

Electricity

Introduction

The electricity, gas and water sectors contribute around 2 per cent of South Africa's GDP. The social and economic role that electricity plays accordingly places it at the epicentre of development. In South Africa, the importance of electricity is further magnified by the priority government places on it as part of the process of improving the quality of life of all citizens through the electrification programme and the provision of free basic services.

Electricity is important for social and economic development

The restructuring of the electricity distribution industry (EDI) is one of the major reforms in the local government sphere. This chapter:

The electricity sector is undergoing reform

- provides a brief description of the current institutional arrangements of the electricity sector
- assesses the progress made with electrification and the provision of free basic electricity
- discusses the future of the sector in the context of the restructuring process.

Institutional arrangements

Electricity provision consists of three phases: generation, transmission and distribution. Generation is the process of producing electricity. Transmission takes place via the high-voltage, long-distance network, and distribution involves the local wires that deliver electricity to consumers. Generation and transmission are part of the electricity supply industry (ESI). Distribution is part of the EDI.

In South Africa, coal is the main source of energy for the generation of electricity. South Africa is rated among the cheapest coal and electricity producers and suppliers in the world. At an average selling price of 18,2 c/kWh in 2001, South Africa's electricity generation costs are very low by international standards. Cheap electricity has facilitated investments in certain electricity-intensive manufacturing industries. Table 11.1 shows that a total of 184 915 034 MWh of electricity was sold to 7,3 million customers in 2001 (by municipalities and Eskom). Although most of the customers are residential (6,7 million customers), they use less than 20 per cent (30 418 481 MWh) of the electricity sold. Agriculture, mining, manufacturing and commercial customers use most of the electricity sold (75 per cent or 138 656 029 MWh), but comprise less than 6 per cent (427 800 customers) of the total customer base.

Most customers are residential, but they use the least amount of electricity

Table 11.1 Total electricity sales by category (Eskom and municipalities), 2001

| Category | Average sales price (c/kWh) | Number of customers | Percentage of total | MWh sales | Percentage of total |
|---------------|-----------------------------|---------------------|---------------------|--------------------|---------------------|
| Domestic | 27,65 | 6 743 106 | 92,9% | 30 418 481 | 16,4% |
| Agriculture | 24,99 | 105 997 | 1,5% | 4 644 037 | 2,5% |
| Mining | 14,24 | 2 072 | 0,0% | 32 620 848 | 17,6% |
| Manufacturing | 13,20 | 47 793 | 0,7% | 83 163 878 | 45,0% |
| Commercial | 26,17 | 271 938 | 3,7% | 18 227 266 | 9,9% |
| Transport | 18,55 | 18 230 | 0,3% | 6 245 726 | 3,4% |
| General | 26,75 | 69 870 | 1,0% | 9 594 798 | 5,2% |
| Total | 18,22 | 7 259 006 | 100,0% | 184 915 034 | 100,0% |

Source: National Electricity Regulator supply statistics for South Africa, 2002

The energy sector has both economic and social functions

Electricity brings immeasurable benefits to human life. With electricity come lighting, cooling, heating and cooking. Electricity also facilitates communication, transportation and production. The energy sector thus has both economic and social functions in that it powers productive activity and also provides basic energy services for households.

The main challenge is to reach areas that do not have electricity

Over the past 10 years, South Africa has experienced a considerable growth in its ability to distribute and supply electricity. The main challenge is to reach those areas that do not have electricity at present. By the end of 2002, 68 per cent of South Africans had access to electricity. Of the 32 per cent without, the largest backlogs are in the rural areas.

Restructuring the electricity supply industry

Eskom produces most of South Africa's electricity

The electricity sector in South Africa is organised along the lines of a traditional public monopoly model. Eskom was converted in 2002 to a wholly state-owned limited company. Eskom produces 96 per cent of the electricity generated in South Africa, and owns and operates the national transmission grid, which transports electricity from the power stations to the main load centres.

A regulatory and governance framework is required for private sector participation

The restructuring of the ESI is at present under consideration. Government has approved the introduction of competition by separating transmission from generation. Eskom will retain 70 per cent of the existing electricity generation market and will progressively reduce its current market share to allow for private sector participation of up to 30 per cent. The remainder of Eskom generators will be organised into competing clusters. Black economic empowerment (BEE) within the generation sector is a priority. The original timeframe for the divestiture of an initial 10 per cent of generation capacity to BEE groups by 2003 has been extended so that the regulatory and governance framework can be put in place before private sector participation in the sector is secured.

