INDUSTRIAL SOLAR COOLING IN JORDAN

As of: June 2021

As part of a sectoral mitigation strategy, this project layed the foundations for largely CO2-free air conditioning and refrigeration based on solar energy. To this end, it established partnerships between German and Jordan companies and institutes involved in cooling machines. The demonstration project was able to set new energy efficiency standards, thus saving around 20,000 tonnes of CO2, assuming systems have a 30-year life cycle. This roughly corresponded to the average annual CO2 emissions of 5,500 Jordanian citizens. These standards were fed into a sectoral approach for designing climate-friendly strategies and regulations for Jordan's air conditioning sector.

State of implementation/results

- Project completed
- Demonstration plants for solar air conditioning initiated operation under participation of the project partners at the two project locations German Jordan University and Petra Guesthouse in 02/2015;
- Solar Cooling Study has been published in October 2015: 'Solar Cooling for Industry and Commerce' (SCIC)
- One further innovative cooling technology for buildings (PV/HC-Chiller), which is new for Jordan, is to be tested additionally
- The technology partner TU Berlin presented the absorption-based cooling technology – and especially the example Solar Cooling in Jordan – on the Environmental Week at Bellevue Castle in June 2016
- Two more solar cooling systems - Royal Cultural Center and Irbid Chamber of Commerce – in operation since 2016
- Maintenance contract between German Jordanian University (GJU) and Millennium Co. signed
- Ministry of Environment´s Ozone Unite prepared draft curriculum for the integration of the Solar Cooling Technology into the overall vocational training for engineers in Jordan
- Fact sheets for each Solar Cooling pilot site

PROJECT DATA

Country/Countries:
Jordanien

Implementing organisation:
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Political partner(s):
- Ministry of Environment - Jordan

Implementing partner(s):
- Ministry of Environment - Jordan
- Technische Universität Berlin

BMU grant:
€ 3,706,951.97

Duration:
03/2012 till 06/2017

prepared and distributed
- Public announcements issued
- Target specific awareness occasions (hotelier, public offices, and hospital industry) will be conducted