Intelligent Energy Europe

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GEOTHERMAL FINANCE AND AWARENESS IN EUROPEAN REGIONS

A Quarterly Edition of GEOFAR Project

Pump test production drilling in Unterhaching, Germany

GEOFAR – Positive start

During the first six month GEOFAR has performed very successful. The first report on financial instruments across Europe is nearly finished. The website is online. The direction for the financial scheme that will be developed within the GEOFAR project becomes clearer and clearer. In talks with European experts in financing geothermal energy projects, i.e. EIB and different national financing institutes, the excellence of the project has been emerged.

An uncertainty on the further exploration of geothermal energy came up with the global economic crisis directly after the project start. But according to the latest news from Germany and across Europe the crisis currently doesn´t influence the geothermal sector very strongly.

Our consortium wishes to contribute with GEOFAR to the further success of the European geothermal sector by improving the financing environment of geothermal energy projects in order to support the further sustainable exploration of geothermal energy. We are looking forward to go the next steps to success.

Mr. Matthias Hiegl
CEO of Erlangen AG (Leader Partner of GEOFAR)

EDITORIAL

A New Geothermal Energy Era

The recent gas supply/transit crisis between Russia and Ukraine, underlined the serious energy security problems most EU states continue to face two decades after the end of the Cold War and in the midst of the worst international financial crisis since the 1930s.

This gas disruption also demonstrated the lack of a common European energy strategy and revealed the structural instability of the gas and electricity interconnections among European countries. As a matter of fact, many analysts suggested that this is the right time for the European Union to lay out a strategic plan for boosting energy infrastructures and investments in order to succeed the optimum mix in the European energy balance and decrease the level of the current uncertainty.

The development of Renewable Energy Sources (RES) is considered a major solution not just against the CO2 emissions problem but also as a way of diversifying Europe 's primary energy supply away from the consumption of imported hydrocarbons. RES provide a decentralized energy solution that is environmental friendly and contributes to the competitiveness of a European economy in crisis. In addition, the development of the renewables could be a new sector of the national economy with social and economic benefits.

The development of RES and the enhancement of energy efficiency projects constitute areas of priority response and investment support in the EU's Second Strategic Energy Review. On the other hand, Barack Obama's election as US president signaled the beginning of a new era of an unprecedented boom in RES sector that will affect the energy investment and R&D activities globally.

Given these parameters, geothermal energy is considered as one of the most promising sectors of RES development that must be understood in every national energy strategy as an efficient, competitive and generally unexploited energy resource. Geothermal Energy is being touted as a source that may help the national economy as well as many local societies to limit their dependency on foreign oil and gas while reducing the use hydrocarbons for power generation. As a matter of fact, local authorities should give special consideration to geothermal projects as a form of renewable energy, promote the benefits of geothermal energy in the local community as per Local Authority's strategy to promote alternative renewable energy sources and take into consideration the availability of geothermal resources in the preparation of future development plans in their area.

Nevertheless, geothermal energy like the rest of renewable sources faces the possibility of a reverse development rate because of the financial crisis and the lack of appropriate funds. Moreover, although some local authorities within the countries of the European Union have announced plans to utilise geothermal energy however there is still a lack of coordinated support from the central Government. On the other hand, the lack of knowledge and information in local societies constitute major obstacles to the willingness of several European countries to promote geothermal energy.

The GEOFAR project has already identified the financial instruments of 8 European countries on geothermal energy (Germany, France, Greece, Spain, Portugal, Bulgaria, Hungary and Slovakia) and started the analysis of the non technical barriers hindering the initial stages of geothermal projects. The GEOFAR project hopes that it will provide a useful guide and a pilot programme in order to help investors in financial schemes and inform governments and local communities about the benefits of geothermal energy.

Institute of Energy
for Southeast Europe (IENE)
Newsletter Editor

EU's Financial Instruments for Geothermal Energy

(Germany, France, Portugal,Greece, Slovakia, Bulgaria)

Financial Instruments in Germany

The legal framework for the funding of geothermal energy in Germany is set by two laws. The Act on the Promotion of Renewable Energies in the Heat Sector (EEWarmeG) and the Renewable Energy Law (EEG).

