Solar Process Heat

The second newsletter of the Intelligent Energy Europe Project SO-PRO

The IEE-project "Solar Process Heat" (SO-PRO)

The IEE-project "Solar Process Heat" (SO-PRO) aims at triggering the starting-up of markets for solar process heat in 6 European regions. The project is coordinated by the O.Ö. Energiesparverband, the energy agency of Upper Austria. The following partners from 6 European regions and 1 scientific partner are implementing the project:

- ESCAN (Spain/Castillias and Madrid regions)
- Energy Centre České Budějovice (Czech Republic/ South Bohemia)
- GERTEC (Germany/North-Rhine Westphalia)
- Sächsische Energieagentur (Germany/Saxony)
- Energy Agency of Podravje (Slovenia/Maribor region)
- Fraunhofer Institute for Solar Energy Systems
- O.Ö. Energiesparverband (Upper Austria)

For further information, please visit the project website www.solar-process-heat.eu

If you would like to receive the following newsletter and other information on this project, please register here. We would also be pleased to receive your suggestions and feedback at this website or to office@esv.or.at.

Main project activities by November 2010

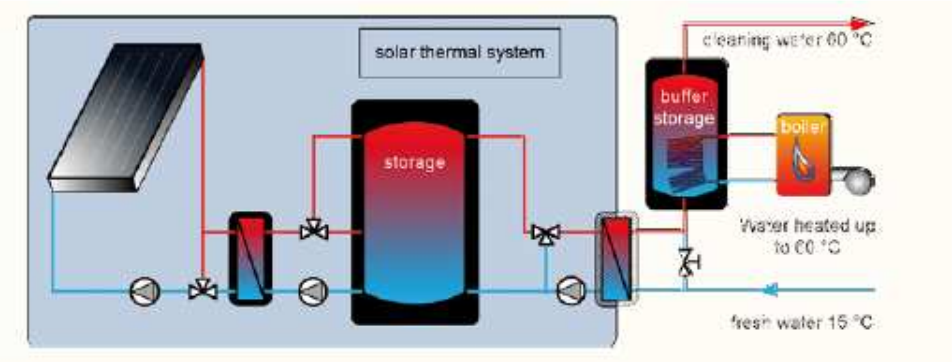
By November 2010 among others, the following project activities were implemented:

- regional inventories of solar process heat in each region
- energy screenings of 91 companies
- checklists in English, German, Spanish, Slovene and Czech, download
- planning guidelines in English, German, Spanish, Slovene and Czech, download
- regional campaigns are under implementation, so far:
  - 10 regional round-tables with 408 participants held
  - publications mailed to > 7,500 companies
  - 59 press articles
- support to potential pilot projects, one pilot project triggered in Spain

Solar Process Heat Generation: Guide to Solar Thermal System Design for Selected Industrial Processes

One European and 6 regional planning guidelines were developed which include load profiles, nomograms and system concepts for the following industrial processes:
- heating of hot water for washing or cleaning
- heating of make-up water for steam networks
- heating of baths or vessels
- convective drying with hot air

The objective is to link industrial process engineering and solar thermal engineering by providing basic information on both aspects. The publication offers information on the preliminary analysis to be done at a site as well as on general aspects of solar system design. The system design for solar process heat installations for the four selected applications is presented as well as design and maintenance aspects. Typical load profiles, temperature levels and possible heat integration points are discussed. The planning guidelines are available for download: www.solar-process-heat.eu



Checklists for industrial decision makers on solar process heat

The self-assessment checklists allow decision makers in industry to make a first, preliminary analysis whether solar thermal would be suitable for their processes. A "European version" in English and 6 regional versions of the checklists were developed and printed. They are split into two steps:

- the first step, the "K.O. criteria": if any of these questions is answered with “no“, it is rather unlikely that solar process heat will be economically feasible
- the second step, "O.K. criteria": the more of the questions are answered with “yes“, the better the economic and technical conditions for solar process heat are.

K.O. criteria
- Does the company need process heat at temperature levels below 100°C?
- Is space available to install solar thermal collectors areas at the company site?
- Is this space oriented towards south/south-east/south-west or on a flat roof?
- Does the company use fossil fuels for process heat production during summer months?

The checklists are available for download: www.solar-process-heat.eu

Pilot project "Solar Process Heat" in Spain

The first pilot project triggered by the SO-PRO project is presently under construction in Spain. The company Montesano, located in Jerez de los Caballeros, Spain, employs a staff of 120 and is active in the food industry. Solar process heat will be used for the washing processes (raw product reception, first treatment, washing, second treatment, cooling, washing of vessels and machinery). The installation will have an area of 252 m² solar thermal collectors and a 30,000 l buffer storage. About 172,000 kWh/year (about 48% of the total heat demand) are planned to be covered by the solar system. The installation of the solar thermal system started in December 2010.

International conference "Solar Process Heat", 3-4 March 2011, Wels/Austria

The conference "Solar Process Heat" will be organised from 3-4 March 2011 in the frame of the annual international conference World Sustainable Energy Days (www.wsed.at). In total, 20 speakers from different European countries and beyond will present the technology solutions, market reports and best practice examples. The conference programme will also provide the possibility to discuss strategies how to increase the market for solar process heat globally. Additionally, a site-visit will be organised. The conference programme is available online (www.wsed.at), for more information please visit the conference website www.wsed.at or contact O.Ö. Energiesparverband, office@esv.or.at

More information:

www.solar-process-heat.eu

O.Ö. Energiesparverband, Landstrasse 45, A-4020 Linz,
T: +43-732-7720-14380, office@esv.or.at, www.esv.or.at
ZVR 17156847