

WHAT IS SOLAR ENERGY

The world's biggest power socket

The sun is the ultimate power resource in the universe. Each year it hits our planet with around 174 petawatt, a staggering figure, which equals 5000 times the earth's total energy use per year. The potential in converting this natural resource into usable energy like heat or electric power is so immense, that it among climate experts and energy scientists is generally acknowledged as the definitive energy supplier of the future.

READ MORE ABOUT SOLAR TECHNOLOGY

www.solarcap.dk

Are you looking for quick answers on solar energy, please log on to solar-cap.dk. The website contains essential knowledge on solar energy, solar heating technology and the potential of active housing.

WHY SOLAR ENERGY?

Five good reasons to seize the potential

Solar energy is one of the 21st century's most promising and accessible technologies. The recent success, which primarily comes from thermal conversion of solar radiation into heat, builds on five easily conceivable advantages:

- The sun delivers a free, unlimited resource
- The sun is a pure, natural energy source
- The sun provides fixed, predictable energy prices
- The sun can be exploited with simple, flexible, well-proven technology
- The sun's potential offers an inevitable factor in reaching EU's energy target by 2020

SOLARCAP - WHO ARE WE?

SolarCAP – the solar heating specialists

The SolarCAP Group is among the market leaders in Europe, with subsidiaries in sales and production in a number of countries inside and outside Europe.

SolarCAP A/S
 Breeftevej 18
 DK-2970 Hørsholm
 Tel +45 39 69 11 44
 Fax +45 39 57 04 02
 info@solarcap.dk
 www.solarcap.dk



SolarCAP is the operative holding company of the VKR Group's business area 'thermal solar energy' which consists of the following companies: General Solar Systems (of which SONNENKRAFT, pro solar and Isisun are the most important brands), GREENoneTEC Solarindustrie, EMMVEE Solar Systems, ARCON Solvarme and Heliodyne Corporation. These companies develop, manufacture and market thermal solar energy systems.

© 2009, The SolarCAP Group



1

AN UNLIMITED RESOURCE

The sun is the ultimate energy supplier

It's a known fact that just 0.01% of the energy coming from the sun – if converted properly – would be able to cover the energy needs of each and every consumer on our planet. The sun has tremendous power and delivers so much energy that even such a modestly sized and often cloudy country as Denmark receives a total of nearly 5 terawatts every year. That is one third of the energy consumption of the entire planet. Even compared

to other natural sources such as wind, hydro or geothermal power, the sun is far superior. Each year the continents receive approximately 23.000 terawatts of solar energy. Wind provides 25-70 TW.

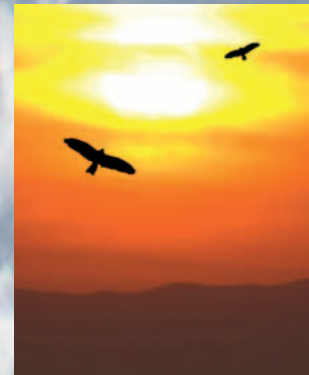


2

PURE, NATURAL – AND UNNOTICEABLE

The most natural thing next to breathing

Solar energy is delivered by nature itself with no use of fossil fuels – and a further advantage is that it makes absolutely no noise, leaves no odour or other environmental by-products. Solar energy is a natural part of our everyday life, it's all around us and it even works with no complicated machinery or technology. The low-tech approach to squeezing precious calories out of sunlight is a major plus, because there is no disturbance from big movable components, combustion techniques etc. A solar application – whether big or small – can remain virtually unobtrusive on a horizontal field or be seamlessly integrated in a house roof. There it will simply convert solar radiation into hot water, which can come to good use for numerous purposes, without a sound or a smell.



3

PREDICTABLE ENERGY PRIZES

A free energy source supplying power to the consumers

Today's energy consumers are subjected to the constant changeability of the energy market and a number of countries' ongoing quest for profit. Changing from oil, gas and coal to a renewable resource like solar energy will ultimately bring consumers much closer to the power source. In effect the uncertainty of energy supply will be minimized, because the consumers won't have to rely on discussions concerning energy in the international community or in the energy companies. Instead the price per watt is determined by the cost of having the solar application implemented and maintained locally – an expenditure which is both affordable and easy to forecast.



4

SIMPLE, FLEXIBLE, WELL-PROVEN TECHNOLOGY

Converting solar radiation into heat is clean and simple

The use of strong and clear-cut technology makes today's thermal solar applications a safe and durable energy solution for single homes as well as entire communities. Solar heating is environmentally sound and cost effective and can be used in small systems for private residences, medium-scale systems for blocks of flats, hotels, industrial processes, etc., and large-scale systems for district heating. Add to this that solar thermal systems can be

combined in various ways, and it is very simple to use with other energy sources in homes – be it geothermal energy, natural gas, oil furnaces, fuel furnaces, heating pumps or electric heating, etc.



5

EU'S ENERGY TARGET 2020

The potential will give solar technology a key role

According to EU's statistical pocket-book 2009, households, office buildings and similar service providing facilities account for almost 40% of EU's energy consumption. That makes the sector EU's primary energy user, while transportation and industry appear on 2nd and 3rd place. Thus the building sector – and not least the area of refurbishing – gets a key role in EU's efforts to increase the share of renewables to 20% by 2020. With less than

1% of the world's current energy consumption coming from solar energy, the potential of solar energy seems enormous.