EEWarmeG sets the funding environment for heat grids while the EEG regulates the feed-in tariffs for electricity from geothermal (and other renewable energy) sources.

Additionally to these laws a bundle of financial instruments is provided mainly by the KfW. The main financial instrument is the KfW Programme to Promote Renewable Energies. It offers loans with redemption grant for geothermal energy projects. To take over the risk of non-discovery the BMU has developed a risk mitigation instrument focused on geothermal drilling projects that is managed by the KfW. Besides a demonstration programme has been set for demonstration projects by the Federal Ministry of Environment (BMU).

For municipalities and public bodies (publicly owned companies) the KfW just offers loans, without redemption grant in several investment support programmes that could be used for financing energy (infrastructure) projects.

The German support environment is covered by different financial instruments for different project scopes and stages. Some instruments are combinable, others are not. Every beneficiary has to check what programme fits best for the planned operation.

Financial Instruments in France

The French Energy Law (POPE) follows the Kyoto Protocol and precise the French energy policy.

Among measures fixed by this law, white certificates are introduced. They complete the National Allocations Plan for CO2 quotas. Caisse des Dépôts devised a "Domestic Offset Projects" mechanism based on the Kyoto protocol, which will permit trading of greenhouse gas emission reduction credits from outside the CO2 EU ETS.

The government introduces measures/ incentives:
-to boost electricity production from renewable to compel French electricity utility to buy electricity production to a fixed rate (Feed In Tariffs)
-to decrease price of renewable, reducing the VAT for district heating with renewable sources of production.

ADEME (French Energy Agency) offers grants for geothermal energy, at national level but also at regional level, in some regions helped with the Regional Council. The new French Energy policy is boosted by the "Grenelle de l'environnement". This agency is also launching a fund dedicated to renewable energy in this new context. The definitive scheme and the arrangement of this fund with the former system of grants has to be précised.

On other hand, financial institutions are dedicated money to invest in geothermal energy (like Caisse des Dépôts, Natixis Environnement and Infrastructures with the Eurofideme Fund).

Financial Instruments in Greece

Feed In tariffs for electricity production

In the law for the promotion of Renewable Energy Sources (law 3468/2006) there are some high feed – in tariffs for electricity production from geothermal energy. In the interconnected electric system the selling price of electricity is 73 € per MWh and in the non – interconnected island system it is 84,6 € per MWh. Both tariffs are under change this year. This increased price is additional to the economic support given to geothermal power plants investments under the law 3299/2004 (more on this follows).

The 3299/2004, "Law for incentives for the private investments for economic development and regional converge" is the main financial instrument for the development of geothermal energy in all uses. Based on this law the government gives support to investment plans as grants, subsidize equipment leasing, tax reduction and subsidize the cost of new employees.

As investment plans the Greek government considers the: investments, leasing programs and enterprise plans.

Moreover, in a recent modification of geothermal law of Greece (law 3175/2003) there is some provision for the financing of geothermal projects (heating and cooling using geothermal water, geothermal heat pumps). In addition, the law for the promotion of Renewable Energy Sources (law 3468/2006) determines some high feed – in tariffs for electricity production from geothermal energy. In the interconnected electric system the selling price of electricity is 73 € per MWh and in the non – interconnected island system it is 84,6 € per MWh.

Financial Instruments in Portugal

The main incentives in Portugal are subsidy coming from the regional institution. Public projects or recognized public interest projects can benefit from a subsidy. It deals with I&D in renewable energy (including geothermal).

