



**Greenearth  
Energy Ltd.**

A.C.N 120 710 625

## Quarterly Activities Report

For the three months ended  
30 June 2008



# 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)

## **Company Secretary**

Vicki M. Kahanoff BBus CPA

## **Registered Office**

Level 11  
500 Collins Street  
Melbourne Victoria 3000

**Telephone:** (03) 9620 7299

**Facsimile:** (03) 9629 1624

## **Stock Exchange**

Australian Stock Exchange Limited  
Level 3 530 Collins Street  
Melbourne Victoria 3000  
ASX code: GER

## **Auditors**

Pitcher Partners

## **Bankers**

Westpac Banking Corporation

## **Address for Correspondence**

P.O. Box 24  
Collins Street West  
Victoria 8007

**Email:** [greeneearth@greeneearthenergy.com.au](mailto:greeneearth@greeneearthenergy.com.au)

**Web site:** [www.greeneearthenergy.com.au](http://www.greeneearthenergy.com.au)

## **Share Registry**

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

## **Legal Advisors**

Baker & McKenzie

The company operates a web site ([www.greeneearthenergy.com.au](http://www.greeneearthenergy.com.au)) which directors encourage you to access for the most recent information on the Greenearth Energy Group.

## HIGHLIGHTS

- Report for Greenearth by Sinclair Knight Merz (SKM) on Forward Modelling for the application of magnetotelluric surveys in the permit areas
- Report completed for Greenearth by Worley Parsons on the direct heat application of geothermal energy in the Latrobe Valley area
- Micro Earthquake (MEQ) Monitoring Pilot Trial to commence
- Program of mapping of seismic interpretation of wet geothermal systems in the area south west of Geelong commenced
- Discussion progressed with major industrial users of energy in the Gippsland region

# OVERVIEW OF ACTIVITIES

## CORPORATE DIRECTIONS

Greenearth Energy Limited (Greenearth) listed on the Australian Stock Exchange (ASX) on 4 February 2008. The company has been active since its inception with continuing analysis on its Victorian permits which has included the participation in drilling of exploration wells.

The company holds permits 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 conventional hydrothermal systems as well as Hot Dry Rock (HDR) or Enhanced Geothermal Systems (EGS).

Greenearth Energy is also strategically interested in other areas in Australia, New Zealand and the greater Pacific Rim.

A number of potential end users within its permits have been identified and discussions are continuing with various parties with the aim to establish a mutually beneficial working relationship.

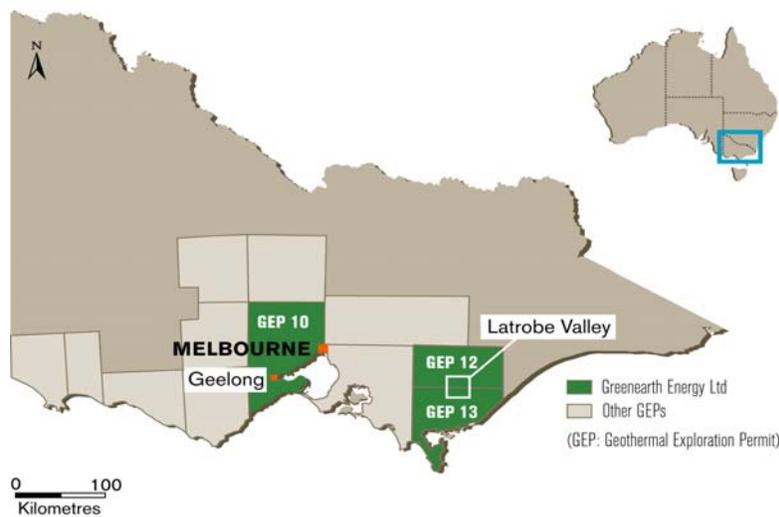
During the quarter Greenearth, with the assistance of Chandler Macleod, commenced a search for Managing Director. Candidates have been identified, short-listed and the interview process is being undertaken.

