

Many of these details will be covered by future publications as the research progresses. 📌

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World's top solar thermal specialists share their expertise

South Africa is making increasing advances in the field of solar thermal energy. During the past few years, more plans for concentrated solar power (CSP) plants have been seeing the light. One such project is the Karoshoek project near Upington in the Northern Cape. Solar thermal experts from across the world have recognised South Africa's potential to develop sustainable solar thermal energy plants because of the country's high solar radiation levels.

In response to this realisation, some of the world's top solar thermal experts offered a specialist workshop on solar heat for industrial applications at the University of Pretoria in February 2014. The workshop was presented by the Southern African Training and Demonstration Initiative (SOLTRAIN), a three-year project to enhance solar thermal technology in Southern Africa.

The aim of the project is to support Southern African Development Community (SADC) countries to develop sustainable renewable energy plants. The 36 delegates were limited to persons who had attended previous SOLTRAIN courses, or who have experience of large solar-heated water systems in Lesotho, Mozambique, Namibia, South Africa and Zimbabwe. This train-the-trainer workshop was sponsored by the Austrian Development Agency and was coordinated by the Sustainable Energy Society of Southern Africa (SESSA).

"South Africa and the SADC region urgently need this expertise," says Prof Dieter Holm, regional SOLTRAIN coordinator for Southern Africa, "and this is a cost-effective way of creating decent long-term jobs." The Austrian project leader of SOLTRAIN, Werner Weiss, concurs: "Southern Africa has twice Austria's sunshine."

The University of Pretoria is the SADC leader in the use of solar water heating in its student residences. The University is also building a thermal demonstration unit for practical experiments by students. The Hatfield Campus falls in SOLTRAIN's Solar Thermal Flagship District, where various installations can be visited by technical tourists and political decision-makers.

Southern Africa boasts 59% of the world's best winter sunshine areas, but does not rank among the global solar thermal power leaders. "Not yet," says Prof Holm, "but, given enabling legislation and leadership by example in government buildings, we could create a sustainable and competitive solar water heating industry in the region. A strong local solar water-heating industry will earn forex, decrease our chronic regional electricity problem, reduce pollution and contribute to achieving our environmental commitments." 📌