



Engineering Group of the Geological Society

Evening Seminar



Date/time: 5.30 pm Tuesday 21 April 2009

Venue: The Geological Society, Burlington House, London

Engineered Geothermal Energy, the UK's buried treasure:

The current status of the economics and technology to exploit it.

So At the 2005 Geothermal Resource Council's meeting in Reno, USA, the title for the book of Abstracts was "Geothermal Energy - The World's Buried Treasure" and how true this is. Igneous rocks like granite have heat production and conductive properties that can deliver a temperature of 200°C or more at depths of about 5,000m in many regions. This stored geothermal energy in hot granite rocks can be extracted by enhancing or artificially creating flow paths through the rock mass to allow a fluid to circulate through it, collecting the heat and bringing it to the surface to generate electricity.

This is known as an **Engineered Geothermal System (EGS)** to reflect the way reservoirs are created that emulate the production characteristics of natural hydrothermal systems. With increased demand for secure and alternative energy supplies, the time for exploitation of geothermal energy in this way has come. The electricity and heat produced by an EGS is on a large scale, base-load available, renewable, emissions free, and will have a small physical and environmental footprint.

In the UK, an assessment for the DTI in the 1980s indicated that mature EGS generation technology could supply around 10% of the electricity demand in the UK for around 200 years; there are also significant resources in other areas of Europe. **This Seminar brings together the leading EGS exponents and operators globally.** The Seminar will explain the significance and development of EGS technology, and will be of considerable interest to all professionals involved in renewable energy, mining engineering, geology and hydrogeology.

Programme:

- 5.30 **Welcome and introduction:** Chairman of EGGS
- 5.35 **Economic aspects of EGS in the USA and its effect outside the USA (the MIT study):** Professor J. Tester, Cornell University
- 6.10 **Current status of EGS technology:** R. Baria, EGS Energy Limited
- 6.35 **The first commercially developed EGS plant in the world in Landau, Germany:** J. Baumgaertner, BESTEC GmbH
- 7.00 **The effect of MIT report in the USA and the take up by venture capital companies:** S. Petty, AltaRock Energy, Inc.
- 7.25 **The marriage of hydrothermal and EGS technology:** L. Bronicki, Ormat Technologies, Inc.
- 7.50 **Q&A and Closing Remarks**

After the meeting drinks will be served

Please register your wish to attend by sending an email to: guy.cassidy@jacobs.com

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