## OPERATIONAL ACTIVITIES

### MT Forward Modelling Studies – Sinclair Knight Merz (SKM)

Potential wet geothermal systems occur at the base of the insulating sedimentary pile at various depths in the Latrobe Valley area and in the Geelong-Anglesea area. A forward modelling study was prepared for Greenearth by Sinclair Knight Merz (SKM) to assess how effective magnetotelluric (MT) survey may be for geothermal exploration in the three permits in Victoria. The study found a strong correlation between low resistivities and high porosities. As there is a strong link between porosity and permeability, the magnetotelluric method appears well suited to the investigation of permeable zones at depth in both the Latrobe Valley area and south west of Geelong.

The forward modelling indicated that the method was able to differentiate the base of the insulating sedimentary pile from the underlying Palaeozoic basement rocks. Accordingly, MT is likely to be an important tool in mapping the shape of the basement and the location of potential target hot aquifers that occur at the base of the overlying sedimentary pile. To date geological methods in the Latrobe Valley area have had limited success in properly identifying what lies beneath the thick brown coals and Greenearth is hopeful that MT survey will overcome this problem.



**Greenearth Energy Limited Permits**

Greenearth is currently planning an MT survey to the southwest of Geelong which is scheduled to occur in September. MT surveys in the Latrobe Valley and wider Gippsland area are being considered for later in the year and the following year.

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

The Gippsland area is currently the primary focus of the company. This area contains historical data that can be used to confirm that this area is a prospective geothermal area. Operations in these areas have been a mixture of geological studies and exploration drilling.

#### **Mapping and Modelling**

The company contracted Hot Dry Rocks Pty Ltd to carry out thermal mapping work within all its permit areas. The initial work results which were included in the IPO Prospectus, indicated specific areas of relatively high heat flows. Hot Dry Rocks Pty Ltd is building on the first phase with the aim to validate the phase 1 results and extend the mapping to include areas where data was initially absent.

As noted above, to date geological methods in the Latrobe Valley area have been relatively unsuccessful in properly identifying what lies beneath the thick brown coals. Greenearth is working on assessing a combination of geophysical techniques to image the rock units beneath the thick Latrobe Valley brown coals. Detailed planning has commenced on a forward program in the central Latrobe valley area.

Modelling has also commenced in the eastern part of the Permit where initial work indicates that Upper Devonian-Carboniferous sediment may be buried in the Maffra area. These relatively flat lying rocks contain coarse grained sediments with the potential for permeability at depth and represent a new prospect for wet geothermal systems in the permit area.

#### **Micro Earthquake (MEQ) Monitoring – Pilot Trial**

Greenearth together with the University of Auckland plan to trial the use of monitoring micro earthquakes as a technique to identify prospective geothermal areas. This technique which is used overseas records earthquakes. From the recording, indicative patterns can help delineate major fracture zones and key sedimentary layers. Also, importantly use of shear wave splitting may define potential permeable zones. Although monitoring while creating artificial fractures is common place, the use of monitoring natural micro earthquakes as an exploratory tool in this context is believed to be a first within Australia.

Small earthquakes are numerous in the Gippsland area and it is planned to place a geophone or sonde down an existing deep well to record these small earthquakes. The coordination agreement with the concurrent petroleum explorer, Lakes Oil NL, has enabled Greenearth to gain access to the Loy Yang 2 petroleum well which can be accessed to a depth of 1,400m which is well below the brown coal zones. As noted above the coals have greatly constrained geophysical techniques in the area. Operational planning has commenced with the field work to occur in the next quarter and will be trialled for a minimum of 3 months. If proved to be successful the pilot trial will be expanded in the future.

