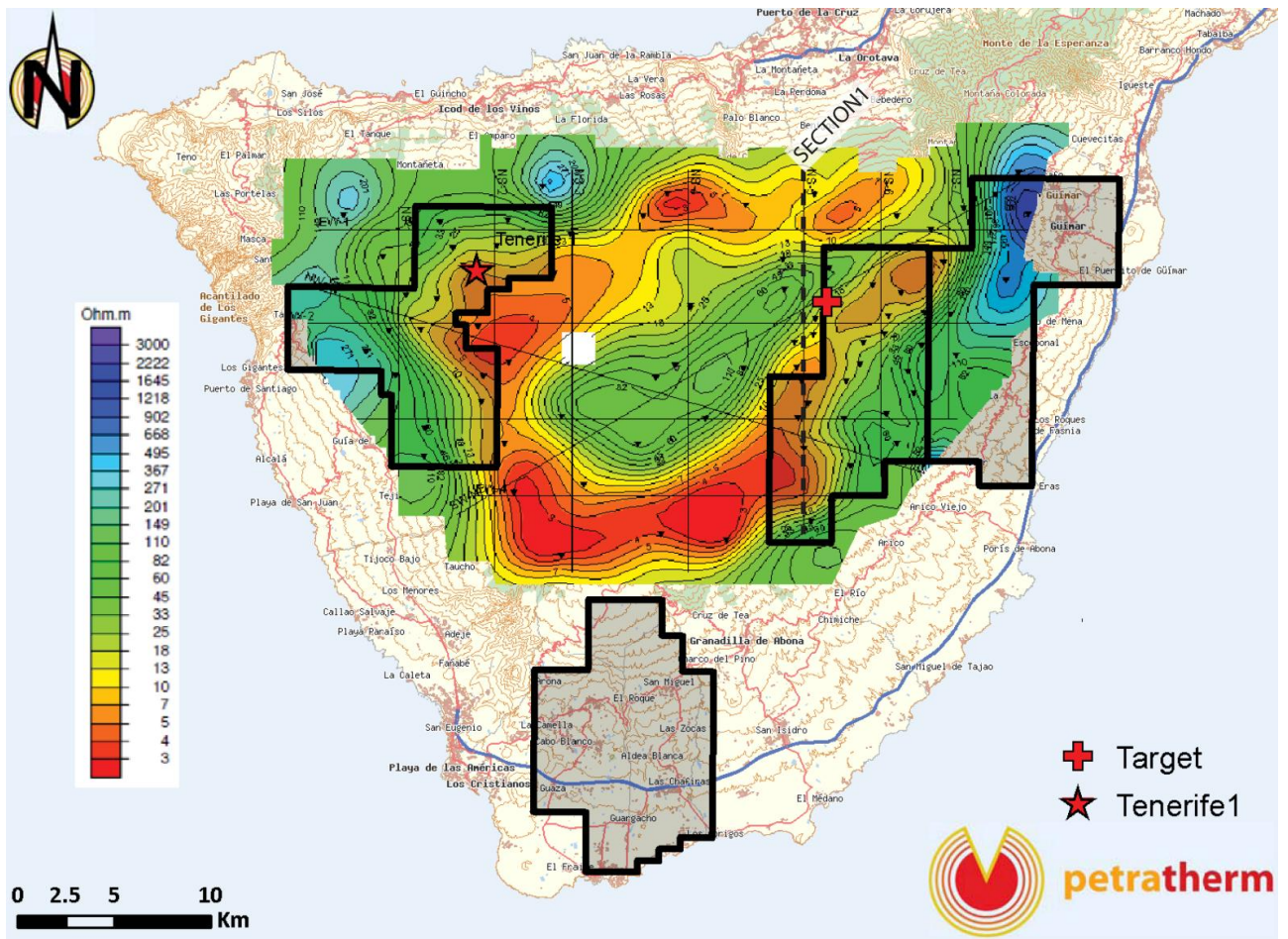


Figure 1: Petratherm tenements and magneto-telluric image showing resistivity contours at 500m above sea level.

