

Power Sector Reform and the Public Benefits Imperative:

A South African Case Study

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1. Introduction

As power sectors around the world have restructured, programmes that make provision for public benefits have been affected. In most cases, the impact has been negative, while in other cases it has been neutral or positive. With an electric industry on the verge of reform, it seems appropriate for South Africans to try now to understand what could potentially happen to our public benefit programmes in these new future contexts, and then to try to ensure that these programmes are protected. And, perhaps more importantly, this process should seek to advance important public benefit programmes in South Africa.

South African energy stakeholders have spoken a great deal about how the distribution industry, as well as the wholesale electricity market, should be reformed. Although these discussions and debates have been raging for many years, no key decisions have been made on the way forward. Therefore, it is not possible for this paper to outline what the impact power sector reform has had on public benefits; rather, it seeks to understand how the public benefits agenda has (or has not) been placed on the power sector reform agenda. This is a useful exercise: power sector reform has a long way to go before its implementation is completed; if we can learn lessons early on in the process, we can also make amends before this extremely important window of opportunity for public benefit programmes has gone by forever. Indeed, it is our proposition that power sector reform brings with it a small but critical window of opportunity in which new, innovative, and even radical changes can also be made to the way in which important public benefits are provided for in the future.

Therefore, this paper focuses on an investigation of the way in which social and environmental issues and concerns have been, and are currently being, placed on the South African government's power sector reform agenda. In order reach a position where it is possible to understand this, the paper addresses the following:

- drivers for change in the electricity sector;
- government's current plans to bring about this change;
- major reform issues and concerns;
- major power sector reform interest groups, including the role that the international community is currently playing in the power sector reform process;
- the dynamics of decision-making in the power sector;
- power sector reforms with regard official development assistance;
- how the public benefits imperative is currently interacting with plans and discussions for power sector reform.

It is hoped that this investigation will yield initial insights into how obstacles to the inclusion of public benefits in reform processes may be overcome in South Africa and other countries in the near future.

2. South Africa's electricity industry is Eskom-dominated

South Africa's electricity industry is currently dominated by Eskom, the national vertically integrated electric utility. Eskom is South Africa's largest energy institution, and also the world's fourth largest electricity utility. Eskom supplies 95 per cent of the country's electricity requirements, which amounts to more than half of the electricity consumed on the African continent. In South Africa, 92 per cent of electricity is generated from coal. Nuclear accounts for six per cent, and hydro and emergency gas turbines make up the remaining two per cent. Currently, 55 power stations are licensed by the National Electricity Regulator (NER).¹ Eskom operates 25 of these, 13 of which are coal-fired. Eskom also operates Africa's only nuclear station. There is also 632 MW of hydro capacity, as well as two large pumped-storage schemes totalling 1400 MW. Municipalities own and

¹ The Electricity Act of 1987 specifies that plants generating more than 5 GWh per annum for resale, as well as all municipal generators require a NER licence.

operate 22 power stations, but these total only five per cent of generation capacity. The remaining power stations are privately owned and account for two per cent of total installed capacity. Total licensed capacity in 1998 was 43 141 MW, of which 39 870 was Eskom-owned,² 2 436 MW municipality-owned, and 836 MW privately owned (NER 1999; Shabangu 2000).

Eskom owns and operates the national high voltage transmission system, which connects the power stations to large urban and industrial areas as well as neighbouring states. Peak demand on the grid is approximately 28 000 MW (Shabangu 2000). An integrated southern African transmission grid received impetus with the signing of the Southern African Power Pool (SAPP) agreement at government and utility level in 1995. The SAPP has provided a regional vision for economic integration and framework for co-operation amongst member countries.

Electricity distribution is undertaken by Eskom, about 368 local municipalities and 13 other distributors. Municipalities collectively directly service about 56 per cent of total customers (by number) and about 42 per cent of total customers by sales volume. Municipal electrical departments generally supply electricity to customers in their local government areas. The municipal distributors differ significantly in customer density, size and type of customer base, geographic spread, financial base and effectiveness (DME 1999; NER 1999).

In 1998, there were 5.8 million electricity customers. In terms of total electricity consumed, domestic customers accounted for 19 per cent, manufacturing 49 per cent, mining 19 per cent, and commercial transport and agricultural users the rest (NER 1999).

3. Change in the electricity distribution industry

3.1 The EDI is in urgent need of reform

South Africa's electricity distribution industry (EDI) is now in urgent need of reform. Current problems in the sector are many and serious, and can be summarised as follows (PricewaterhouseCoopers 2000):

- *Financial viability:* The EDI is currently in financial crisis. Many municipal distribution businesses in recent years have suffered financial collapse and many others are now close to bankruptcy – facing severe debt problems, including a backlog of non-payment for bulk supplies to Eskom. Over the past few years a ‘quick fix’ approach has been taken in instances where municipal distributors have collapsed. In some cases this has taken the form of Eskom distribution, or another municipality or the provincial government conducting the distribution operation on behalf of the municipality in question. This ‘restructuring by default’ is not sustainable and does not represent a permanent solution that is consistent with the government’s social and economic development objectives. The financial crisis facing many distribution businesses has real and severe consequences – for example:
 - Investment in the distribution networks is falling significantly short of that required to maintain the assets and to extend the network to meet growing demand. As a result the government’s objective of secure and reliable electricity for all is under increasing threat.
 - The ability of many distributors to meet the financial demands of the electrification programme in future is under serious threat – both the initial installation costs and the ongoing financial support to low-income households.
 - Failure of many municipal distributors to pay debts to Eskom, if continued under the current structure, will ultimately threaten the viability of the whole of the electricity supply industry. The financial viability of the whole sector depends critically on distributors being able to collect revenue from customers and meet their financial commitments to Eskom for generation purchases.
 - Many of the financially weak distribution businesses do not represent secure employment prospects for their labour force. This, in turn, is creating pressure on many skilled staff to leave the industry for more secure employment elsewhere, as well as significant uncertainty and concern among other members of the current labour force.

² This includes 3 556 MW of mothballed capacity, and 2 529 MW of capacity under construction.

- *Inequitable treatment of consumers:* The current arrangements in the EDI are the result of historical accident and form no coherent pattern. As a result, consumers face significantly different tariff levels, standards of supply reliability and service across the country – resulting in widespread inequity. This is inconsistent with government objectives of promoting economic and social development throughout the country. In particular:
 - Wide disparities exist in the tariff structures caused by the high level of fragmentation of the industry (domestic tariffs supplied by municipalities range from 16 – 60 c/kWh). These tariff differences bear little or no relationship to the quality of service provided, the costs of supply or consumers' ability to pay.
 - Reliability of supply and the ability of distributors to offer a basic and secure supply to low income households differs markedly across the country.
 - Unfair discrepancies exist between Eskom Distribution and Municipal Distribution purchasing tariffs from Eskom Transmission – to the benefit of some large customers, but the detriment of the majority of domestic and low-income consumers.
 - Electrification needs are not evenly distributed across regions, with some of the poorer regions having the greatest need. Under the current EDI structure, the burden of financial support to newly connected rural and low-income urban customers will fall randomly on some consumers and not others in an entirely unplanned and uncontrolled manner.
 - The threat of financial collapse is most acute for a number of municipal distributors in certain low-income rural, urban and industrialised areas in South Africa.
- *Inefficiencies:* The EDI is currently highly fragmented, with some 400 distribution businesses, which by international standards are extremely small. As a result, many of the basic economies of scale in the sector are being lost. Administration and technical functions are duplicated across adjacent distributors in rural, urban and industrial areas. Costs and prices in the sector are, in consequence, unnecessarily high, and will remain so until the number of businesses is reduced radically, in line with earlier Cabinet resolutions. The highly fragmented nature of the sector also means that:
 - the EDI is currently very difficult to regulate and monitor effectively;
 - it is extremely difficult to attract and retain high quality management teams for such a large number of separate businesses;
 - many of the businesses are too small to be able to invest in the specialist skills development and training required of a modern distribution business.

In summary, the current arrangements in the EDI are unsustainable, from a financial, efficiency and equity point of view. The need for reform is urgent, if the problems in the current EDI are not to present a significant obstacle to the government's social and economic development programme. Such is the scale and urgency of the problem that distributors are starting to restructure the EDI on a micro-regional basis and in an uncontrolled manner. These restructuring exercises are being paid for by a small number of consumers, and the result will be an industry structure that is consistent neither with government's social and economic priorities, nor with the long-term interests of the South African electricity consumer or employee in the sector. A single, co-ordinated programme of reform is now required.

The EDI is an important element of the South African economy, and has a key role to play in the government's economic and social development plans. The government believes that EDI reform should be undertaken in order to:

- provide low cost electricity to all consumers, with equitable tariffs for each customer segment;
- provide a reliable and high quality supply and service to all customers, in support of the government's economic and social development plans;
- meet the country's electrification targets in the most cost-effective manner, and so ensure that electrification is contributing to social and economic development;

- meet the legitimate employment, economic and social interests of all employees in the sector, and ensure their safety; and
- operate in a financially sound and efficient manner, in order to provide a reliable and sustainable future for both consumers and employees.