#### **Hydrothermal Opportunities in Victoria – Worley Parsons**

A Technical Screening Review of Hydrothermal Opportunities in Victoria was prepared by Worley Parsons for Greenearth. The report reviews the potential opportunities for industrial use of hydrothermal resources ranging between 95° C and 150 ° C. Power station boiler feed water preheating in Victoria's existing brown coal fired power stations can provide an indirect means of generating electric power from such hot water. Similarly, pre-drying coal feed to the power stations will indirectly lead to increased power production, station

efficiencies and hence a reduction in carbon emissions. Alternatively, electric power can be produced using the Kalina Cycle or the Organic Rankin Cycle based upon technology commercially proven elsewhere around the world. Finally, there are various industries that could benefit from a renewable source of hot water rather than burning a fossil fuel to obtain such energy. The report concluded that as Greenearth further characterises the resource potential in the Latrobe Valley area, a more specific technical evaluation will be possible.

### **Ongoing Discussions**

Discussions were held with the energy generators in the Latrobe Valley on common interests as well as a number of companies that use significant quantities of heat as part of their industrial processes. Discussions were also held with industry on opportunities for drying brown coals as a greenhouse gas mitigation strategy, and tertiary institutions on renewable energy technologies. It is planned that further discussion will be held in the coming quarter.

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

#### **Mapping and Modelling**

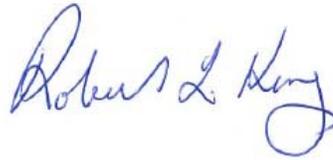
In the previous quarter, an assessment was conducted of the Enhanced Geothermal System (EGS, Hot Fractured Rock) potential of the area generally south of Geelong. The study showed that GEP 10 has at least three "Areas of Interest" and preliminary resource estimates were calculated. The report also highlighted Melbourne as number one compared to 40 cities internationally for EGS potential.

The report also highlighted the potential for shallower wet systems that overly the deeper EGS potential areas. Work was commenced in this quarter to map the key horizons with wet geothermal potential with a view to targeting area for further focused geophysical survey and drilling.

This work in conjunction with the SKM MT Forward Modelling Study will assist in planning an MT survey which is scheduled for September 2008. The area south of Geelong is the targeted area for the survey.

The second phase of Heat flow mapping continued in this permit. This program of temperature measurement and thermal conductivity analysis is designed validate and build upon the first phase of heat flow mapping carried out in 2007.

**Signed on behalf of Greenearth  
Energy Ltd.**



Robert L King  
Executive Director  
Dated 31 July 2008

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

**GREENEARTH ENERGY LIMITED**

ABN

**60 120 710 625**

Quarter ended ("current quarter")

**30 JUNE 2008**

### Consolidated statement of cash flows

	Current quarter \$A '000	Year to date (12 months) \$A '000
<b>Cash flows related to operating activities</b>		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for: (a) exploration and evaluation	(252)	(1,219)
(b) development	-	-
(c) production	-	-
(d) administration	(602)	(1,583)
(e) capital raising costs	(92)	(647)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	135	243
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 (a) Net movement in GST suspense account	29	(68)
<b>Net operating cash flows</b>	<b>(782)</b>	<b>(3,274)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a) prospects	-	-
(b) equity investments	-	(200)
(c) other fixed assets	(66)	(121)
1.9 Proceeds from sale of: (a) prospects	-	-
(b) equity investments	-	60
(c) other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Debtors	(6)	(6)
<b>Net investing cash flows</b>	<b>(72)</b>	<b>(267)</b>
1.13 Total operating & investing cash flows (carried forward)	<b>(854)</b>	<b>(3,541)</b>

**Appendix 5B – Greenerth Energy Limited (GER)**  
**Mining exploration entity quarterly report – 30 June 2008**

	Current quarter \$A'000	Year to date (9 months) \$A'000
1.13 Total operating & investing cash flows (brought forward)	<b>(854)</b>	<b>(3,541)</b>
<b>Cash flows related to financing activities</b>		
1.14 Proceeds from issues of shares options, etc.	-	<b>11,284</b>
1.15 Proceeds from sale of forfeited shares	-	-
1.16 Proceeds from borrowings	-	-
1.17 Repayment of borrowings	-	-
1.18 Dividends paid	-	-
1.19 Farm-in/Joint Venture contributions	-	-
<b>Net financing cash flows</b>	<b>-</b>	<b>11,284</b>
<b>Net increase (decrease) in cash held</b>	<b>(854)</b>	<b>7,743</b>
1.20 Cash at beginning of quarter/year to date	<b>9,158</b>	<b>561</b>
1.21 Exchange rate adjustments to item 1.20	-	-
1.22 Cash at end of quarter	<b>8,304</b>	<b>8,304</b>

