2009 HIGHLIGHTS

SHC Task 38
Solar Air-Conditioning & Refrigeration

THE ISSUE

Today, solar assisted cooling is most promising for large buildings with central air-conditioning systems. However, the growing demand for air-conditioned homes and small office buildings is opening new sectors for this technology. In many regions of the world, air-conditioning represents the dominant share of electricity consumption in buildings, and will only to continue to grow. The current technology, electrically driven chillers, unfortunately do not offer a solution as they create high electricity peak loads even if the system has a relatively high energy efficiency standard.

OUR WORK

The objective of *SHC Task 38, Solar Air-Conditioning and Refrigeration* is to improve conditions for the market introduction of solar air-conditioning and refrigeration systems for residential and small commercial buildings. This work will be achieved through activities focused on improved components and system concepts. Participants are working in the areas of pre-engineered systems for residential and small commercial applications, custom-made systems for large non-residential buildings and industrial applications, modeling and analysis, and market dissemination.

PARTICIPATING COUNTRIES

Australia
Austria
Canada
Denmark
France
Germany
Italy
Mexico
Portugal
Spain
Switzerland

SHC Task 38 is a four-year collaborative project that will be completed in December 2010.

KEY RESULTS OF 2009

3rd International Conference Solar Air-Conditioning, Palermo, Italy, September 2009

Organized by OTTI e. V. and the SHC Task 38 partner, University of Palermo, Department DREAM, the conference highlighted many Task presentations. In addition, the information exchange with researchers and other groups and persons active in the field of solar air-conditioning and refrigeration was once again very fruitful.

Solar Cooling Application at Tunisian Winery

A solar cooling system application installed at a winery in Tunisia by the Politecnico di Milano within the European project MEDISCO (MEDiterranean food and agro Industry applications of Solar COoling technologies) was awarded with the Energy Globe Award Tunisia 2009. This installation is part of the monitoring activities within the framework of Task 38 and several Task 38 participants are contributing to this project.

Mr. Osama Ayadi from the Politecnico di Milanon obtaining the Energy Globe Award Tunisia 2009.

Task Date	**2006-2010**
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