•Programa Operacional de Valorização do Potencial Económico e Coesão Territorial da R.A. da Madeira (INTERVIR+)
•Programa Operacional do Norte 2007 - 2013

In addition, more pilot projects are the followings:

•Programa Operacional Regional de Lisboa 2007 – 2013
•Programa Operacional Regional de Alentejo 2007 – 2013
•Programa Operacional Regional de Algarve 2007 – 2014
•Programa Operacional do Centro 2007 - 2013

Financial Instruments in Bulgaria

The law on renewable and alternative energy sources, as made official on 19.06.2007, introduces mechanisms for the promotion and encouraging of the production and the use of power made of RES, as well as setting out the rights and obligations of the executive power and the local municipalities in running state politics on encouraging the use of RES and in creating a national public system of available resources of RES and the producers of RES. Private operators can benefit from this law.

The law on the promotion of investments encourages initial investments in long-term material and non-material assets and new job places that arise as a result, as approved by Regulation (EO) N° 1628/2006 of the European Commission. The financial incentives for private investments are :
- Subsidizing 60% of the investment
- Financial Support
- Regulating the rights and responsibilities of executive authorities and local governments.

The European Bank for Reconstruction and Development (EBRD) has developed the Bulgarian Energy Efficiency and Renewable Energy Credit Line (BEERECL) which offers loans with incentive grant for renewable energy projects. The company, applying for financing under the BEERECL should have at least 51% private ownership. In addition, project sponsors receive an incentive grant upon project completion. The grant amount is calculated as a percentage of the loan principal amount.

Financial Instruments in Slovakia

There is no financial support for developing geothermal projects in Slovakia apart from standard European structural funds after respective approval of individual (mostly environmental) projects. The Ministry of Environment develops some regional hydro geothermal studies with calculation of available hydro geothermal energy resources, based on archive results. Some pioneer geothermal boreholes (one in approximately two or three years) are drilled in regions with unknown or less developed geothermal energy resources.

There are no grants, tax reductions, favourable financing, etc. to the persons who would plan to develop geothermal resources.

GEOTHERMAL NEWS

GERMANY

Germany boosts energy efficiency investment

The German Ministry of Economics and Technology has given its Energy Efficiency and Climate Protection programme a €15 million boost. The programme, which aims to accelerate the development of energy efficiency and clean energy technologies, will now have €115 million at its disposal this year. The additional funds will go towards efforts aimed at improving building efficiencies and developing fuel cell and hydrogen storage technologies.
By 2020, says the report, wind, solar, biomass, water and geothermal energy will make up 47% of the country's electricity demand. The projected growth in renewables capacity could lead to the creation of 250,000 more jobs in the sector, taking the total to half a million by 2020.
The country is placing high hopes on renewables to enable the current government's commitment to phase out nuclear power over the next 15 years, a move that is being fought by the industry.

RWE Innogy Starts Geothermal Joint Venture with Daldrup & Sohne

RWE Innogy has set up a joint venture with Daldrup &Söhne AG in order to develop, plan and construct a range of geothermal power stations in Germany and other locations in Europe.
The first step of the joint venture will be to develop RWE Innogy's existing deep geothermal drilling areas – for which permits have already been obtained, and to apply for further permits. However, plans are also in place to participate in geothermal and project development companies in Germany and other European countries.
RWE Innogy had already obtained permits for two deep geothermal projects from the Munich mining authorities in October last year – in Wildpoldsried and Unterthingau in the Swabian rural district of Oberallgäu in south-west Germany.
Over the next three years investigations will be carried out into the geothermal potential of this area

which covers some 100 square kilometres. Once the data has been analyzed, RWE Innogy and Daldrup & Söhneplan plan to drill up to 4,000 meters into the ground. Any geothermal facilities that are developed by the two partners will be built and operated by independent project companies.