**Payments to Directors of the entity and associates of the Directors;  
Payments to related entities and associates of the related entities.**

	Current quarter \$A'000
1.23 Aggregate amount of payments to the parties included in item 1.2	<b>130</b>
1.24 Aggregate amount of loans to the parties included in item 1.10	-
1.25 Explanation necessary for an understanding of the transactions	
Directors Fees: \$78,332 Consulting and professional fees paid to Director-related entities: \$51,300	

**Non-cash financing and investing activities**

- 2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows
- |      |
|------|
| None |
|------|
- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest
- |      |
|------|
| None |
|------|

**Appendix 5B – Greenerth Energy Limited (GER)**  
**Mining exploration entity quarterly report – 30 June 2008**

**Financing facilities available**

*Add notes as necessary for an understanding of the position.*

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	-	-
3.2 Credit standby arrangements – Bank overdraft	-	-

**Estimated cash outflows for next quarter**

	\$ A'000
4.1 Exploration and evaluation	<b>225</b>
4.2 Development	-
<b>Total</b>	<b>225</b>

**Reconciliation of cash**

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$ A'000
5.1 Cash on hand and at bank (item 1.22)	<b>8,304</b>	<b>9,158</b>
5.2 Deposits at call	<b>45</b>	<b>45</b>
5.3 Bank overdraft	-	-
5.4 Investments in listed companies (market value)	<b>150</b>	<b>70</b>
<b>Total: cash at end of quarter</b>	<b>8,499</b>	<b>9,273</b>

**Changes in interests in mining tenements**

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1		Interests in mining tenements relinquished, reduced or lapsed		
6.2		Interests in mining tenements acquired or increased		

**Appendix 5B – Greenerth Energy Limited (GER)**  
**Mining exploration entity quarterly report – 30 June 2008**

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**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Number issued	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 Preference securities <i>(description)</i>	-	-		
7.2 Changes during quarter	-	-		
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
7.3 +Ordinary securities	66,780,758	42,714,094		
7.4 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decrease through returns of capital, buy-backs	-	-		
7.5 +Convertible debt securities <i>(description)</i>	-	-		
7.6 Changes during quarter				
(a) Increases through issues	-	-		
(b) Decreases through securities matured, converted	-	-		

**Appendix 5B – Greenerth Energy Limited (GER)**  
**Mining exploration entity quarterly report – 31 March 2008**

7.7 <b>Options</b>			<i>Exercise price</i>	<i>Expiry date</i>
<i>Directors</i>	4,500,000	-	45 cents	30 September 2012
<i>Staff</i>	1,500,000	-	45 cents	30 September 2012
<i>Third parties</i>	33,333,333	-	45 cents	30 September 2010
<i>Third parties</i>	2,000,000	-	45 cents	30 September 2012
<i>Third parties</i>	22,260,118	14,237,897	30 cents	15 April 2009
<b>TOTAL</b>	<b>63,593,451</b>	<b>14,237,897</b>		
7.8 Issued during the quarter	22,260,118	14,237,897	30 cents	15 April 2009
7.9 Exercised during the quarter	2	2	30 cents	15 April 2009
7.10 Expired during the quarter	-	-	-	-
7.11 <b>Debentures</b> <i>(totals only)</i>	-	-		
7.12 <b>Unsecured notes</b> <i>(totals only)</i>	-	-		

**Compliance statement**

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Law or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here: .....

Date: 22 July 2008

*Company Secretary*

Print name: **Vicki Kahanoff**

**Notes**

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.

**Appendix 5B – Greenerth Energy Limited (GER)**  
**Mining exploration entity quarterly report – 30 June 2008**

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- 2 The “Nature of interest” (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, AASB 1022; *Accounting for Extractive Industries* and AASB 1026: *Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complies with.

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