

1.0 Introduction

The development of a vibrant energy sector able to ensure self-sufficiency is a high priority in the SADC region. Given a rapidly expanding economy, the region has since 1999 aimed for the provision of reliable and affordable energy services. Besides funding constraints, one of the challenges to realizing some of the energy goals is meeting project schedules, and engineering and design. A lack of technical capacity at a regional level has been cited as a major factor affecting SADC's ability to attain energy self-sufficiency.

The capacity deficit is manifest at different institutional levels ranging from the SADC Secretariat and the subsidiary organizations such as the Southern African Power Pool (SAPP) and the Regional Electricity Regulators Association of Southern Africa (RERA), to the utilities and line ministries. Among the competencies in short supply in the region are general planning, engineering, project packaging and financing, and project management while technologies that are lagging behind are those in electric energy and power systems, and energy in general.

SAPP member utilities have identified a number of priority projects for commissioning over the next few years to address the crippling energy situation in the region. According to SAPP, member utilities plan to commission projects between 2009 and 2013 that would add about 8,800 megawatts (MW) of electricity to the regional grid. This would allow the region to match supply and demand.

Such a scenario would only happen if all generation and rehabilitation projects materialise within foreseen commissioning dates. Experience to date shows that the completion and commissioning of the projects in the region has actually been slower than this optimistic scenario.

2.0 Challenges

The SADC energy sector lacks the capacity to carry out proper planning due to a skills shortage. Most of the SAPP member utilities have lost a number of senior staff over the past few years through migration and resignations. This trend needs to be addressed through appropriate policy incentives.

A RERA survey done in 2008 with support from the USAID Trade Hub to review current status of the electricity supply industry (ESI) revealed that although most countries have energy policies, these need to be reviewed and updated in line with best practices. Capacity to implement policies is inadequate in some of the countries while ESI reforms are, in most cases, incomplete and need to be finalised in line with adopted policies.

Another challenge is that many of the proposed regional energy projects are poorly struc-

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tured and packaged, and therefore fail to attract investment. A number of long-planned projects have failed to take off as the private sector has been reluctant to engage in partnerships with the public sector, mainly due to inappropriate financing formulas. Most SADC Member States have been slow in putting in place mechanisms that promote private sector participation in the energy sector and improve the attractiveness of the industry for investors.

The policy environment in most SADC countries does not encourage private sector participation in the energy sector. With the exception of a few countries such as Zambia, the majority of SADC Member States are yet to fully embrace the concept of Public Private Partnerships (PPPs), despite being party to SAPP Inter-Utility Memorandum of Understanding that formally allows private players to get involved in the region's energy sector. Zambia has established a public institution that facilitates and promotes the implementation of PPPs.

The capacity constraints have seen most SADC Member States failing to fully embrace the renewable energy technologies such as solar and wind power. Solar thermal-electric systems, for example, have the long-term potential to provide a significant fraction of SADC's electricity and energy needs. Research has shown that most countries in southern Africa receive more than 2,500 hours of sunshine per year. Knowledge

on solar energy technology is widespread in the SADC region but its use is limited partly due to the prohibitive initial set-up costs involved and capacity constraints.

3.0 Regional Initiatives

The region has embarked on a number of initiatives to overcome some of the capacity challenges it faces in the energy sector. These include a World Bank-funded project to improve Member States' capacity to develop bankable infrastructure projects, including those in the energy sector. Under this project, capacity would be provided by the SADC Secretariat at Member States level for project planning, preparation and development for all infrastructure projects.

To improve capacity among regional utilities, the SAPP Coordination Centre based in Harare, Zimbabwe, has regularly conducted structured training courses covering issues such as information exchange and energy trading. The SAPP Coordination Centre successfully conducted a Day Ahead Market (DAM) certification training course to Electricidade de Mozambique (EDM) and Hidroelétrica de Cahora Bassa (HCB) in April 2009 in Maputo, Mozambique as well as to Zambia in August 2009, Botswana Power Company in October 2009, and a utility-targeted training for the Zimbabwe Electricity Supply Authority in February

2010. A refresher course for all SAPP members was held in December 2009 in Harare.

4.0 Role of ICPs

International Cooperating Partners (ICPs) have played a significant role in bridging the capacity gap in the SADC energy sector. Norway and Sweden have been instrumental in providing assistance to build capacity of regional power utilities. The SAPP has undertaken several exchange visits during the past few years to the Nordic market to learn from experiences gained from a developed market that has similar characteristics as the DAM.

A capacity-building workshop was conducted for SAPP members in Johannesburg in March 2010 by a French consultancy, to familiarise the officials with the best European practices on cross-border trading, trading organization, price regulation, functioning of the European internal market and tariff-setting methodology for cross-border trade in electricity. This was funded by the European Union. The World Bank has supported the commercialization and operational assessment of selected SAPP Power Utility Members.

5.0 Conclusions and Recommendations

Training and capacity building have been identified as important prerequisites for any organization (regional and national) to succeed in achieving its mission. The high priority attached to human resource development derives from a realization and conviction that the effectiveness and capacity of organizations in the energy sector need to be significantly enhanced for SADC to meet the current challenges.

The Energy Co-operation Policy and Strategy Document (1996) states that SADC needs well trained human resources to realise its objectives and to implement strategies for energy development. On this basis, the document proposes "... that a strategically based training programme with a long-term perspective should be included as a critical part of the overall SADC Energy Policy and Strategy."

Such a programme targets key aspects of organizational capacity that SADC recognises as vital to the development of the energy sector and to successful co-operation between and among Member States:

- SADC should seize the opportunity of resources available by ICPs to address the capacity shortcomings;
- Member States should start by mainstreaming of energy in development, ensuring that capacity constraints are identified and addressed;
- There is need to create national energy funds to cater for project support and capacity improvement; and
- Member States should create an attractive environment for private sector participation in the energy sector, with the ultimate goal of improving capacity. □