Power generation capacity is to be increased in line with demand

Eskom is projected to run out of excess capacity in 2007. To avert possible future power outages, a new power station is to be built, raising the capacity of power generation in line with anticipated future demand. This will be the first station to be built in more than 20 years.

Electrification and free basic electricity

The electrification of households in historically disadvantaged communities and the provision of free basic electricity (FBE) have been the two main priorities of government policy in the electricity sector. The electrification of over 3,5 million from 50 percent to 68 per cent of all households in the first decade of democracy is a significant step towards realising the basic rights and improving the quality of life of South Africans. Government aims to eliminate electricity backlogs by 2012.

Backlogs in electrification are to be eliminated by 2012

Table 11.2 shows the percentage of non-electrified households from 1995 to 2002 and the percentage increases in electrification during this period.

Eskom produces most of South Africa's electricity

Table 11.2 Percentage of non-electrified households, 1995 to 2002

| Province | 1995 | | | 2002 | | | Percentage point increase or decrease from 1995 to 2002 | | |
|---------------|------------|------------|------------|------------|------------|------------|---|------------|-------------|
| | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total |
| Eastern Cape | 94% | 33% | 72% | 62% | 5% | 40% | -32% | -28% | -32% |
| Free State | 67% | 32% | 47% | 49% | 17% | 27% | -18% | -15% | -20% |
| Gauteng | 46% | 22% | 23% | 71% | 27% | 29% | 25% | 5% | 6% |
| KwaZulu-Natal | 86% | 21% | 57% | 61% | 31% | 45% | -25% | 10% | -12% |
| Limpopo | 76% | 29% | 71% | 39% | 2% | 34% | -37% | -27% | -37% |
| Mpumalanga | 63% | 41% | 55% | 33% | 17% | 26% | -30% | -24% | -29% |
| Northern Cape | 53% | 24% | 34% | 36% | 20% | 26% | -17% | -4% | -8% |
| North West | 79% | 30% | 64% | 44% | 0% | 27% | -35% | -30% | -37% |
| Western Cape | 53% | 12% | 18% | 35% | 14% | 17% | -18% | 2% | -1% |
| Total | 79% | 24% | 50% | 50% | 20% | 32% | -29% | -4% | -18% |

Source: National Electricity Regulator

Gauteng, KwaZulu-Natal and Western Cape are the only provinces where there was a slight increase in the proportion of households without electricity between 1995 and 2002. This was due to the huge increase in the number of informal settlements in these provinces as a result of urbanisation.

Urbanisation has increased backlogs in larger urban areas

The purpose of the integrated national electrification programme (INEP) is to provide capital subsidies to municipalities to address electrification backlogs for permanently occupied residential dwellings. R248 million and R258 million will be made available during the 2004/05 and 2005/06 financial years, respectively. INEP will be incorporated into the municipal infrastructure grant (MIG) in 2006/07 or sooner. The MIG was introduced in 2004/05 and is geared to making the system of transfers to municipalities simpler, more certain and more direct. The MIG will not fund specific projects, but is designed to complement the capital budgets of municipalities.

INEP and the MIG will address electrification

Although some municipalities began implementing FBE before 2003, national implementation of the programme as government policy began in earnest in July 2003. In the initial years it was generally limited to areas where electricity was provided by municipalities, but government made a concerted effort to facilitate implementation in areas where Eskom provided electricity. Despite difficulties in the

FBE is now also available in areas supplied by Eskom

initial stages, Eskom is now providing FBE to households to which it supplies electricity, facilitated by service-level and funding agreements between municipalities and Eskom.

Service-level and funding agreements are required between municipalities and Eskom

Service authority/provider relationships

Although a number of stakeholders have requested that transfers for electrification and FBE be made directly to service providers, such as Eskom, it is important that a clear distinction is made between a service authority and a service provider. Transfers from the fiscus are made to municipalities in acknowledgement of their service authority roles, as contained in the Constitution. Appropriate service delivery and funding agreements need to be put in place between municipalities and Eskom. Accordingly, municipalities will be required to make funds available to Eskom for FBE in its municipal boundary in line with a municipality's integrated development plan (IDP), indigency policy and affordability constraints.

