

Develop Geothermal Electricity in Europe to have a renewable energy mix




Launch of the GEOELEC Project

The GEOELEC project, supported by the Intelligent Energy Europe initiative of the European Commission, has been kicked off in June 2011. This project gathers partners from 8 European countries, and the objective of GEOELEC project is to convince decision-makers about the potential of geothermal electricity in Europe, to stimulate banks and investors in financing geothermal power installations and finally to attract key potential investors such as oil & gas companies, and electrical utilities to invest in the geothermal power.

The action plan to be developed with the aim of removing the non-technical barriers, will result in geothermal electricity drawing the attention of policy makers and industry, giving geothermal power the high profile it has in other parts of the world, and in persuading venture capitalists and other companies to seek the obvious benefits from investing in the technology.

This project aims also at effectively exhibiting the potential contribution of geothermal electricity in all EU-27 countries, with a short and midterm perspective. A strategy to reach these objectives will be elaborated by describing the technical, financial, legal, social and environmental issues on-going, and presenting concrete solutions. Special attention will be dedicated to training new professionals in the sector, and on enhancing the prospects for future job creation.

OBJECTIVES of GEOELEC

-  Convince decision makers of the potential of geothermal electricity in Europe, creating awareness and improving the perception of geothermal among policy makers.
-  Stimulate banks and investors in financing geothermal power and installations. Geothermal project development has high upfront costs and can take several years (approximately 3-6) and needs innovative mechanisms for funding.
-  Attract key potential investors, such as oil & gas companies, and electrical utilities to invest in geothermal power. Geothermal projects are capital intensive.

DID YOU KNOW?

The first geothermal electricity production was in Europe in 1904, in Larderello in Italy. In 1904 emerging steam was used to turn a small turbine, which in turn powered five light bulbs - the first ever demonstration of geothermal electricity generation.

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Breaking Down the Barriers: GEOELEC Work Plan

The work programme for GEOELEC is divided into 3 phases: the prospective phase, the socio-economic phase and the dissemination phase.

Phase 1: Prospective for geothermal electricity

Starting from an assessment of the resource and the potential of geothermal power, will distil forecasts, taking into account technical, legal and institutional, financial and communication aspects.

Phase 2: Socio-economical conditions for a sustainable development

This phase will address three specific issues:

- Financing geothermal power projects
- Regulatory, social and environmental conditions
- Education and employment

Phase 3: Dissemination

The communication phase will work on distributing the information on the project, and the results, and targeting specific stakeholders such as investors, policymakers and utilities.



The most critical phase of GEOELEC is the work actions dealing with resource assessment, as a serious prospective on the future on the geothermal power sector must be based on the collection of solid and reliable geological data.

Policy Environment for Geothermal Electricity

Proposal for a Directive on energy efficiency discussed in the Parliament:

Discussion over the new Directive on energy efficiency is gaining momentum. The [legislative proposal](#), aiming at repealing the Cogeneration Directive and Energy Services Directive, was put forward by the Commission in June and presented to the ITRE Committee of the European Parliament on 9 September 2011. While recent Commission estimates suggest that the EU is on course to achieve only half of the 20% energy savings objective, the Commission proposed a set of binding measures, mainly focusing on the energy supply side. Specific objectives of the proposal are the promotion of CHP, District heating and cooling and ESCOs in Europe;

Energy Roadmap 2050:

Following the Roadmap for moving to a low-carbon economy in 2050 issued in March 2011, the European Commission will present its Energy Roadmap 2050 on the 13th of December. The roadmap will focus on how energy security and competitiveness can be improved throughout the transition to a low-carbon energy system and will present different pathways to reach this objective;

Energy Infrastructure Package:

On 19 October, the new package was unveiled by the Commission. €9.1 billion will be invested in trans-European infrastructure (for gas and electricity) through the Connecting Europe Facility. More information: [DG Energy](#)



Regional Workshops: Prospective for Geothermal Electricity in Europe

A central objective of the GEOELEC project is to bring together experts in geothermal in Europe, to assess the existing resources and therefore potential for producing geothermal power. In order to achieve this goal, a series of 6 regional workshops will be held as a means to mobilise existing data of the potential of geothermal, and to create a common agreed methodology for further research.

Apart from assessment of data for expected values for identification of prospects, their temperature, and sustainable flow rate, considerable effort will be towards assessing uncertainties in expected values and expert opinions on Probability of Success of exploration.

Presentations for the first workshop, held in London on 26th September 2011, are available online!

CALENDAR of WORKSHOPS

REGION	VENUE	DATE
Spain & Portugal	Valencia	10th November 2011
France, Italy, Slovenia and the Balkans	Milan	5th December 2011
Greece, Cyprus, Malta, Bulgaria, Romania and Turkey	Athens	20th December 2011
The Netherlands, Belgium, Luxembourg, Denmark and Sweden	Utrecht	January 2012
Germany, Poland, Slovakia, Czech Republic, Hungary, Austria	Offenburg	29th February 2012
Finland, Latvia, Lithuania, Estonia	TBC	March 2012

If you are interested in attending any of the workshops, please send an email to com@egec.org.

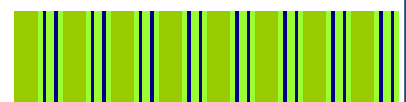
Assessing the Market: EGEC Market Report 2010 on Deep Geothermal

In December 2010 EGEC published its first annual market report presenting the electricity and District Heating plants that are currently operating in Europe. Since geothermal power production began in 1904, 54 geothermal plants have been installed in Europe, with a total installed capacity of 1.5 GWe and producing ca. 10 TWh.

Looking only at the European Union, 43 power plants are operational representing around 0.9 GWe installed. The geothermal production in 2010 amounted for 6.5 TWh. Indeed geothermal power has the advantage of being produced 24hours a day: in 2010, the load factor was 7 222 h/y on average, and availability of 82%!

Italy is dominating the European market with 90% of the UE installations and 60% of the European ones (including Iceland and Turkey). Geothermal production exists also in Iceland, Portugal, Turkey, France, Germany and Austria mainly with hydrothermal systems: high and low temperature. The 2 first EGS plants are now fully operational in Soultz-sous-forêt (France) and Landau (Germany).

EGEC will launch its market report 2011 at the GeoPower Europe conference 2011 in Milan.



EVENTS

EAGE: SES 11 Conference

8th—11th November

Valencia, Spain



Geothermal Congress 'DGK2011'

15th—17th November

Bochum, Germany



GeoPower Europe 2011

6th & 7th December,

Milan, Italy



Les Journées de la GEOTHERMIE

13th—15th December

Paris, France



GeoTHERM Offenburg 2012

1st & 2nd March,

Offenburg, Germany



For more info:
GEOELEC.EU

PROJECT PARTNERS

- * **European Geothermal Energy Council (EGEC)**
- * **Bureau De Recherches Géologiques Et Minières (BRGM)**
- * **Centre For Renewable Energy Sources And Saving (CRES)**
- * **Consiglio Nazionale Delle Ricerche, Istituto Di Geoscienze e Georisorse (CNR-IGG)**
- * **Asociacion De Productores De Energias Renovables (APPA)**
- * **Gaßner, Groth, Siederer & Coll. (GGSC)**
- * **EnBW Energie Baden-Württemberg AG (EnBW)**
- * **Mannvit**
- * **Helmholtz Zentrum Postdam – Deutsches Geoforschungszentrum (GFZ)**
- * **Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek (TNO)**