

ETHEKWINI ELECTRICITY



Annual Report

2007/2008



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Our Vision

EThekweni Electricity - a leader in electricity distribution providing energy for the future.

Our Mission

To provide electricity, public lighting and other energy services that satisfy our customers and community whilst maintaining sound business principles.

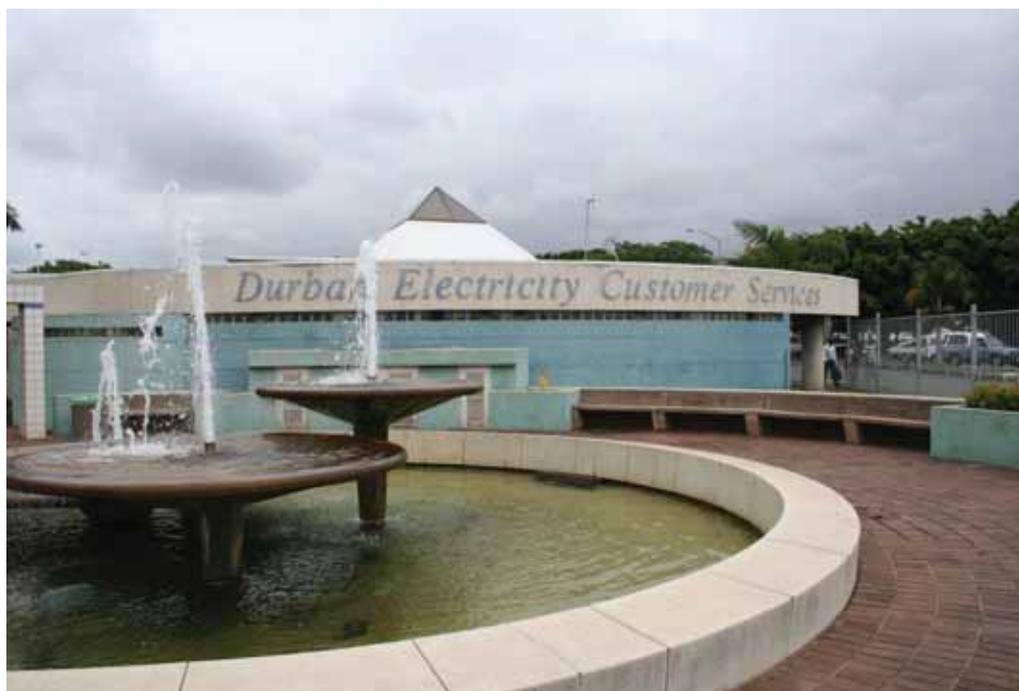
Strategy

To develop the Electricity Unit as an undertaking that maximises the value of its electricity supplies and makes effective use of all its resources.

Scope

EThekweni Electricity supplies more than 632 614 customers in an area covering nearly 2 000 square kilometres. This encompasses most of the area of the Durban Metropolitan Region and some adjacent areas.

Electricity for the main supply to the Metro Region is purchased at 275 000 volts from Eskom at three in-feed points, feeding to four in-feed substations. EThekweni Electricity also purchased electricity from Eskom for Tongaat and for the town of Mpumalanga at 11 kV and for the supply of Magabeni at 11kV. From these points it is transmitted and distributed for use by the full spectrum of customers ranging from the large, sophisticated industrial and commercial sector, to the rural and peri-urban informal community. EThekweni Electricity purchases just over 5% of the total energy generated by Eskom. EThekweni Electricity operates under the Electricity act of 1987, its policies are determined by the Metropolitan Council of Durban and the National electricity Regulator.





It is with great honour that I deliver the second annual report under my leadership at perhaps the most exciting and challenging period of the history of eThekweni Electricity.

Despite the many challenges faced by our Unit, we connected 35 255 customers to our grid, attended to 167 357 reticulation faults and increased the number of Free Basic Electricity beneficiaries from 7 709 to well over 60 000. Our peak demand for the 2007/08 financial year was recorded in February at 1 890 MW on our main 275kV network and our total energy consumption for the year was 11 163 GWh. Our turnover was just under 4 billion rand and we showed a surplus of 147 million rand which was set aside to fund future capital replacement projects.

Whilst the concept of load shedding to ensure stability of the network is not new, the magnitude and frequency of this occurrence is unprecedented in South Africa and has put the spotlight on the issues of generation and transmission capacities, electricity pricing and wasteful energy usage. The electricity crisis happened at a time when the industry was preparing for a restructure into Regional Electricity Distributor's (RED's) to cope with sustainable electrification and maintenance of the aging reticulation infrastructure within our borders. This mammoth task has been in the planning phase for years and has taken lower priority during the supply crisis whilst Eskom and the municipalities juggled the demand for electricity with the limited capacity to supply. Large power users faced the brunt of load shedding as production lines ground to a halt and the regional economy was severely impacted.

A National Emergency Response Team (NERT) was formed to tackle the crisis. The mines were shut down in February to bring stability to the network whilst an urgent plea by the Department of Minerals and Energy went out nationally for an overall electricity reduction of 10%. Industry and business responded to the call and an average saving of 6 % was realized by the city as a whole. The municipality echoed the call of government, and local radio and the print media carried regular articles and snippets on updates of the situation with handy tips that consumers could use to reduce their consumption. Energy efficiency thus became a topical subject in Durban and "use ONLY what you need" is being promoted as a sustainable solution for the City's scarce natural resources.

Towards the latter part of the year, Eskom applied for a 60% electricity price hike citing an accelerated 150 billion rand capital build program as the main driver. The National Energy Regulator had not released its ruling on this issue by the end of that year but eventually approved a 32.5% increase. This placed an added burden on our customers but was generally accepted as a preferred measure to the damaging effects of load shedding. Whilst the reduction in electricity consumption was a priority, the Unit also made strides in attracting and retaining appropriately skilled staff as the global scarcity of skilled personnel grew. I am happy to announce that we were able to recruit many technical graduates during the last financial year and trust that this trend will continue into the coming years as we compete with the private sector for the same resources. We now offer an intensive integrated training and development program, progression graded posts and competitive market related retention allowances.

ACKNOWLEDGEMENT

My sincere appreciation goes to all our consumers who responded to our call for a reduction in their electricity consumption and I urge you to pledge your 10% savings to allow for the continued growth within our City. I would also like to pay a special tribute to all of our employees for their allegiance, enthusiasm and dedication to their jobs despite a challenging year. It is in face of adversity that our true mettle is forged. A word of gratitude goes to His Worship The Mayor, Councilors, City Manager, Deputy City Managers and my Deputy Heads for their leadership, guidance and assistance and my staff as a whole for their invaluable contribution in what has proved to be a difficult year for the electricity industry in South Africa.

RS Maphumulo

General

The HV Operations Department is responsible for the planning, construction, operation and maintenance of eThekweni Electricity's primary network of high voltage lines, cables and substations. Each branch of this department has reported separately below but the following needs to be highlighted.

The projects undertaken by this department are to provide for increased bulk capacity and/or to improve the reliability of regional electricity supply. Accordingly they are typically large, high cost projects which require considerable time and attention to satisfy environmental legislation in the first instance and then 30 months or more in the construction phase. It will be noted that this year considerable progress has been made with the construction of several very important projects which finally received favourable Record of Decisions after protracted Environmental Impact Assessments (EIA's) in previous financial years. It is especially important to note that the new Pineside, Addington, Old Fort, Edwin Swales, Fynnlands, Wentworth, Dalton Road and Tongaat Substations have, or will shortly, replace a number of very old and unreliable 33kV substations. Of particular significance, these will allow for the de-commissioning of many 33kV cables which rely on fluid or gas under pressure and which are now very old and subject to leaks.

It is a concern that the protracted EIA process continues for a number of projects which still require a favourable Record of Decision. These include projects urgently required to reinforce the electricity supply in the Jacobs/Austerville, Pinetown/Westmead and Kloof areas.

Another major concern is the escalation of theft of plant and equipment from substations, sections of cables and steel and conductor from overhead lines. In most cases the scrap value of the item stolen is minimal but the cost in terms of loss of security of supply and the replacement cost can be measured in millions of Rand. The loss of earthing copper at substations and steel members from overhead lines also poses a potential danger to staff and members of the public.

And then the most serious challenge, which worsened during the course of the year, was the loss of skilled staff and the difficulty in recruiting new staff. This problem applies to the whole service unit but is a special concern in the specialized fields of high voltage electrical distribution systems.