The removal of billing from municipalities may pose initial debt management challenges

Billing

At present, Eskom and municipalities both do billing for electricity. Municipalities generally operate a combined billing system for rates, water and electricity, which leads to economies of scale. Many municipalities that operate consolidated municipal services bills disconnect electricity as a penalty for non-payment of other charges. The removal of the electricity billing function from municipalities may pose challenges for debt management in municipalities in future years.

Staffing and social plan

Some of the key HR issues that need to be taken into account in the establishment of REDs include the harmonisation of conditions of service, ensuring security of employment and maintaining employee benefits. Table 11.3 shows the number of staff in electricity distribution in a sample of municipalities.

Table 11.3 Staff employed in electricity sections in selected municipalities, 2003–04

| Municipality | Profes- sional | Field | Office | Non- profes- sional | Temp- orary | Con- tract | Staff employed in electricity section | Total budgeted number of employees | Total cost of em- ployees |
|----------------------|-------------------|-------|--------|---------------------------|----------------|---------------|--|---|---------------------------------|
| | | | | | | | | | R thousand |
| City of Cape Town | 251 | 272 | 287 | 970 | – | 234 | 2 014 | 2 475 | 272 761 |
| City of Johannesburg | 195 | 1 335 | 530 | 1 670 | 87 | 21 | 3 838 | 1 865 | 307 150 |
| City of Tshwane | 156 | 114 | 186 | 1 414 | – | – | 1 870 | 1 980 | 304 154 |
| Ekurhuleni | 66 | 1 010 | 285 | 969 | 116 | 6 | 2 452 | 1 043 | 128 115 |
| eThekwini | 70 | 760 | 381 | 616 | 50 | – | 1 877 | 2 416 | 283 329 |
| Nelson Mandela | 15 | 192 | 66 | 338 | 57 | 11 | 679 | 611 | 85 577 |
| Buffalo City | 4 | 158 | 39 | 164 | 13 | – | 378 | 378 | 34 661 |
| George | 4 | 35 | 20 | 30 | 9 | 3 | 101 | 107 | 12 252 |
| Klerksdorp | 3 | 113 | 5 | 8 | – | – | 129 | 158 | 10 631 |
| Matjhabeng | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 70 | 10 210 |
| Mbombela | 21 | 75 | 11 | 65 | – | – | 172 | 86 | 8 525 |
| Mogale City | 1 | 67 | 6 | | – | – | 74 | 74 | 6 471 |
| Polokwane | 3 | 97 | 4 | 19 | – | – | 123 | 123 | 16 275 |
| Rustenburg | 12 | 63 | 4 | 37 | 9 | – | 125 | 125 | 12 963 |
| Sedibeng | 6 | 11 | 55 | 11 | 83 | 9 | 175 | 155 | 15 230 |
| Stellenbosch | 12 | 12 | 1 | 34 | – | 1 | 60 | 63 | 7 200 |
| Steve Tshwete | 4 | 4 | 4 | 46 | – | – | 58 | 71 | 8 510 |

Source: National Treasury survey

Role of the National Electricity Regulator

Table 11.4 Sample municipal electricity tariffs, 2003–04

| Municipality | Residential | | | Business (r/kWh) |
|----------------------|-------------------------------|---------------------------|-------------------------|---------------------|
| | Basic tariff per month (R) | Monthly charge (r/kWh) | Free service (r/kWh) | |
| City of Cape Town | 32,70 | 0,29 | 0,00 | Various |
| City of Johannesburg | 60,99 | 0,26 | 0,35 | 0,31 |
| City of Tshwane | 0,00 | 0,36 | 0,36 | 0,29 |
| Ekurhuleni | n/a | 0,38 | 0,00 | n/a |
| eThekwini | 0,38 | 0,38 | n/a | 0,43 |
| Nelson Mandela | 0,30 | 0,30 | 0,30 | 0,36 |
| Buffalo City | 9,60 | 0,34 | 0,00 | 0,40 |
| George | n/a | 0,33 | 0,33 | 0,46 |
| Klerksdorp | 32,66 | 0,35 | n/a | 0,44 |
| Polokwane | 0,00 | 0,04 | 0,02 | 0,04 |
| Matjhabeng | 50,56 | 0,33 | n/a | n/a |
| Mbombela | 40,00 | 0,40 | n/a | 0,33 |
| Mogale City | 1,10 | 0,23 | n/a | 0,32 |
| Rustenburg | 22,00 | 0,33 | 0,33 | 0,40 |
| Sedibeng | n/a | 0,30 | 0,00 | 0,37 |
| Stellenbosch | n/a | 0,36 | 0,36 | 0,42 |
| Steve Tshwete | n/a | 0,17 | 0,35 | 0,17 |