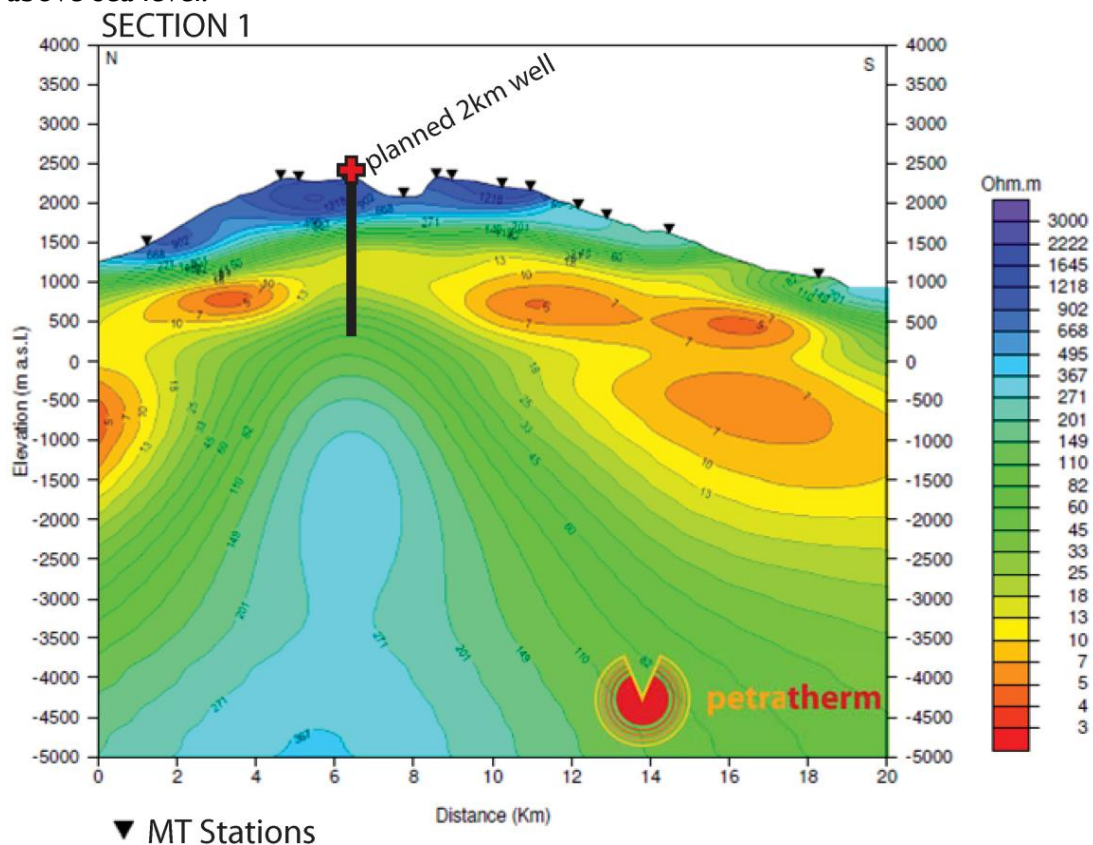


Figure 2: Section 1: North-South resistivity cross-section, showing projection of a planned 2km slim-hole well

About Petratherm España and Enel Green Power

Petratherm Limited owns a 93% share of Petratherm España and the balance of 7% is held by Prehenita, a Spanish specialist geological consulting firm.

Enel Green Power (EGP) is a wholly owned subsidiary of the Enel Group which is the second largest listed electricity utility in Europe and is a world leader in geothermal power production.

EGP has over 4,500 MW of renewable energy power generation operating around the world including over 700 MW of conventional geothermal power.

The MoU between Petratherm España and EGP covers all electricity producing projects in Spain and includes the islands of Tenerife and Gran Canaria, and projects near Madrid and Barcelona.

The Enel Group owns Endesa, the incumbent Spanish utility on the island of Tenerife. Endesa is Spain's largest electricity utility and has franchise areas that cover Petratherm España's projects.

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 of the material herein in the form and context in which it appears.



Terry Kallis
Managing Director

MEDIA CONTACTS:

Terry Kallis
Kieran Hall / Tim Hughes

Petratherm Ltd
Hughes Public Relations

08 8274 5000
08 8412 4100