Atlas Copco wins German geothermal power plant order

Atlas Copco has received an order to supply an expansion turbine for a geothermal power plant in Germany. The contract follows a similar deal in the United States last year, highlighting the continued growth of the environment-friendly geothermal energy market.
Atlas Copco's Gas and Process division has also agreed to cooperate further with the customer, Exorka International Limited of Iceland. The aim is to develop and advance the process technology used at the German plant, which differs in some respects from the U.S. geothermal project. The technology makes possible a wider use of geothermal power generation than in the past.
Exorka, which has its head office in Munich, is building a 5.5 megawatt power plant system in Mauerstetten, southern Germany. The plant will tap the country's most abundant geothermal resource, the so-called Molasse Basin, located between four and five kilometers beneath the earth's surface. Geothermal energy is obtained from natural hot water or steam basins, making it a significant source of renewable energy.
The process technology used at Mauerstetten is known as the Kalina Cycle. While not yet in widespread commercial use, this technology can be more efficient than conventional methods, especially when using lower-temperature heat sources for electricity production. A large part of the world's undeveloped geothermal resources show the low temperature range that is suitable for use of the Kalina Cycle.

New Support for Geothermal Deep Drilling

Geological weaknesses such as the Upper Rhine Rift or the Molasse Basin in the Bavarian Alpine Upland are considered to be especially adequate regions for geothermal energy mine water projects in Germany.
Here, huge reserves for climate-friendly and economical energy supply slumber. However, mine water projects here hold the risk that several thousand-meters deep, sufficiently high temperatures can also not be found. This is a high risk of often more than 10 million Euros, which accumulates in the investigation phase through test drilling. The Federal Environment Ministry, the KfW and the Munich Re Group made 60 million Euros available in financing for deep geothermal drilling.
With this credit program, the productivity risks of the projects in particular will be reduced. The investor will receive an expert assessment and monitoring of the project before and during the drilling phase. If no find is made, the investor will be released from having to repay the remaining amounts as soon as the project is considered a failure.

FRANCE

Elyo, Part of the GDF SUEZ Group, Develops Geothermal Energy in ILE-DE-FRANCE (Paris Region)

Elyo, an established player in renewable energy and a subsidiary of GDF SUEZ Energy Services, inaugurated the new geothermal power station in Sucy-en-Brie (Val-de-Marne) for urban heating.
In 2007, at the end of an initial 25-year contract during which Elyo developed this local and renewable energy, the town of Sucy-en-Brie decided to renew the contract for a further 18 years in order to increase the use of geothermal resources long term.
Elyo is once again illustrating its expertise in renewable energy and its commitment to protecting the environment. This new geothermal project will help prevent emission into the atmosphere of 8,800 tonnes of CO2 per year, the equivalent of more than 6,300 cars.
Elyo has drilled a new production well and converted the two existing wells into reinjection wells, creating the first geothermal "triplet" in the Ile-de-France region. Work on the project took place over a period of six months, from March to August 2008, completed with the extension of the heat distribution network from 3 to 4 km. This new 11 MW "geothermal loop" (previously 7 MW) will eventually supply power to 2,900 housing unit equivalents, compared with the current 2,350 units.
Representing a total of 5 million euros, the work was funded partly by Elyo, with assistance from the Ile-de-France region and the ADEME.
Elyo has established a dedicated branch in the Ile-de-France region. It brings together the technical, le-

gal and financial expertise required for this type of operation, offering a tailored response to its customers' specific needs. It manages the production of close to 200,000 MWh of geothermal energy in Ile-de-France, heating 24,000 housing unit equivalents.

PORTUGAL

Azorean Leaders Show Support for MIT Portugal's Green Islands Initiative

The Regional President of the Azores as well as Azorean business and academic leaders united in support of the MIT Portugal Program and its Green Islands Initiative during a visit to São Miguel island.

The goal of the Green Islands Initiative is to make two or more islands in the Azores extremely energy self-sufficient by 2018. Professor Ferrão stated in an interview with Azorean journalists that this effort would be led by "tripling the amount of energy drawn from renewable sources, in terms of primary energy."

President Carlos César met on January 22 with the leaders of the Green Islands Initiative, Professors Paulo Ferrão (also the National Director of MIT Portugal) and Stephen Connors. The meeting with President César capped a week of high-level meetings that established new strategic partnerships in support of the Green Islands Initiative with the Regional Government, regional electric utility Electricidade dos Açores (EDA), and the University of the Azores. Faculty leaders of MIT Portugal, from both MIT and Portuguese institutions, also toured a local geothermal power station.