Source: National Treasury survey

Since 1995, increases to electricity prices have to be approved by the National Electricity Regulator (NER). The role of the NER will be

The NER is to become the sole energy regulator

expanded in future: it will become the sole energy regulator when gas and petroleum pipelines are added to its responsibilities. The NER annually approves average price increases as well as tariff structures for the various customer groups. There is cross-subsidisation in electricity tariffs at various levels, including the subsidisation of rural land domestic customers, and geographic cross-subsidies.

Eskom and municipalities charge different rates

Different electricity distribution tariffs may apply within a municipal area, as Eskom and municipalities charge different rates. Moreover, rates vary between different consumer categories as well as within a customer grouping. Table 11.4 shows the municipal electricity tariffs in a sample of municipalities and Table 11.5 shows the tariffs in 'Eskom' areas.

Table 11.5 Eskom active electricity charge in peak/high-demand season, 2004

| Category | Night save urban | Mega flex | Mini flex | Business rate | Home power standard | Home light | Night save rural | Rura flex | Land rate |
|-----------------------|------------------|-----------|-----------|---------------|---------------------|---------------|------------------|-----------|---------------|
| Charge (VAT excluded) | R0,13 | R0,50 | R0,52 | R0,22 – R0,51 | R0,25 | R0,34 – R0,44 | R0,14 | R0,76 | R0,22 – R0,44 |

Source: Eskom tariffs and charges 2004

Differences in tariffs will be addressed

The NER has approved the following principles:

- distributors will have to comply with the tariff structures set out by the NER in its interim national distribution tariff system
- the same tariffs, both in structure and levels, apart from a possible initial managed transitional equalisation period, should be charged to all customers within the licensed geographical area of a distributor
- where distributors merge, the new entity will be required to develop and submit a tariff equalisation plan to the NER, outlining how it will equalise its tariff levels within a reasonable timeframe to lessen the impact on consumers
- tariff structures and levels shall, except where prescribed by national government's cross-subsidisation policies, not be geographically differentiated within a licensed geographical area.

A move to incentive-based regulation is planned

The current methodology of economic regulation provides that tariffs are set to ensure an agreed rate of return. However, the NER has stated its intention to move to incentive-based regulation (IBR), and has begun the research phase with a view to migrating tariffs to an IBR regime a few years on.

Restructuring the electricity distribution industry

Local government is authorised in terms of part B of schedule 4 of the Constitution to undertake electricity reticulation.

Current EDI arrangements are the result of apartheid

The current arrangements in the EDI are the result of its historical development. Prior to 1994, municipalities distributed electricity in historically white areas, while Eskom covered historically black townships and some homelands. At present, Eskom and 187 municipalities distribute electricity. Eskom is licensed to supply

electricity in areas where municipalities are not. Eskom supplies electricity to approximately 47,5 per cent of consumers (56,8 per cent of the total volume of sales), whereas municipalities collectively sell to 52,5 per cent of consumers (43,2 per cent of the total volume of sales). Table 11.6 shows that Eskom dominates electricity sales to all customer categories, except domestic and commercial. Even though municipalities have the most manufacturing customers, these are generally the smaller manufacturers. Eskom thus sells more electricity to fewer manufacturing customers.

