

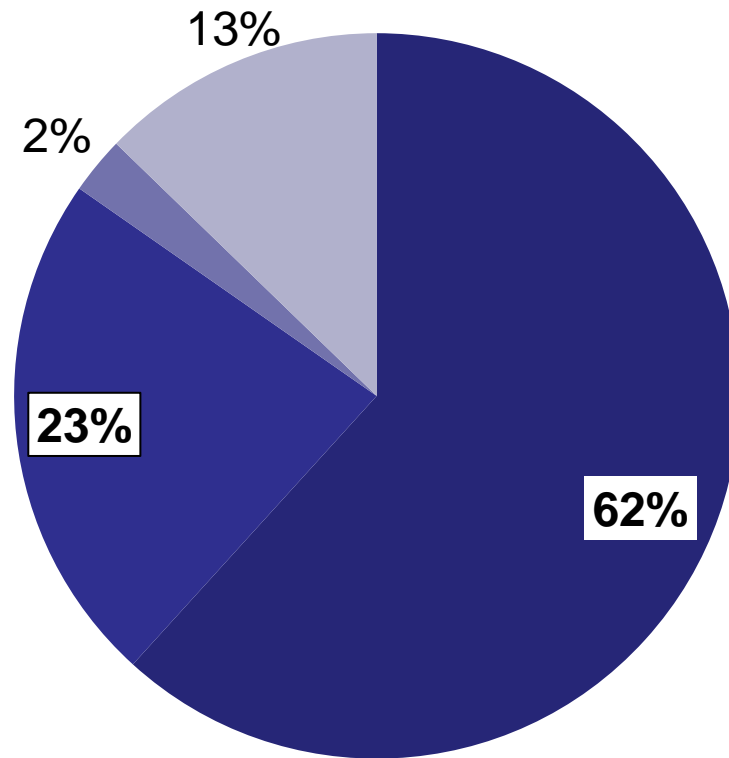
INNASOL GROUP

Driving a revolution in Renewable Heating



Domestic Energy Consumption per Household UK

■ Space heating ■ Water ■ Cooking ■ Lighting and appliances



Source: Building Research

➔ 85% of Energy Consumption goes for heating and hot water!

ABOUT HEATING

- 99% of UK Homes are heated by a 400.000 years old technology
 - They burn fossil fuels
 - Building sector is responsible for more than 40% of CO₂ emissions
- ➔ This has to be and will be changed in the next years**

The world is moving from fossil to clean electricity

ELECTRIC,
FROM THE
GROUND UP

MODEL S VEHICLE ENGINEERING →



Heat Pumps are Powered by Nature



20 % Electricity

***80% Energy from
Nature***



100% of heating (no oil, no gas)

Lowers energy bill by 40% and avoids 4 tons of CO₂/year.

INNASOL GROUP

- Innasol Group is a leading & fast growing renewable energy company.
- Innasol Group and its partners have a 30 year track record and sold more than 100.000 renewable heating systems.
- Innasol Group and their partners employ more than 200 people which are focused on next generation renewable heating systems.
- Innasol acts as a one-stop-shop supplier in emerging renewable heat markets.

INNASOL IS EXCLUSIVE DISTRIBUTOR IN UK FOR

- ETA Biomass Systems

www.eta.co.at



- NEURA Heat Pumps

www.neura.at



UK MARKET

- UK housing stock: 22.3 million dwellings (as of 2009)
- Insulation:
 - Only 14% have an high energy efficient rating (A-C).
 - This means 86% of the UK housing stock is out of date.
- Heating:
 - Currently installed less than 250.000 Renewable Heating Systems.
 - 99% of the UK housing stock is out of date.
 - 10m Homes with Stone Age Heating Systems (Super-Polluter)
- UK is amongst the worst performing renewable countries.