HV PLANNING BRANCH

During the year under review, the principal details of the following proposals were concluded and handed over to the HV Projects Branch for execution:

- Upgrade of the 275/132kV Klarwater Substation. This substation is key to the security of supply of electricity to the whole Metro and now requires attention to increase the capacity as well as the replacement of unreliable transformers.
- Upgrade of the following 132/11kV substations by the addition of 2 further transformers (and switchgear as necessary) in order to cater for the increased demand on these strategic sources of regional supply:
 - Umdloti Beach Substation
 - Greenbury Substation
 - Clermont Substation
 - Newlands Substation
 - Mobeni South Substation
- Replacement and extension of the 11kV switchboard at the 132/11kV Phoenix Industrial Substation
- Extension of the 11kV switchboard at the 132/11kV Waterfall Substation
- Establishment of a new 132/11kV substation in the Kingsburgh area which will significantly improve the quality of supply to the southernmost parts of the area of supply.

Environmental impact assessment studies and planning/design work was still in progress in respect of the following projects at the end of the period reviewed in this report:

- Austerville 132/11kV Substation
- Kloof 132/11kV Substation
- Underwood Road Road 132/11kV Substation
- Mahogany Ridge 132/11kV Substation
- Stockville 132kV Switching Station
- Randles 132/11kV Substation
- Avoca 132/11kV Substation
- Reunion 132/11kV Substation
- SAPREF 132/33kV Substation
- Springpark 132/11kV Substation
- Glenwood 132/11kV Substation
- Umlazi 132/11kV Substation
- Umhlanga Ridgeside 132/11kV Substation
- Bridge City 132/11kV Substation
- Springfield 132/33kV Substation reconfiguration
- Umbogintwini 132/33kV Substation reconfiguration
- Installation of a 275kV bus-section at Durban South Substation

The analysis of transmission system capability is also ongoing. The transmission system network diagrams were reviewed and updated and, using this data, the detailed model of the 275 kV and 132 kV transmission system was updated. This model allows HV Planning to analyze powerflows and system fault levels down to the medium voltage busbars of all 132kV substations. In a joint effort between eThekweni Electricity and Eskom, the voltage stability of the combined Eskom/eThekweni transmission system was analysed. The calculated stability limits serve as a guide for network control and form part of the supply agreement with Eskom.

HV PROJECTS BRANCH

The HV Projects Division is responsible for the detailed design, specification of equipment and management of major system reinforcement projects. More than 23 projects were in progress during the year. The status of the projects in hand at the end of the period under review was :

- Pineside 132/11kV Substation : Final stage of the civil works to accommodate the second set of 30 MVA transformers and outdoor yard equipment. (Additional capacity for the greater Pinetown / New Germany areas)
- Northdene & Havenside : Final commissioning of 2 additional transformers and associated 132kV and 11kV switchgear.
- Edwin Swales 132kV Switchyard : Commissioning of the new substation with 9 switch bays to provide a new hub of 132kV supplies to various substations in the Jacobs and Bluff areas
- Fynnlands 132/11kV Substation and Wentworth 132/11kV Substation: Final testing - for planned commissioning in August 2008. (Additional capacity and, with the elimination of the old and unreliable 33kV network, increased security of supply for the greater Bluff area)
- Chatsworth 132/11kV Substation : Final testing of the first phase of the replacement switchboard. (Replacement of unreliable, unsafe plant and to increase the numbers of outgoing circuits)
- Jameson Park 33/11kV Substation : Installation and commencement of testing of the second transformer to replace units destroyed by fire.
- Addington 132/11kV Substation : Commissioning of the new 4 x 30 MVA transformers and associated 132kV GIS and 11kV switchgear. (Additional capacity and to facilitate de-commissioning of unreliable plant in the beach front / Point area)
- Old Fort 132/11kV Substation : Commissioning of the 3rd 30MVA transformer and associated 11kV switchgear (Additional capacity and will facilitate de-commissioning of unreliable plant in the beach front area)

- Hillcrest 132/11kV Substation : Completion of the installation and the commencement of the testing of the first phase of the 11kV replacement switchboard. (Replacement of unreliable, unsafe plant)
- Coedmore 132kV Switchyard : Completion of the installation and the commencement of the testing of the 11 x 132kV switchgear bays to provide a new hub of 132kV supplies to various substations in the South Western region.
- Gateway 132/11kV Substation (and Cornubia Switching Station) : Completion of the installation and the commencement of the testing. (Additional capacity for the greater Umhlanga area)
- Pearce Road 33/11kV Substation : Final testing of the new switchboard. (Replacement of unreliable, unsafe plant, additional security for the greater Umbogintwini area)
- Reservoir Hills 132/11kV Substation : Completion of the installation and the commencement of the testing of the first phase of the replacement switchboard. (Replacement of unreliable, unsafe plant)
- Clayfield 33/11kV Substation : Commissioning of the new 11kV replacement switchboard (Replacement of unreliable, unsafe plant)
- Ridgeview 132/11kV Substation : Completion of the civil works and the commencement of plant installation. (New capacity to satisfy demand, primarily for the growth in the Cato Manor area)
- Himalayas Road GIS : Commissioning of the new 132kV gas insulated switchboard to provide a more secure supply of electricity to customers in the Southern region.
- Merewent 132/33kV Substation : Completion of the installation of the new 132kV cable feed from Durban South Substation. (Replacement of unreliable plant supplying a major customer)
- Dalton Road 132/11kV Substation : Completion of the installation and commencement of testing of the extension switchgear. (Additional capacity and will facilitate de-commissioning of unreliable plant)
- Winklespruit 33/11kV Substation : Completion of the installation and commencement of testing of the new switchgear and new transformer. (Additional capacity for the far south area of supply).
- Tongaat 132/11kV Substation : Completion of the civil works and the commencement of the plant installation to replace the existing three 33/11kV substations. (Additional capacity and replacement of unreliable plant).
- Shallcross 132/11kV Substation : Completion of the installation and in the final stages of the testing. (Additional capacity for the greater Chatsworth area)
- Sukuma 132/11kV Substation : Completion of the installation and the commencement of the testing of two additional transformers for the reinforcement of the substation (Additional capacity for the greater Umlazi area)
- Refurbishment of various 132kV and 275kV overhead transmission line circuits and various minor 11kV switchboard extensions.

HV SUBSTATIONS BRANCH

The HV Substations Branch is responsible for the operation and maintenance of all the equipment in 105 major substations which have a primary voltage of 275 kV, 132 kV and 33 kV. The equipment includes power transformers, instrument transformers (current and voltage transformers), switchgear (circuit breakers, isolators and earth switches), surge arresters and power line carriers.

This comprises a significant amount of plant older than 40 years and the frequent problems associated with this, particularly voltage regulation equipment, places a strain on the limited resources in the branch. However, the completion of some major projects in the past year (and others to be completed shortly) as referred to above will allow a number of unreliable substations to be de-commissioned.

Theft of items (and copper, in particular) from substations continues to be a problem faced by this Branch.

HV LINES BRANCH

The HV Lines Branch is responsible for the operation and maintenance of the high voltage overhead line system presently consisting of 141 circuit kilometres of 275kV, 444 circuit kilometres of 132kV and 62 circuit kilometres of 33kV overhead line. The routine safety and maintenance inspections scheduled for the year were not completed due to staff shortage and the need to react to circuit faults and the theft of conductor/steel members as these incidents occurred. This inspection has been scheduled as a priority for the new year.

In keeping with the refurbishment master plan a further contract was awarded and major maintenance commenced on the following sections of line with completion anticipated next year :-

- Ottawa to Durban North 275kV overhead line (22 towers)
- Klaarwater to Woodlands 132kV overhead line (17 towers)
- Lotus Park to Sukuma 132 KV overhead line (21 towers)
- Avon to Ottawa 275kv overhead line (34 towers)

The theft of steel members from overhead line towers remains a very serious threat to the security of supply for eThekweni Electricity and Eskom.

HV CABLES BRANCH

The HV Cables Branch is responsible for the operation and maintenance of 132kV, 33kV, and 11kV cables which form part of the primary network.

The maintenance of pressurised gas and fluid-filled cables continues to be a problem. A number of leaks and faults had to be located and repaired on several strategic cables, some of which have now been in service in excess of 50 years. The leaks are extremely difficult to locate (up to several weeks in some cases) and require the cable to be taken out of service to prevent electrical failure. This special effort exacerbates the skills shortage problem and, together with the high cost of the leaking gas or fluid, results in very high maintenance costs. This has received a special focus over the past 5 years and it can be recorded that a number of major projects in hand and in an advanced planning stage (as referred to above), will replace several identified unreliable cable circuits of this type in the near future, including the problematic Bluff and Fynnlands 33kV fluid filled cables.

