



**QUARTERLY ACTIVITIES REPORT
FOR THE THREE MONTHS ENDED
31 MARCH 2010**

*Harnessing the heat
beneath our feet*

CORPORATE DIRECTORY

Directors

Simon R. Molesworth AM, QC (Chairman)
Robert J. Annells (Non-executive Director)
John T. Kopcheff (Non-executive Director)
Robert L. King (Executive Director)

Managing Director

Mark Miller (Managing Director)

Company Secretary

Vicki M. Kahanoff BBus CPA

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Securities Exchange

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Melbourne Victoria 3000
ASX code: GER

Share Registry

Computershare Investor Services Pty. Ltd.
Yarra Falls 452 Johnston Street
Abbotsford Victoria 3067
(03) 9415 5000

Auditors

Pitcher Partners

Legal Advisors

Baker & McKenzie

Bankers

Westpac Banking Corporation

HIGHLIGHTS

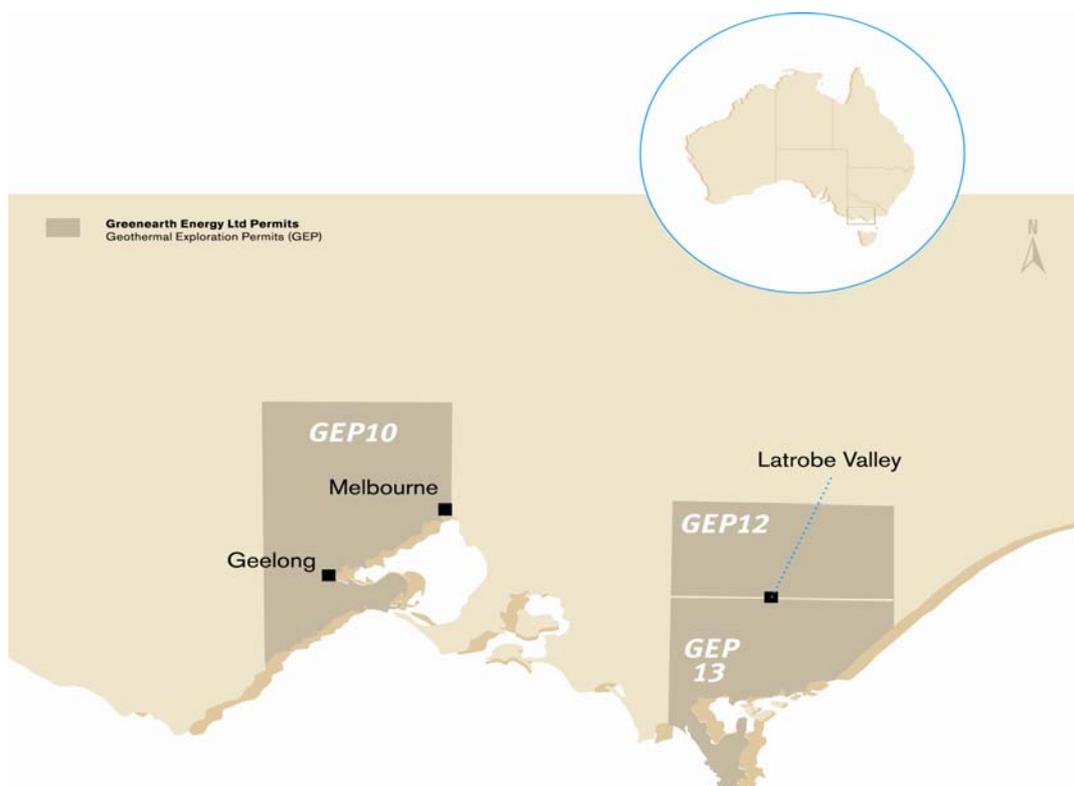
- ❖ **Geelong Geothermal Power Project (GGPP) Community and Stakeholder engagement and operational planning commences**
- ❖ **Further strategic investment in Pacific Heat and Power (PHP)**
- ❖ **Expansion into Solar Energy and Energy Efficiency**

ABOUT GREENEARTH ENERGY LIMITED

Greenearth Energy Limited (Greenearth Energy) listed on the Australian Securities Exchange (ASX:GER) on 4 February 2008.

The company holds three geothermal exploration permits (GEP's) in Victoria where the major energy companies are situated and any potential geothermal resource found will be close to existing infrastructure. Initial geological work is indicating that the company's acreage has the ability to contain hot sedimentary aquifer (HSA) systems as well as Enhanced Geothermal Systems (EGS).

Greenearth Energy is also interested in other areas in particular Indonesia, New Zealand and the wider Pacific Rim.



