

# Improving tariff viability in SADC: Challenges and opportunities for regional utilities

## 1.0 Introduction

SADC has embarked on a programme for the past four years to commission new or rehabilitate existing projects to improve its energy needs. The target is to generate more electricity so the region achieves the desired collective 10 percent surplus power generation capacity by 2013 that is necessary to guarantee system reliability.

The challenge gets even more complex given that the region is chasing a moving target, with demand expanding by between 2,200 and 2,500 MW a year.

The situation is compounded by the slow pace of migration and mechanism towards cost-reflective tariffs by most Member States. SADC Energy Ministers adopted the principle of cost reflective tariffs as far back as 2004 and reaffirmed that decision at a meeting in April 2007. However, the implementation mechanism and timeframe has not been clarified, and this has not been presented for public debate.

Although significant progress has been made by the Regional Electricity Regulators Association of Southern Africa (RERA) in designing scenarios to make tariffs more viable, most SADC countries are yet to fully adopt the recommendations as various issues still have to be taken into consideration, including the affordability of energy to less privileged citizens but also planning for the phasing in of higher tariff regimes rather than sudden application which can be disruptive and increase inflationary pressures.

## 2.0 Situational Analysis

Evidence has mounted of low tariffs negatively affecting southern Africa, and consensus has increasingly emerged about the severity and likely impact of this problem. Existing SADC energy tariffs do not provide the right signals for new investment and energy conservation, efficiency and substitution practices by consumers.

A survey conducted by RERA with support from the Southern Africa Global Competitiveness Hub (USAID Trade Hub) in 2009 showed that the region's energy sector is not self-sustaining. Electricity tariffs within the SADC region range from 2.7 US cents per kilowatt hour (kWh) to 12.5 USc/kWh.

In some cases, the cost of generating the electricity is higher than what the utilities are charging. For example, hydroelectricity generation – which is the second most common method of producing power in the region after coal – costs between 6 and 8 USc to produce a kWh while it costs an average 7.5 USc to make a kWh of electricity at any of the coal-fired power stations.

Currently Angola and the United Republic of Tanzania have the highest tariffs in the region, at 12.5USc/kWh and 12USc/kWh respectively. Zambia has the lowest electricity tariffs at 2.7USc/kWh followed by the Seychelles (3.2USc/kWh) and South Africa (3.7USc/kWh).

RERA is working with the SADC Secretariat and the Southern African Power Pool (SAPP) to produce an Annual SADC Electricity Tariffs and Selected Performance Indicators and the first edition of the publication is due to be launched by the end of 2010.

This flagship regional publication will serve as an essential information aid on regional trends pertaining to electricity

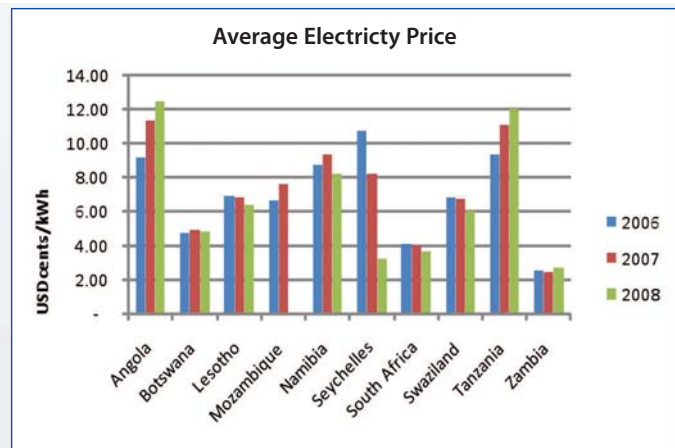


supply industry tariffs and selected performance indicators for governments, regulators, utilities, non-governmental organizations, academia, investors and other interested parties.

### New Power Supply Options (expressed in 2008 values)

Power source	Generation tariff (US cents/kWh)
Gas (peaking)	22.0
Integrated Gas Combined Cycle	10.5
Nuclear	10.0
Coal (conventional)	7.5
Combined Cycle Gas Turbine	7.2
Hydro	6-8

Note (i) This shows generation costs only (ii) Average retail tariffs range: 2.7-12.5 USc/kWh  
Source RERA



Note: Figures for Zimbabwe are not included due to currency distortions during the period covered by the RERA report. Source RERA

## 3.0 Major challenges and opportunities

Moving towards cost-reflective pricing for electricity across the region is only one aspect of reform, but it is a crucial step in ensuring the sustainability of national utilities and in attracting private investment to a sector in need of new capacity.



