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## **Comment to the Portfolio Committees on Energy and on Cooperative Governance and Traditional Affairs on the Possible Restructuring of the Electricity Distribution Industry**

### **The Free Market Foundation**

The Free Market Foundation is an independent non-profit public benefit organisation founded in 1975 to promote and foster an open society, the rule of law, personal liberty, and economic and press freedom as fundamental components of its advocacy of human rights and democracy based on classical liberal principles. It is financed by membership subscriptions, donations and sponsorships.

This comment concentrates on policy regarding electricity distribution rather than on its technical aspects. It is made against the background of increasing concern over the electricity shortage currently being experienced in South Africa and the recurring reports of the failure of many local authorities to carry out much-needed maintenance of the local electricity distribution networks.

### **Provision of electricity in South Africa**

The generation, transmission, and a large percentage of the distribution of electricity in SA, currently, is carried out by Eskom, which is a vertically integrated Public Enterprise. Local authorities carry out the balance of the operation of distributing electricity. The actual and persistent threat of power shortages and the abrupt termination of power to certain areas (blackouts) demonstrate that to maintain the state electricity monopoly in its current form is not in the best interests of electricity consumers, the employees of Eskom, or the government – in fact, the entire nation.

A method has to be swiftly found to terminate the threat of blackouts and build in an adequate safety margin between minimum expected electricity supply capacity over potential maximum demand. The threat of power failures at the national level can most expeditiously be dealt with by making it possible, and sufficiently profitable, to attract the entry of Independent Power Producers (IPPs) to build power generating plants and provide the required electricity. However, the most rapid entry of IPPs will not be secured if there are barriers to the transmission and sale of the electricity they generate. It must be possible for IPPs to sell electricity across the high voltage power grid (wheeling) to their customers at a reasonable pre-determined cost for transmission on a basis that ensures that they cannot be held to ransom by the owner of the grid.

The ability of independent electricity generating companies to supply electricity to customers across the grid will be of great interest to electricity distributors in that they will be able to purchase supplies of electricity for their customers from Eskom and competing IPPs. Whereas the 178 electricity distributing municipalities are currently totally dependent on Eskom for the electricity they distribute to customers, and are compelled to refuse to approve some new developments due to unavailability of adequate electricity supplies, the presence of IPPs will totally change the dynamics. Municipalities and other distributors will be able to enter into back-to-back agreements with IPPs and new developers for the necessary electricity supplies to allow the developments to proceed.

### **Improving the overall electricity supply system**

Resolving the electricity supply shortage is a matter of vital concern to the electricity distributors. Experience in other countries reveals that the best functioning overall electricity supply systems have certain key elements in common. They are:

#### **1. Independent operation of the high voltage transmission system (grid)**

The proper functioning of an entire integrated electricity generation, transmission and distribution system clearly requires the high voltage electricity transmission system (the grid) to be independently operated and controlled. The European Union has compelled all its members to open up their systems to allow competition in the production and sale of electricity. The UK has an independently owned and operated grid and the US, parts of Canada, and Northern Mexico have connected grids with a multiplicity of owners with a single non-profit organisation, North American Electricity Reliability Organisation (NERC) that assures the integrity of the grid.

#### **2. Competition and trading across the grid**

Competition and trading across the grid provides the lowest prices and most consistent supply of electricity. An electricity grid that serves a multiplicity of sellers and buyers of electricity can be compared with a road network, except that the volume of traffic of electricity across the grid is tightly controlled to keep the grid in balance at all times. Access to the grid is granted to electricity generators and purchasers whose operations are technically sound, maintain standards that will ensure the integrity of the grid, and who enter into agreements for the use of the grid.

Such competition when the EU opened up its electricity markets produced price decreases in Finland of 19.6%, Sweden 17.6%, Germany 9.6%, Spain 16.2%, Portugal 14%, and France 12.7%. It is at the point of delivery from distributor to consumer that market opening delivered the most significant benefits.