REVIEW OF OPERATIONS

CORPORATE DEVELOPMENTS

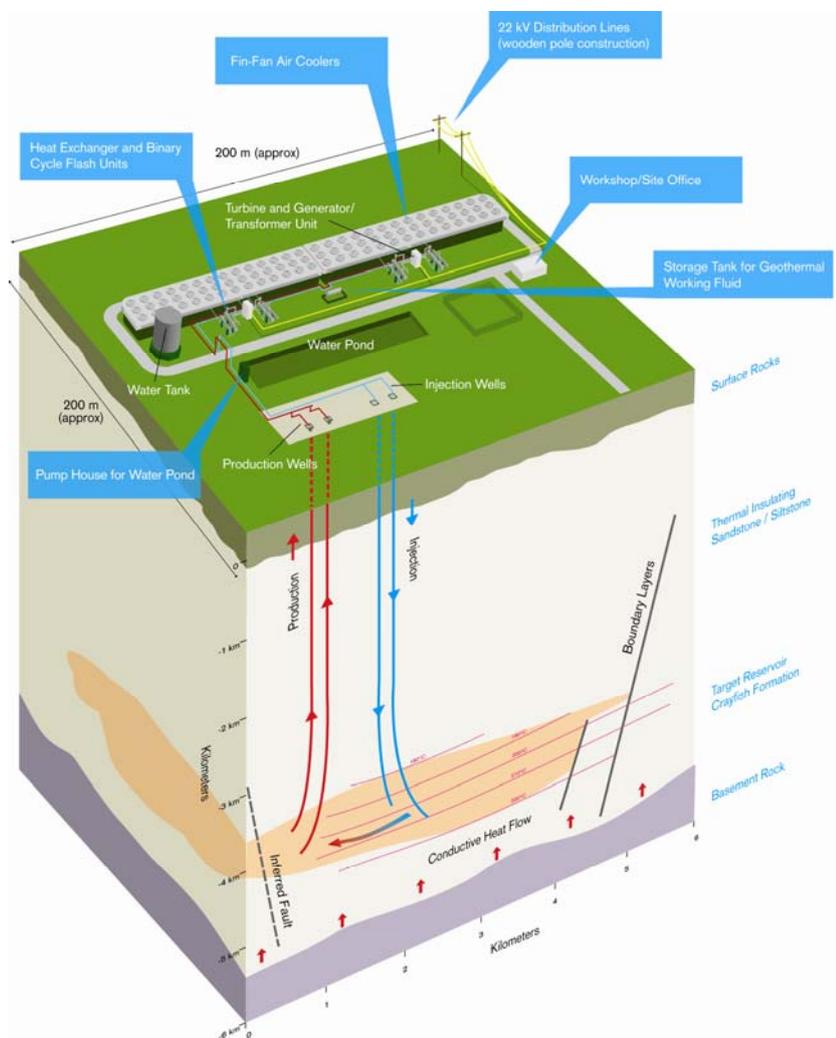
The quarter has been active for the company, with an extensive Community and Stakeholder Engagement Program being rolled out, in support of the company's domestic flagship project the Geelong Geothermal Power Project (GGPP). In addition the company has been actively engaged in assessing a number of potential strategically aligned opportunities.

Geelong Geothermal Power Project

An 'Open House' Information Day was held on 27 February, to provide information to local communities and stakeholders proximate to the GGPP area. The day was well attended with over 160 people registering. Information about the current status, proposed development stages of the entire project and general information about geothermal systems was distributed, questions addressed and requests for additional information taken and subsequently provided.

Greenearth Energy greatly appreciates the time spent by members of the community and encourages community and stakeholders to continue to contact the company with any further questions or requests for information.

A Community page has been established on the company website, as has a distribution list and a specific project email address (ggppenquiries@greenearthenergy.com.au) to assist in the facilitation of enquiries and the provision of information throughout the life of the project. Presently, a schedule of further community engagement activities is being finalised with specific emphasis of the remainder of the 2010 calendar year, to ensure community and stakeholders are engaged and informed as the project progresses.



3D Geelong Geothermal Power Project Conceptual Model (not to scale)

In conjunction with the various community and stakeholder engagement activities, detailed planning has commenced in terms of specific areas of well design and flow testing, the tendering of services process, addressing the necessary planning and environmental consents requirements and commencing the identification of the existing network connection capacity as well as addressing the administrative requirements surrounding the grants awarded in December, 2009.

Further Investment in Pacific Heat and Power

Other developments during the quarter have been the achievement of an agreement to purchase Pacific, Heat and Power (PHP) external shareholder's interests. Greenearth Energy holds a 33.06% interest in the PHP, a company that provides solutions to industrial and commercial markets that address high energy and environment costs.

PHP's innovative electricity generation products are based on proven world-class technologies which provide its customers with increased energy productivity, energy reliability, operational savings and lower greenhouse gas emissions.



PHP's aim is to provide full product supply, engineering, project support, and after-sales support to ensure that their systems installed perform at high levels of utilisation and reliability. PHP will now become a fully owned subsidiary, which will enable expansion of Greenearth Energy's commercial opportunities.