Example: Newly built house

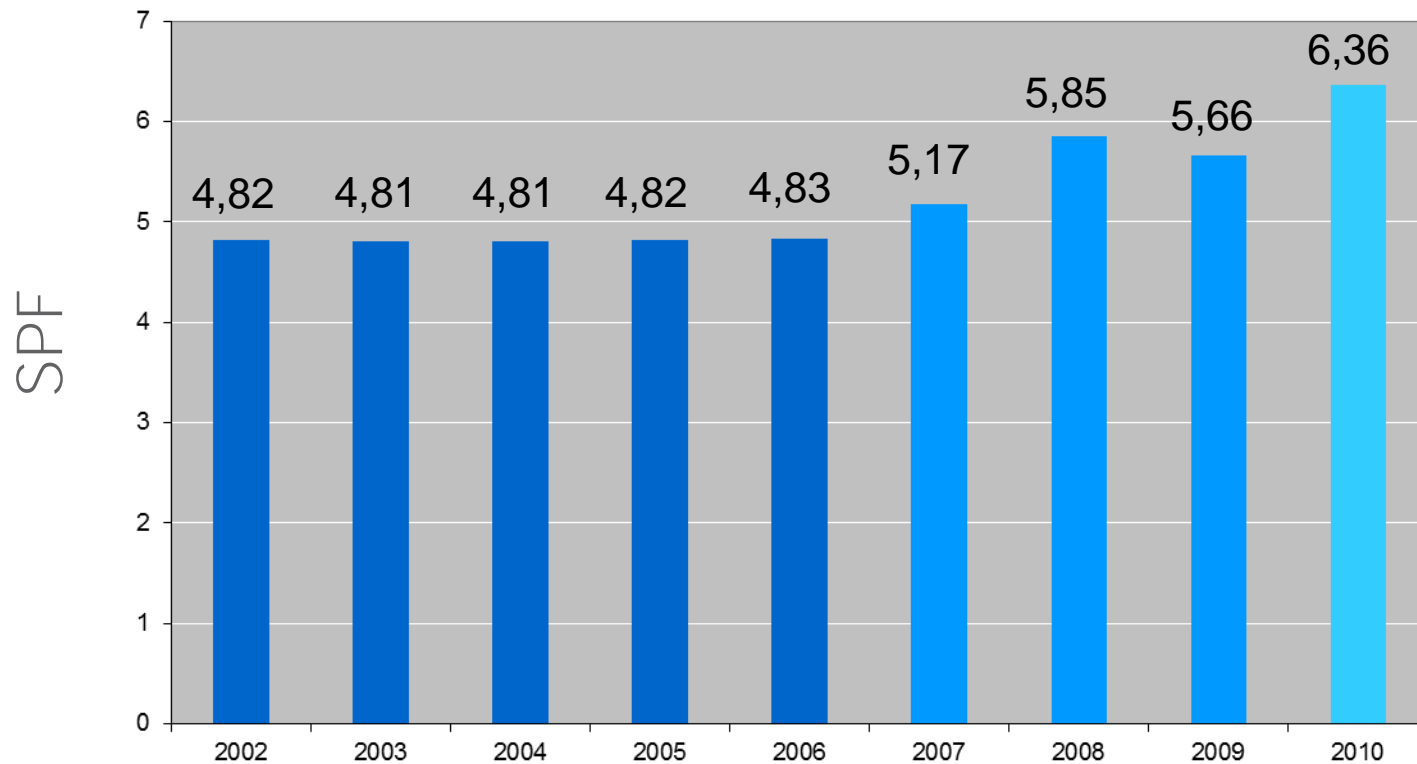
- 175 m² living space, 4 person household
- NEURA GSHP, 10 kW
- € 37,- heating costs
incl. warm water per month!
- 60% of new built in Austria and
- 90% of all houses in Sweden are heated by heat pumps!
- More than 750,000 heat pumps sold in Europe in 2010



Live Data and Statistics

NEURA customer

- Measured Seasonal Performance Factor (delivered COP) on annual basis



NEURA Heat Pump User Interface Room Controller / Mobile Interface

DESCRIPTION

- Full iPhone/iPad support
- Online software update
- User based access levels
- Full smart phone functionality



NEURA – Next Generation Heat Pump Technology



NEURA at a Glance

- Leading renewable energy technology company
 - Next generation smart heat pump technology
 - Intelligent heat pump management software
- Technology leadership in renewable heating
 - Greater efficiency than rivals; 5+ COP
 - 3 times faster to install
 - Unique operating and management features
- 5 year warranty



Heats Pumps are highly efficient

- Heat pumps are used to extract energy from a natural renewable source, i.e. ground, water, air
- They can provide 100% of a building's heating and hot water requirements
- A small amount of electricity is required to run the mechanics of a heat pump
- UK's damp, mild winters provide us with the ideal ground and water temperatures to operate heat pumps

NEURA Product Portfolio

NEURA Groundwater NDW[®]

Water source heat pump



NEURA Geothermal Energy NDX[®]

Direct evaporation ground source heat pump



NEURA Air NDA[®]

Air source heat pump



Deep Drilling NDB[®]

Soil/Water ground source heat pump



Soil as a heat source NDX[®]

Horizontal collector (direct evaporation)



Horizontal collector (direct evaporation)

Soil as a heat source

- Installation depth: 1.20 – 1.40 m
- Collector surface: Dependent on heat requirement 1.5 to 2.0 times the heated surface
- Pipe material: Plastic sheathed copper pipe (DE)
- Planting: All types (except for deep-rooted plants)



Applications for Heat Pumps

- Heat Pumps are ideally suited for lower temperature based heating systems, i.e. underfloor heating systems or low temperature radiators
- Maximum efficiency is achieved from producing water temperature of 30-35 degrees C
- Heat pumps can heat water to temperatures of 60 degrees C
- Can be applied to single housing for independent heating systems
- Can be applied as an independent source or in combination with other heating systems for apartment blocks, offices or multi-housing schemes with district heating systems
- Ideal for commercial projects such as nursing homes, hospitals, schools where very regular temperatures are required
- Other ideal applications would include swimming pools, recreational and sport centres

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