3.2 Reform plans for the distribution industry

To address concerns in the EDI, Government now plans to consolidate it into a maximum number of financially viable independent regional electricity distributors (REDs). This process will amalgamate Eskom's distribution division with the local authority distributors into a number of regional electricity distribution companies or REDs. As an interim step, Eskom Distribution will form part of a holding company, EDI Holdings Company, for the entire distribution industry, EDI Holdings. Eventually REDs will become independent of EDI Holdings.

Government's appointed technical advisors of this particular initiative, PriceWaterhouse-Coopers, recently released working papers (PriceWaterhouseCoopers 2000) detailing views that have emerged following extensive (yet ongoing) analysis and various stakeholder meetings. A selection of these views is listed below.

- *On RED definition*, it is likely that between five and fifteen REDs should be established, with six being the most favourable option. Each RED will contain a major economic centre, and boundaries should be consistent with the new municipal boundaries and the electrical configuration of the network, as well as take cognisance of geographical constraints.
- *On ownership*, it has been suggested that shares should be used to compensate existing distribution undertakings for the value they contribute to the REDs, and that when Eskom has been restructured shares in respect of Eskom distribution be held by national government. On governance and legal status, it is recommended that each RED be controlled by its own professional Board of Directors, elected by its shareholders. Furthermore, the REDs should be established as companies incorporated in terms of the Companies Act. National government (through the NER) will be responsible for setting and monitoring implementation of policy for the electricity sector as well as ensuring, through regulation, that municipalities perform their functions effectively.
- *On commercial arrangements*, REDs should purchase generation and transmission services by means of a regulated wholesale pricing system. This would contain separate generation and transmission components, both of which would be regulated. Once the wholesale energy market is established (see below), REDs would be allowed to purchase from this market. The regulatory regime would provide REDs with an incentive to minimise the cost of energy purchased on behalf of their customers, and would limit cross-ownership between REDs and generation companies so as to encourage energy purchases to be made on a fully commercial basis. The NER would continue to regulate the price charged for access to the transmission network. Under this arrangement, some large industrial customers would be eligible to choose the company from which they purchase electricity.
- *On regulatory arrangements*, the new regulatory regime for the EDI should provide a role for local government (as envisaged in the Municipal Systems Bill) to complement the role of the NER. Local government would be involved in micro-regulation of the RED in its area to meet its legal and constitutional obligations, and the NER would be concerned with macro-regulation of the whole EDI with a view to meeting national objectives for the industry. The 'end-state' regulatory regime for REDs would include (i) separate regulation of (and licences for) distribution activities, captive market retail activities and contestable market retail activities; (ii) efficiency incentives for the distribution business and the captive market retail business of REDs through regulation of the allowed revenue for each RED; (iii) tight monitoring and performance against quality of supply and quality of service standards.

Without substantial increases in tariffs, major reductions in distribution costs, or the curtailing of the electrification programme, it is furthermore recognised that this rationalisation and restructuring process alone will have limited impact on improving the overall financial health of the industry. It is for this reason that the White Paper on Energy Policy states that 'the entire industry (generation, transmission and distribution) must move to *cost-reflective* tariffs with separate, transparent funding for electrification and other municipal services.'

4. Change in the electricity supply industry

4.1 The ESI has served well, but its inefficiencies are costly

In many respects, the electricity supply industry (ESI) has served South Africa well. Importantly, Eskom has provided a good quality of supply, in recent years it has lowered its prices, and it has implemented a large electrification programme. Eskom's recent successful attempts to lower the real price of electricity and its exemplary electrification programme has contributed to the impression that it is highly efficient. It has recently been argued, however, that lower prices and electrification do not necessarily mean low overall costs. In support of this view, for instance, Steyn (2000) notes five drivers behind Eskom's ability to maintain low prices as well as fund the electrification programme. These are that Eskom (i) has benefited greatly from the low purchase price of coal; (ii) has done well to utilise power station technologies that maximise economies of scale and exploit the lowest value (and cost) coal; (iii) continues to receive substantial subsidies in the form of subsidised export credit financing from foreign governments and subsidised South Africa Reserve Bank forward cover;³ (iv) has already amortised the loans required to fund the generation capacity that now feeds South Africa's power requirements; and (v) receives a large subsidy from the state in that it has been exempt from taxation and dividend payments.

If Eskom's operations in various areas are in fact inefficient, and *if* these inefficiencies result in a cost burden on the South African economy, it does not necessarily follow that the entire electricity industry should be restructured, or that a change in industry ownership should be forced. Such radical changes are currently being suggested because, perhaps, of other driving factors.

Firstly, South Africa is a global player and must always be looking for opportunities to improve the performance of its key economic sectors. Manifest in growing international experiences, there is a realisation of the following:

- Outstanding technological improvements indicate that all components of the electricity industry are no longer necessarily vertically integrated monopolies deriving significant social and environmental benefits through economies of scale.
- Energy security can be achieved through greater diversification and flexibility of supply, including increased cross-border energy trade, and uneconomic energy industries need no longer be protected.
- Government need not necessarily be the provider of public services in order for delivery of these services to be ensured.

Indeed, as the White Paper on Energy Policy notes, '[t]he rapid changes in the political and economic context of the electricity supply industry world-wide in recent years raise questions about the continued ability of South Africa's monopolistic electricity industry to meet customers' electricity services needs in future.'

Power sector reform has been driven not only by these international developments, but also by imperatives emanating from within South Africa. On a broad level, power sector reform initiatives coincide with government's decision to restructure its largest state-owned enterprises. The Minister of Public Enterprises and the Deputy Minister of Minerals and Energy recently noted that, from a government perspective, the primary objectives for restructuring Eskom are to:

- *maximise financial and economic returns to the state* both from the point of view of increased opportunities for debt reduction and increased fiscal revenue;
- *increase economic efficiency* in terms primarily of achieving allocative efficiency with regard to the next investment in generation capacity, in driving operational costs down;
- *widening resource availability and opportunities for technological change* by considering competitive imports from southern Africa, in particular natural gas from Namibia and Mozambique, as well information and computer technologies;

³ In principle the forward cover protects Eskom against adverse changes in the exchange rate by transferring the obligation to pay any adverse difference between the initial rate and the rate at maturity to the Reserve Bank (Steyn, 2000).

- *promote opportunities for black economic empowerment;*
- *improve customer service* and introducing choice of supply (Radebe 2000; Shabangu 2000).

At the time, the Minister of Minerals and Energy (2000) accepted these main objectives and added a further one:

- To protect public benefits such as widened access to the poor, energy efficiency, ongoing research and development and environmental sustainability (Mlambo-Ncguka 2000).

4.2 Government is considering introducing competition into the wholesale electricity market

While it must be emphasised that very few decisions have been made on the appropriate model for ESI reform, and indeed that the way forward for ESI reform remains open-ended, it seems currently likely that ESI reform will follow the logical steps as illustrated in the generic models illustrated by Figures I, II and III. Figure I illustrates the Purchasing Agency model whereby Eskom continues to dominate the electricity industry, controlling Generation, Transmission and the unregulated Eskom Enterprises. Essentially, this model is representative of a near-term situation since (i) Eskom is currently being corporatised in preparation for the introduction of competition in the wholesale electricity market, (ii) Eskom has already been split into a regulated (core) business subsidiary (generation, transmission and distribution) and a non-regulated (non-core) subsidiary being Eskom Enterprises; and (iii) the distribution industry is soon to be rationalised into a small number of financially viable REDs.

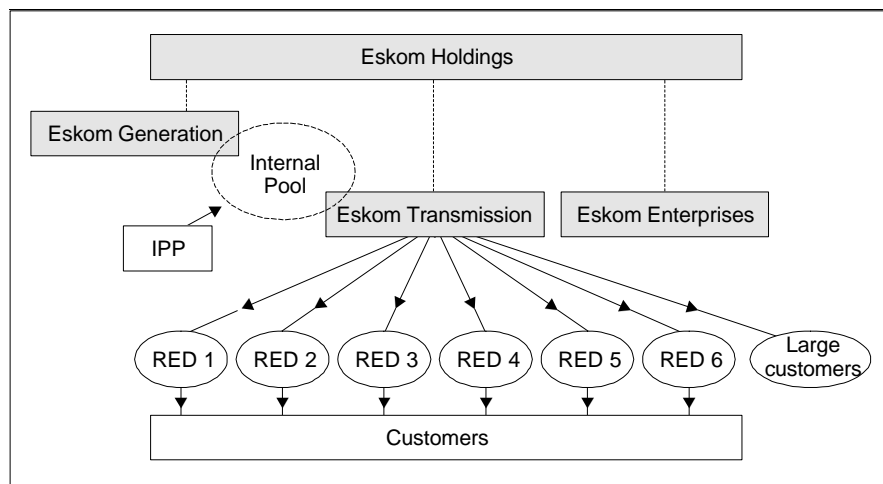


Figure I: Purchasing Agency model

Source: Adapted from Hunt & Shuttleworth (1996); Mkhwanazi (2000)

It is broadly accepted that the Purchasing Agency model cannot last indefinitely. Under this model, any new generator entering the market would sell power to Eskom. Government would find it difficult to attract new investments into the industry, as investors would be concerned about the inherent conflict of interest in Eskom, as the owner of Transmission and of various generation plants. Open, non-discriminatory access to the system would not be guaranteed. At a minimum, new independent power producers (IPPs) would demand long-term power purchase agreements (PPAs) which could result in consumers being tied to non-competitive prices for years to come.

