



German-Egyptian

## **SOLAR THERMAL POWER PLANTS AND DESALINATION SYMPOSIUM**

*Cairo University 11-12 November 2007*

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **Symposium Highlights**

The Solar Thermal Power Plants and Desalination Symposium was held at the Faculty of Engineering-Cairo University in the framework of the Year of Science and Technology 2007 in the thematic area of Renewable Energy. The symposium was attended by 110 participants from Universities, Research Institutions, Ministry of Electricity, Renewable Energy Authority, Ministry of Industry and energy Service companies. A CD is prepared for participants containing the Symposium presentations.



Over three technical sessions and fifteen presentations, German and Egyptian experts addressed the state of the art technologies for electrical power generation and desalination using Solar Thermal Energy including parabolic concentrators, linear Fresnel concentrators, solar towers, storage and desalination using cogeneration schemes. In addition to these technologies, one presentation by DLR addressed an

innovative process enabling clean hydrogen and oxygen production from water using concentrated solar power and catalytic material.

Potential role of solar electricity in the electricity market and wheeling costs of solar electricity transmission to Europe as well as resource assessment and modeling were also discussed. During the Symposium, future strategies and R&D requirements for local manufacturing and/or technology transfer for Renewable Energy Equipment in Egypt were discussed in addition to legislations needed for feed-in tariff and annual tendering schemes.

### **Symposium Recommendations**

At the concluding session, recommendations were made for follow-up activities in joint research between Egypt and Germany which are expected to materialize into funded research proposals as well as student/faculty exchange opportunities and joint thesis supervision as follows:

1. **Networking:** Follow up and strengthening of Networking of German and Egyptian Scientists in the field of Renewable Energy with emphasis on Solar Thermal applications in addition to the already existing Young German/Egyptian Scientists (GENYS) network.
2. **Resource Assessment:** Emphasis on the importance of solar energy resource assessment and modeling in Egypt and development of accurate tools for modeling and predictions of incident solar radiation under variable local weather conditions including effect of dust storms. This model should result in online resource assessment and planning for solar thermal power plants in potential sites.
3. **Technical Research Proposals:** Prepare joint research proposals in the area of Solar Thermal Power Plants and Desalination and seek funding from FP7 and other funding sources. This also includes cooperation in component and material development (eg. Tracking, guidance, coatings,...etc), system demonstration and performance assessment studies (eg. Effect of sand soiling on performance degradation). Exchange and mutual visits of scientists should also be encouraged for short durations.
4. **Education and student exchange:** Emphasis on the role of Education in the field of Renewable Energy by curriculum development and introduction of courses/programs in Renewable Energy on both undergraduate and graduate levels. Encourage graduate student exchange between Egypt and Germany including joint thesis supervision, encouraging joint M.Sc. project/thesis and participation in Joint Degree programs.
5. **Renewable Energy Policies and Legislations:** Benefit from the German experience in formulation of Feed in Law for Renewable Energy and different incentive schemes.
6. **Activity Funding:** Both German and Egyptian sides will look for funding required to finance the cooperation activities in order to maintain sustainable cooperation.

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Symposium Coordinator