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SADC ENERGY INVESTMENT

Energy Policy Brief No. 6, August 2011

1. Introduction

Current energy shortages in southern Africa have led to a surge in projects aimed at augmenting generation capacity in the region.

Starting in 2000, SADC has pushed for energy infrastructure investment and development to beat a crippling power shortage that has seen most countries in the region introducing load-shedding programmes to spread available supplies equitably.

Member State utilities through the Southern African Power Pool (SAPP) have identified a number of priority projects for commissioning over the next few years to address the energy situation in the region.

Between 2009 and 2013, SAPP expects member state utilities to commission projects that would add about 8,800 megawatts (MW) of electricity to the regional grid, allowing the region to match supply and demand.

However, the lead time for most power-generation projects is long. Five to seven years are needed from the day when the soil is turned on the project site to the day when an electricity user can switch on the light at the other end.

Thus, SAPP's planning horizon stretches to 2020 and beyond when most projects starting now would be ready if they go according to plan.

The projects that would be ready by 2013 ought to have started by 2008, yet unavailability of funds, among other challenges, has continued to hamper the implementation process.

2. Financing Options

The SADC energy sector requires large investments in the next decade or so. Estimates put the total level of investment required to bring stability to the regional power situation at US\$83 billion if the region opts for least-cost energy projects such as hydropower stations – or an extra US\$48 billion if it takes the more expensive “Base Case” route that heavily relies on high-cost options such as coal-fired generation.

The first scenario or “Alternative Case” is based on least-cost projects whereby high-cost coal generation is replaced by low-cost options such as hydro and gas generation.

Public sector financing in the form of bilateral loans from donors and development banks has hitherto been the main source of funding for energy sector investment in the SADC region. Donor financing has been a popular investment avenue for the SADC energy sector, although this option is on the decline due to economic pressures in traditional source countries and there is need to increase private sector funding.

Private sector financing and granting of concessions have lately emerged as options, but require competition and proper market regulation as tariffs well above long-run marginal cost may be applied, to the exploitation of consumers.

The private sector has largely shunned venturing into major infrastructure projects to boost regional power supply, citing restrictive national laws as one of the reasons for not investing.



Opportunities and Challenges of Financing Energy in Southern Africa

Public Private Partnership (PPP) options where both private and public sectors acquire equity in a project in one form or another have gained traction in SADC.

One case is the Mozambique Transmission Company (MOTRACO) that has become a flagship example of public and private sector cooperation in the delivery of affordable electricity to communities. Formed in 1998, the project involved the construction and operation of electricity transmission lines that interconnect three countries – South Africa, Swaziland and Mozambique.

It was created to transport electricity from South Africa on behalf of the Mozambican power utility EDM, the Swaziland Electricity Board and resources group BHP Billiton, as well as to sell power to Billiton's Mozal aluminium smelter in Mozambique.

3. Opportunities

The strong positive economic growth experienced in SADC during the past five years has resulted in increased investment in infrastructure and service delivery. This has fuelled growth in demand for energy.

The recently formed SADC Project Preparation and Development Facility (PPDF) opened a window for comprehensive packaging of infrastructure projects within the community.

The objective of the fund is to mobilize investment and financing for energy and other sectors, with focus on financing of commercially viable regional investments projects as well as mobilization of climate change funding to address the environmental concerns and challenges facing the SADC energy sector.

Investment opportunities in the SADC energy sector are not limited to the development of large-scale infrastructure such as power stations. There is wide scope for private sector participation in the nascent renewable energy sector.

The strong market growth in the solar or photovoltaic (PV) sector makes this the dominant Renewable Energy Technology (RET) in the SADC region. Investment opportunities exist in creating improved manufacturing capacity of PV system com-



ENERGY
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ponents such as solar batteries, direct current lights, and charge controllers.

Growth in the domestic solar electrification sector also generates opportunities for creating low-power DC appliances such as television sets.

The bulk of the investment taking place in southern Africa's RET market is, however, focused nationally without consideration for potential regional impacts. There is need for the development of a regional framework to facilitate coordination of investments in renewable energy technologies.

SADC is currently working on a draft Regional Renewable Energy Strategy, that seeks to promote the uptake of clean energy and ensure that southern Africa takes advantage of the numerous renewable energy opportunities that exist in the region.

The strategy would be supported by other clean energy programmes that include the SADC Clean Development Mechanism (CDM) Programme. Based on an analysis by SADC, there is potential for 19,000 MW of generation projects to be commissioned under the CDM in the region.

The shift from a monopolistic energy sector dominated by state utilities to a more liberalized market approach in a number of SADC Member States has opened up the opportunities for Independent Power Producers (IPPs) and distributors.

This is important for grid-connected generation projects such as wind or hydro but also for energy service providers such as rural electricity distributors.

4. Challenges

While private sector participation is now viewed as an appropriate alternative to traditional energy financing, it has its own shortcomings. Private sector players are not disposed to address all issues in the public interest, except where there is an attractive return on investment. As a result, opponents of this approach argue that the future of SADC's energy sector cannot be solely left in the hands of the private sector.

Faced with the ever-expanding need to ensure accessibility by all consumers, the public sector will always remain the main source of funding for infrastructure provision in the sector.

One of the major impediments to private sector investment in infrastructure is usually the lack of project preparation, development, marketing and funding of feasibility studies. There is, therefore, the challenge to unpack proposed projects in order to develop them to a bankable state.

Pursuant to this initiative, the SADC Secretariat has obtained funding for project preparation, development and feasibility studies. Through the World Bank, capacity would be provided by the SADC Secretariat to Member States for project planning, preparation and development for all infrastructure projects.

While the PPP concept has generally been accepted in SADC, only a handful of southern African countries have robust PPP markets and still many more do not have requisite institutional, policy, legal and regulatory frameworks.

But for a few countries such as Zambia, the majority of SADC Member States are yet to fully embrace the concept of PPPs despite being party to the SAPP Inter-Utility Memorandum of Understanding that formally allows private players into the region's energy sector.

Against this background, in June 2010 at Victoria Falls, Zimbabwe, SADC Ministers of Infrastructure tasked the SADC Secretariat to develop a Regional Infrastructure Development Strategy and to leverage private sector funding for infrastructure through PPPs.

Since then, the SADC Secretariat has worked closely with the SADC-Development Finance Resources Centre (DFRC) to develop a PPP Development Strategy for SADC with technical and financial assistance from the German development company, GIZ.

Lack of information and misconceptions about the potential for RETs, and particularly on photovoltaic technologies for rural electrification, tends to impact negatively on development of the sub-sector.

The absence of measures such as tax exemptions and other incentives for RETs is often seen as a high barrier to market development.

5. Conclusions and Recommendations

It is possible to expand energy development and eliminate power shortages in SADC, and it makes sense to do so. There is, however, urgent need for regional policies to overcome the structural impediments that hinder private sector investment.

Policy cooperation will be required at regional level to stimulate investment in energy projects and reap the benefits of uninterrupted and reliable supplies. Such cooperation needs to address two urgent challenges:

- Policymakers must address the challenge of making it economically worthwhile for private investors to take an active role in the energy sector while maintaining a pricing structure that is accessible to all consumers. For instance, for the sustainability of the sector, tariffs need to be set at realistic levels, commensurate with the cost of providing the service while balancing the need to allow access by the majority; and
- Policies need to create financial incentives for project and supply chain developers, particularly in the rising renewable energy sub-sector. Existing support mechanisms in southern Africa operate at the national level. r