Transmission in the Generation Oligopoly model is established as a separate state-owned company. This may occur in the new future. An external, transparent power exchange is also established. Eskom will continue to control Generation and Eskom Enterprises. Eskom Generation units are grouped into different clusters, or operating divisions, under the control of Eskom Holdings. These different operating divisions would, however, bid separately to sell power into the pool. Government is likely to adopt this model since it has expressed a concern about the undesirability of introducing private participation into the wholesale electricity industry while it is still organised in a single

holding structure. This model is not likely to prejudice the existing strengths of the ESI. As the system evolves into the next model (see Figure III below), companies in these clusters should not be allowed to gain control of the transmission and distribution parts of the industry as this could lead to abuse of market power. The central challenge facing the government at this time relates to the timing and phasing in, of a competitive market structure in generation.

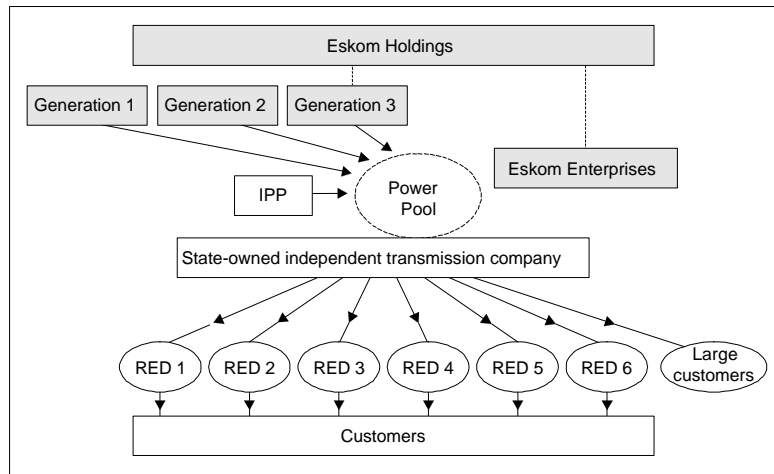


Figure II: Generation Oligopoly model

Source: Adapted from Hunt & Shuttleworth (1996); Mkhwanazi (2000)

In the Generation Oligopoly Model, there is general concern that Eskom Holdings would be able to exert excessive market power through its subsidiaries. Without regulatory support, investments in large independent generation plants would therefore still be unlikely.

According to the Wholesale Competition Model illustrated in Figure III below, Eskom would be left with a highly diluted portfolio of generation assets (in addition to Eskom Enterprises). The remainder of generation would be separated into competitive independent companies. These could be privatised through, for example, black economic empowerment provisions, or an initial public offering.

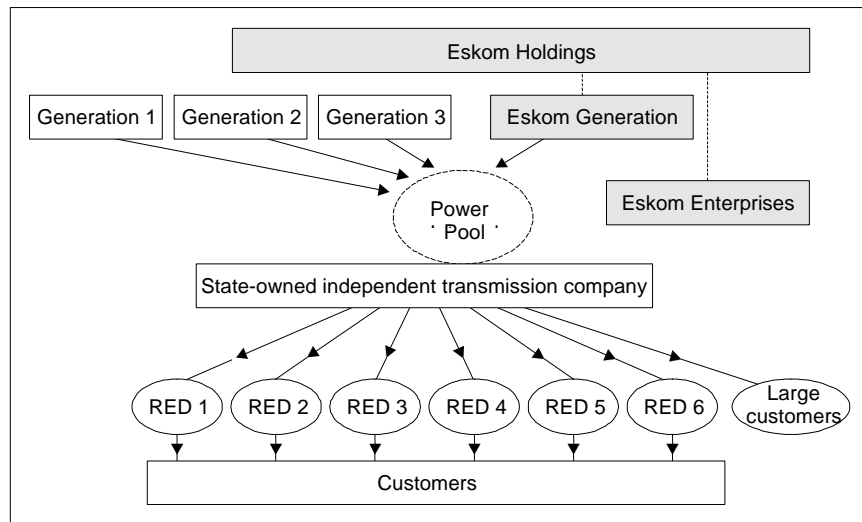


Figure III: Wholesale Competition model

Source: Adapted from Hunt and Shuttleworth (1996)

Transmission in the Wholesale Competition model is likely to remain at least partially in the hands of the state. The introduction of a strategic equity partner into this independent transmission company might be considered. It is probable that generating companies will be precluded from

owning the transmission network, and vice versa. Retail competition could be introduced at this stage (or perhaps even earlier). This process would entail separating out the natural monopoly 'wires' business from retail services at distribution level. It is unlikely that this will occur in the next decade.

For the sake of clarity, the reform processes outlined above can be broken down into 'unbundling', 'corporatisation/commercialisation', 'competition' and 'privatisation' initiatives. These are outlined below.

- *Unbundling.* In a pure sense, unbundling (or restructuring) electric services is accomplished by breaking out the components of traditional bundled services, assigning existing costs to the various service components, and developing prices based on these costs (Kozloff 1998).

As noted, in the short-to-medium term, Eskom will be unbundled into separate transmission, distribution and generation companies (see Figures II and III above). This will occur as a natural consequence of the EDI rationalisation initiatives, as well as the drive to introduce fair competition into the wholesale power market. In other words, Eskom as a vertically integrated natural monopoly will cease to exist. In preparation for this, financial and operational structures of Eskom Transmission, Eskom Generation and Eskom Distribution have been ringfenced.

- *Commercialisation and corporatisation.* When the government decides to commercialise a state-owned enterprise, it essentially relinquishes detailed control, in favour of autonomy for the enterprise and a focus on profitability. Under commercialisation, government maintains ownership of electric utilities but removes subsidies and preferential fiscal policies and requires full recovery of capital, operations, and maintenance costs. Corporatisation entails the formal and legal move from direct government control to a legal corporation with separate management.

Eskom will be corporatised in early 2001, with Transmission, Distribution and Generation each forming separate corporate entities. Thereafter, Eskom will be also liable for the payment of taxes and dividends.

- *Competition.* While the 'wires' portion of the electricity sector (transmission and distribution services) is still considered a natural monopoly, competition may be introduced into the system for selling power to the grid (wholesale competition) and providing electricity to end-use customers (retail competition). Wholesale competition may take the forms of IPPs bidding for long-term contracts with power purchases, or of the creation of spot or short-term markets for wholesale power. Retail competition can be introduced through different methods. In one, multiple power generators have direct access to the transmission and distribution networks, allowing them to compete to supply final customers regardless of who owns the wires. In another, independent retail service providers (which do not own generation facilities) buy power from generators, contract for use of transmission and distribution facilities, and sell the power to final customers (Kozloff 1998).

It seems likely that South Africa will adopt a multi-pronged approach to introducing wholesale competition into the South African power sector. In summary, these include: (i) commercialisation and corporatisation of Eskom; (ii) creation of independent competing Eskom Generation companies to promote internal competition as well as non discriminatory access to transmission and distribution networks; (iii) creation of a spot market and the introduction of private sector participation, either through a new IPP licence, strategic equity partners, and/or a initial public offering. As noted in the White Paper, retail competition (aside from selected large industrial customers being allowed a choice of supplier) is not seen as an option that will be utilised for some time to come.

- *Privatisation.* Privatisation transfers existing power sector assets to private ownership and allows private development of some, or all, new power sector infrastructure. Introducing greater private sector participation into the power sector can involve the privatisation of assets, or it can involve the emergence of private sector involvement in the development of new power sector infrastructure.

It is argued that privatisation of Eskom without first creating a competitive market would be detrimental for end-use customers since it would likely mean a guaranteed private monopoly income for Eskom's new (probably foreign) owners. It would be extremely difficult to force

diversity at a later date in order to create competition (Eberhard 1999). The entrance of a foreign strategic equity partner for Eskom would also complicate moves to full competition at a later stage. Given this, it is likely that government will concentrate on moves towards introducing competition prior to any initiatives involving privatisation or greater public sector participation. In all likelihood, though, an IPP will be introduced prior to the establishment of a competitive wholesale market. This will be important in order to ensure adequate installed capacity. The new IPP would likely then sell power to Eskom under the conditions of a long-term power purchase agreement (see Figures II and III).