A delicate balancing act is needed to ensure that any new viable tariffs are explained to consumers (individual and corporate), are introduced according to a phase-in plan, and do not exclude vulnerable communities. This calls for regional policies that allow for minimum level of supply and communication plans, while guaranteeing pro-poor and anti-inflationary electrification support mechanisms.

Policy cooperation at the regional level is required to facilitate a smooth transition towards cost-reflective tariffs and enjoy the benefits this offers in terms of ensuring a conducive investment environment to boost generation capacity. Such cooperation should address three urgent challenges:

- Control of electricity tariffs by governments has caused problems regarding supply of power in most countries. SADC policymakers must address the challenge of developing elaborate national energy pricing policies and strategies that include cost-reflectivity as one of the major objectives, and how to combine these into a common regional policy and strategy, in collaboration with industry. The Tariff Publication being developed by RERA is an important first step towards achieving this objective and should be introduced to consumers through an appropriate communications strategy and plan with public debate, to generate public awareness and avoid consumer resistance, as there is dual impact on individuals, both from direct tariffs and the knock-on effect of manufacturing costs.
- Differences in energy use patterns across Member States pose a challenge for policymakers and regulators. A closer look at energy sales per customer category reveals the different electricity consumption patterns in the Member States. In most SADC countries large power users (customers who are on maximum demand metering) consume more than half the total energy. In Lesotho this pattern seems quite extreme, with very little residential and commercial consumption in relation to large power users while the situation is quite different in the United Republic of Tanzania where almost half the energy is consumed by residential users. These differences in consumption patterns pose a challenge to the development of a common strategy on cost-reflective energy tariffs. The considerations of Member States where energy consumption is by residential users would, therefore, be different from those countries where the bulk of the electricity is consumed by large power users such as mines and industrial companies, although in all cases

the knock-on effect of pricing of goods and services must be incorporated into phase-in planning.

- Most SADC countries determine tariff levels only for retail (i.e. end-consumer price levels). Very few countries have tariff levels across the value chain from generation transmission and transmission to distribution and/or retail. This failure to break down costs is another challenge that policy makers would need to overcome in determining the real cost-reflective tariffs and how to introduce them. Subsidies on electricity are usually cross-subsidisation amongst customer categories. Although a number of countries claim that no subsidies exist in their tariffs, there will always be some level of cross-subsidisation among customer categories.

SADC Member States are also encouraged to adopt feed-in tariffs to encourage use of renewable energy technologies. Renewable Energy Feed In Tariffs (REFIT) are often used to encourage the use of new energy technologies such as wind power, biomass, hydropower, geothermal power and solar photovoltaics.

This type of tariff is also used if there is a shortage of energy, in order to get renewable energy sources on board within shorter timeframes. South Africa has recently approved REFIT tariffs and Namibia has also initiated a study on the possible use of tariffs for renewable energy sources.

Greater cooperation is required in addressing the question of inflation containment within SADC. Overall inflation rates in the SADC countries tend to be high, largely as a result of strong domestic demand and high food prices, although most member states have met the agreed SADC targets for single-digit inflation. RERA and national utilities must ensure that tariff increases are planned and introduced in a manner that does not hamper these targets by fuelling inflation.

#### 4.0 Conclusion and Recommendations

##### 4.1 Conclusion

Cost-reflective electricity tariffs are needed in the SADC region in order to meet regional energy targets, but must be planned and introduced wisely over an appropriate timeframe and in collaboration with consumers, so as not to fuel inflation and hamper other regional economic targets. Care must be taken with phase-in of tariffs and the knock-on effect on prices so as not to increase the incidence of poverty in the region. With an expanding economy, the region requires massive investments in energy infrastructure to reverse a shortfall in power generation, however this must be discussed in a transparent and public manner, with some protection for residential consumers.

##### 4.2 Policy recommendations

- Policymakers should develop a common regional policy and strategy on tariff structures that guarantees a minimum level of supply while introducing anti-inflationary electrification support mechanisms that consider the needs of individual consumers, and avoid increasing poverty in the region.
- National regulators should be empowered to determine electricity tariffs within agreed parameters of consumer protection and anti-inflation.
- Serious consideration should be given to subsidies for power utilities to ensure improved generation capacity.
- SADC Member States should consider adopting renewable energy feed-in tariffs to encourage the use of green technologies. □

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