ITALY

Enel Nears Completion of 2 Geothermal Plants in Nevada

Italy's largest utility Enel SpA (ENEL.MI) said it is about to complete the construction of two new geothermal power plants, with a total capacity of 65 megawatts, in Nevada.

In a statement, Enel said the plants will be able to meet the needs of 40,000 U.S. households.

The plants will contribute to the state of Nevada's goal of achieving a level of 20% power generation from renewable sources by 2015, Enel said.

HUNGARY

Hungary MOL ups stake in geothermal energy company CEGE to 50%

MOL, the Hungarian oil and gas group has announced that it had increased its 33% stake to 50% in the geothermal energy company, CEGE Zrt.CEGE(Central European Geothermal Energy Production Private Company Limited by Shares). CEGE Zrt.CEGE was founded in July, 2008 by three companies, MOL, the Australian Green Rock Energy International Pty Ltd and the Icelandic Enex hf.

The three founders had an equal one third share in the HUF6 million share equity of CEGE. CEGE's mission is to become a market leader in geothermal energy in Hungary through the exploration, production and sales of geothermal energy, the construction of geothermal power plants and technologies for directly supplying thermal heat.

TURKEY

Turkey to focus on geothermal energy projects-energy minister

Turkey plans to launch around $120 billion-worth of investment for energy by 2020 with the major part of these will be constituted to the geothermal energy projects.

Mr. Hilmi Guler, the Turkish minister of Energy said at GeoFund Geothermal Workshop in Istanbul that with the introduction of the regulations and the legal procedures, Turkey is looking forward to submitting this environment friendly energy type. The new regulations in electricity prices would also increase competitiveness in the market, Guler also said.

The workshop focusing on attracting investor attention in geothermal energy in Europe and Central Asia (ECA) as part of the World Bank's Geothermal Energy Development Program (GeoFund).

Mr. Helmut Schreiber, an official from the World Bank GeoFund said with the right market conditions Turkey is expected to be the largest GeoFund country in the workshop which was organized under the cooperation of the World Bank Partnership International, an agency providing regulatory, institutional, technical and financial advice to clients on infrastructure investment projects.

USA

US pumps $84m funding into geothermal energy

The US Department of Energy last week announced up to $84m of new funding for enhanced geo-

thermal energy technologies, inviting applications for the grants from both technology manufacturers and geothermal project developers.
Currently, geothermal power plants in the US are limited to a few areas in the western US where geological formations mean are high subterranean temperatures are combined with easily-accessible geothermal water resources.
However, the DoE is hoping the development of so-called Enhanced Geothermal Systems (EGS), where wells are dug to depths of over six kilometres and artificial subterranean reservoirs are created that can be used to create steam to drive turbines, will make geothermal power plants viable in large parts of the western and southern states.
The funding follows the launch last year of a major initiative from the Department of the Interior to make more than 190 million acres of federal land, spanning 12 western states, available for the development of geothermal energy.

EUROPEAN – INTERNATIONAL NEWS

Assessing Geothermal Potential without Drilling in the Future?

Deep geothermal energy is a growth market. In Iceland, the yearly energy supply is currently doubling at more than 500 MV. In Central Europe, volcanic bedrock can not be tapped, the effort for geothermic use is accordingly larger: the drill must be more that 4,000 meters deep in order for the heat to suffice for a geothermic plant.

As part of the EU project “I-GET”, geoscientists from various European nations are developing new procedures in order to more accurately localize geothermic sites – and this, without running expensive test drilling beforehand. They are investigating the subsurface structure of the earth’s crust through seismic and magnetotelluric measurements.

I-GET experiments are also being conducted in the GFZ-research drilling near Groß Schönebeck, northwest of Berlin. These projects should greatly promote the technology so that it can be used more broadly in Europe.