As noted above, it is government policy to introduce strategic equity partners into different non-regulated Eskom Enterprises business units. Private sector participation will be introduced specifically into the generation, and perhaps the transmission, company, either through strategic equity partners, through initial public offerings, or, as noted above, through granting a licence to an emerging independent power producer.

Finally, a new regulatory framework, enabling the NER to meet the needs of a future competitive electricity system, will in all likelihood be established.

5. A chronology of power sector reforms

As shown in Table 1 below, power sector reform has been on government's agenda since 1992. At this early time, it was recognised that the distribution industry would need to be rationalised. Discussions on the way forward for the ESI only really gained momentum in 1998 with the release of the Energy Policy White Paper in December.

Date	EDI reform	Date	ESI reform
1992	Deliberations begin		
1993/4	National Electrification Forum is established and meets	1993/4	National Electrification Forum identifies ESI reform as being necessary and important
1994/5	National Electricity Regulator (NER) is established	1994/5	National Electricity Regulator (NER) is established
1995	Electricity Working Group is established by NER		
Late 1996	Electricity Restructuring Interdepartmental Committee (ERIC) Report is released	April 1996	NER establishes an Electricity Market Task Team to investigate options/needs for ESI reform
March 1997	Cabinet approves recommendations of ERIC report ⁴		
November 1997	Cabinet appoints the EDI Restructuring Committee to guide the EDI reform process		
December 1998	Energy Policy White Paper is released	December 1998	Energy Policy White Paper is released
June 1999	Government appoints EDI technical advisors (PWC)	1999	Eskom is split into core Eskom operations and Eskom Enterprises
		November 1999	Inter-ministerial Cabinet Committee on the Restructuring of State Assets gives go ahead for development of full policy framework

⁴ Importantly, the ERIC report recommended the establishment of a maximum number of financially viable REDs

Early 2000	First public workshops on EDI way forward	April 2000	Department of Minerals and Energy/Department of Public Enterprises/World Bank workshop on ESI reform
Mid 2000	PWC Stage 1 Blueprint report finalised	August 2000	Minister of Public Enterprises releases 'Accelerated Agenda towards the restructuring of State-Owned Enterprises'
Mid 2000	DME undertakes meetings with business and unions to seek ownership for EDI Blueprint report	Late 2000	DPE initiates study to make recommendations on new market structure
November 2000	EDI Blueprint report submitted by Minister of Minerals and Energy to Cabinet. Cabinet forwards queries to Department of Minerals and Energy	November 2000	Cabinet requests that the Department of Minerals and Energy to submit a strategy for ESI reform
Early 2001	On directive of Minister of Minerals and Energy, PWC Stage 1 Blue print is reviewed by a team of international and local electricity specialists	Early 2001	Eskom is officially corporatised
Early 2001	Cabinet expected to adopt Stage 1 Blueprint report		On directive of Minister of Minerals and Energy, Norwegian-supported study on ESI reform is reviewed by a team of international and local electricity specialists
Early 2001	PWC to continue detailed work on Stage 2 of EDI reform process	Mid 2001	NER grants new license to IPP to build new capacity
Mid to late 2001	National EDI Holdings Company expected to be established	2001/2002	Transmission expected to become an independent state-owned company
2002	First REDs established	2001/2002	Eskom generation units are clustered into competing businesses

Table 1: Power sector reform chronology

Clearly 2001 and 2002 are set to be key years for the shaping of plans to restructure the EDI and ESI.

6. A wider range of industry stakeholders have been involved in EDI reform than in ESI reform

It is useful when identifying actors involved in electricity industry reform in South Africa to distinguish between:

- *stakeholders* or those who have some degree of interest in the electricity industry;
- *actively participating stakeholders* or those who are directly involved in discussions and debates leading to electricity industry reform; and
- *decisionmakers* or those who are take ultimate responsibility for shaping the future of the electricity industry

As indicated in Table 2 below, roleplayers in addition to those listed above include local and international organisations rendering technical assistance to the reform process.

Stakeholders	
End users	Customers, including large industrial and commercial Trade unions Business associations/chambers

	Electricity Intensive Users Group (EIUG) Environment activist organisations
Distribution industry	Municipal distributors Eskom Executive Management for Eskom Distribution South African Local Government Association (SALGA) Amalgamated Municipal Electrical Undertakings (AMEU)
Government	Department of Minerals and Energy Department of Finance/National Treasury Department of Provincial and Local Government Department of Public Enterprises National Electricity Regulator
Actively participating stakeholders	
End users	Customers (only in that technical docs appear on the DME web-site) Trade Unions Business chambers/associations Electricity Intensive Users Group (EIUG)
Distribution industry	Municipal distributors Eskom South African Local Government Association (SALGA) Amalgamated Municipal Electrical Undertakings (AMEU)
Government	Department of Minerals and Energy Department of Finance/National Treasury Department of Provincial and Local Government Department of Public Enterprises National Electricity Regulator
Decision-makers	
Government	Cabinet Parliament Minister of Minerals and Energy Minister of Finance Minister of Public Enterprises National Electricity Regulator
Other actors	
Local assistance	Local research and consulting assistance
International assistance	PriceWaterhouseCoopers AusAid (forthcoming)

Table 3: Actors in the EDI reform process

As noted, reform of the EDI is a pressing issue for South Africa. Government is working hard to shape the new future context for this industry. Indeed, the first of the REDs is likely to be established by 2002. As indicated in Table 3, an attempt has been made to include a wide range of electricity industry stakeholders in debates and discussions around plans for the EDI reform. It could be argued that this type of approach has been necessary, considering that there are over 350 municipal distributors in the country, and that the proposed reforms could have significant impact on them, their employees, and customers.

The process chosen thus far by the South African government to begin discussions on the way forward for the ESI has been quite different to that of the EDI discussed above. Until now, most discussions on ESI reform have occurred on a high-level basis, generally between the Ministers of Minerals and Energy and Public Enterprises, and Eskom Executive Management, and a wider range of supply industry stakeholders have not yet participated in the process of designing reforms. The reason for this is that the public has not yet received opportunity to become involved in the

discussions.⁵ Table 3 illustrates the key roleplayers in the ESI reform process.

Stakeholders	
End users	Customers, including large commercial and industrial Trade Unions Business chambers and associations Electricity Intensive Users Group (EIUG) Environment activist organisations
Distribution industry	Municipal distributors Eskom Executive Management for Eskom Distribution South African Local Government Association (SALGA) Amalgamated Municipal Electrical Undertakings (AMEU)
Supply industry	Eskom Executive Management for Eskom Generation Prospective Independent Power Producers/Investors Existing Independent Power Producers Operating members of the Southern African Power Pool
Government	Department of Public Enterprises Department of Minerals and Energy National Electricity Regulator Department of Finance/National Treasury
Actively participating stakeholders	
Supply industry	Eskom Executive Management for Eskom Generation
Government	Department of Public Enterprises Department of Minerals and Energy National Electricity Regulator Department of Finance/National Treasury
Decision-makers	
Government	State President of South Africa Cabinet Parliament Minister of Minerals and Energy Minister of Finance/National Treasury Minister of Public Enterprises National Electricity Regulator
Other actors	
International assistance	World Bank US Department of Energy through NREL and NARUC Norad through NVE and ECON AusAid
Local assistance	Local research and consulting outfits

Table 3: Actors in the ESI reform process

The Departments of Minerals and Energy and Public Enterprises, and the National Electricity Regulator have small staff complements. As a result, the same staff of these organisations usually takes responsibility for shaping reform in the supply and distribution industries. The same could probably be said of the representation of a number of the various institutions listed above (for example, SALGA, distributors, trade unions, business and customer associations). Interestingly, municipal distributors mention that they are (in some cases, vaguely) aware that there are

⁵ Government has probably adopted this stance because plans to reform the ESI are still in their infancy (that is, relative to EDI reform plans) and Government is still developing its own policy in this area. As the Minister of Public Enterprises notes: 'I want to preface my comments by saying that the final restructuring model for ESKOM has yet to be decided upon. The Department of Public Enterprises will undertake a full investigation of the different models for the restructuring of ESKOM. During this process we will actively engage with other government departments, the NER, Eskom, independent policy researchers, investment banks and global industry players...' (Radebe, 2000)

discussions taking place on reform in the ESI, but are unable to take this further from the distribution industry point of view because they are currently too heavily tied up in negotiations around EDI reform.

The interests of the stakeholders listed above varies significantly. Table 4 below lists the broad policy positions of these stakeholders in terms of EDI restructuring.

