

ECREEE Hosts Solar Training in Cape Verde

The IEA Solar Heating and Cooling Programme (IEA SHC) has been working for a number of years to expand its membership beyond the OECD countries, as we believe that the challenges posed by the transition to a sustainable energy supply based on renewable energy can only be met in cooperation with all global players.

To better engage the Global South in our activities, IEA SHC cooperates with the Global Network of Regional Sustainable Energy Centers (GN-SEC) initiated by UNIDO. GN-SEC is an innovative south-south and triangular

multi-stakeholder partnership to accelerate the energy and climate transformation in developing countries. To date, eight centers exist, each representing 10 to 15 countries.

In addition to SACREEE (responsible for Southern Africa) and RCREEE (responsible for North Africa and the MENA region), with which strong cooperation has existed for several years, the cooperation with the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) is now also being intensified. As a first step, on-site training for 27 West African experts was conducted within the IEA SHC Solar Academy framework on October 10-12, 2023, in Cape Verde.

Since ECREEE had expressed particular interest in large-scale solar thermal systems for hospitals and tourism as well as solar cooling, the training focused on these topics. ECREEE was also interested in these topics because it is preparing a project for 15 West African countries to equip 150 hospitals with solar thermal systems. This training was a first step towards building this expertise.

By the end of this two-day training, the participants had a good overview of the possibilities of using solar thermal systems for heating and cooling, the dimensioning of these systems, and last but not least, the costs of such systems.

A bonus for the participants was the onsite solar thermal cooling system, which gave them a hands-on opportunity to see how a system works. CERMI (Center for Renewable Energy and Industrial Maintenance) installed the system with its 70 kW cooling capacity in 2013. The system, supported by a compression chiller, cools a conference room and other rooms in the building with chilled water. The

collector field consists of flat plate collectors with CPC mirrors inside (PCP Power ST1), a model from the former Portuguese company MCG, and a 1,000-liter hot water tank and 500-liter cold water tank are used for energy management of the system.

In addition to the technical training, participants discussed the possibilities for participating in IEA SHC Tasks. There was great interest in this because it is seen as an opportunity to build up knowledge through international cooperation and then implement this new knowledge in actual projects and buildings.

The IEA SHC trainers, Uli Jakob and Werner Weiss, see the training as an excellent first step in intensifying the cooperation between ECREEE and IEA SHC. Since the training, the first significant outcome is the submission of a concept note for a three-year project to the Steering Committee Meeting of the GN-SEC and presented to UNIDO in Vienna on November 8. If approved, the project will create a strong foundation for collaboration between ECREEE member countries and IEA SHC in the upcoming years.

Article contributed by Werner Weiss, Austrian IEA SHC Executive Committee member and Chair of the SHC Solar Academy and Uli Jakob, Task Manager of IEA SHC Task 65: Solar Cooling for the Sunbelt Regions.



Participants in the Solar Academy training.



 Dr. Uli Jakob training on solar cooling.



Participants see first hand a solar cooling system at work.