Mr Craig Morgan, will be employed by Greenearth Energy in the newly created role of Business Development Manager. This role will be focused on bringing to fruition the projects already existing in PHP and identifying and developing new opportunities in the broader renewable energy and low emissions sectors.

Expansion into Solar Energy and Energy Efficiency

Further strategic work has been undertaken and has led to the identification of a number of technologies with an emphasis on renewable energy and energy efficiency which have the potential to provide Greenearth Energy with a suite of near term and medium term commercial outcomes.

These include solar technologies being developed in Israel which have particular application to Australia. Detailed discussions are underway between Greenearth Energy and a number of potential partners with the aim to formalise these relationships and introduce these strategically aligned initiatives to the Australia market.



OPERATIONAL ACTIVITIES

Otway Basin - Geelong Area (GEP 10) - 100% Equity

Geelong Geothermal Power Project Work Program

Planning continued to provide the necessary level of detailed well and flow testing design elements to be deployed when commencing the initial Stage 1, Proof of Concept program. This work is being undertaken by SKM, who are also assisting the company in establishing the tendering of services process.

The necessary planning and environmental consents requirements are being scoped and prepared for submission at the required time in the Stage 1 project cycle. A study investigating network options and capacity is being undertaken, which will form the basis of future development considerations.

Magneto-telluric (MT) Resistivity Survey

Greenearth Energy undertook magneto-telluric (MT) surveying in the Bellarine area of GEP10 in November 2008. Initial interpretation of this data was considered inconclusive and as such Greenearth Energy has contracted SKM to undertake further inversion modelling and interpretation using ancillary data as constraints. It is hoped that this work will better indicate the effectiveness of the MT method for identifying the basement/Eumeralla formation contact and potential hot sedimentary aquifers.



Gippsland (generic image sourced via istock)

Gippsland Basin (GEP 12 and 13) - 100% Equity

Magneto-telluric (MT) Resistivity Survey

During the March quarter, planning continued for a Magneto-telluric (MT) geophysical survey in the Latrobe Valley area.

The magneto-telluric method involves the measurement of naturally occurring magnetic and electric fields that propagate through the earth. Measurement of such fields allows for the resistivity structure of the earth to be deduced which should improve our understanding of the geology beneath the Latrobe Valley.

Variations in resistivity with depth may allow for the mapping of more resistive basement rocks beneath the thick, less resistive sedimentary pile of the Latrobe Valley/Gippsland Basin. The MT survey may also identify zones of reduced resistivity consistent with enhanced temperatures and water saturated aquifers associated with geothermal systems.

Greenearth Energy have proposed a number of MT survey locations (sites), and are currently preparing an Operations Plan for submission to the Department of Primary Industries (DPI). Consultation with and access approvals from all affected stakeholders, including the DPI, Department of Sustainability and Environment (DSE), Latrobe City Council, Wellington Shire Council, West Gippsland Catchment Management Authority (WGCMA), Aboriginal Affairs Victoria (AAV), and private and public land holders, are being conducted at present.

A geophysical survey company that specialises in the acquisition of Magneto-telluric data has been selected to undertake the surveying work.

Data acquisition is expected to commence during the fourth quarter of this financial year.

Micro Earthquake (MEQ) Monitoring – Pilot Trial

Greenearth Energy contracted Auckland Uniservices Ltd. to place a geophone (sonde) at 1,350m in the Loy Yang-2 well in November 2008. Another geophone was placed at the surface.

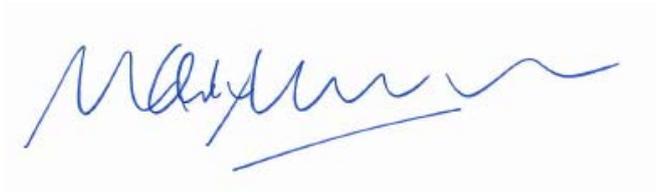
The sondes continuously monitor the occurrence of natural sub-surface seismic activity which has been collated and interpreted.

The final report on this work was received from Auckland Uniservices in February. The data gathered from the seismic array at Loy Yang-2, has indicated that a relatively low rate of natural seismicity is present in the Loy Yang area. The down-hole sensor measured a number of “local”

events (those less than 5 km away) with magnitudes between -1.5 and -0.2, which were not observable in the surface sonde due to high electromagnetic noise levels. This established the high sensitivity of the down-hole sonde.

The low seismicity evident in the region implies that the use of advanced micro-earthquake borehole recording techniques over a longer period of time (several years) is the only effective way of mapping a sufficient number of “local” events to enable any meaningful structural interpretation. The establishment of a larger network of sondes is both expensive and not seen as effective in meeting Greenearth Energy’s short to medium term objectives, and will not be undertaken at this time.

SIGNED ON BEHALF OF GREENEARTH ENERGY LTD.

A handwritten signature in blue ink, appearing to read 'Mark Miller', is written over a horizontal line.

Mark Miller
Managing Director
Greenearth Energy Limited