

PRESS INFORMATION (background information)

What is Solar Thermal Energy?

Solar thermal is based on a simple principle: the sun heats up water contained in a dark vessel which acts as a heat transfer medium. This old mechanism is more relevant and promising than ever in the current energetic and environment context where heating and cooling are responsible for nearly 50% of Europe's energy demand.

What is the difference between solar thermal and photovoltaic?

Solar thermal and photovoltaic technologies both use the solar irradiation to provide energy. But whereas solar thermal systems produce heating and also cooling, photovoltaic (PV) devices generate electricity via an electronic process that occurs naturally in certain types of semi-conductor materials.

A brief historical overview of solar thermal energy

Solar thermal has been used for thousands of years before the first solar domestic hot water systems were built at the beginning of the 20th century in California. In Europe, the construction of solar thermal systems dates back to the 1970's, boosted by the oil crisis. During the 1990's solar thermal developed into a professional and high-tech sector with a very high potential for further growth.

A diversity of applications

Solar thermal is a proven technology with a broad range of uses. However, some applications are more wide-spread than others. Systems intended to supply domestic hot water are the most common and an increasing number of combi-systems additionally provide solar thermal energy for space heating.

Furthermore, solar thermal is increasingly used in other high potential segments, such as solar assisted cooling, industrial process heat and solar district heating.

A growing market

Solar thermal is now an established international industry which represents an ever growing share of the energy market. In 2008 the solar thermal capacity in operation surpassed 19 000 MW_{th} in the 27 EU Member States and Switzerland which is

almost five times more than in 1998! And the industry represents more than 40 000 full-time jobs.

Medium and long-term perspectives are highly favourable for solar thermal providing sufficient investment and R&D are made. Solar thermal could count over 450 000 jobs by 2020 and cover 50% of European heat demand in 2050.

**Why chose solar thermal?
Key benefits of solar thermal at a glance**

| Environmental benefits | Economic benefits |
|--|---|
| <ul style="list-style-type: none"> - Inexhaustible - Reduces the dependency on imported fuels - Saves CO₂ emissions - Curbs urban air pollution | <ul style="list-style-type: none"> - Creates local jobs and stimulates the local economy - Provides stable energy prices - Cost effective and reliable energy sources - Immediately available all over Europe |

Press contacts

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