ENGINE – Project
2nd WP 5 Meeting
14.09.2006 in Strasbourg, France

– Minutes –

Place: Hôtel Regent Petite France, Strasbourg, France
Begin : 14th September 2006, 8.30 a.m.
End: 14th September 2006, 10.15 a.m.

Participants
See attached list of participants

Procedure

1. Welcome address by the coordinator of work package 5, Martin Kaltschmitt (IE).

2. Discussion of the article "Economic Approach of Geothermal Energy"

- The aim of the article was clarified as a comparison between different European countries concerning their current situation of energy production from geothermal resources. Within this comparison power as well as heat production are addressed in order to analyze the driving respectively prohibiting forces. One conclusion – which could already easily be identified at this meeting – is that energy production from geothermal low enthalpy resources in Europe is not yet economic viable; hence the use of geothermal energy in these countries is a matter of the respective market situation and/or existing supporting measures. Geothermal heat production in Europe is therefore predominantly driven by the fossil fuel price (e.g. the gas price) and worth to consider at the moment due to the strong increase in energy prices. Even in the Netherlands with traditionally low gas prices the first approach is made to use geothermal energy from deep resources to heat the greenhouses of a tomato farm. Electricity production in contrast cannot compete against the general market prices at the moment and therefore is only economically viable if supporting measures are in force. In Germany for example geothermal power production is promoted with a feed-in-law of 15 ct/kWh which resulted and still results in a huge number of projects. In France – with comparable geological circumstances in some areas and with already widely used geothermal heat – on the other hand geothermal electricity production is not yet tackled in many projects.

- With the case studies to be presented within our paper these shortly addressed examples as well as other examples of different European countries should be described and analysed more in detail. Based on representative energy costs and a similar methodological approach a comparison between different countries and different sites should be possible. To sum up each case study conclusions should be drawn in order to identify e.g. lacking supporting measures, measures which can and cannot be influenced, possible synergies with other energy sources etc. In Germany for example one project is aiming for a combined electricity production with biogas and geothermal energy to improve economics; another possibility might be to point out the combination of geothermal energy use and intelligent storage of heat produced time shifted and/or by other sources. Additionally the political measures in force and/or the needed frame conditions should be presented and discussed.

- Some of the case studies have already been filled out by the WP 5 partners. The missing questionnaires should be filled by the partners and send to us by October 13th 2006 After having obtained all questionnaires, IE will compile all information and draw conclusions from a European viewpoint in a long version. This version will be available for all Engine partners. Secondly a short version of 15 to 20 pages will be prepared by end of November. This version will be discussed on the mid term conference at the beginning of January and afterwards published in e.g. Geothermics or another reviewed journal.

3. Discussion of the article "Socio-Economic Benefits of Geothermal Exploitations"

- The purpose of this article was discussed. Thereby the problem of the expression "socio-economic benefits" was addressed. Depending on the viewpoint different issues can be associated with this expression. During the discussion it emerged that socio-economic benefits can only be estimated based on very expensive methodological approaches. Within the available resources of the project and the huge variety within Europe such a study is hardly feasible. Furthermore it was indicated that – keeping the aim of the Engine project in mind – the promotion of geothermal energy production in Europe is more a matter of identifying and analysing non-technical barriers than socio-economic benefits. Non-technical barriers contain besides social considerations (e.g. public awareness) also aspects of administrative (e.g. legal, bureaucracy), economic (e.g. financing, assurance), environmental and miscellaneous problems. Therefore the article "Socio-Economic Benefits of Geothermal Exploitations" was turned into "Non-technical barriers of Geothermal Exploitation".

- With a comparable approach to the other article the non-technical barriers should be identified and analysed in a first step by each WP 5 partner on a national level and afterwards compiled and approached on a European scale by IE. Therefore a questionnaire dealing with non-technical barriers for geothermal heat and/or power generation is sent around with these minutes. Each WP 5 partner is then asked to contribute in total at least half a page answering each question till end of November 2006. The first draft of the article will be discussed on the mid term conference.

4. Discussion of the work package schedule

- The next work package meeting will take place during the mid term conference in 2nd week of January 2007 in Potsdam. The final drafts of the articles about the economic approach and the non-technical barriers as well as the upcoming articles "Environmental Impacts" and "Increasing Policy Makers Awareness and Public Acceptance" for 2007 will be discussed during this meeting.

- The workshop "Increasing Policy Makers Awareness and Public Acceptance" is postponed to September 2007 and will take place in Milos.

5. Closure of the WP meeting by Martin Kaltschmitt.

Attachments:

List of participants
Slides of 2nd WP 5 meeting
Questionnaire for non-technical barriers of geothermal exploitation

List of participants

Attendant:

LE BEL Laurent, Bureau de Rechereches Géologiques et Minières, BRGM (France)
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CALCAGNO Philipp, Bureau de Rechereches Géologiques et Minières, BRGM (France)
LOKHORST Ed, Netherlands Organisation For Applied Scientific Research, TNO
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MENDRINOS Dimitrios, Centre of Renewable Energy Sources, CRES (Greece)
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POVAROV Oleg, Intergeotherm SC (Russian Federation)
NIKOLSKIY Alexander, Nauka SC (Russian Federation)

Absent:

ALICHAEV Mukhtar, Institute for Geothermal Research, IGR (Russian Federation)
MANZELLA Adele, Instituto di Geoscienze e Georisorse, IGG (Italy)
MATHIESEN Anders, Geological Survey of Denmark and Greenland, GEUS (Denmark)
KÖHLER Silke, GeoForschungsZentrum Potsdam, GFZ (Germany)
IRMINSKI Wojciech, Panstwowy Instytut Geologiczny, PGI (Poland)
SHPILRAIN Evald, Institut vysokikh temperatur Rossyiskoi academii nauk, IVTRAN (Russian Federation)
KAYA Tevfik, ORME JEOTERMAL A.S., ORME (Turkey)