Actors	Interests/issues
End users	
Customers	Low electricity prices, improved services, reliable and quality power supplies
Trade unions	No job losses, competitive wages/salaries, national distribution company
Business chambers and associations	Low electricity prices, quality and reliable power supplies, green power
Electricity Intensive Users Group	Low electricity prices, reliable and quality power supplies, retail competition
Environment activist organisations	Limited environmental impact, sustainable development, green power
Distribution industry	
Municipal distributors	Favourable asset transfer and shareholding (control) in new REDs structure, limited job losses, municipal levy, continued Service Authority status
Eskom Executive Management	Continued natural monopoly status, no impact on Eskom credit rating, share holding in distribution companies
South African Local Government Association	Smooth transition, municipal levy, fair stake in RED structure
Amalgamated Municipal Electrical Undertakings	Removal of cross-subsidy (electricity pays for other services), financial stability, adequate budgets, greater human resource capacity
Government	
Department of Minerals and Energy	Low electricity prices, financially viable distribution industry, ongoing electrification programmes and other programmes aimed at achieving rural development objectives
Department of Public Enterprises	Maximising returns from Eskom Distribution shares
Department of Finance/National Treasury	Financially viable distribution industry, transparent fiscal impact
Department of Provincial and Local Government	Reform in line with other dept processes, efficient distribution of electricity, strengthening of local government
National Electricity Regulator	Financially viable distribution industry that is easier to regulate, rationalised tariff structures

Table 4: Interests of EDI reform actors

Probably of most significance in the EDI reform process has been the policy positions of municipal distributors and Eskom. Municipal distributors currently rely on electricity sales to cross-subsidise other municipal services such as water provision and waste management. Municipal distributors have been concerned that, if provider responsibilities are transferred from municipalities (or metropolitan councils) to REDs structures, their overall financial position could substantially deteriorate. Municipal electrical undertakings (for example, electricity departments), on the other hand, seem open to EDI reform because their departments will no longer carry the burden of the cross-subsidy, and will no longer have to operate on 'the edge'. It is likely that a local government levy will be imposed on REDs structures (as service providers) for the benefit of municipalities (service authorities).

Until fairly recently, Eskom Executive Management/Electricity Council has not entirely favoured government plans to remove its distribution function and amalgamate it with municipal electrical undertakings. Indeed, Eskom wishes to remain intact. More recently, Eskom has recognised the necessity of EDI reform, and is contributing, heavily, to the debate on how to shape EDI reform.

As noted, no decisions have yet been made on ESI reform other than those appearing in the Ministry of Public Enterprises' recently published 'Accelerated agenda towards the restructuring of state-owned enterprises'.⁶ As also noted, the focus to date has been on EDI reform. The policy positions of the various stakeholders – whether actively involved in ESI reform debates or not – have not necessarily matured. Table 5 below gives an initial indication of what these policy positions are.

Actors	Interests/issues
End users	
Customers	Low electricity prices
Trade unions	No privatisation, no job losses, competitive wages
Business associations/chambers of commerce	Green power, low electricity prices
Electricity Intensive Users Group	Low electricity prices, reliable and quality power supplies, purchasing directly from power generators
Environment activist organisations	Clean generation of electricity
Supply industry	
Eskom Executive Management/Electricity Council	Limited reform, transmission to be transferred to Eskom Enterprises, limited competition
Prospective Independent Power Producers	Fair access to transmission system, cost reflective tariffs
Existing independent power producers	Fair access to transmission system, cost reflective tariffs, transparent regulatory framework
Operating members of the Southern African Power Pool	Opportunities for fair trade, cost reflective tariffs
Distribution industry	
Municipal distributors	Unknown but likely to be favourable pool purchasing arrangements, time of use tariffs, licensing opportunities for incoming IPPs
Eskom Executive Management/Electricity Council	Transmission to remain within Eskom, limited entrance of independent power producers, maintain market share
South African Local Government Association	Unknown – not yet consulted
Amalgamated Municipal Electrical Undertakings	Unknown – not yet consulted
Government	
Department of Public Enterprises	Restructuring of state-owned assets to maximise returns to the state
Department of Minerals and Energy	Efficient and competitive electricity supply industry, electrification programme, opportunities for black economic empowerment
Department of Finance/National Treasury	Efficient and competitive electricity supply industry
National Electricity Regulator	Efficient and competitive electricity supply industry, opportunity to develop new regulatory framework

Table 5: Interests of ESI reform actors

To date, Eskom executive management has been very vocal vis-à-vis ESI reforms. As noted above, Eskom has not lightly accepted government's plans to transfer transmission to an independent state-owned company. Likewise, it has lobbied against proposals to reduce its holdings in South Africa's

⁶ These plans include the following: (i) to corporatise Eskom with transmission, distribution and generation each forming a separate corporate entity, (ii) to undertake a full evaluation of different models for restructuring the electricity industry, (iii) to group Eskom generation units into clusters and to encourage competition between these clusters.

generation assets. It could be argued that Eskom has sought to stall the ESI reform process (see below). These policy positions do not come as a surprise. Eskom now seems to accept that the current structure of the ESI cannot continue, and that competition will – at some time in the future – be introduced into generation.

As noted in Section 3 above, the Department of Public Enterprises sees the restructuring of the States four largest enterprises as an important way not only of improving the efficiency and effectiveness of these enterprises and mobilising private sector capital and expertise, but also attracting foreign direct investment, reducing South Africa's public borrowing requirement, developing an economic context that promotes industrial competitiveness and financing growth, as well as creating employment.

Much of the continued impetus around ESI reform has come from some members of the Board of the NER, who regard the introduction of competition as an essential means towards achieving a more efficient and competitive ESI.

7. Key decisions on power sector reform will be made by Cabinet, perhaps even the President

As indicated in Figure 4 below, the Department of Minerals and Energy is headed directly by the Minister of Minerals and Energy, who is also responsible for appointing an independent board to govern the NER. Most decisions regarding the electricity sector, and the energy sector more broadly are taken by the Minister, and if necessary, by Cabinet. The Minister, with support from the Department of Minerals and Energy and the NER, will make most decisions regarding EDI reform, but key decisions, such as the model chosen to deliver these reforms, and the characterisation of the EDI end-state, will be taken by Cabinet. The viewpoints of other key government stakeholders, such as the Department of Provincial and Local Government, and the National Treasury will therefore be taken into account in the final decision taken. Cabinet's decision will be supported by draft legislation, which will be enacted by Parliament. (see Figure 5).

Decision-making with regard to the introduction of competition into wholesale electricity market and the restructuring of Eskom will be similar, in that Cabinet will be responsible for key decisions, and legislation will be taken through Parliament before the enactment. It is probable, however, that ESI reform will be driven by the Minister of Public Enterprises with support from the Minister of Minerals and Energy. This follows because, as indicated by Figure 4, Eskom is governed by a Board and by the Electricity Council, which is appointed by the Minister of Public Enterprises, and not the Minister of Minerals and Energy.

Figure 4: Governance of the DME, Eskom and NER
Source: Ramboll et al 2000

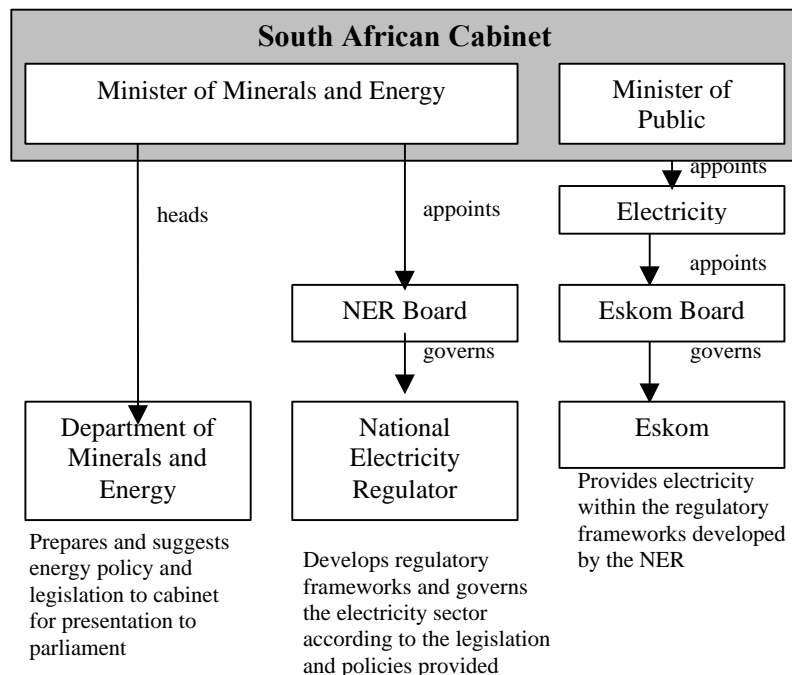
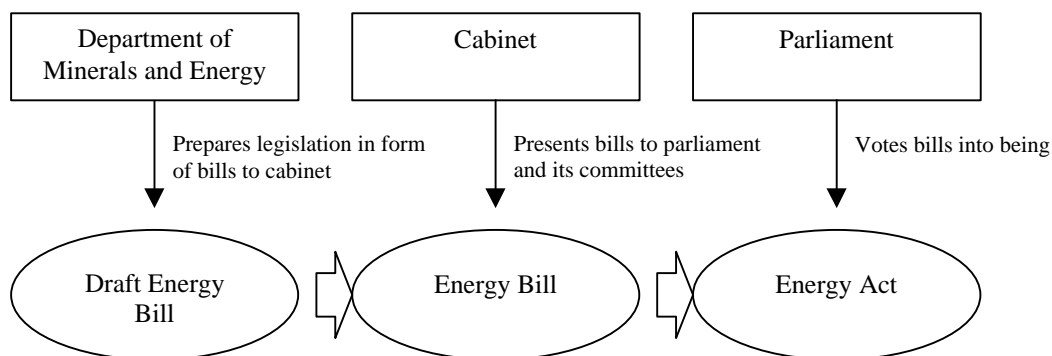