HV NETWORK CONTROL BRANCH

The Network Control Branch comprises of four Divisions: HV Network Control, System Performance, Network Performance Management and Control Systems. The HV Network Control Division is responsible for the control and operation of the High Voltage Network which incorporates the 24-hour manned HV Network Control Centre and remote control/alarm facilities. This primary network is generally monitored and controlled from the central control room using a sophisticated Supervisory and Data Acquisition (SCADA) system.

The System Performance Division is responsible for network optimisation and quality of supply and continues to strive to ensure that customer complaints regarding power quality issues are addressed and resolved timeously. The Quality of Supply database has been redesigned to facilitate easier data collection, interrogation and presentation.

Several new remote terminal units (RTU's) have been commissioned at new major substations and to replace unreliable RTU's at existing substations in order to extend and improve the efficiency of the remote monitoring and control of the primary network. The Branch has entered into a contract with the RTU supplier for the installation and commissioning of RTUs in order to expedite and improve the process.

The Branch has also continued to pursue the automation to the next level of distributor substations which will significantly enhance the identification of faults causing interruptions of supply and, therefore, the reaction time to restore supply.

LIGHTING WORKS BRANCH

Lighting Works Branch is responsible for construction and maintenance of about 200 000 streetlights in the whole of the eThekweni Municipality area of supply. The Branch experienced a challenging 2007/2008 financial year in meeting operational requirements due to staff shortage, theft and vandalism of the lighting infrastructure.

The Branch had only minor safety incidents proving the effectiveness of the safety awareness campaign in line with the safety standards as laid out by the municipality. The Branch strived to maintain an above average level of productivity by being proactive using night patrols and planned maintenance based on fault analysis and volume per area of supply. Three clerical staff and six electrician assistants joined the Branch.

Management would like to thank all staff in the Branch for their loyalty and dedication in keeping the lights burning during the trying and challenging times.

MAINTENANCE PLANNING AND WORKS BRANCH

The Maintenance Planning and Works Branch is responsible for the inspection driven planned maintenance scheme and the execution of maintenance work. The maintenance of the eThekweni Electricity network is crucial in ensuring the integrity and reliability of supply to consumers.

The growing challenge has been the ability to deliver a superior service to the consumers with a diminishing skill base coupled with increasing infrastructure development. The Branch managed to appoint eleven Electricians and two Engineers.

The branch spent R 200,7 million in carrying out its maintenance work, effectively a 41% increase in the previous financial years expenditure. This increase in expenditure was mainly due to a considerable focus on fault rectification (caused by, amongst others, an ageing network, third party damage and theft) and the acquisition of Contractor personnel. The co-operation of internal staff, consultants and contractors in delivering a good service to our customers is appreciated and we can only grow from strength to strength.

Maintenance Planning Division

The six monthly distribution cycle was on target for the first half of the year and 4% behind target in the second half of the year. This is within acceptable limits of not more than 5% behind target.

With a large portion of the overhead line (OHL) faults attributed to the encroachment of vegetation such as trees to the bare OHL, this has initiated discussion to review the current vegetation management practices.

Maintenance Works Division

The implementation of the Collective agreement of the Conditions of Service, which had seen a revision in certain conditions of service, led to a lack of interest being displayed by internal staff to conduct work outside normal working hours. This placed a huge strain on the Divisions ability to perform its functions, viz. planned maintenance and fault rectification.

In July 2007, the publication of the Placement circulars saw the relocation of the Faultsman from Maintenance Works to Network Control. This ensured that the Maintenance Works Branch focus was purely on secondary fault repair and planned maintenance.

The theft of overhead infrastructure (such as conductors and pole mounted transformers) continued to serve as challenge to the Maintenance Works Division.

NETWORK CONTROL BRANCH

In the 2007/2008 financial year we focussed on the operation of the electricity power system to reduce demand, while maintaining reliability, autonomy and self-sufficiency. Efficient and effective consideration of demand management is an important part of delivering cost effective network services to customers. Load shedding, theft of electricity, theft of conductors and equipment and illegal tampering were major challenges faced by staff that affected customer supplies.

We encourage customers to contact our staff with questions about energy efficiency or any energy related topics. Our goal is to have our customers choose an optimum energy solution as they make their energy purchase decisions and that they use the electricity they consume wisely.

Network control has at its core its people, and is constantly looking at ways to ensure our people have the necessary skills and competencies to fulfil their responsibilities and development. The department experienced some staffing changes in year under review.

During the period under review a total of 167 357 faults were handled by Network Control; this being a 13 % increase in the number of faults from the previous financial period. Some 4 516 medium voltage, 4 222 low voltage and 1 354 copper thefts contributed to the total number of faults.

Network Control is committed to implementing new technology into its network to ensure the network operates efficiently and is capable of delivering world class distribution services to customers. The department believes that new technology is an essential part of its strategy to deliver network services and has leveraged the use of modern technologies such as communication and monitoring equipment.

LIGHTING PLANNING BRANCH

The Lighting Planning Branch is responsible for the planning, design, inspection and maintenance of the public lighting infrastructure for the eThekweni Municipality which includes planning and design of new lighting installations, upgrading of existing lighting infrastructure, research and investigation into new lighting technologies, inspection and maintenance of lighting installations and bulk lamp replacements. The Lighting Planning Branch is also responsible for the planning, designing, installation and testing of capital projects. The annual capital budget utilized was 17 million rands and projects were planned for major route improvements, new major routes, lighting of parks, stadium lighting, beach front lighting, CBD lighting, cemetery and sundry lighting. Major projects included; MR 577 (Newlands to Pinetown), Watson Highway (Tongaat), Warwick Avenue Flyover, Brickfield Road (Overport), Moss Kolnik Road (Kwamakutha), Khangela Bridge (Bayhead Road), Havelock Road Sportsfield, Austerville Recreation Sportsfield and Badulla Drive Sportsfield.

With the national electricity crisis and the ever increasing emphasis on energy efficiency, the Lighting Planning Branch has dedicated a lot of effort into research and investigation into new lighting technologies. Technologies such as LED (Light Emitting Diode) lighting, inductive lighting, advanced reflective systems and intelligent systems are in the process of being researched and evaluated. LEDs are being hailed as the future of lighting and are becoming increasingly present in our environment. Indications are that they have a vital role to play in various lighting applications due to the numerous advantages they claim to offer such as: low maintenance requirements, reduced power consumption, long life spans, compact size, white light, colour rendering properties, extensive design capabilities and increasing luminous efficacy. LED's are changing the tradition of photometry and their integration into a luminaire and the luminaires's installation environment needs to be investigated in order to assess for final performance. There are current plans to run 2 pilot sites for LED streetlighting. Innovative methods to curb cable theft are also being investigated.

Members of the public and the media expressed their appreciation of the decorative lighting along West Street, Grey Street and the Gugu Dlamini Park through positive letters and articles that were published in various newspapers.

The Lighting Planning Branch is committed to providing an efficient planning and design service to the municipality. Its success is however, dependant on the co-operation from senior and top management, staff, internal service providers, external service providers and the community.

COMMUNICATION NETWORKS BRANCH

The Branch is responsible for the fibre, radio/wireless, technical data, copper pilot and other medium communication networks that provide vital communication links for all technical systems/equipment that monitor, control and protect all electrical plant and equipment in the HV transmission and MV distribution networks from which all customers are supplied. All Branch goals are thus set to investigate, plan, design, implement, up-grade, maintain and repair the required communication networks that ultimately enhance the security and quality of supply in the most effective manner.

Despite the Branch being theoretically formed on paper, the Staff Placement Process only advanced to the stage of placing existing staff into unchanged and changed posts at the beginning of the financial year with the result that only four of the six new divisions in the Branch became partially operational ie. the Communication Network Engineering, Fibre Networks, Pilot Network and Administration Divisions. The Data Networks and Radio & Wireless Networks Divisions have yet to be established. The three new technical divisions continued to undertake all communication network functions as best they could with the available staff resources as indicated below.

Communication Network Engineering Division

The installation of OPGW on the prevailing overhead lines refurbishment contract on the 2nd circuits was completed between Ottawa and Phoenix North, Phoenix North and Morelands, Ottawa and Cornubia major substations. The installation of the 2nd circuit between Lotus Park and Umlazi transmission substations was again postponed because of the operational restrictions.

