

# Quarterly Activities Report

for the three months ending 31 December 2008

30 January 2009

## Highlights

- ▶ Green Rock to focus on three key projects
- ▶ High heat flow expanded at Olympic Dam
- ▶ Olympic Dam application for Geothermal Drilling Fund deferred until April 2009
- ▶ Grant of permits for the Perth Basin pending
- ▶ Increase of interest in Hungary to 50 per cent

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## OVERVIEW

In light of the World financial turmoil the Company has taken measures to conserve existing funds by reducing expenditure. The Company will focus activities on its key projects at Olympic Dam, the Perth Basin and in Hungary where there are the best prospects to achieve commercial production in a reasonable time frame.

## PROJECTS

### Olympic Dam

**Geothermal Energy Project**  
South Australia, 100% interest

#### High heat flow expanded

Modelling of surface heat flows from holes drilled into granite within the Company's licence areas on the east side of the Olympic Dam mine showed similar elevated surface heat flows as found in Blanche No 1 drilled into granite on the west side of Olympic Dam. Heat flows ranging from 85 mW/m<sup>2</sup> to 100mW/m<sup>2</sup> were determined from the new measurements.

Surface heat flow is a function of heat generated in the earth's crust and heat conducted from the mantle at depth. The elevated heat flows in and around Olympic Dam are substantially contributed to by conduction of heat generated from the underlying Hiltaba Suite granites. These thermally anomalous granites within the Company's geothermal licence areas are outside the Area of Interest where the Company has reported Inferred Resources of geothermal energy of 120,000 PJ.

#### Proof-of-concept drilling

Green Rock Energy lodged an expression of interest with the Federal Government to access funds from the Federal Government's \$50 million Geothermal Drilling Program (GDP) set up to assist companies to meet costs of proof-of-concept projects. Up to \$7 million dollars per qualifying project is available on a competitive basis under the GDP on a dollar for dollar matched funding basis.

In late December 2008 Green Rock Energy advised the Federal Government that it would defer formal application for a grant from the fund until the second round, when the Company has secured matching funding. As announced previously, the Company had satisfied the key requirement for the GDP funding when it reported Inferred Resources of 120,000 PJ of heat in place from only a part of its licence area at Olympic Dam but decided not to outlay the substantial funds in advance to sign up a suitable drilling rig without first having secured the matching funds.

To qualify for the first round the Company would have had to commence activities for the proof-of-concept drilling by the end of June this year. In response the Federal Government acknowledged the Company's intention to defer its application and advised that they propose to open Round 2 grants for application this April. The Company believes it can meet the criteria to qualify for a GDP grant when it has secured matching funding via farm out.

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## PROJECTS

### Perth Basin

#### Geothermal Exploration Permits

Western Australia,  
*varying % interest*

#### Grant of permits pending

Green Rock Energy expects to receive the formal offer of geothermal exploration permits (Permits) in the Perth Basin within the next two weeks. This will be the first geothermal acreage offered in Western Australia.

The Company was advised in August by the authorities, and confirmed this week by the Minister for Mines and Petroleum, that Green Rock Energy is the preferred applicant for three Permit areas on its own and for 12 Permit areas in joint venture with other parties.

The Company has used this time to collate and model the data it holds concerning the Permits. The Government has advised that Permits can only be granted after native title negotiations are concluded by the preferred applicants. In the meantime the Company and its joint applicants will further evaluate the Permit areas before accepting any Permits and commencing field activities.

### Hungary

#### Geothermal Energy Project

Hungary, *50% interest*

#### Increase in interest from 33 per cent to 50 per cent

During the quarter Green Rock Energy and MOL Plc entered into an agreement with Enex to purchase Enex's one third interest in the new company, Central European Geothermal Energy Private Company Limited (CEGE), for its nominal book value. CEGE was established in August by the three companies to strengthen their relationship to develop geothermal energy resources in Hungary where there is excellent geothermal energy potential. The acquisition of Enex's shares will result in Green Rock Energy and MOL each having a 50 per cent shareholding in CEGE.

This opportunity arose as a result of the extraordinary world financial problems which materialised during the quarter and resulted in Enex disposing of its geothermal assets worldwide. Green Rock Energy and MOL had pre-emptive rights over Enex's one third interest in CEGE and as a result Green Rock Energy is fortunate and pleased to have the opportunity to increase its 33 per cent shareholding to 50 per cent.

CEGE's mission is to become a market leader in geothermal energy in Hungary through the exploration and development of geothermal power plants and the subsequent production and sale of geothermal sourced electricity into the Hungarian Market.

CEGE has identified several geothermal prospect areas and is actively reviewing all the available data including the evaluation of MOL's extensive petroleum well data and seismic mapping to determine the precise location for the geothermal wells. Application has been made for formal title in the most prospective areas.

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## PROJECTS

### Upper Spencer Gulf

**Geothermal Energy Project**  
South Australia, 100% interest

Parts of the tenements on the western side of the Spencer Gulf are known to contain Hiltaba Suite granites. These granites are the same thermally anomalous granite suite providing the geothermal heat source at our Olympic Dam project.