Table 11.6 Electricity customers and sales for Eskom and municipalities, 2000 and 2001

| | Estimated number of customers | | | | Estimated sales (MWh) | | | |
|---------------|-------------------------------|--------------------------------------|--------------|--------------------|-----------------------|--------------------------------------|----------------|--------------------|
| | Eskom | Municipalities and other (thousands) | Total | Local Government % | Eskom | Municipalities and other (thousands) | Total | Local Government % |
| Domestic | 3 297 | 3 446 | 6 743 | 90,4% | 7 088 | 23 331 | 30 418 | 29,2% |
| Agriculture | 78 | 28 | 106 | 0,7% | 3 943 | 701 | 4 644 | 0,9% |
| Mining | 1 | 1 | 2 | 0,0% | 32 295 | 326 | 32 621 | 0,4% |
| Manufacturing | 3 | 45 | 48 | 1,2% | 50 912 | 32 252 | 83 164 | 40,3% |
| Commercial | 13 | 259 | 272 | 6,8% | 1 167 | 17 061 | 18 227 | 21,3% |
| Transport | 9 | 10 | 18 | 0,3% | 3 823 | 2 423 | 6 246 | 3,0% |
| General | 46 | 24 | 70 | 0,6% | 5 757 | 3 838 | 9 595 | 4,8% |
| Total | 3 448 | 3 811 | 7 259 | 100,0% | 104 983 | 79 932 | 184 915 | 100,0% |

Source: National Electricity Regulator supply statistics for South Africa, 2002

The EDI is not homogeneous. It is characterised by a small number of very large distributors and a large number of very small distributors.

Although the electricity consumer profile will be different for each municipality, residential customers are generally the main customer base for most municipalities. Table 11.7 shows that residential, agricultural and pre-paid users are the biggest consumer segments in the given sample of municipalities, followed by commercial users.

There are significantly different levels of tariffs, standards and service

Table 11.7 Electricity customers by category in selected municipalities, 2003–04

| | Residential | Commercial | Industrial and mining | Agricultural and pre-paid | Total |
|--------------------------------|-------------|------------|-----------------------|---------------------------|---------|
| City of Cape Town ¹ | | | | | 550 000 |
| City of Johannesburg | 217 560 | 12 860 | 5 430 | 62 028 | 297 878 |
| City of Tshwane | 188 770 | 6 991 | 797 | 109 885 | 306 443 |
| Ekurhuleni | 246 000 | 30 000 | 4 000 | – | 280 000 |
| eThekweni | 317 388 | 45 181 | 734 | 214 639 | 577 942 |
| Nelson Mandela | 52 939 | 10 847 | 230 | 155 665 | 219 681 |
| Buffalo City | 97 904 | 7 825 | – | – | 105 729 |
| George | – | 1 006 | 449 | 29 268 | 30 723 |
| Klerksdorp | 22 029 | 1 005 | 81 | – | 23 115 |
| Matjhabeng | 20 671 | 2 692 | 382 | 7 743 | 31 488 |
| Mbombela | 8 291 | 2 372 | 4 341 | – | 15 004 |
| Mogale City | 23 093 | 4 955 | 297 | 2 422 | 30 767 |
| Polokwane | 19 700 | 2 817 | 1 110 | 15 700 | 39 327 |
| Rustenburg | 15 934 | 2 985 | 249 | 13 800 | 32 968 |
| Sedibeng | – | 5 775 | 583 | 29 093 | 35 451 |
| Stellenbosch | 6 790 | 966 | 570 | 13 017 | 21 343 |
| Steve Tshwete | 6 837 | 760 | 456 | 21 294 | 29 347 |

1. Total includes industrial, mining, agricultural and pre-paid consumers.

Source: National Treasury survey

The restructuring of EDI has been a subject of considerable debate

The future of the EDI has been the subject of considerable debate in recent years. Government initiated various studies on possible restructuring, which culminated in 2001 in the approval of the way forward.

Six REDs is the optimal number

Six Regional Electricity Distributors (REDs) have been suggested as an optimal number. Municipal boundaries will form the building blocks of these REDs. The RED boundaries are designed to ‘balance out’ different types of customers. Each RED will be anchored in a metropolitan and/or larger urban municipality in the country.

The challenge will be to merge the electricity distribution bodies of Eskom and municipalities into the proposed six REDs without compromising the provision of electricity during this period and without adversely affecting municipal finances.

Municipalities will have to shift over R21 billion of their operating budgets to REDs

The restructuring of the EDI will have a significant impact on local government given that electricity makes up about a third of local government activity. Although accurate numbers are not known, as electricity activities are not ring-fenced, it is estimated that municipalities raise R21 billion as user charges and this may shift to REDs as part of the restructuring effort. Based on these estimates, this will result in municipal budgets shrinking from R86 billion to R65 billion. The value of assets supports activities and liabilities to be shifted is not yet known.