#### **3. Optimum efficiency through markets for electricity**

Functioning markets for electricity allow distributors to purchase electricity at the best available prices to meet their needs. This does not always mean the lowest prices as assured availability might require the payment of a premium. The most important function of electricity markets is the continuous balancing of the economic demand for electricity with supply (not to be confused with the physical balancing). For example, if electricity is available at a cheaper price between 10pm in the evening and 5am in the morning a manufacturer might carry out high electricity using production at that time in order to reduce costs, therefore reducing demand at peak times, when the cost of electricity will be higher.

Municipal distributors of electricity should take a keen interest in the current debate over the independence of the grid. First, if the grid becomes truly independent they will possibly in future be dealing either with specific electricity generating companies, purchasing from electricity wholesalers

or on an electricity market. They will also need to take note of the smart grid possibilities that are being developed for improving control of electricity distribution.

### **Changing the structure of the electricity supply system**

A matter that deserves serious consideration is the introduction of competing private electricity supply companies at the municipal level. Municipalities could sell their infrastructure, on conditions contained in carefully constructed contracts that require specific investments in maintenance and well-designed upgrades, with set time-frames and penalty clauses. It is of the utmost importance that such contracts should be prepared by experts with experience in covering all possible eventualities.

Municipalities should not grant monopolies to private electricity supply companies but attempt to ensure that there are competing suppliers down to the household level. Such competition has been introduced to good effect by other countries, most notably New Zealand, where householders have no problem in switching from one electricity supplier to another.

Benefits for municipalities would be that they would receive cash injections from the sale of the assets and will be able to assure consumers of well-maintained and developed electricity supply systems into the future. They will be relieved of the burden of finding capital to continually maintain and upgrade the systems but would have to weigh that up against the loss of income from the profit they currently make on the sale of electricity. With rising costs, that profit is sure to be squeezed, and the municipalities cannot continue to take the profits and neglect the maintenance of the electricity infrastructure. Badly maintained electricity distribution systems are as big a danger as an inadequate supply of electricity as far as blackouts are concerned.

### **Give priority consideration to citizens, investors and residents**

In considering the solutions to the problems related to the electricity distribution system, government should give priority to the long term interests of the people of South Africa. Policy makers are duty bound to find solutions that will provide citizens with efficient well-functioning electricity distribution systems that will allow high economic growth and rapidly improving conditions for all the country's people.

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## **Call for comment on the possible restructuring of the Electricity Distribution Industry (EDI)**

The Portfolio Committee on Energy and the Portfolio Committee on Cooperative Governance and Traditional Affairs are calling for comment on the possible restructuring of the Electricity Distribution Industry.

According to a joint statement issued by the Committees, electricity distribution is the final but equally crucial stage in the delivery supply chain of electricity to end-users. Electricity distribution is

undertaken by Eskom, 187 municipalities and a few private distributors under distribution license, issued by the National Energy Regulator of SA (NERSA). Municipalities account for approximately 40% of sales revenue and approximately 60% of the customer base, with Eskom taking up the remainder.

The electricity distribution industry (EDI) is, by its nature, an asset centric business with a replacement asset value, estimated at R260bn (2008 values). While pockets of good performance in the current EDI are recognised, the viability of the industry is under risk, amongst others, due to the under-investment in infrastructure. The current backlog on rehabilitation of the aging infrastructure warrants urgent attention.

Public hearings are scheduled for 25 & 26 July 2012. **Written submissions must be submitted by Monday, 23 July 2012.** Correspondence should be addressed to Mr S.J. Njikelana, MP: PC on Energy and marked for the attention of Mr A. Kotze, Parliament of RSA, PO Box 15, Cape Town 8000. Enquiries may be directed to Mr A. Kotze on tel: 021 403 3662, cell: 083 709 8470, fax: 086 5055 618, or e-mail: [akotze@parliament.gov.za](mailto:akotze@parliament.gov.za)