New underground fibre optic transmission links were installed and commissioned between Edwin Swales and Wentworth, Edwin Swales and Fynnlads, Cornubia and Gateway major substations during the year. Further links were installed between Berea Park Major substation and Verizon ISP, Westmead and Pinetown major substations, Himalayas to Illovo Factory.

Several communication tubes were also laid with several medium voltage (11kV) cables by Distribution.

A contract was established via tender for the supply of a Dense Wave Division Multiplexing (DWDM) system to extend between approximately 25 major substations on the main fibre rings. This will greatly assist with the establishment of high speed ethernet networks between major substations, for camera networks at majors, for administration networks to the depots, for links into the electrical Distribution infrastructure, as well as assist with streamline switch-over to alternative fibre in the event of fibre faults. The first order is expected to arrive early in the new 2008/09 financial year.

Various tests and pilots were conducted to test the application of cellular-radio technologies. A report to Council is imminent for the provision of a full link cellular-radio system (using GPRS and 3G) to provide simple status monitoring and serial communication links between approximately 1000 Distribution Substations (11kV). The Distribution level is the next focus area now that communications links to substations at Transmission level have been largely completed.

Development also continues on a CDMA radio system which, in the future, is intended to provide high speed links between substations. Principally, it needs to provide wireless links for differential protection schemes, which can no longer depend upon pilot wires which have aged and become too costly to repair.

Fibre Networks Division

The Division continued with the installation of communication multiplexers. The system now consists of 79 multiplexers: 31 with STM1 (155Mbps), 30 with 4xE1 (8Mbps), and 15 with HDSL (2Mbps) capability. These multiplexers are enabling reliable, high speed communications between substations throughout the supply area and the Control Centre at headquarters.

A total of 60 supervisory remote control units have been connected via the multiplexers back to the Control Centre and 84 protection schemes are supported on the fibre system, of which 13 use multiplexers to communicate.

A further 12 new configuration Fibre Optic Communication panels (FCPs) were installed at new 132kV and existing 33kV transmission substations bringing the total to 112 installed FCP units for the housing of multiplexing equipment in them.

In addition, 7 new configuration Fibre Optic Termination panels (FTPs) were installed at existing 132kV transmission substations as part of the overall up-grading of existing fibre optic panels to allow more compact, structured and assessable fibre core terminations as well as organised fibre core patching in preparation for high speed data communications.

There were 2 fibre faults repaired during the year 1 of which was on the fibre link within the Transnet servitude between Mobeni South and Umbogintwini major substations and the other between Lotus Park and Isipingo substations.

There were fewer multiplexer outages caused by power supply unit failures as the older type power supply units are in the process of being replaced.

Data Networks Division

Until this new Division is established, all data network related work will continue to be undertaken by the Fibre Network Division with the following work completed during the year:

A further 5 transmission substations were connected to the Wide Area Network (WAN) bringing the total number of major substations with Ethernet connectivity to 52.

No additional protection relay busses or central access control units were installed at major substations due to the lack of staff resources resulting in the total number of majors where protection relays can be remotely accessed remaining at 34.

No further major substations were fitted with substation telephone system jacks due to the lack of staff resources resulting in the total number of substations connected to the Control Centre remaining at 52.

A further 2 remote access links were provided for Quality of Supply measurement devices bringing the total number of remotely controlled devices to 6.

High speed administration Ethernet links were installed and commissioned between Control Centre and all six Electricity regional depots as well as to Verizon ISP.

Pilot Network Division

A total of 25 high priority copper pilot cable links were repaired and pilot boards were installed in 7 transmission and 20 distributor substations. This was according to the revised strategy for the repair of the old pilot cable network based on the criticality of distribution circuits in the electricity system.

In addition, 6 electronic alarm boards were repaired after being damaged by high voltage surges.

ELECTRICAL WORKSHOP BRANCH

The Electrical Workshop Branch provides services to the MV/LV Operations Department and the HV Operations Department of the Electricity Unit.

The on site service has been introduced to the MV/LV Operations Department in order to save time and money for the organization by repairing damaged, leaking and faulty equipment. 83 transformers were repaired on site by the Electrical Workshop staff.

37 transformers and 11 mini-substations were overhauled in the Electrical Workshops premises. In addition, 276 new distribution transformers, of which 245 were compliance tested from the suppliers before being issued to stores. Obsolete and faulty equipment was scrapped and put out to public tender.

A total of 51 motors, 93 medium voltage switchgear, 72 autoreclosers, 33 sectionalisers and appliances were repaired in the Switchgear and Motor Division. The Switchgear and Motor Division provided services to MV/LV Operations Department by commissioning, testing and resetting autoreclosers and sectionalisers. The new ring main units were tested by this Division before being issued to stores.

Retrieved cables and distribution hardware were received from the user departments and contractors. The retrieved cables were cut and stripped where practical and sold via the Material/Buying Branch.

Regenerated insulation oil, having a volume of approximately 520 000 litres was supplied to various user departments.

MECHANICAL WORKSHOP BRANCH

Introduction

Mechanical Workshop Branch provides a specialist mechanical support services to Electricity Unit, other Units within the Municipality and external customers. The Branch is involved with wide range of repetitive fabrication and maintenance, and also a diversity of mechanical tasks that change on a daily as per requirements of our customers, in line with our function of being the Mechanical support function to our electricity distribution network.

Work Programming Division

This Division continued to produce work from both internal and external customers. The Division undertook all the costing, planning, tendering, management etc. of all work assigned to Mechanical Branch. This Division is instrumental in assisting with research and purchasing of machinery & equipment to upgrade and improve productivity and successfully continued to secure the tender to repairs of fibreglass single/extension ladders for Eskom. The Senior Technician is currently busy with the formulation of documentation in regards to the implementation of safety practices and procedures in the usage of machinery and small tools, produced a variety of working drawings and designs, for manufacture and installation of support equipment for our distribution network including updates and amendments to existing drawings to improve cost effectiveness and productivity and the planning of manufacturing for the requirements of the annual Christmas display features.

Fitting and Machining Workshop

This Workshop has a steady workload, due to the Work Programming Division, manufacturing a wide range of galvanised components for MMD stores on a repetitive basis, that are used on the electrical network in addition to inspection and repairs to our fibreglass single/extension ladders for our own department, other Municipalities and Eskom on a regular basis. The maintenance and fabrication of various types of electrical equipment is undertaken in this Workshop at frequent intervals due to the unavailability or obsolete items required eg. switching and earthing gear, transformer parts etc.

machining and assembling of bushings, tap-changes, contacts, high voltage tension cable fittings and specialised turning projects to have these available when required for an uninterrupted electrical supply. Fortunately due to the resourcefulness of the dedicated scarce skilled staff, enabling accurate engineering standards are adhered to. The Fitting and Machine & Rigging Workshop has surpassed itself in this regard. Installation of various types of support structures were undertaken when required, e.g. bridge crossing, pipe installations. The services of this workshop also include maintenance and repairs of pumps, motors, compressors and air receivers for the Department. The rigging crew is always in high demand for the changing of switch gear, transformers, poles, mini-substations etc. providing a 24-hour standby service. In addition, they were fully occupied undertaking lifting equipment and tackle statutory inspections and load testing, along with the repairs to the equipment for the various depots.

Welding and Blacksmith Workshop

This Workshop was kept extremely busy throughout the year, not only with the welding of repetitive contract production work, but also with continuous daily maintenance work. The Workshop is involved with manufacturing and repairs of sub-station equipment, copper earth matting, security gates, conservator tanks etc., fabrication of various components as per customer's requests and cutting and removal of redundant assortment of items. Modifications and repair work to equipment vehicles and trailers are undertaken on a regular basis and various electrical equipment steel cabinets, some with specialised locking systems are manufactured to suit the specific requirements of the locality or situation.

Training

Once again, during the past year Mechanical Workshops Branch was committed to the Workplace Skills Plan and the training of staff. The training undertaken by Mechanical Workshops Branch staff is always relevant to both the Branch's operations and Electricity. The Electricity training centre was instrumental in assisting the Branch's staff for formal training on courses such as ABET, computer skills, supervisory skills etc. Africa training centre assisted with training on truck mounted hydraulic cranes, overhead cranes, aerial platforms, forklifts and lifting & rigging of equipments. The Branch has successfully continued with the trade worker training program to develop and prepare lower level staff with some skills for high level jobs for promotional purposes.

NETWORK DRAWING OFFICE BRANCH

The Network Drawing Office and Survey Branch (NDO) comprises of five Divisions, namely Administration, Network Records, Geographic Information Systems (GIS), Special Projects and Survey. The need for the accurate spatially located electrical assets and an efficient GIS is essential to support the many other computer systems within the Electricity Unit.