Low cost temperature logging was carried out in accessible shallow drill holes in these geothermal licence areas on the western side of the Spencer Gulf. This logging has confirmed the anomalous temperatures in the area and should be completed this quarter.

### Great Artesian Basin

**Geothermal Energy Project**  
South Australia, 100% interest

During the quarter eleven geothermal exploration licences (GELs) totalling 5,028 square kilometres were granted over the Mesozoic aged Great Artesian Basin. The GELs cover some of the deeper parts of the Basin where the Company expects water to be significantly hotter than the 100°C found in the shallower parts of the Basin outside the GELs.

The ultimate objective is to produce electricity on a very large scale based upon the Company confirming the high geothermal water temperatures given the typically very high unassisted water flow rates obtained from wells and bores drilled into the Basin sediments. Any development will be dependent on the establishment of major high voltage transmission lines in the area before a decision would be made to incur large sums of capital on development and infrastructure.

As with the Company's Spencer Gulf Project, the first year work program for the Great Artesian Basin is not onerous for the Company

## CORPORATE

### Australian Government Incentives for Geothermal Energy

#### Carbon Pollution Reduction Scheme

In December 2008 the Australian Government released for comment its proposed design of a carbon emissions trading scheme. Draft legislation is expected in February this year with the emissions trading scheme planned to commence in 2010.

Under the scheme the Australian Government wants Australia's carbon pollution to be reduced in 2020 by up to 15 per cent below 2000 levels, in keeping with a global agreement where major economies agree to substantially restrain carbon pollution and advanced economies take on reductions comparable to Australia.

The Government has committed to an unconditional five per cent reduction in carbon pollution below 2000 levels by 2020, which represents a cut of around 27 per cent on a per capita basis. It has a long term target of reducing Australia's carbon pollution by 60 per cent of 2000 levels by the year 2050.

**CORPORATE**

**Australian Government  
Incentives for Geothermal  
Energy (continued)**

**Table 1 : Comparison of carbon reduction targets of different countries**

Country	2020 targets	2020 per capita reduction	2050 targets
Australia	5–15% below 2000 levels (4–14% below 1990 levels)	27–34% below 2000 levels (34–41% below 1990 levels)	60% below 2000 levels (60% below 1990 levels)
European Union	20–30 % below 1990 levels	24–34% below 1990 levels	60–80% below 1990 levels
United Kingdom	26–32 % below 1990 levels	33–39% below 1990 levels	80% below 1990 levels
Proposal			
United States (proposal of President-elect Obama)	Return to 1990 levels	25% below 1990 levels	80% below 1990 levels

Source: Australian Government

The carbon emission trading scheme is anticipated to initially increase wholesale electricity prices by \$20/MWh to \$25/MWh and \$50/MWh after 2020.

**National Renewable Energy Target (RET)**

The Australian Government has released draft legislation to increase its support for the use of renewable energy in Australia’s electricity supply. The draft legislation, amending the renewable Energy (Electricity) Act 2000, expands the target of 9,500 gigawatt-hours (GWh) of electricity generated from renewable sources to a level of 45,000 GWh in 2020. This expanded target substantially boosts the incentive to supply electricity from geothermal energy which qualifies under the legislation as renewable energy. The expanded scheme is intended to ensure that at least 20 per cent of Australia’s electricity supply is generated from renewable sources by 2020.

The national RET scheme is being designed in cooperation with all States and Territories through the Council of Australian Governments (COAG) and brings the existing Mandatory Renewable Energy Target (MRET) and existing state-based targets into a single national scheme. Under the scheme generators of renewable energy create renewable energy certificates (RECs) which can be sold to wholesale purchasers of electricity. The wholesale electricity purchasers are required to meet a share of the renewable energy target in proportion to their share of the national wholesale electricity market. One REC represents one megawatt hour (MWh) of electricity generated from eligible renewable energy sources.

The RECs, once registered, are traded and sold to liable parties who may surrender them to the Renewable Energy Regulator to demonstrate their compliance under the scheme and avoid paying the shortfall charge. Legislation sets the level of the shortfall charge for non-compliance. This un-indexed charge will be set at a level marginally above the projected peak REC price. Under the previous MRET scheme the charge for non-compliance was set at \$40/MWh.

In addition to the current wholesale electricity price, Green Rock Energy will receive the benefit of the \$20/MWh+ from the carbon emission trading scheme and up to \$40/MWh from the MRET scheme from electricity generated in Australia.

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## ABOUT GREEN ROCK ENERGY

Green Rock Energy Limited is an Australian company focused on developing commercially sound renewable geothermal energy projects. The Company has projects in Australia and Europe and is a member of the Australian Geothermal Energy Association and sponsor member of the International Energy Agency's Geothermal Implementing Agreement.

### **Board of Directors:**

Adrian Larking	Managing Director
Alan Knights	Executive Director
Jörg Baumgärtner	Non-Executive Director
Richard Beresford	Non-Executive Director
Scott Spencer	Non-Executive Director

**Australian Stock Exchange Listing:** ASX Code GRK

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