The EDI Holdings company was established in 2003 to oversee issues of joint interest to the REDs and to manage the transition of the REDs for a period of up to five years, or until the REDs are properly established.

The rest of this section deals one by one with the key issues that will need to be addressed in establishing REDs unless specifically attended by national legislation.

Contestable customers

It has been proposed that certain large customers, with annual energy consumption in excess of 100 GWh on one site, should be able to choose their electricity supplier. They would then be referred to as 'contestable customers'. Approximately 126 of Eskom's customers fall into this category. In 2002, they purchased 79 306 GWh at a cost of R10,4 billion.

Contestable customers may be able to choose their electricity supplier

It is estimated that there are 35 potential contestable customers in municipal areas of supply using 8 000 GWh and paying R1,2 billion. The numbers of potential contestable customers in municipal areas and volumes of electricity they use vary.

Categories of municipality responsible for electricity

Section 84(1)(c) of the Municipal Structures Act (1998) stipulates that the supply of electricity vests with district (category C) municipalities except if the Minister for Provincial and Local Government authorises local (category B) municipalities or a selection of local municipalities to perform this function. On 28 November 2000, the minister authorised that the status quo would remain until the restructuring of the EDI was complete, namely, that metropolitan (category A) municipalities and local municipalities would continue to provide this function in the interim.

Metropolitan and local municipalities provide electricity at present

Ownership and control of regional electricity distributors (REDs)

The shareholding in a RED has been an area of considerable debate over the past few years. Three alternatives were generally considered: that Eskom hold shares in the RED, that Eskom shares be held by national government, or that municipalities should hold these shares. In line with local government's constitutional responsibility for electricity reticulation, it was agreed that the latter option would apply, namely, that municipalities would wholly own REDs.

Municipalities will wholly own REDs

Ring-fencing electricity distribution activities

In order to establish a RED, municipalities and Eskom will be required to ring-fence their electricity distribution businesses. EDI Holdings has developed and is in the process of refining a ring-fencing toolkit. The toolkit contains best practices to undertake a ring-fencing or unbundling of an activity exercise and can be used for other municipal services as well.

The first phase of ring-fencing will focus on identifying electricity distribution activities

The first phase of the ring-fencing exercise will focus on data collection to identify municipal activities (financial, operational and HR) that are linked to electricity distribution. Core activities, such as metering, billing and credit control, will be separated from non-core activities. Non-core activities include street lighting and should ideally be funded through the rates account. This phase should involve limited initial costs.

Municipal 'electricity surpluses'

Surpluses are an important source of income

One of the major concerns of local government in the restructuring of the EDI has been the potential negative impact on municipal finances. At present, surpluses earned on electricity are an important source of income for some municipalities. However, not all municipalities own and operate electricity departments. In the case of those who do, although there is a huge variation in the surplus as a percentage of sales, the average levy is estimated to be between 12 and 15 per cent of sales. The bulk of the total surplus accrues to a few large municipalities.

Table 11.8 'Electricity surpluses' in three municipalities, 2003

| Municipality | Staff employed in electricity | Electricity (R thousand) | | | Surplus as % of revenue |
|-----------------------------------|-------------------------------|--------------------------|-------------|----------------|-------------------------|
| | | Revenue | Expenditure | Surpluses | |
| City of Johannesburg (City Power) | 1 957 | 1 176 575 | 855 346 | 64 277 | 5,5% |
| eThekweni Municipality | 1 834 | 2 603 265 | 2 603 265 | - ¹ | |
| Tshwane Municipality | 1 179 | 2 099 375 | 1 760 455 | 338 920 | 16,1% |

1. A trading surplus of R99 million on electricity was transferred as a contribution to rates and general services.

Source: National Treasury survey

As the electricity distribution function is generally not ring-fenced, it is difficult to determine the exact size of current surpluses. Table 11.8 provides rough estimates of the surplus on electricity (difference between income and expenditure) in three municipalities.

Table 11.9 uses two sources of data: work by PricewaterhouseCoopers done in 2000 for the EDI restructuring, and a South African Local Government Association (SALGA) survey done in 2001. The results vary somewhat, but they are broadly similar, suggesting that the orders of magnitude are correct.

