**Workshop on the Southern African Power Pool system planning model**

**At SANEDI, Johannesburg, South Africa, 19-20 November 2012**

IRENA and the South African National Energy Development Institute (SANEDI) will organize a workshop on the Southern African Power Pool (SAPP) system planning model, to take place at SANEDI on 19 and 20th November 2012.

*Background*

In July 2011 the African energy ministers at their summit in Abu Dhabi asked IRENA to assist in the planning for an accelerated deployment of renewable energy in the continent. In order to assist governments in their efforts to develop plans and strategies in utilizing renewable technologies in meeting challenges in the power sector in the continent, IRENA developed a computerized tool to assist analyzing various power supply options in the context of the SAPP. The tool has been used by the IRENA Secretariat to elaborate the roles of renewable technologies in national electricity mix of each Southern African Development Community (SADC) country. IRENA is happy to transfer the tool to interested organizations in the region with primary focus on governmental energy planning offices, and to support the capacity building needs. In the longer-term, IRENA seeks to establish a network of center of excellence in Africa on the subject of energy planning, together with IRENA's partner organizations.

The main function of SANEDI is to direct, monitor and conduct applied energy research and development, demonstration and deployment as well as to undertake specific measures to promote energy efficiency throughout the country. SANEDI primary objectives are building human capital and developing innovative, value-added solutions that promote a transition to a low carbon future. SANEDI is well positioned within the SADC Region to further these objectives.

It is against this context that the IRENA and SANEDI organize a workshop to discuss the model and its application, and possible collaboration opportunities with SADC countries.

*The workshop*

The objective of this workshop is to discuss the importance of the energy planning for developing power system in SADC countries. To achieve this goal, IRENA will demonstrate the SAPP model and its use. IRENA will present model input parameters and model structure and how they determine the results. Preliminary results from the SAPP model will be discussed to further improve the model and its policy relevance. A sustainable energy planning support framework will be also discussed.

Targeted participants are professional staff from planning office at electric utilities or specialized organizations/institutions involved in power sector planning and development. They should possess a comprehensive understanding of electricity sector development issues, and previous experience in power sector planning and policy analysis. Participation of interested academic institutions is also welcomed.

Targeted countries are: Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

The language of the workshop will be English.

*Preliminary agenda*

*Day 1 Morning*
The objective of IRENA's scenario work
Energy planning approach
Key results from the IRENA's preliminary analysis
Integrated Resource Planning of South Africa (SANEDI, DoE)
MESSAGE methodology

*Day 1 Afternoon*
IRENA SAPP model introduction
IRENA SAPP model inputs review/discussion

*Day 2 Morning*
IRENA SAPP model, detailed look at the results

*Day 2 Afternoon*
Gap analysis in the energy planning
Discussion on follow up activities for capacity building in the member states with transfer of appropriate tools and training


*Expected outcomes*
As a result of the workshop, it is expected to identify:
- Follow-up activities for capacity building in the Member States in the region together with transfer of appropriate tools and training
- Areas of improvements to make IRENA's energy planning tool for the Southern African region more policy relevant


*The model*
The SAPP model developed by IRENA is suited for electricity sector planning in the region, providing a framework for consistently comparing various investment options against economic, technical, environmental and other social objectives. The model computes an economically optimal investment path under a set of assumptions, using linear programing computer modelling approach. With such a model, one can analyze implications of alternative policies, robustness of "optimal" investment path taking into account uncertainty of the future development of the key parameters such as electric demand, technology costs, and fossil prices etc. Such modeling tool is commonly used as a basis for mid- long-term electricity master planning.


*Further inquiry*
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