TCP on Concentrated Solar Power (SolarPACES TCP)

The SolarPACES TCP supports collaboration to advance development and deployment of concentrating solar thermal technologies. From a system perspective, concentrating solar power (CSP) offers significant advantages. With built-in thermal storage, CSP can improve the flexibility and stability of power systems, provide dispatchable electricity and help integrating more variable renewables.

Main areas of work

- Design, testing, demonstration, evaluation and application of concentrating solar power technologies
- Platform for international co-operation to advance solar driven thermochemical processes for the production of fuels and materials
- Development and promotion of solar process heat
- Assessment of solar energy resource for concentrating solar technologies

Key activities and accomplishments (2017-2018)

- Ongoing updates to international CSP project database
- Completed national assessments of the grid integration value of CPS systems in South Africa and Chile
- Published guidelines for modelling the performance of CSP parabolic trough and power tower systems
- Initiated a working group to promote collaboration of particle based receivers and storage systems for CSP

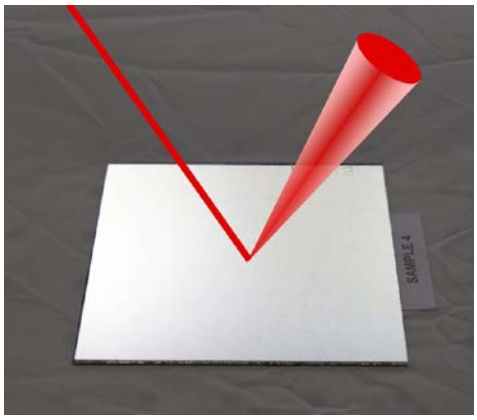

Illustration of sunlight reflection and scattering on a sun-tracking mirror (Almeria, Spain). (Photo courtesy of SolarPACES TCP).

New projects (2019 – 2020)

- Activities to identify and estimate the value of CSP for energy systems, facilitate cost reductions (e.g. development of technical guidelines) and foster awareness of the excellent value proposition of solar chemistry technologies (such as dispatchability, hybridisation)
- Process heat applications
- Further membership outreach

Multilateral collaborations

- Joint project on solar resource for high penetration and large scale applications in collaboration with the TCP on Photovoltaic Power Systems (PVPS TCP)
- Project in solar process heat in collaboration with the TCP on Solar Heating and Cooling (SHC TCP)
- Review of CSP market and cost data with the International Renewable Energy Agency (IRENA)

Renewable Energy

Membership

Why should your organisation become a member of the SolarPACES TCP?

Participation in the SolarPACES TCP will help you to get access to the leading international export network in concentrating solar technologies and co-ordinate your R&D efforts to increase the field of application of the technologies your organisation is focusing on.

TCP Chair: Robert Pitz-Paal, Germany (robert.pitz-paal@dlr.de)
TCP primary contact: Christoph Richter (christoph.richter@dlr.de)
IEA contact: Hideki Kamitatara (hideki.kamitatara@iea.org)

www.solarpaces.org