Figure 5 gives an example of how energy legislation is prepared, and by whom. In this instance, the Department of Minerals and Energy prepares and suggests energy policy and legislation to Cabinet for presentation to Parliament. In the case of the restructuring of Eskom, the Department of Public Enterprises will most likely initiate the drafting of legislation.

Figure 5: Process flow for the development and implementation of energy-related legislation

Source: Ramboll et al (2000)



8.

Power sector reform is not linked, currently, to ODA in South Africa

8.1 South Africa adopts a cautious stance

In general, South Africa adopts a fairly cautious position with regard to official development assistance (ODA). South Africans tend to express a determination to ‘remain in the driver’s seat’ when formulating policies and designing and implementing projects, and ensure that the ‘the track is not one-way’. This position has probably been established as a reactive response to previous negative experiences with ODA within South Africa, as well as elsewhere.⁷

The South African government and other stakeholders presently regard technical assistance in the form of knowledge capital as the form of ODA that offers the greatest value to the country as it tackles the challenges of the ‘era of implementation’ and looks ahead to building capacity to take control of its own destiny (IOD 2000). The government does acknowledge, however, that knowledge transfer is a two-edged sword. There is undoubtedly value in South Africa acquiring high quality technical assistance and intellectual capital at seemingly little or no cost. However, the keenness on the part of some donors to export policy development technical assistance should rightly be recognised for what it is: the power to define development paradigms and meaning (IOD 2000). To this end, South Africa often chooses to use its own resources to cultivate own policies and programmes. Value can then be added through international technical assistance only after local input and generic design has been undertaken.

South Africa is not averse to entering into lending arrangements with multi-lateral or bilateral organisations. Rather, it tries to assess the ‘whole package’ that emerges from its interaction with donor countries. When considering whether to enter into a lending arrangement, the government

⁷ Interestingly, for example, the World Bank notes: ‘Since re-engaging in South African in the early 1990s, the Bank has played an active role. At the outset, the Bank had a strongly negative image, particularly among ANC cadres who viewed the Bank through the lens of their experience in other African countries undergoing structural adjustment. The Bank responded by adapting its focus.... and pursuing an inclusive dialogue with all segments of society, inside and outside of government. Establishment of a more productive relationship with government and other groups has improved the perception of the Bank in South Africa, although distrust and ambivalence about the Bank’s motives and agenda persist with certain groups (World Bank South Africa Country Assistance Strategy, 1999).

seeks to understand what the total value added is. In other words, government also assesses associated grant funding, financial and/or technical assistance with project preparation, provision of clarity on relevant issues etc. Also, with regards loan finance, it is South Africa's policy to attempt to 'secure the best deal for the country'. If, for instance, South Africa is able to secure loan finance from international financiers on similar or better terms to those offered by the International Bank for Reconstruction and Development (IBRD) it will tend to do so. In general, if this option is chosen, then South Africa will not necessarily then be limited by strict loan conditions potentially imposed upon it by the IBRD.

In many parts of the developing world, and particularly in Africa, power sector reform processes have been integrally linked to broader macroeconomic reforms and to flows of ODA. For instance, the World Bank has often insisted that power sectors be reformed as a component of broader macroeconomic adjustment programmes. Interestingly, in South Africa, this has not been the case. Plans for, and discussions around, power sector reform are not supported by ODA, and are not a stipulation of the World Bank, or any other multi- or bilateral lending agency. Discussions around power sector reform in South Africa have – by and large – been home-grown.

In the following two sections, a discussion on the role that the World Bank Group and Norway are playing in power sector reform processes in South Africa is presented.

8.2 World Bank Group support to South Africa focuses on non-lending activities that enhance knowledge building and capacity support

In line with its official policy on ODA, the government has requested that the main foci of World Bank programmes and projects in South Africa be on knowledge building and capacity building, and that this be done largely through the granting of technical and other non-lending assistance. Given the World Bank's extensive international exposure, South Africa recognises that the World Bank has a comparative advantage in this area. The World Bank recognises that capacity building is an important crosscutting theme in its assistance strategy, and is argued to be an essential facet of the Bank's work as a *knowledge bank*. Capacity building is also now a major cross-cutting theme in the Bank's assistance strategy, and is argued to be an essential facet of its work as a knowledge bank.

With regard to ESI reform, the government (Department of Public Enterprises and Department of Minerals and Energy) requested, in early 2000, World Bank financial and technical assistance (grant basis) for the purposes of a high-level inter-ministerial workshop in the area of ESI reform. This workshop was held over two days, and was attended by the Minister of Public Enterprises, the Minister and Deputy Minister of Minerals and Energy, Executive Management of the NER, Executive Management of Eskom, and senior staff of various government departments including Minerals and Energy, Public Enterprises and Finance. Union officials were invited but, apart from a SAMWU representative, did not attend. International power sector experts were invited to give presentations on the experiences of Argentina, Australia, Columbia, Chile, France, Hungary, New Zealand, Norway and the United Kingdom. These experts were identified and invited by the World Bank team working on this initiative.

At this workshop, a wide range of issues related to power sector reform were dealt with. The outcome was a statement of growing consensus in the areas related to industry structures and models, the introduction of competition, ownership and fiscal concerns, regulation and public policy. A list of issues and concerns was also developed. Generally, the workshop was hailed to be a great success, and a particularly important opportunity to bring key stakeholders together in debate about around pertinent issues.

Since this workshop, the World Bank has been working with the Department of Public Enterprises in developing a programme of support in the area of power sector reform. There has been some discussion on creating a post in the Department of Public Enterprises dedicated to power sector reform. There has also been some discussion on creating an opportunity for research to be undertaken on models for ESI reform, as well as analysis on the full implications of reform.

To date, the World Bank has not played a role in EDI reform and, given the scope of the South Africa Country Assistance Strategy, is unlikely to do so.

8.3 Norwegian assistance focuses on providing technical support to South Africa's power sector reform initiatives

In late 1999, the NER signed a co-operation agreement with the Norwegian Regulatory Authority (NVE) under which the Norwegian Water Resources and Energy Directorate with a team of power sector experts⁸ would assist the NER in dealing with challenges that could emerge from the restructuring of the electricity supply industry.

Specific objectives of the project were to assist NER in:

- understanding the implications and mechanisms of competition;
- identifying the key choices facing policy makers and industry participants; and
- preparing for a transition to a competitive market structure.

The project took place in the context of the draft policy proposals formulated by the South African government, and Eskom's own preparations for the restructuring of the utility and the introduction of competition. The project sought to:

- clarify the rationale for introducing competition in the industry and identify the key criteria for competition to be effective;
- present some of the institutional and market options within a broad framework of reform, in particular:
 - institutional options for the organisation of grid-operation, network planning, system operation and market operation;
 - options for dealing with key aspects of system operation within a competitive market, such as provision of ancillary services, transmission pricing and dealing with transmission constraints; and
 - options for structuring the market, including various platforms for competition, governance of the market, inclusion of demand side participation and interaction with the Southern African Power Pool (SAPP);
- quantitative analysis of the implications of reform, with particular reference to:
 - the exercise of market power, thereby giving insight into clustering of generation assets;
 - the potential for assets to be rendered financially viable (so called 'stranded assets') as a consequence of competition;
 - the potential for certain existing commercial contracts (fuel supply and end-user supply contracts) in the industry to be similarly stranded; and
 - the implications for rural electrification;
- formulate an overall framework for regulation of the industry, with reference to:
 - regulatory requirements for dealing with competitive and non-competitive elements of the industry;
 - the respective roles of the industry-specific regulator (NER) and the competition authorities;
 - the implications of the NER's licensing system and price controls;
 - the NER's participation for a transition phase.

