

2014 HIGHLIGHTS

SHC Task 43 Solar Rating & Certification Procedures

THE ISSUE

Performance test procedures and characterization equations were originally developed for typical solar collector types under well-defined standard test conditions. In addition, short-term tests were developed to predict the long-term durability of standard collectors and systems. Presently, national and international test laboratories in many IEA participant countries use these test procedures and characterization equations in order to determine a solar thermal product's performance and compliance with required safety and reliability standards. While there is a solid common foundation for most test procedures, certification bodies for Europe, North America, Australia, China and Europe and the laboratories that they work with have diverged in how tests are implemented in some areas, and the introduction of new products have introduced new challenges that are not always addressed in the same way.

Partly because of these differences, it is not possible for a manufacturer to have a system certified for one region or country and have the test results that support that certification transfer to another region or country. Testing and certification must be repeated in each region or country, slowing product introduction in new markets and adding to costs.

OUR WORK

While SHC Task 43 cannot ensure that certification bodies will harmonize their testing and certification efforts, the Task experts are working on resolving issues and inconsistencies involved in the standards for testing and the implementation of those standards. This work will create a technical foundation for certification bodies to consider accepting tests and certifications across borders in order to lower barriers to solar heating and cooling products competing in global markets. In addition, the Task is exploring approaches to testing and characterization of systems and collectors that relate to user thermal comfort and environmental impacts, issues that are increasingly important, but lack a uniform assessment methodology.

Participating Countries

Australia
Austria
Canada
China
Denmark
Germany
Italy
Portugal
RCREEE
Spain
United States

Task Date 2009-2015
Task Leader Jan Erik Nielsen
PlanEnergi, Denmark
Email jen@solarkey.dk
Website <http://www.iea-shc.org/task43>

KEY RESULTS OF 2014

Global Solar Certification Network

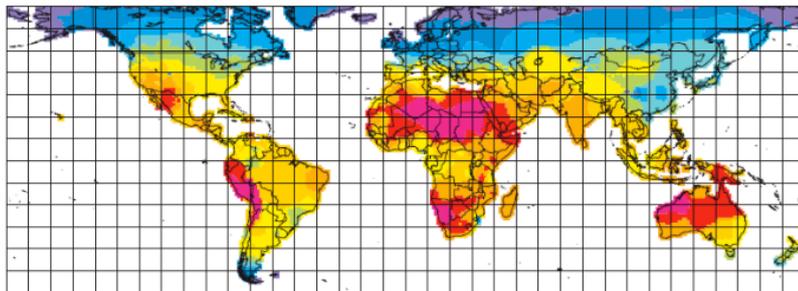
On March 13, 2014 the Global Solar Certification Network (GSCN) was officially established at Las Palmas de Gran Canaria on the Canary Islands of Spain and on October 8, 2014 the GSCN held its first meeting in Beijing, China.

The main goal of the Global Solar Certification Network is to harmonize the certification and testing procedures of solar thermal components and systems all around the globe. For that purpose representatives from industry, product certification organisations and solar thermal test laboratories as well as major existing certification schemes such as Solar Keymark, SRCC, IAPMO and Golden Sun work together. In a first step a global certification scheme for solar thermal collectors will be developed.

At its constitutional assembly held at the ITC (Instituto Tecnológico de Canarias) the Global Solar Certification Network (GSC-NW) approved its first version of the working rules, established a board of directors with members representing the key sectors such as industry, certifiers and test laboratories and elected as officers:

- Chairman: Dr. Harald Drück, University of Stuttgart, Germany and chairman of the Solar Keymark network
- Vice Chairman: Les Nelson, IAPMO, United States
- Treasurer: Eileen Prado, Solar Rating & Certification Corporation (SRCC™), United States
- Secretary: Peter Markart, GREENoneTEC, Austria
- Manager: Jan Erik Nielsen, SolarKey.int, Denmark and secretary of the Solar Keymark network

To participate in the Global Solar Certification Network (GSCN) or be informed of GSCN activities you can visit the website <http://www.gsc-nw.org> or contact Jan Erik Nielsen, jen@solarkey.dk.



SHC Task 43 is a 6-year collaborative project that will be completed in June 2015.