Administration Division

The Administration Division primarily provides an administrative service to all the five Divisions of the NDO and a printing service to the Electricity Unit.

Network Records Division

The Network Records Division is staffed by five Chief Draughtspersons and 30 draughting staff. The core function of this Division is to capture and maintain an accurate set of records of all underground and overhead electrical infrastructure. Until three years ago, these records were captured and maintained in Computer Aided Design (CAD) environment. The NDO has since taken a decision to migrate this data into a GIS environment. A five year data conversion project was implemented (2004 to 2009). The project is approximately 80% complete.

Twenty five physically challenged temporary staff have been employed on the short term contract basis to assist with the project. The main challenge for this Division is to provide accurate spatial data that will integrate with the numerous other software applications within the Electricity Unit. This Division also processes approximately 4000 plans from internal and external customers, that require cable location information and attends to 1500 visitors, per annum.

GIS Division

The GIS Division comprises of a GIS Administrator and 2 Senior GIS Draughtspersons. The purpose of the Division is to provide a specialist software support function to the Network Drawing Office and maintain the GIS database. This Division also provides support to all GIS users within the Electricity Unit.

Survey Division

The Survey Division comprises of a Chief Survey Technician, six Survey Technicians and ten Survey Assistants. The core function of this Division is to provide a spacial location of all existing and proposed electrical infrastructure, for the NDO and the Electricity Unit. This results in a close working relationship between the Division's Survey Technicians and various technical staff within the Unit. Many projects unfortunately require security to accompany the Survey team on site, this often results in delays in completing work timeously. Projects that are undertaken for the HV Planning Division are usually on-going and can overlap from one year to another.

Special Projects Division

The Special Projects Division produces a wide variety of specialised drawings, certificates, signage, low voltage circuit diagrams, instructional material and detailed component drawings, for the Technology Services Branch and other Branch's within the Electricity Unit. In the past year this Division has been working closely with the MV/LV Planning Branch to create a database of scanned Distribution Layout drawings that will be available electronically to all staff of the Electrically Unit.

PROTECTION AND TEST BRANCH

This Branch is responsible for the forward planning, analysis, design, up-dating, testing, auditing, maintenance and repair of all protection and dc systems in the electrical network.

Test Division

During the year numerous high voltage substation installations were tested and cleared for energising by the Test Division. These included Cornubia 132kV Switching Station, Edwin Swales 132kV Switching Station, Fynnlands 132/11 kV Substation, Wentworth 132/11 kV Substation and Gateway 132/11 kV Substation. System improvements were undertaken at the Jameson Park, Clayfield, Winklespruit, Durban South, Klaarwater and Pineside Substations. In addition, 2341 cable fault locations were made; 936 equipment acceptance tests performed, 548 protection relay and instrument repairs done and 310 other commissioning tests carried out.

Protection Maintenance Division

During the past year the Protection Maintenance Division has continued with the protection maintenance on the medium voltage system, a total of 180 distributor substations were tested by an assigned contractor. Protection Maintenance staff co-ordinated the process and assisted with the necessary repairs and relay replacements. Due to staff shortages Protection Maintenance staff were seconded to other Divisions to assist with the co-ordination of their programs.

Protection Engineering Division

The Division undertook various projects as it continued to monitor the installation of the overall protection strategy based on modern numeric protection relays. The ERACS network analysis package was kept up to date with all substations accurately modelled on it. This software assists in achieving accurate settings of protection relays and allows for comparison of actual fault currents recorded by numeric relays with calculated values. Eighty-five ERACS studies were carried out in the past year. The clearance routing system is available on the Protection and Test Intranet website in order for all departments to more easily determine the clearance status of high and medium voltage installations. During the year this Division issued 66 clearances. The task of drawing all protection and control schematic drawings into AutoCAD format was continued with 60 drawings been completed this year. System mal-operations were continuously monitored and the appropriate investigations were co-ordinated by this division. Protection settings on the high and medium voltage networks were calculated and implemented at 50 substations. This was done for both new and system improvements in the network. This Division also assisted with the co-ordination of the protection upgrade programmes, and undertook research into new protection relays and software.

DC Systems Maintenance Division

The Division continued with the dc systems maintenance programme with all 220 V and 110 V battery banks and chargers maintained on a monthly basis in the high voltage network. All 30 V tripper units were maintained on a six monthly basis on the medium voltage network at the 700 plus MV substations. Battery chargers at 30 transmission substations were replaced either due age or the unavailability of spares. In preparation for 2010, all batteries and chargers at strategic locations were also replaced. In addition the back-up dc units for the fibre optic communication network were maintained on a monthly basis in all transmission substations. All CO₂ systems with dc systems were also maintained on a monthly basis in the transmission system.

SHERQ AND TRAINING BRANCH

The SHERQ and Training Branch is now responsible for the recruiting and training of all Apprentices, Technicians-In-Training and Bsc Candidate Engineers. Their training is receiving the highest priority of service excellence. With the shortage of qualified Electricians, the number of Apprentices recruited will be increased substantially in order to meet in-house demands as well as that of contractors for quality staff. Currently there are 17 Bsc Candidate Engineers employed and an intake of 40 Apprentices and 20 Technicians expected in 2009.

A new structure should be in place in early 2009 which will allow for the safety auditing of consultants, contractors and our internal staff to ensure safe working practices are adhered to and quality of workmanship is maintained/improved through recruitment of Safety Officers, Electrical Machinery Inspectors and Site Safety Monitors.

Training Centre (System Operation) Division

The Division trains in-house staff, contractors, engineers, consultants, staff from other local authorities, industries, Telkom and Eskom. The Division has also trained people from as far afield as Mozambique and Swaziland.

The centre offers a variety of electrical courses, with the emphasis on safety. These courses include the Basic Training Course (6,6/11 kV switching authorization) which is presented over eight days and comprises six modules. The Industrial Switching Course 6,6/11kV is presented over five days and comprises five modules.

Other courses offered are:

- I. Advanced Switching Course
- II. Advanced Protection Course
- III. Safety Rules Course
- IV. Refresher Courses
- V. Contractor Courses
- VI. Control Officers Course
- VII. Second Person Course

The Centre has three fully equipped lecture rooms and a switch room, where the energized switchgear can be operated after watching operational videos produced by the training team, using their specialist expertise.

The Centre has a live training yard where practical demonstrations and assessments are carried out. This has its own substation with different types of 11 kV circuit breakers and protection. The yard also has different ring main panels, autoreclosers. Sectionalisers and links, as well as an overhead line that has bare copper and ABC. This reticulation is live, from street lighting through LV up to 11 kV.

The demand for courses during 2007 exceeded expectations and the number of courses presented was more than double those programmed. The Centre will shortly have eight Training Officers in order to meet the demands of the Electricity Unit and its outside customers.

The number of competent persons employed by contractors has grown to approximately 1300 and each person is captured onto a database to provide up-to-date information for the Unit as to the status and extent of their competency. Course material is continually being updated to meet the demand of the Unit.

A need for more relay training has been identified and a relay training panel is being designed for the Training Centre and will be installed and operational in 2008.

Application for accreditation with the Energy Sector Education Training Authority (ESETA) is also being sought in preparation for the formation of the Regional Electricity Distributors. This will also allow for discussions currently taking place to merge the Supply Road and the Electron Road Training Centre's to create synergies and enhance technical training capabilities. This should assist in addressing technical skills shortage currently being experienced within the eThekwinin Electricity Unit.

TECHNOLOGY SERVICES (FORMERLY KNOWN AS METHODS AND STANDARDS)

One of the functions of the Branch is research into cost effective ways of distributing electricity. This function can be divided into two, namely, the cost of goods purchased and the costs associated with the installation, operation, maintenance and disposal of the said goods. Over and above the issues relating to construction and maintenance, safety of staff and public is high on the agenda both during the selection of a particular type of item and during its application. The Branch has continued its active participation in NRS projects as well as participating in SANS working groups where, in conjunction with work group members from other municipalities, Eskom, mines and major suppliers, specifications and guidelines have been prepared to promote uniform requirements for equipment and design methods for use in distribution systems.

Cables Division

Currently, 11kV belted paper insulated cables are used for eThekwinin Electricity's underground medium voltage electricity distribution network. Evaluation of the cost effectiveness of using 11kV belted paper insulated cables, 11kV screened paper insulated cables and 11kV cross linked polyethylene (XLPE) insulated cables on the above network was undertaken and it was established that XLPE is the most cost effective. Paper insulated cables are to be replaced, in the near future, by their equivalent XLPE insulated cables together with their jointing and terminating cable accessories. Further, in parallel, training is to be given in cable fault location and cable repair procedures for the above XLPE insulated cable.

