

Common calculation method of the solar thermal energy produced worldwide now available

15 March 2011 – Energy Statistics should include the estimation of the solar thermal energy produced and, with this objective in mind, the International Energy Agency Solar Heating and Cooling Programme (IEA-SHC) and major solar thermal industry associations agreed on a common calculation method to estimate the annual solar collector energy output in kWh. With this method it will be simpler to estimate the impressive amount of energy produced by solar thermal systems worldwide and compare it with other (renewable) energy sources.

With an installed capacity above 190 GW_{th} worldwide, solar thermal systems are one of the major sources of renewable energy and still show a significant growth potential. A first milestone was achieved in 2004, when international solar thermal experts agreed on a methodology to convert installed collector area (in m²) into solar thermal capacity (kW_{th}).

The newly developed methodology introduces very simple formulas, using easily accessible information, such as solar radiation on a horizontal plane at a given location and installed collector area in a country or region to estimate the respective annual solar collector output.

The new method will be the subject of a joint webinar organized by the IEA-SHC and ESTIF, the European Solar Thermal Industry Federation. The webinar on “Estimating annual solar collector energy output at national level” takes place on 31 March and is aimed at energy & statistics agencies, energy statistics divisions as well as national solar thermal industry associations.

“A real breakthrough has been achieved with this new conversion factor”, declares Werner Weiss, Chair of the IEA-SHC Programme. The group calls on all organizations publishing data on solar thermal energy production to use these conversion factors. “The IEA-SHC Programme and major solar trade associations, covering a vast part of the solar thermal market worldwide, are paving the way with their agreement for a better global evaluation of the energy provided by the solar thermal technology”.

“In connection with the implementation of the European directive on renewable energy sources (2009/28/EC), the data on solar thermal energy produced will help the European Solar Thermal Industry Federation (ESTIF) and the European Commission monitor the execution of the National Renewable Energy Action Plans, and in particular assess whether the specific targets, as set by each of the 27 EU countries for the renewable heating and cooling sector, are actually met”, says Dr. Harald Drück, ESTIF board member. “This is also an effective vehicle for solar thermal to demonstrate its performance. Solar thermal holds a strong position in the market today – our solutions help citizens reduce carbon footprint and reliance on scarce, imported fossil fuels.”

About the IEA-SHC Programme

The Solar Heating and Cooling Programme was established in 1977 and is one of the first programmes of the International Energy Agency. The Programme's work is unique in that it is accomplished through the international collaborative effort of experts from Member countries and the European Union.

The Programme is headed by an Executive Committee composed of one representative from each Member country and Sponsor organizations, while the management of the individual projects is the responsibility of project managers (Operating Agents) who are selected by the Executive Committee. The Programme's work is enhanced through collaboration with other IEA Programmes—Energy Conservation in Buildings and Community Systems Programme, Photovoltaic Power Systems Programme, and SolarPACES Programme—and solar trade associations in Europe, North America, and Australia.

For more information, please visit www.iea-shc.org

About ESTIF

ESTIF is the voice of the solar thermal industry, actively promoting the use of solar thermal technology for renewable heating and cooling in Europe. With around 100 members from 19 European countries, ESTIF represents the entire supply chain. www.estif.org

Subscribers of the proposed method:

International Energy Agency - Solar Heating and Cooling Programme (IEA-SHC): www.iea-shc.org

Austria Solar: www.austriasolar.at

Asociación Solar de la Industria Térmica, Spain (ASIT): www.asit-solar.com

Bundesverband Solarwirtschaft, Germany (BSW): www.solarwirtschaft.de

European Solar Thermal Industry Federation (ESTIF) – www.estif.org

Holland Solar – www.hollandsolar.nl

Solar Energy Association of Sweden (SEAS) – www.solenergiforeningen.se

Solar Energy Industries Association, USA (SEIA) – www.seia.org

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