IRENA: The new green energy body

The International Renewable Energy Agency (IRENA) has been created to fund, encourage and promote green energy especially in developing countries, as well as the rest of the world, which is absolutely essential if we are to succeed in reducing greenhouse gas emissions. The establishment of IRENA is a positive signal in the run-up to the Climate Change Conference in Copenhagen later this year. The ambition is that IRENA should be an effective organisation, with clear targets, for promoting the use of renewable energy and give effective solutions in order to reduce greenhouse gas emissions.

IRENA will focus on promoting geothermal energy, hydropower, bio energy, solar and wind energy, and ocean and wave energy. Presently IRENA, which is open to every UN member nation, is the only global body dedicated solely to promoting renewable power.

Supporting and Advancing Worldwide Geothermal Energy Use Through International Cooperation

The International Energy Agency (IEA) Implementing Agreement for a Cooperative Programme on Geothermal Energy Research and Technology, or Geothermal Implementing Agreement (GIA), provides an important framework for wide-ranging international cooperation in geothermal R&D. Its activities presently cover four different research areas: Environmental Impacts of Geothermal Development, Enhanced Geothermal Systems, Advanced Geothermal Drilling Technology and Direct Use of Geothermal Energy.
The GIA has begun its third 5-year term of operation, which ends on 31 March 2012. The mission for this term is to promote the sustainable utilization of geothermal energy throughout the world by: improving

existing technologies, developing new technologies to render exploitable the vast and widespread global geothermal resources, facilitating the transfer of know-how, providing high quality information and widely communicating geothermal energy's strategic, economic and environmental benefits.
As of February 2009, there are 19 Members: 12 Countries- Australia, France, Germany, Iceland, Italy, Japan, Mexico, New Zealand, Republic of Korea, Spain, Switzerland, the United States; the European Commission, and 6 Sponsors: Canadian Geothermal Energy Association, Geodynamics Limited, Geothermal Group of Spanish Renewable Energy Association, Green Rock Energy Limited, ORMAT Technologies Inc. and ORME Jeotermal.

GEOFAR News

Participation in conferences & other activities

1. Exploratory meeting between Energo Group and the European Investment Bank (EIB)

GEOFAR project joint leader Energo Group (WP3 leader), held an exploratory meeting with officials of the European Investment Bank at the EIB head office in Luxembourg on 20th February 2009. Messrs Schulze, Taksz, Kerins and Coveliers of the EIB attended.

EIB stressed the need to get informed at the earliest possible moment of geothermal projects that may be seeking financing through the renewable energy sources financing programme of the bank. EIB already have some experience with geothermal projects. They are interested in projects with high-quality geothermal resource that can remain viable in the long run without subsidies. EIB stressed that they view geothermal energy as a mature technology that cannot deliver the projected increased efficiencies of emerging technologies such as photovoltaic, solar, offshore windpower, tidal and biofuels. However, they see a significant role for geothermal energy and a need to support suitable and suitably-prepared projects.

Communication with the EIB will continue for the duration of the GEOFAR project. Further meetings with the EIB will be held in 6 months' and 12 months' time to discuss specific projects that will have come through the GEOFAR pipeline.

2. Second GEOFAR Meeting in Paris

The EU-funded project GEOFAR – Geothermal Finance and Awareness in European Regions, which deals with the application and promotion of geothermal energy in Europe, continues to evolve through sustained work and several dissemination activities.

The GEOFAR project team held a co-ordination at review meeting on March 12th and 13th in Paris for the second time in order to review the last six months process of the project and discuss the different steps and forthcoming activities. The meeting took place at the offices of BRGM in Paris, the France's leading public institution involved in Earth Sciences.