Table 11.9 'Electricity surpluses' sample survey, 2000 and 2001

| Municipality R thousand | 2000 | | 2001 | |
|-----------------------------|--|-------|---------------------------------------|-------|
| | PricewaterhouseCoopers – historical surplus | | SALGA survey – ring-fenced surplus | |
| Mangaung (Bloemfontein) | 35 137 | 12,7% | 40 831 | 11,3% |
| Buffalo City (East London) | 36 812 | 15,9% | n/a | n/a |
| Cape Town | 306 824 | 18,2% | n/a | n/a |
| eThekweni (Durban) | 70 950 | 3,3% | 170 483 | 7,5% |
| Ekurhuleni (East Rand) | 246 174 | 14,1% | 402 494 | 19,2% |
| George | 8 784 | 11,5% | 10 210 | 11,9% |
| Johannesburg | 245 650 | 11,6% | 164 309 | 6,8% |
| Sol Plaatjie (Kimberley) | 3 127 | 3,4% | n/a | n/a |
| Steve Tshwete (Middelburg) | 13 231 | 19,4% | 9 588 | 12,0% |
| Nelson Mandela | 107 403 | 16,6% | 129 493 | 17,8% |
| Mbombela (Nelspruit) | 3 784 | 4,7% | n/a | n/a |
| Msunduzi (Pietermaritzburg) | 14 268 | 4,9% | 50 638 | 14,6% |
| Polokwane (Pietersburg) | 20 891 | 16,6% | n/a | n/a |
| Tshwane (Pretoria) | 211 881 | 13,0% | 306 436 | 18,3% |
| uMhlathuze (Richards Bay) | 6 204 | 3,2% | 4 576 | 2,6% |
| Khara Hais (Upington) | 11 605 | 28,0% | 16 871 | 37,1% |

Source: PricewaterhouseCoopers (2000) and SALGA survey (2001)

It could be argued that using surpluses to cross-subsidise services can be useful, particularly where local conditions influence the costs of service provision (for example, if the purchase and distribution of water is expensive). On the other hand, profits from electricity may compensate for the inefficient provision of other services and obscure financial realities within a municipality.

Cross-subsidisation between services can be useful

As these surpluses are an important source of local government funding, such income cannot be stopped abruptly. However, a more transparent source of funding should replace it. When designing a replacement source of funding, cognisance should also be taken of the negative external environmental costs associated with the production and consumption of electricity.

Income from electricity surpluses could be replaced with a more transparent source

Municipal debt

Internal and external loans attached to individual electricity distribution fixed assets should follow these assets across to the REDs, thus reducing their transfer value. REDs can either continue servicing these loans in accordance with their existing terms, or negotiate the terms, or redeem them from other sources of finance. The impact of the transfer of electricity distribution assets and liabilities to REDs on the overall municipal debt position also needs to be ascertained.

REDs should be responsible for loans attached to fixed assets

Stranded resources and transition costs

The establishment of REDs could result in 'stranded' resources for both Eskom and municipalities. These are resources used at present in electricity service delivery, which may not be fully used after restructuring, such as building space and information technology

There could be stranded resources and once-off transition costs for municipalities

systems. The removal of electricity distribution assets from the balance sheet of municipalities will also alter their credit worthiness. There may also be once-off transition costs associated with RED establishment, such as the cost of undertaking the ring-fencing of electricity assets and staff, among others.

Service level agreements

The region covered by an RED will encompass a number of municipalities. Individual municipalities will be required to enter into a service-level agreement with an RED, defining issues that they wish to be regulated, such as tariff approvals, electrification planning and delivery, billing, street lighting, and so on.

Conclusion

Restructuring is to be finalised by January 2007

The restructuring of the EDI has been under debate for over a decade, but it is now gaining momentum. In his second 2004 state of the nation address, the President announced that the first RED should be up and running by June 2005 and the overall RED establishment process, namely EDI restructuring, finalised by January 2007.

The buy-in and active participation of all stakeholders are required to ensure that these deadlines are met. National stakeholders will need to expedite processes to finalise outstanding policies and legislation on governance and financial issues related to the establishment and functioning of REDs. Municipal buy-in and support are essential. EDI Holdings will be required to oversee and manage the process of the establishment of REDs to full maturity.

If successfully implemented, the rationalisation of the EDI should bring economies of scale, greater transparency, and competition in terms of pricing and service delivery. The establishment of REDs should not negatively impact on the financial position of local government, as it is critical that this sphere of government continues to fulfil its constitutional development mandate.