

# ProHeatpump

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Promotion of efficient heat pumps for heating

Introduction Conference Varna

*Duration:* 12/2006 – 05/2009

*Contract N°:* EIE/06/072

*Version 26th March 2009 Ulrich Müller*

## *Background*

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About 40% of the energy consumption in Europe is used for buildings and the Lion's share of this energy is consumed for heating preponderating by the use of fossile fuels. Heat pumps produce an adequate and eco-friendly heat supply with 75% geothermal power or environmental heat and 25% electricity.

Key objective of the project is to show how to reduce the use of fossile fuels for heating by the use of efficient heat pumps. Thereby the availability of raw materials for energy production will be increased and the dependence on world energy markets as well as the production of CO<sub>2</sub> decreased.

## Objectives and main steps

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- To achieve a further reduction of the use of fossile fuels technological and economical aspects of heat pumps in relation with renewable energies are investigated.
- To promote innovative technologies with low market shares it is not sufficient to inform experts. It is necessary that policy makers produce a „positive climate“ for this technology. In a first step of the project available information are examined and communicated to the target groups (SME, enduser and installers). For this reason Political measures and its effects as well as marketing strategies for promoting heat pumps will be evaluated and recessed for different countries.
- Adequate, practical information materials are developed, the evaluated results are communicated to the target groups (enduser, SME, installer, policy etc.). The web serves as media, but mainly also direct communication with the target groups, workshops and conferences.

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## Summary

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### What we do

Overall project goal is promote energy efficient heat pumps for heating for the residential sector and SMEs. Promotion of heat pumps will be done in defined target areas by the means of improved and steady information on heat pumps of the target groups end users and installers as well as policy makers. Another important project topic is the investigation and evaluation of combinations of heat pumps and renewables.

### Framework

Lead partner of the project is the swb Netze in Bremerhaven (Germany) which carries out the project in cooperation with rwe Energy (Germany), Univesity of Edinburgh (UK), SP and the South East Sweden Energy Agency (Sweden), GRETh (France) and DLAEM (Bulgaria)

### What we expect to achieve

- Increase the number of heat pump installations in selected target areas.
- Creation of suitable and practical information material for each target group (installers, end users and policy makers) on heating by the means of heat pumps.
- Development of improved marketing strategies to promote heat pumps countries with low market penetration but high potential for heat pumps.
- Presentation of favourable conditions for the combination of heat pumps and renewables

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## *Expected Results*

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- ❑ Increase the number of heat pump installations during the project time on selected target areas.
- ❑ Suitable and practical information material for each target group (installers, end users and policy makers) on the possibilities and the advantages of heating by the means of heat pumps.
- ❑ Improved marketing strategies to promote heat pumps in European countries with low market penetration but high potential for heat pumps. Based on experiences from countries with high market share
- ❑ Presentation of favourable conditions for the combination of heat pumps and Renewables

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## Partners & Contact

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### Project lead partner

swb Netze Bremerhaven GmbH & Co. KG  
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Germany  
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### Project Coordinator

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DLAEM Dobrich Local Agency for Energy  
Management  
[www.dlaem.org](http://www.dlaem.org)

RWE Energy RWE Energy AG  
[www.rwe.com](http://www.rwe.com)

ESS Energikontor Sydost  
[www.energikontor-so.com](http://www.energikontor-so.com)

SP Technical Research Institute of Sweden  
[www.sp.se](http://www.sp.se)

GRETH Groupement pour la Recherche sur  
les Echangeurs Thermiques  
[www.greth.fr](http://www.greth.fr)

UEDIN The University of  
Edinburgh (ISSTI)  
[www.issti.ed.ac.uk](http://www.issti.ed.ac.uk)

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## First Results

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- It can be stated that a developed gas grid seriously hampers the promotion of ground source heat pumps. The high cost of HP units and of drilling boreholes puts the price of a heat pump installation at between two or three times that of a state-of-the-art gas boiler. Owners of newly constructed houses are reluctant to take out additional loans to finance a more expensive heating system even if in the longer term it would be much more cost effective.
- Installing HPs in the renovation of old houses is problematic, as a serious energy audit often indicates that for a heat pump to be economic and effective, expensive additional measures like insulation of roof and wall cavities or a new heat distribution system would be required.
- The explosion in energy prices however seems to have a clear impact on the attractiveness of investment in heat pumps, and market growth is likely to be much faster with the new energy prices.
- The heat pump market comprises two distinct segments with quite different structures and distribution channels. One is the private residential market with largely standard industrially produced systems; the other is for public or business facilities which use bespoke systems designed and assembled by specialist companies. Enhancement of marketing strategies must consider this as a starting point.

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