Strengthening solar heat for industrial processes – IEA SHC launches new research project

May 2012. The IEA Solar Heating and Cooling Programme (IEA SHC) has launched a 4-year research project aimed at the growing market for solar heat in industrial processes. Researchers of IEA SHC and SolarPACES will work on hard- and software in order to make solar an even more attractive option for industrial applications.

"Industrial use of solar heat is clearly on the rise," says Christoph Brunner, leader of the new IEA SHC project Solar Process Heat for Production and Advanced Applications (Task 49). “Until a few years ago, it seemed that this topic was mostly driven by academics, but with ever increasing energy prices industrial users of heat have newly discovered solar energy as an attractive option.”

Last year, the researchers from 5 countries had carefully analysed what hindered more industrial companies to use solar energy for their thermal energy demand. The result was not one big road block but a bundle of issues which are now addressed in the project:

- Process heat collectors: improving existing collector designs and extending test standards to allow for quality assurance of these important components
- Overall system design: reviewing and improving the way solar thermal is integrated into industrial heating systems
- Guidelines: Development of monitoring tools and design guidelines supporting those who plan and install solar installations for industrial process heat.

The project, which will run until the end of 2015 is jointly organized with the SolarPACES programme of the IEA.

“About 1/3 of industrial heat use is at temperatures up to 100°C – which can be supplied with market available collectors already today”, says Christoph Brunner. “In specific industries, such as food and beverages, machinery or textiles, 60% of the heat used is below 250°C. Our project aims at both temperature segments and will help tap into this huge potential for solar energy”.

Further information:
- Project webpage: www.iea-shc.org/task49/index.html
- SolarPACES programme: www.solarpaces.org
About the International Energy Agency’s Solar Heating and Cooling Programme (IEA SHC):

- The Programme was established in 1977.
- Its objectives are co-operative research, development, demonstration and exchange of information regarding solar heating and cooling systems.
- 20 countries and the European Union are IEA SHC members.
- The research topics of the current 9 projects range from more general topics, such as “Solar resource assessment and forecasting”, system research, such as “Large solar thermal systems” to material research, such as the use of “Polymeric materials for solar thermal applications.”
- Additional information: www.iea-shc.org

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