



**ASX ANNOUNCEMENT AND MEDIA RELEASE, 05 February 2010**

---

## **GREENEARTH ENERGY LTD COMMITTED TO THE COMMUNITY**

---

Greenearth Energy Limited (ASX:GER) (Greenearth Energy) is an Australian geothermal exploration and development company committed to focussing its efforts on meeting the climate change challenge head on. With three geothermal exploration permits within Victoria, the company has commenced preliminary planning to ultimately deliver base-load (continuous) emissions free renewable energy projects to the State of Victoria.

The Chairman of Greenearth Energy, Mr Simon Molesworth AM QC stated: “Along with many Australians and Australian companies, our business is focussed on tackling the challenge of climate change. Climate change is a challenge that confronts us all and, we all need to be part of the solution. Early geothermal investigations by the company have prompted several queries from local communities.

“Geothermal energy in Australia is a relatively new concept. As Greenearth Energy is working to deliver a hot sedimentary aquifer (HSA) geothermal energy project within Victoria it is our responsibility to engage the broader Victorian community and to provide information about the geothermal energy resource and its use.

“We are committed to working with the community to deliver our first project situated southwest of Geelong in the Wensleydale and Gherang areas. Geothermal energy, as an emissions free source of electricity, represents a tremendous opportunity for all Australians and may provide a substantial energy alternative for our future generations.”

Greenearth Energy has developed and is delivering a community engagement strategy. This will provide the community with information on this geothermal project. A fundamental part of the strategy is to provide the means for the community to present its views to the company. These discussions will assist in determining how this green, renewable energy project can be delivered to the greatest level of satisfaction of all involved and make best use of this resource in this area.

Mr Molesworth stated: “We don’t want people in these communities to feel that this is a rushed or forced process. We are at an early stage in the project and we have to date completed preliminary investigations. We now need to demonstrate that there is enough geothermal potential to progress to the next stages of the project. The next stage is ‘Proof of Concept’, which entails drilling two deep geothermal wells, into a deep hot sedimentary aquifer, to sample the temperature and flow rate of the hot water at depth. We intend to provide a continuous engagement strategy throughout the entire process of project”.

The project must pass through several stages before it can proceed to commercialisation. Greenearth Energy has commenced planning for Stage One, the investigation of the resource available within the project area.

The second stage (which will be subject to the successful completion of Stage One) would see the construction and operation of a renewable energy demonstration plant of about 12MW<sub>e</sub>. The success of the demonstration plant would determine whether the project will proceed to Commercialisation (Stage Three) and the form it will ultimately take. Each stage is undertaken with a high level of detailed planning, which includes complying with a number of regulatory requirements before commencing.

Several questions about the project have been raised by the local community, which Greenerth Energy would like to address.

**Q: How does this geothermal system work?**

**A:**

Greenerth Energy's investigations involve two geothermal wells being drilled through sedimentary sands into a deep, hot sedimentary aquifer. Hot water will rise to the surface through the wells and then flow through a heat exchanger. The heat extracted is used to run a small power station. The water, (which is cooler than when it is brought to surface) is then returned to the deep aquifer, via a second or injection well. The process of extraction and injection is a closed system, with no water being released to the environment.

**Q: Will the geothermal investigations cause seismic activity?**

**A:** No.

Seismic activity is in no way associated with the extraction method used to access the hot water in the hot sedimentary aquifers being targeted by Greenerth Energy. As the sedimentary materials targeted are naturally permeable (similar to the shallow aquifers providing borehole water) they do not need to be fractured or shattered.

The reported seismic event that occurred in Switzerland, and which has caused some community concern, was the result of an entirely different process that requires hard granite hot rocks to be fractured to allow water to flow through the rocks. It is alleged that this process led to, we understand, the reported seismic activity. This technique of hard hot rock fracturing is not used to extract geothermal fluids from hot sedimentary aquifers being investigated by Greenerth Energy.

**Q: Will extracting geothermal energy release potentially harmful gases?**

**A:** No

This is not a volcanic geothermal resource (such as occurs in New Zealand, Indonesia, the Philippines, etc). The potentially toxic gasses, such as hydrogen sulphide that can occur with volcanic geothermal developments are not present in the sedimentary aquifers being targeted.

In keeping with safe working practices, mandated as a matter of routine in the regulatory approvals for this project, would ensure that, in the unlikely event petroleum gases were detected, they would be managed safely in accordance with standard industry practice for drilling.

**Q: Will extracting and returning water to and from the aquifer cause contamination?**

**A:** No.

The closed system eliminates any opportunity for contamination of the hot sedimentary aquifer or any shallower aquifers intersected. Within the power plant there is no exchange of aquifer water with the working fluid used in the power plant (only heat is exchanged). What is used from the aquifer is returned in exactly the same form, albeit cooler, to the same aquifer it is extracted from.

**Q: Is water from the agriculture aquifer affected?**

**A:** No.

There are locally shallow aquifers (less than 750m depth) that are planned for expanded water supply to the region and currently being trialled for aquifer storage and recovery in the Anglesea area. The geothermal hot sedimentary aquifer targeted by Greenerth Energy is located approximately 3 (three) km beneath these water supply aquifers. Steel casing and associated cementing, mandatory regulatory requirements for the geothermal drilling, will seal off these shallower aquifer zones ensuring there is no impact upon them.

**Q: Will Greenearth compulsorily acquire properties?**

**A: No**

Greenearth Energy has no compulsory acquisition powers under legislation and therefore the location of any subsequent power plant will be the result of amicable and agreed negotiations. The location of a potential power plant will comply with all environmental and planning regulations and be acceptable to landowners.



**Simon Molesworth AM QC**  
**Chairman**  
**Greenearth Energy Limited**

Greenearth Energy Ltd.  
Level 14, 500 Collins Street  
Melbourne Vic 3000  
(03) 9620 7299  
[www.greenearthenergy.com.au](http://www.greenearthenergy.com.au)



*Hamessing the heat  
beneath our feet*