Task 48: Quality assurance and support measures for Solar Cooling

OBJECTIVE
To support the strong and sustainable market development of solar cooling systems, including any solar thermal cooling technology that can be used in heating mode.

AREAS OF WORK

Subtask A: Quality Procedure on Component Level
Leader: Marco Calderoni (POLIMI, Italy, marco.calderoni@polimi.it)
Developing tools and other deliverables that show the level of quality of the most critical components of the solar cooling and heating system - the chiller, the heat rejection device, the pumps and the solar collectors.

Subtask B: Quality Procedure on System Level
Leader: Alexander Morgenstern (Fraunhofer ISE, Germany, alexander.morgenstern@ise.fraunhofer.de)
Developing tools and deliverables that show the level of quality of the solar cooling and heating systems. To achieve this goal, the first step is to develop a procedure that extends the quality characteristics from a component level to a system level. The second step is to extend the procedure from single stationary states to a performance prediction over 1 year.

Subtask C: Market Support Measures
Leader: Stephen White (CSIRO, Australia, stephen.d.white@csiro.au)
Creating a panel of measures to support the market. These measures will use the results of Subtasks A and B and will explore the possibilities to identify, rate and verify the quality and performance of solar cooling solutions. The resulting tools are intended to provide a framework for policy makers to craft suitable interventions (e.g., certificates, label and contracting, etc.) to support solar cooling on a level playing field with other renewable energy technologies.

Subtask D: Dissemination and Policy Advice
Leader: Uli Jakob (Green Chiller, Germany, uli.jakob@greenchiller.de)
Targeting promotion of Task results; producing dissemination materials; transferring knowledge to technical stakeholders; developing instruments for policy makers; and creating/promoting certification and standardization schemes.

OUTCOMES
• Tools & procedures for characterizing the main components of SAC systems.
• Creation of a practical and unified procedure, adapted to specific best technical configurations.
• Three quality requirement targets.
• Tools to promote solar thermal driven cooling and heating systems.

DURATION
October 2011 - March 2015

PARTICIPATING COUNTRIES
Australia | Germany
Austria | Italy
Canada | Singapore
China | United States
France

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