Overhead Lines Division

The Division continued with its ongoing work in overhead lines, updating several specifications in order to comply with industry trends. Several investigations into equipment failures were conducted and remedial action was taken in order to ensure continued quality of supply. Theft of conductors remain a major problem and new and innovative measures are being taken to reduce the incidences of theft, particularly in streetlighting.

Substations Division

The Division continued with its ongoing work in the optimization of distributor substation design, in particular the substation building design with respect to ventilation requirements for the transformer rooms, as poor ventilation has an adverse effect on the life of the transformers.

The section continued with its work in optimization of Distributor Substations Design. EThekweni Electricity is the first distributor of electricity in South Africa to implement medium voltage switchgear in accordance with new SANS IEC 622271-200, which includes all protection and communication systems to comply with SANS IEC 61850. The new SANS IEC 622271-200 specification emphasizes safety to both electrical personnel and to members of the general public. SANS IEC 61850 is a specification which details open protocol for communication. This specification details common communication systems for all manufacturers of switchgear and this makes it possible for switchgear of different manufacturers to communicate with each other with ease.

These systems will assist in analyzing faults on the medium voltage network and will provide information to operators to act effectively and efficiently to minimize outage durations. Furthermore in order to reduce the frequency of outages, investigations were conducted on the failure of equipment which will result in an extensive revision of the medium voltage switchgear specification.

Library Division

The library, which forms part of the Branch, strove to make available books, standards and journals promptly to staff from its own collection and from other libraries.



COMMERCIAL ENGINEERING AND MARKETING BRANCH

The 07/08 year posed unique and untamed challenges for the department as the notion of load shedding became a reality in eThekweni during the first quarter of 2008. Meeting escalating electricity demand with severe supply capacity constraints has been one of the Branch's biggest challenges. The Branch attended to hundreds of calls from irate customers who requested to be exempted from the load shedding schedules for various reasons. The Branch assisted customers by investigating all available options within its control to lighten the impacts of load shedding to the end user. Marketing the concept of energy efficiency has been the focus during the year. Particular attention was around awareness and communication of load-shedding and the need to reduce electricity consumption by 10%.

The severe supply capacity constraint as well as the lack of skilled technical personnel made the day to day operation of the Branch an immense challenge. Two technical trainees were seconded to the Branch to alleviate the severe staff shortages. Retaining skills and the attraction of the correct caliber of candidates continues to be a challenge.

The Tariffs Division

This Division is chiefly responsible for the designing of electricity tariffs that are cost effective whilst ensuring accurate cost recovery and cost reflectivity. The importance of this area of our business is expected to be emphasized as the national system operator experiences extreme generation capacity deficits as the demand for electricity grows in line with the economy.

An annual guideline increase of 5.6% for municipalities was determined by the National Energy Regulator of South Africa (NERSA) for the 2007/2008 financial year and an indicative guideline of 6.1% for the 2008/09 year. NERSA was concerned with the lack of spending on refurbishment of existing infrastructure nationally and allowed 5% of total sales to be allocated on maintenance of distribution networks.

eThekweni applied for an average increase of 7.5% which was based on a 20% increase in the overall staff budget to fill and retain critical posts and 11.1 % of sales income on maintenance compared to the allowed 5%. Both these abnormal increases in expenditure were considered crucial in the provision of a reliable level of service to our customers. NERSA in its' acceptance letter acknowledged the increases in the budget and disallowed the 9.6% proposed increases on the non time-of-use bulk tariffs and limited these to the average proposed increase of 5.6 %. This resulted in an average increase of 7.1% to eThekweni customers.

Towards the latter part of the financial year, Eskom applied for a review of its Multi-year Price Determination (MYPD) plan and requested approval of a 60 % tariff hike for the following year to fund its demand side management (DSM) initiatives and capital expenditure plan. This was rejected by NERSA and a 35 % increase was allowed to Eskom which translated to an allowable 32.5 % guideline increase for municipalities for the 2008/2009 year. It is envisaged that all non time-of-use bulk tariffs and obsolete Business and Commercial tariffs would be phased out and replaced by a suite of cost reflective tariffs in line with Eskom's restructured tariffs by the next financial year. This move has been endorsed by NERSA.

The electricity crisis, the increased capital expenditure by Eskom and the Regional Electricity Distributor's (RED's) tariff rationalization and alignment program are all expected to provide major challenges to tariff design and pricing in the coming year.

The Industrial Sales Division

This Division concentrates primarily on conducting tariff analysis and recommendations thereof to our commercial and industrial customers. The supply crisis brought focus to electricity conservation and this initiated a flood of requests from customers to analyze and advise on aligning tariffs to consumption patterns accordingly. With a declining net reserve margin and steep increases in electricity pricing, there is a need for this Division to introduce an energy management sector that will focus on demand side management (DSM) and energy efficiency advisory services to our consumers.

The Marketing Division

The primary aim of this Division is to educate and create awareness around matters pertaining to electricity. The marketing activities create a platform to engage with the public to address the following:

- Service delivery problems and constraints
- Theft of electricity and infrastructure
- Planned & unplanned maintenance
- Free Basic Electricity (FBE)
- Electrical safety & electrical hazards
- Energy efficiency & demand side management (DSM)

The marketing team maintains an important communication link between the consumer and the Electricity Unit. Due to the infamous "load shedding", much of the focus for the 07/08 year has been around promoting the concept of energy efficiency and energy conservation measures. Radio adverts and print media were used extensively to keep the public informed on load-shedding schedules and the electricity crisis. Load shedding has stretched the capacity of the existing marketing teams and new posts have been created within the Branch to introduce more resources to deal with the vast amount of marketing and informative campaigns.

The introduction of bilingual street theatre to convey the above messages were well received by the public and this is expected to continue with emphasis on larger captured audiences. The marketing team extended its awareness campaigns to community events, Masakhane workshops, sporting matches and educational symposiums throughout eThekweni. The team is also enthusiastically involved with community radio stations and hosts numerous interactive talk shows highlighting the efficient use of electricity and related issues.

The team prides itself in assuring the best quality of local marketing activities and effective use of resources in order to reach the general public.

CUSTOMER SERVICES BRANCH

The Customer Services Branch covers a wide spectrum of services and support to customers and other Branches in order to facilitate applications for service connections/alterations, meter readings, auditing of meter readings and adjustment of accounts after investigation, cashiering facilities, technical advice to contractors, investigations to resolve department errors affecting customers, shocks investigations and resolving a host of complaints and queries raised by customers.

Administration/Technical

New technical and clerical staff were appointed to replace experienced staff who had either resigned or were promoted within the department. The constant changing of staff has put pressure on the management of the section but a reasonable customer service was still maintained with the use of agency staff to fill the vacancies on the clerical side.

The Verulam Sizakala shop now processes electrical applications after training was given to one of their staff. A prepaid vending facility was also installed at this centre, customers can now purchase electricity tokens. More staff will be trained by this Sizakala Centre when these can be appointed by their management so as to maintain a consistent and reliable service which will improve customer services for electricity.

The HQ Rotunda has experienced higher volumes of customers due to the closure of Umhlanga Water Customer Service Centre which has relocated to Verulam. Customers are now using Electricity HQ for its convenient parking to register for water and electricity. The number of new applications received and processed was 24 135.

Meter Reading and Audit

Meter reading statistics are still excellent in most areas, but the shortage of meter readers has presented a challenge. New meter readers have now been appointed so that areas where customers are increasingly locking premises for security reasons can be given better attention and premises accessed for readings.

The auditing of meter readings has continued to identify faulty and tampered meters which have resulted in many accounts being adjusted and potential lost income recovered.

REVENUE PROTECTION BRANCH

The main objectives of the Revenue Protection Branch are to ensure that energy losses (non- technical) on the distribution network are kept to a minimum, by making sure that disconnections of illegal connections are carried out effectively, customers who are in arrears are effectively disconnected in order to enforce credit control measures and customers who have settled or made arrangement to settle their accounts are reconnected timeously.

Metering Audit - Residential Customers

The Electricity utility aims to provide electricity to all communities at a competitive cost. Sustainable energy distribution necessitates the innovative and highly cost-effective management of metering systems. A smart approach is to focus on optimizing utilization of power by reducing, in particular, non-technical losses.