The partners who attended the meeting were Mr. Marco Wendel and Mr. Michael Laubenheimer (Erlangen AG, Project Leader), Ms Florence Jaudin and Ms Adeline Poux (BRGM), Mrs. Vassiliki Douka (Energo Group), Mr. George Hatzigiannis (IGME Greece), Mr. Imolauer Kai (Rödl & Partners), Mr. Costis Stambolis and Mr. Nicholas Sofianos (IENE) and Mr. Pedro Perpetuo (ARENA). The presence of Mrs. Dana Dutianu, EACI representative and GEOFAR project officer should be underlined. Mrs. Dana Dutianu's presence was of high importance as it was necessary for her to be informed firsthand on process of the project, propose solutions, and ensure the project's development in the right direction.

During the two-day meeting, several issues were discussed such as the partner change from SOGEO to ARENA and the progress of non – technical barriers

analysis (an analysis that aims to reveal the main reasons which hinder the initial stages of geothermal energy projects). In addition, each Work Package leader presented their plan and the strategy for the next six months in accordance with the initial project schedule. Finally, Mr. Costis Stambolis from IENE (Greece) made the official presentation of the GEOFAR Web Site. The web site is currently on line, at www.energia.gr/geofar and it will be in a trial phase for about three weeks in order for its content to be finalized and will then move to the original URL www.geofar.eu.

3. The EGS[1] project pilot plant of Soultz by BRGM

By the time this project provides electricity from the subsoil heat, an assessment of the scientific result will have to be issued. For that reason, the EHDRA[2], scientific forum concerning the Soultz project, is going to produce a position paper whose directing lines are going to be presented during the final conference of the European project by the end of September2008 at Soultz.
The completion of the Soultz project is also going to contribute to the realisation of scientific progress of twenty years of expertise. A several number of theses were supported and about 200 publications were released between 2001 and 2008. Moreover, the ENGINE[3] European project, a platform of information network, among those involved in geothermal energy sector in Europe, is going to produce a Best Practice Handbook.

This document is not only going to summarize facts and methodologies of the EGS project, but also the needs and the shortcomings identified during the exploration, drilling, stimulation and exploitation phases. The Soultz and the EGS are the most well-known projects in the geothermal energy sector worldwide.

[1] EGS: Enhanced Geothermal System
[2] EHDRA: European Hot Dry Rock Association
[3] ENGINE: Enhanced Geothermal Innovative Network for Europe

4. GEOFAR Report: "Financial Instruments as Support for the Exploitation of Geothermal Energy"

BRGM is getting studied the non-technical barriers (regulatory, administrative, economical, social etc) with a special focus on the financial issues. Each partner made a list and an analysis of the financial and funding instruments (public or private) existing in their country (like Feed-Inn Tariff, subsidies, funds, etc.,) that are dedicated to support deep geothermal energy projects (or dedicated to renewable energy in general).

To complete this analysis, interviews are lead with financial institutions involved in geothermal energy or not to get their own point of view. All these analysis are getting gathered in a report "Financial instruments as support for the exploitation of geothermal energy". This report will be the basis for the Energo Group, which main aim is to develop new financial schemes. Parallel to that, a selection of case studies from all countries involved should permit to begin the analysis, following a template made to make the comparison easier.

These operations could be operating plants, project on going or failed project. Their analysis should also permit to meet investor or operator to discuss about those barriers.

5. Exploratory Meeting between Rödl & Partner and Hungarian Ministry for Environment / Hungarian Office for Mining and Geology

On January, 22nd Rödl & Partner consultants, Kai Imolauer and Maria Ueltzen, met in Budapest Mr. Tamas Hamor, Head of Division of Regulatory and International Affairs from the Hungarian Office for Mining and Geology. After the presentation of the GEOFAR – project, they discussed above all the present regulatory situation, geothermal projects under development in Hungary and further possible other non-technical barriers.
In a further meeting the consultants of Rödl & Partner met with representatives of the Ministry for Environment and discussed the present existing financial support instruments of the government. Besides, the present planned changes in regulatory matters concerning geothermal projects and above all the definition of size of concession fields were the topics. The Ministry is willed to cooperate for the preparation of a geothermal workshop under the GEOFAR – Project in Budapest in 2010. Concerning financing generally the Hungarian economy is passing a difficult period.

Kalina-power plant Unterhaching

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