The project commenced on 2 May 2000 and was completed in December 2000. Currently, the project is under review by a team of local and international consultants. The Cabinet is set to make a key decision regarding the future of the ESI in the first quarter of 2001, and this project will provide a strategic input into this document.

⁸ The team comprises the Norwegian Regulatory Authority (NVE), Economic Consulting Company (ECON, Norway), SAD-ELEC (South Africa) and Power Planning Associates (Britain).

The World Bank case study illustrates the potential beginnings of ongoing development co-operation between South Africa and a multilateral lending agency in the area of power sector reform. The Norwegian case study illustrates the same for co-operation with a bilateral lending agency. Both co-operative agreements are based on technical assistance where knowledge building and capacity building are seen to be critical and the primary justification for co-operation.

9. Power sector reform and the public benefits imperative

When, as noted, power sectors around the world have been reformed in ownership and structure, many social benefits such as energy efficiency programmes, public interest research and development, provision of distributed and bulk renewable energy generation, and various other social upliftment programmes have been significantly affected. In some instances, these public benefits programmes have been placed on the backburner. Power sector reform can also make delivery of these programmes easier, or have no impact at all. Notwithstanding these different impacts, international experience indicates that, in each of these instances, if reforms are to yield significant public benefits, explicit attention to social and environmental issues is required in the design of power sector reforms. This section of the document overviews how public benefits have been placed on the power sector reform agenda in South Africa. The objective of this inquiry is to understand how best to bring about positive social and environmental outcomes in future power sector contexts, in South Africa as well as in other countries.

9.1 EDI stakeholders are involved in mainstream discussions that often preclude public benefits

As indicated previously, the South African EDI is in a crisis, to the extent that many municipal distributors – particularly those who are distributors to small towns in the country – are not even financially viable. The bottom line is that many of these distributors are more concerned about surviving from day to day than they are about ensuring that public benefits programmes are delivered to their customer bases. As one distributor recently responded when asked why no DSM programmes had been implemented in that particular municipality: ‘you are asking me to run before I can walk!’ Even though many distributors do recognise that programmes such as those mentioned above could unambiguously bring about substantial societal benefits, they argue that the basis upon which they are currently operating is too fragile and too uncertain to even consider such programmes.

Examples of the types of issues/barriers municipalities face in implementing public benefits programmes include the following:

- The Municipal Demarcation⁹ process has resulted in the boundaries of some existing municipalities significantly expanding, yet no extra budget has been allocated to these municipalities to support increased demands on service delivery. Given these pressures, provision of public benefits is falling by the way.
- Some city electrical engineers argue that there is no point in implementing demand-side management programmes because, when they do so and then achieve any energy savings, it just means that their budgets will be reduced the following year (because they have demonstrated that they can get by with less!).

⁹ Transitional local government in South Africa has resulted in a plethora of different kinds of municipalities including Transitional Metropolitan Councils, Transitional Metropolitan substructures, Transitional Local Councils, Remaining Areas, District Councils, Service Councils, Regional Services Councils, Transitional Rural Councils, and Transitional Representative Councils. In terms of the Local Government: Municipal Demarcation Act of 1998, these municipal boundaries are currently being rationalised into three categories prescribed by the Constitution, namely Metropolitan Municipalities, District Municipalities and Local areas/Municipalities (<http://www.demarcation.org.za>).

- Some municipalities are reluctant to implement programmes that exert any upward pressure on electricity prices. If ‘small town’ industries decide to re-locate, there is a risk that municipalities will no longer be able to sustain services.
- For financial reasons, it is the policy of some municipalities to limit attendance of meetings to those which are classified as ‘crisis’ or ‘emergency’ meetings. In such instances, it is hard to imagine that municipalities would be able to allocate any resources to public interest research and development, or to green power generation.

Thus, when negotiating their position in the new EDI, municipal distributors have tended not to raise public benefits issues.¹⁰ Rather they have focused on ensuring that their more pressing concerns are addressed. Interestingly, the standpoint with regard to EDI reform of municipal electricity departments’ city electrical engineers has been quite different to that of the broader municipalities. While municipalities are concerned that EDI reform will mean that they will no longer be able to utilise revenue from electricity sales to cross-subsidise other services, electrical engineers appear more positive about plans for reform. They argue that the REDs model could bring about transparent and more ‘controllable’ financial planning practices as well as opportunities to improve upon service delivery. These city engineers even go as far as to say that the REDs model will enable distributors to implement public benefits programmes. Yet they are still not currently lobbying for the establishment of policy environments conducive to these public benefit programmes.

In June 2000, PriceWaterhouseCoopers published a series of papers outlining a possible Blueprint for EDI reform. The papers focus on the definition of the REDs (i.e. number and boundaries); ownership, governance and legal status; asset valuation and transfer; regulation and commercial arrangements; tariffs and financial transactions, and organisation and human resources. Interestingly, these papers make little mention of the provision (or mechanisms to support the provision) of public benefits – such as rural grid and off-grid electrification programmes and programmes to increase access to energy, renewable energy generation, energy efficiency, and research and development in new distribution industry contexts. When questioned on why a price cap mechanism that strongly links distributor profits with sales (thus discouraging any energy efficiency investment) had been recommended, the response was that this issue had been addressed in an appendix to the working documents, and that it was unclear whether energy efficiency was a priority of the EDI reform process anyway. When questioned on how a broader suite of public benefits issues could be included in the EDI reform process, the response again was that while the project team was aware of the public benefit issues at stake (probably because they had had experience of them in their own countries) they were not sure again that they were current priorities in South Africa.

In November 2000, these papers were combined into a Stage I Blueprint for the reform of the EDI. After a series of consultative meetings organised by the Department of Minerals and Energy with business and labour, the Blueprint was forwarded to Cabinet. After scrutinising the report, Cabinet referred a series of questions to the Department of Minerals and Energy. These were forwarded to the PricewaterhouseCoopers consortium. In addition, the Minister of Minerals and Energy established a review comprising local and international consultants to make recommendations on whether the Blueprint and PricewaterhouseCoopers amendments did in fact address Cabinet’s queries. Interestingly, most of Cabinet’s concerns relate to whether in fact the Blueprint adequately addresses the needs of South Africa’s poor people! The revised Blueprint now places the advancement of South Africa’s grid and off-grid electrification programme high on the EDI reform agenda. The Blueprint also outlines a poverty tariff mechanism that is to be implemented and cross-subsidised by the electricity industry. The importance of integrated resource planning, energy efficiency investment and national-interest energy research and development programmes will be included as will mechanisms to ensure that the EDI reforms are integrated into government’s crosscutting rural development/poverty alleviation initiatives. The revised Blueprint is set to be re-submitted to Cabinet in the first quarter of 2001 when a key decision on EDI reform is expected to be made.

¹⁰ Municipal distributors do however raise concerns about the future of the electrification programme. It could be argued that they do so not because they are concerned about improving poor household’s access to energy, but rather because they are concerned about the role that they will be required to fulfil in the future.

9.2 Some public benefits are high on the ESI reform agenda while others are not

Interestingly, the public benefits debate, and discussions around ESI reform in South Africa have ‘very nearly’ come together a number of times since reform discussion began. Society-related issues have been seriously and consistently raised, and one might even argue that some public benefit-related concerns have been pivotal in shaping the way forward for ESI reform. This section seeks to explain how these two agendas have ‘almost’ touched sides in the last year or so.

The possibility of ESI reform was first mentioned in South Africa’s White Paper on Energy Policy of 1998. The actual debate on whether and how the power sector should be reformed only really began a year later when the Ministry of Public Enterprises moved forward on plans to restructure state-owned enterprises, and when the NER began to speak of the benefits associated with introducing competition into the wholesale electricity market. The first time that all of the important government stakeholders were brought together in serious discussion about ESI reform was at the workshop funded by the World Bank and hosted by the Department of Minerals and Energy, and Public Enterprises in early 2000 (see Section 8).

A number of ‘mainstream’ issues were discussed at this workshop. Interestingly, the Minister of Public Enterprises, in one of the workshop’s keynote addresses, mentioned the following of the restructuring of state owned assets:

[The restructuring process] is ... premised on the understanding that state owned assets... have embedded value that must be unlocked to reduce the onerous debt burden, free resources to address our vast infrastructure needs... ,stimulate economic growth, democratise the ownership patterns of our national economy, create opportunities for black economic empowerment, and thus improve the lives of our people.

... in pursuing this approach to restructuring we remain acutely aware that developing economies such as ours face acute constraints on very limited resources. The extent of our social obligations such as poverty-alleviation, infrastructure delivery and job creation makes our task extremely challenging. It is therefore essential that we create opportunities for mobilising private capital that will not only enhance the value of the respective entities but also will create new opportunities for growth, inject leading-edge technology and world-class systems that will prepare us for competition and positively position us as competitors in the global market-place

... We are very excited by the tremendous potential for black economic empowerment that the restructuring process holds. Not only have we created vehicles such as the National Empowerment Fund (NEF) and the Employee Share Ownership Programmes (ESOP’s) but through the shareholder compacts we will ensure that the multi-billion rand procurement budgets that SOEs operate is put to the service of developing the SMME sector, creating opportunities for the previously disadvantaged and growing the stake of this sector in the mainstream economy.

