

Energy policy: Ten ways to provide SA with more and cleaner power

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IT IS the hope of all South Africans, and the belief of many, that we shall be better governed in the next five years than we were in the past five. There is the prospect of new leadership, policy renewal and a greater commitment to implement policy more effectively.

Most of us could point to sectors of government that could be improved. My area of expertise is energy and there is no doubt we could have done better. SA experienced unprecedented blackouts, which curtailed economic growth and caused widespread inconvenience. The distribution of petrol, diesel and gas has not been as reliable as it should have. Far too many continue to suffer inadequate, unsafe or unaffordable energy services. And environmental impacts remain a problem.

A comprehensive energy policy was published as a white paper in 1998. Its overall policy objectives were sensible: an energy sector that promotes economic competitiveness, social equity and environmental sustainability. Energy security and improved sector governance were seen as important elements in achieving these goals. There was a refreshing demand-side emphasis. However, many of the detailed policies in the white paper need updating or more effective implementation.

I suggest 10 important policy priorities for new Energy Minister Dipuo Peters, pictured right. First, the government has no integrated coal policy. More than 70% of our primary energy and more than 90% of electricity comes from coal. SA ranks fifth internationally as a producer and exporter. Coal has been the fastest-growing fuel globally over the past decade. But the government has no clear export strategy and there is no integrated development of mining, rail and port infrastructure to facilitate either exports or anticipated increases in local production and consumption, within acceptable environmental constraints.

Second, SA's continued dependence on coal implies that our carbon emissions are disproportionately large. International climate change negotiations will inevitably include countries such as China, India and SA in new commitments to reduce greenhouse gas emissions. Trade penalties on carbon-intensive exports are also being considered.

While our environment ministry has long-term mitigation scenarios and strategies, they are not yet having any effect on investment decisions. Eskom is building two more coal-fired power stations and will probably contract a third and fourth. Sasol is planning another coal-to-liquids plant. Clearly the government needs to develop a more consistent and integrated climate change policy.

Third, while the Department of Minerals and Energy has published a paper on the security of supply of liquid fuels, there is little evidence that it is providing leadership on key issues, including new refinery, pipeline, storage and distribution capacity, and more efficient transport options.

In the absence of clear policy pronouncements and purposeful action, industry players appear to be acting separately, sometimes with opposing and costly outcomes.

Fourth, electricity supply security remains important, despite the temporary supply cushion from the fall in demand linked to the global recession. If we are to avoid costly blackouts in future, then responsibility must be allocated, and appropriate institutional capacity developed, to ensure that new power is procured in time and at the least cost.

There are still three different agencies undertaking electricity expansion planning. Procurement for new private power appears to be ad hoc. Procedures for dealing with unsolicited bids are not transparent, and contracting and dispatch arrangements for independent power producers are exposed to potential conflicts of interest within Eskom.

The electricity sector recommendations in the 1998 white paper have been superseded by piecemeal, and sometimes contradictory, measures. In short, what is needed is a new electricity sector policy.

Fifth, while a reliable electricity supply depends on having sufficient, operating, power stations, it also requires reliable grid networks to transport the electricity to users. Municipalities distribute about half of our electricity and many are not investing adequately in maintaining these networks.

The government's planned solution is to transfer these networks to regional electricity distributors but the only way that will happen is if the rights of local government are curtailed. The proposed constitutional amendment will be opposed. A more pragmatic solution would be to invest in human and physical capital in the 12 largest distributors, which account for 80% of the electricity distributed by local government. Eskom could take over smaller, poorly performing distributors, while some of the medium-sized municipalities that are doing a reasonable job could be left alone.

Sixth, while the electricity regulator has made a bold decision to approve feed-in tariffs to Eskom that could support private investment in renewable energy, clarity and progress are needed on a range of issues before these investments become a reality. Further work is needed on robust power-purchase agreements, institutional capacity for contracting effectively, and transmission connection arrangement.

Seventh, sharp electricity price increases are necessary to finance Eskom's investment in new capacity. The government has probably reached the limit of its support for Eskom in the form of a R60bn loan and debt guarantees totalling R176bn. Eskom's access to private debt is becoming more difficult and expensive. Failure to raise electricity prices to levels that reflect costs will result in Eskom making a loss, maintenance and investment being delayed, and the lights going out. Devising special tariffs for low-income families will be difficult.

Eighth, South Africans should be encouraged to use energy more efficiently. Ours is the world's 16th-most electricity-intensive economy, which prejudices our competitiveness and

environmental sustainability. Higher prices will be the most effective means to shift consumption patterns, but these must be supplemented by demand-side management incentives.

Ninth, the energy needs of poor households are still inadequately met. Nearly a third of South Africans still have no access to the grid. The electrification programme has slowed and there is no chance that the goal of universal access by 2014 will be met. If a political backlash is to be avoided, the programme will need a thorough review of targets, planning, technology choices, funding and implementation.

Even those with access to electricity can afford to use only modest amounts and rely also on paraffin, gas and fuel wood.

Much useful work was done in SA in the 1990s on household energy. We have yet to see an integrated and adequately resourced programme to tackle energy poverty. In rural areas, little progress has been made in sustainable production of fuel wood and its safe combustion in efficient stoves.

Tenth and last, energy policy priority relates to nuclear energy. SA continues to invest in the experimental pebble-bed nuclear reactor and fuel fabrication. The government is also considering a future fleet of conventional nuclear power stations. SA needs a national debate on the future development and use of nuclear energy, including its potential costs, safety, environmental benefits and dangers of weapons proliferation.

The above list may seem daunting — but real progress can be made if there is greater policy clarity and a renewal of institutional capacity to enable effective implementation.

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