The Revenue Protection Branch decided to focus on implementing efficient revenue protection procedures, whereby various sources of information relating to the address, the meter and the customer are tied together by a common geographical location. The management of all these datasets is achieved by an advanced Resource Information System (Central Data Repository/Data Warehouse). This core relational database allows for the effective profiling of customers, is integrated into various operational and financial systems as well as centralized visibility and reporting. It also enables us to make informed and intelligent decisions based on accurate information.

The main objective of this project is to collect data from the field and import it back to the Data Warehouse. More than 60 000 predominantly prepayment meters were inspected & GPS coordinate taken to ensure a clean-up of data and a good benchmark to allow for easy follow-up and targeted audits in the future.

Metering Audit - Bulk and Business & General Customers

The audit of measurement and metering of Bulk and Business and General customers has led to the recovery of over two million rands.

More emphasis will be put into this aspect by creating a special Division to inspect, test and monitor the metering installations of this class of customers on a continual basis.

Revenue collection enhancement Projects

The pilot project to install prepayment meters in order to re-introduce the culture of payment for services rendered by the Council in Council's Rental Units and to recover arrears amounts by adopting a method of collecting arrears and current amounts owed by tenants, using the prepayment vending, infrastructure, was successfully completed. On the purchase of a token, 20% of the amount tendered is allocated to arrears and 80% is allocated to the purchase of electricity. A decision to expand the project to all Council's Rental Units and to the indigent customers was taken.

As at the end of this financial year an amount in excess of one million rands was collected, since the installation of the prepayment metering system at some of Council's flats. This is a success on its own, taking into consideration that we have had difficulty in collecting revenue or to disconnect customers in some of these areas for over a decade.

It took more than a year to negotiate with customers at all levels for this project to be implemented. One of the main objectives of this project was to instill the culture of payment for the services rendered to the customers, which has been achieved.

Protective Structures

As it was reported previously that the majority of the Meter Room doors (Steel) at the Council Rental Units are vandalised and as a result, tenants were continuously tampering with electricity meters and illegally or dangerously connecting cables onto our electricity supply network. The project to install Vandal-Proof Metering Kiosks (Protective Structure) with an electronic locking system over the next three years has been approved. These Protective Structures are designed with an internal locking system.

Illegal Connections

The ongoing problem of illegal connections has been quite a challenging and expensive one for Revenue Protection Branch. In many instances damage is being caused to the infrastructure resulting in the loss of supply to legal customers. A considerable amount of time and money is being spent to deal with the problem.

Major operations, with the assistance of SAPS to remove illegal connections and to arrest illegal users, are ongoing. 24-hour security patrols have been initiated to serve as a deterrent and to arrest those interfering with the infrastructure. Modifications to the reticulation system was undertaken, at a considerable cost, in an effort to minimize the inconvenience to legal customers and to reduce illegal access to the reticulation. In many instances this has proved successful, in others, whilst the inconvenience to paying customers has been reduced or eliminated, the illegal connections are still prevalent. Revenue Protection Branch has successfully obtained the co-operation of the SAPS and NPA, the forth-coming year will see more aggressive policing and more arrest of culprits.

Disconnections and Reconnections

The Revenue Protection Branch continued to effectively and efficiently disconnect customers who are in arrears in conformance with our credit control policy. Due to the fact that eThekweni Municipality took a decision to consolidate accounts a few years ago, during this financial year we saw an increase in the number of disconnections effected per annum. The total number of credit meter disconnections was 164 785, and this figure includes the re-issued & vacant disconnections. This means there was an additional 41 901 disconnections effected during this financial year and 122 884 disconnections were effected during the last financial year.

Also, we continued to reconnect customers who have settled or made arrangement to settle their account timeously. A total of 114 120 reconnections were effected & approximately 98% of these reconnections were effected within 24 hours i.e. as per NRS 047.



METER ENGINEERING BRANCH

The Meter Engineering Branch is responsible for planning, designing, construction, inspection and maintenance of all commercial and industrial metering equipment used for billing purposes. To achieve this objective effectively the Branch has four Divisions - Bulk Metering, Special Metering, Projects, Workshop

Projects Division

The Projects Division is chiefly responsible for the acquisition, specification and commissioning of new metering technologies. The Division was instrumental in assisting with research and formulation of the periodic meter maintenance policy documentation for all our customers.

During the past year the Projects Division successfully designed and implemented the new metering panel for single and multi feeders systems. Currently the Division is busy with the research and formulation of the smart metering documentation. The Division will assist in deploying Advanced Metering Infrastructure (AMI) to all customers (300 000) with a monthly consumption of 1000kwh.

Bulk Division

The Bulk Metering Division is mainly responsible for installation and maintenance of all new applications and upgrades of large users of electricity. This Division is directly responsible for the periodic maintenance of the metering equipment of approximately 800 of our largest customers.

In addition to this, the Bulk Division continued to provide load profiles for tariff analysis and also the load profiling of our major substations for transmission planning and forecasting.

Multi feeder consumers that have been metered with summation current transformers in the past have now been upgraded with individual electronic metering thereby improving accuracy of metering and revenue collection.

Special Metering Division

The Special Metering Division is mainly responsible for all new applications and upgrades in the small businesses, commercial and the sectional title residential sectors.

Rectification of on-site faults on all complex metering installations, in said sectors, also forms a significant part of the Division's responsibilities.

Workshop Division

The primary function of this Division is to repair, calibrate and test all single and three phase meters. Prepayment meters are also tested in-house but are sent back to the suppliers for specialised repairs. The Division has an approximate throughput of 500 meters per month and is continuously under pressure to process these meters to minimise additional capital expenditure. The Workshops have now been housed in bigger premises and is being geared to cope with higher volumes for meter test and calibration.

The focus for the coming year will be the implementation of new technologies, the motivation and training of staff and the provision of an efficient and effective service to our customers.

Operation	No
New Metering Installations	3380
Changeover Metering Installations	252
Repairs and Maintenance of Meters	1 860
Bulk Metering Upgrades	11 panels

All key management positions were filled during the year under review. However, the Branch continues to face the challenges of filling other vacant technical posts. Despite this, the Branch has maintained it's level of services to both our internal as well as external customers.

CONTACT CENTRE BRANCH

The Contact Centre provides a faults reporting service (including street light faults), general queries through our toll-free number (080 13 13 111) and e-mail (custo-care@lec.durban.gov.za) on a 24 hour, 7 days a week basis. Faults are received by the Contact Centre Agents and then assigned to the LV Controllers from Network Control who then dispatch the jobs to the faultsman on shift.

The Contact Centre also has a dedicated hotline (031-311 9611) for reporting cable theft.

Number of calls received in 2007/2008

Normal Faults

Fault Type	No of faults
Loss of Supply	138 714
Faulty pre-payment meters	95 557
Flickering of lights	1 392
High or Low Voltage	

Emergency Faults

Fault Type	No of faults
Wires Down	3 798
Pole / Stay Damage	763
Sparks from Pole	1 191
Shocks	883
Substation Doors open	495
Cable Damage	4 497
Loop Impedance high	54
Vandalism to Mains	8 0
Pole Learning	1 141

Street light faults

Fault Type	No of faults
Streetlight Outages	48 992
Streetlight Remains on	1 248
High mast light faults	23
Floodlight faults	90

Other

Description	No of supply/connections
Isolation of Supply	249
Reconnections	5 636
Potential Illegal Connections	2 378
Account Queries	16 800

Fault complaints received

Description of Call	No of calls/mail
Toll Free line	597 373
Facsimile	170
E-mail	1 480

ADMINISTRATION BRANCH

The Branch offers a service, in respect of Administration, Buildings, and Transport. The Administration Branch is responsible for providing an efficient and effective Document Management System, and operates within the parameters of an approved Governmental Archival System. Various other Administrative functions are, customer liaison, word processing of letters, reports, contract documents and transcribing of meetings, disciplines etc. and the micro-filming of electricity application forms.

The Building Maintenance Section is responsible for the general building maintenance/security and the upkeep of the gardens/grounds at the Electricity Springfield and Headquarters Complexes. Major upgrades have been undertaken in the Control Building area, to effectively utilize available office space. The Executive area in the HQ Building was revamped, and various other renovations were undertaken due to Sections being relocated. The installation of CCTV Cameras has proved to be a valuable asset, in that, evidence was provided on the theft of Council Property by Security Guards. It has also assisted in the recording of protest action by Consumers and Trade Union Members.