The Minister also urged the workshop participants not to lose sight of ‘the bigger picture’, and that the restructuring priorities of the sector must be guided by the objectives to (i) improve social equity by specifically addressing the energy requirements of the poor; (ii) enhance the efficiency and competitiveness of the South African economy by providing low-cost and high-quality energy inputs to industrial, mining and other sectors; and (iii) achieve environmental sustainability in both the short- and long-term usage of our natural resources.

During this workshop, the Minister of Minerals and Energy consistently raised concerns about the effect that power sector reform might have on the rural electrification programme and other important public benefits.

The statement emanating out of this workshop clearly featured the need to protect public benefits. Important conclusions reached were that:

- the electrification programme – in particular the rural electrification programme – must be maintained, and that obligations to deliver should be identified, as should funding and subsidy mechanisms, and new institutional arrangements, and that comprehensive planning in this regard should be undertaken;

- programmes and initiatives which enhance people's access to energy should be promoted, and mechanisms to ensure this should be investigated (including, for instance, means testing or a lifeline tariff, or delivery innovation through private concessions, and competition);
- programmes encouraging demand-side management/energy efficiency investments should be promoted;
- research and development should be protected.

It is clear that the Ministers of Minerals and Energy and of Public Enterprises (and particularly the former) were responsible for ensuring that issues such as the electrification programme, improved access to energy and black economic empowerment were raised on to the agenda of this power sector reform workshop. It is less clear, however, how issues relating to investments in demand-side management, energy efficiency and national-interest research and development were raised. It is also not clear how and when the term 'public benefits' was first raised, and whether a widespread and full understanding of the unambiguous social and economic impacts resulting from the provision of public benefits is known.

At the end of the workshop, most participants were generally agreed that it had proceeded well, and that there was fair consensus between the various government stakeholders on an acceptable pathway forward for ESI reform. Surprisingly for many, this later appeared not to be the case. A few days subsequent to the workshop, the Minister of Minerals expressed her concern about the approach that had been spoken of for the way forward. Her reasons for this was that she was concerned that moves to introduce competition into wholesale electricity sector and/or to privatise components of the supply industry could have seriously detrimental effects on important public benefit programmes such as those seeking to improve poor people's access to energy (including the electrification programme), affirmative action and black economic empowerment initiatives. She argued that great strides were currently being made in this area, and that it may presently be neither wise nor appropriate to put these programmes at risk when they are achieving important developmental objectives. She argued that it might be more appropriate to seek to reduce apparent Eskom and industry inefficiencies and still maintain these programmes, as opposed to diving in to restructure the entire supply industry.

Interestingly, Eskom executive management recently noted that it might not be necessary to grant a licence to emerging independent power producers to install new capacity because Eskom could delay this with its successful DSM programmes. Since the workshop and the Minister of Minerals and Energy's response to it, the momentum carrying discussions on power sector reform appears to have dwindled somewhat. It is unclear why but it is likely to be that the Minister has lost interest in ESI reform, and/or that both the Ministers of Minerals and Energy and of Public Enterprises are currently focusing on other priority issues. In the second half of 2000, the Department of Minerals and Energy and the Department of Public Enterprises broadly endorsed a position paper on the way forward, 'sometime in the future', for ESI reform. The paper pays some attention to the provision of public benefits and gives examples of how public benefits programmes, such as those seeking to improve rural South Africans' access to energy, and promoting opportunities for black economic empowerment, need in no way be de-railed by ESI reform. Finally, as noted earlier, the Ministry of Public Enterprises recently released an *Accelerated agenda towards the restructuring of state-owned enterprises*. This framework makes reference on a consistent basis to the need to promote empowerment opportunities as well as broaden participation in the industries that are targeted for restructuring. The framework also makes reference to the need to improve service delivery in terms of cost, quality and access, to promote human resource development, and to create sustainable employment either directly or indirectly through improvements in the economy as well as through immediate alleviation programmes.

The government appears to regard the ESI reform process quite differently to the EDI reform process in the sense of whom it regards as key roleplayers in this process. Regarding ESI reform, government appears to include various ministries and government departments, as well as the NER, Eskom and, occasionally, unions as key roleplayers in this process. As noted earlier, government has not invited wider public participation in this process. In other words NGOs, energy policy research institutions and other organs of civil society have not been involved in the ESI reform discussion to date.

The international donor community has played a relatively small role in the ESI reform process. As noted in the section prior to this, the World Bank, Norwegian team and other donor assistance

agencies have operated behind the scenes in that they have enabled workshops and have provided funds for and been involved in research projects both aimed at bringing more clarity to the area of ESI reform. In many respects, these organisations are playing a back-up role, in that they would probably be available to lend knowledge-based support to the process, if requested to do so.

It could be argued that the international donor community has only very indirectly placed social and environmental concerns on to the South Africa ESI reform agenda. For example, the Norwegian team currently providing support to the NER on market scenarios for power sector reform recognises the importance of promoting programmes with high economic and social and low financial values. They do make recommendation of these programmes, yet also show that there are numerous other, perhaps more pressing, issues that must be dealt with. In other words, the Norwegian team treats protection and advancement of public benefits as an aspect of power sector reform of which there are many other important aspects.

At the beginning of this section, it was noted that the public benefits debate, and discussions around ESI reform in South Africa have very nearly come together and that this section seeks to explain how these two agendas have almost touched sides in the last year or so. The words *very nearly* and *almost* have been chosen carefully. It is my opinion that the ESI reform and public benefits agenda have not completely coincided yet for the following two reasons.

Firstly, it appears as if various key stakeholders are using the social and environmental issues to further their own agendas. For example, DSM and energy efficiency programmes have been utilised by a key ESI stakeholder to delay ESI reform. The case for the way in which the electrification programme as well as programmes to improve access to energy, has been placed on the ESI reform agenda is more complex. On the one hand, it appears that the Minister of Minerals and Energy is genuinely and personally determined to ensure that the power sector contributes in one way or another towards the upliftment of South Africa's rural communities. On the other hand, the Minister is committed to achieving various politically sensitive goals of which rural development is an important one.

It could be argued that, in fact, it does not matter how public benefits area enter the power sector reform discussions, and that all that is of importance is that the issues have found their way on to this agenda. The fundamental problem, however, is that this approach is not likely to have *sustainable* results. Unless these public benefit issues are raised because it is genuinely accepted that they make important contributions to society, they could be removed from the agenda just as easily as they have been raised.

Secondly, it is not at all clear that there is widespread ownership of the whole basket of public goods referred to during the World Bank-sponsored workshop on power sector reform. While it seems clear that programmes promoting greater access to energy and those promoting opportunities for black economic empowerment are deemed important, the same cannot be unequivocally said of programmes promoting investments in energy efficiency and renewable energy, and public research and development. As past experiences in South Africa show, issues that are in policy documents or listed high up on political agendas are not, by default, owned, and therefore not necessarily taken on board, either in a sustainable way, or at all.

10. Conclusions and way forward

This study has sought to understand how environmental and social issues have been raised on the agenda of the South African power sector reform agenda. The purpose of the study is to make recommendations on the way forward for these issues. This study has been clearly indicative of the following:

- Firstly, the big challenge to policymakers in the South African government now lies in translating their generous words into action – into *real* and *sustainable* policies, programmes and initiatives that deliver important economic and environmental benefits to society.
- Secondly, environment-related public benefits have not featured high on the ESI reform agenda, and it is not completely obvious why this is the case. It could be that groups in civil society who are traditionally linked to environmental activism have not participated in the ESI reform process. It could be that the South African government is dealing with too many issues of priority already, or that it does not genuinely regard these issues as being important.

Nevertheless, it should be noted that it might currently be inappropriate to bundle environmental and social public benefits into one basket. Each currently have different strengths, and should be treated accordingly.

- Thirdly, the advancement of public benefits in South Africa as the power sector reforms will depend on whether champions for these public goods emerge or not. It is unlikely, given South Africa's cautious policy on donor assistance, that the role of champion could be successfully assumed by the international donor community or by international consultants. It is probably also unlikely that South African independent energy consultants could comprehensively fill this role. Such impetus should probably come from the heart of civil society – from NGOs and CBOs and from institutions geared towards protecting the public interest. The big challenges to these organisations will be to attain the audience and attentions of key policymakers and to then identify ways of ensuring that policymakers and politicians are able to remain committed to achieving socially and environmentally positive outcomes in new power sector contexts.

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Interviews

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