The Transport Section controls and maintains the Service Unit's large fleet of Vehicles and Plant. This responsibility includes, purchase/disposals of vehicles, servicing/ repairs and all statutory requirements. Due to monitoring and investigations, vehicle accidents have shown a significant decline. The Computerized Vehicle Monitoring System (C-Track) was effective in the recovery of two NDM Vehicles that were hijacked. Once the driver's safety was confirmed, an instruction was issued for the vehicle recovery. In both incidents, the vehicles were recovered within an hour.

The loss of key staff has impacted negatively on the Branch, however, the current staff have done an excellent job under challenging times. The staff are to be commended on this.

PRODUCTIVITY BRANCH

Inspectorate

Once again there was a decrease of approximately 27% in the number of in-house teams, and an increase of 25% in contractor teams over the past 12 months. The Division has 15 Productivity Officers who are stationed within the 6 Regional Depots. They are responsible for the assessment and verification of the work claimed by the in-house construction and maintenance teams as well as the maintenance contractor teams. This equates to approximately 55 in-house teams and 105 contractor teams that are assessed on a daily basis - excluding any overtime work. The monitoring of all work claimed is essential in ensuring that a high standard of efficiency and productivity is maintained. The statistical data provided to management ensures that the high cost associated with maintenance can be kept in check and performance of all teams is closely scrutinized.

Work study

With technology changing and improving all the time there is a constant need to improve methods and materials. With this in mind the work study section have to keep abreast of these changes and ensure that our Work Standard data base is kept up to date. In the past 12 months there has been a significant increase in the number of standards to be upgraded as well as new methods to be studied.

INFORMATION TECHNOLOGY BRANCH

This has been a difficult year for ICT in that it has seen the loss of a number of key, skilled personnel namely 2 Network Administrators and 1 system engineer. The loss of intellectual capital and institutional memory has impacted negatively on services and morale in the Branch. Grading and remuneration remains a very serious problem and has resulted in lowering morale in the Branch.

Notwithstanding this fact, the ICT Branch has successfully completed 2 DRP test runs where we were able to sustain normal operations within the business from a remote site. As is the trend globally, there is more reliance on IT, by the business, in achieving its objectives, placing ever increasing demands on the ICT Branch to deliver reliable service and minimize impact and duration of service interruption. To improve reliability of services, a number of projects were undertaken in IT.

One of the projects was the upgrading of the IT Helpdesk software, Service Desk which is now complete. This software allows for integration into the ERP system for ease of management of computer assets. Further to this, IT has also re-engineered their internal processes around computer Asset Management.

With regards to the upgrade of Network cabling infrastructure from copper to fibre, sites such as Northern Depot, North-western Depot and South-western Depot have been completed. We hope to extend this further during the course of the new year to other sites within eThekweni Electricity.

Another successful project completed by IT was the commissioning of a secure wireless network in order for the upgrade of the routemaster reticulation system, which enables field data captured by meter readers on wireless handheld devices to be transmitted to a central database. Another major project that started earlier this year was the re-engineering of Asset Management processes within the business, in order to conform with Auditor General requirements. This project is on-going and phase 1 should be completed in the new year.

System literacy still remains a challenge and due to loss of the key training resource, formal training has not been possible for a large portion of the year. IT plans to address this problem in the new year.

FINANCE BRANCH

The Electricity Business Unit is required to function as a ring-fenced entity and as such, the Finance Branch maintains and prepares an independent set of financial records. Multi-year capital and operating budgets and monthly management accounts are prepared by the Branch. Ring-fenced annual financial statements are also prepared in accordance with the requirements of National Treasury, the Municipal Finance Management Act and various other statutory and internal regulations. The Finance Branch also exercises control over all financial and financial related transactions, policies, systems and procedures of the Business Unit through the practice of sound financial management principles.

The financial results for the year ended 30 June 2008 are reflected in the summarised financial statements appended at the end of this report. Salient figures for the year are as follows :

Financial Performance

	Actual (R '000)	Budget (R '000)
Electricity Sales	3 729 476	3 733 869
Electricity Purchases	1 961 355	1 962 337
	-----	-----
Gross Margin	1 768 121	1 771 532
	-----	-----

Summary of Income and Expenditure

Total Income	3 984 957	3 920 205
Total Expenditure	3 837 481	3 920 205
	-----	-----
Surplus/ (Deficit)	147 476 *	0
	-----	-----

* The surplus, after allowing for contributions to the Rate and General Fund and transfers to Capital Grants, has been transferred to the Capital Replacement Reserve to fund capital expenditure in ensuing years.

	Actual R'000	Budget R'000
Capital Expenditure	419 473	474 716

The Branch is responsible for handling all insurance matters of the Business Unit. This involves the review of all insured values and the processing, investigation and recovery of claims. For the year under review, 4470 claims were handled by the Branch.

The theft of electricity infrastructure (cables, switchgear etc.) has escalated sharply during the year thereby causing inconvenience to customers and impacting significantly on both maintenance costs and claims from the Council's Insurance Fund.

Despite staff shortages pending the finalisation of the staff placement process and the long lead time in filling vacancies, the Finance Branch has nevertheless managed to maintain a satisfactory level of service in key areas. The Branch's appreciation is therefore extended to all staff who contributed in any way to its smooth operation.

PROCUREMENT BRANCH

Bid Administration

The Bid administration Section administers 84 contracts for the supply of goods and services of which 25 are labour contracts and 87% of the work was awarded to BBE contractors.

The maintenance and reticulation contracts have created career opportunities for individuals choosing to excel in the Electrical Industry. There were 18 awards made on these contracts and it was a condition of these contracts that each contractor has an apprentice in his employ. Twenty eight apprentices were created and 22 have since qualified as electricians. With the awarding of the new reticulation contracts an additional 20 apprenticeships has been realised.

Eight appeals were received by the appeals committee and were successfully defended.

The following table is reflection of the actual awards to Black Business enterprises for labour contracts:

Black Business Enterprises :	R220,4 Million	73.75%
Priority Population Group	R131,2 Million	43.90%
Woman Owned Businesses	R75,3 Million	25.20%

Black	PPG	Woman	Disabled	Location			SMME
				EM	KZN	SA	
87%	45%	13%	0%	99%	0%	1%	98%

PURCHASE ORDER STATISTIC

ORDER TYPE	NO OF ORDERS		VALUE (R000)	
	01 July 2007/30 June 2008			
Contract	4 077		R 235,027,046.80	
Non Contract	1 977		R 108,652,407.42	
Direct (Outside)	2 021		R 60,924,494.49	
Service Orders	7 618		R 2,582,456,277.89	
TOTAL	15 693		R 2,987,060,226.60	

Stores

We operate 24 Stores located throughout the distribution area and stock 3530 different items. In addition to the warehousing and issuing of stock items, the stores are responsible for receiving of all direct (outside) purchases.

	July 2007/ December2007	Jan 2008/Jun 2008	Total YTD
Total Stock Value	R 248,987,069	R 277,126,185.00	R 526,113,254
Average Stock Value	R 41,497,844.83	46,187,697.50	R 43,842,771
Stock Turns (Excluding Strategic)	5.68	3.73	9.41



General

The year under review was a year of change for staff and systems having undertaken some major internal restructuring and we experienced significant staff movement within Human Resources as well as with the Departments we offer a service to.

Highlights of the year under review :

- Placement : All staff placements have been finalized into the new structures and are now awaiting grade outcomes and publication.
- The implementation of the Divisional Conditions of Service.
- Restructuring of Human Resources in terms its reporting lines.

Human Resources however, continues to demonstrate high quality practice and provides a service to others and staff of the Electricity Unit in the fields of recruitment, welfare, industrial relations, administration and training development.

HUMAN RESOURCES SERVICES BRANCH

This Branch provides a service in the fields of recruitment and selection, industrial relations, staff welfare, manpower planning and special projects.

Recruitment and Selection

400 appointments/promotions were made during the year under review, in which human resources staff were actively involved in terms of making progress towards achieving demographics.

Staff Welfare

The employee assistance programme is an integral and essential part of the service which HR provides. This programme includes professional assistance and counselling to employees who are experiencing any work-related, personal or social problems and links employees with appropriate resources within and outside the Municipality.

Subject Matter	No.of Cases
• General Welfare issues	27
• Medical cases (undefined results) that currently dealing with.....	14
• Medical cases that have resulted in a Medical Boarding.	0
• Medical cases that have resulted in Temp Disabilities.....	5
• Medical cases that have resulted in light duty.	3
• Career/Vocational counselling.....	2
• Recruitment: feedback to unsuccessful candidates	27
• Trauma debriefing.....	0
• Alcohol/substance abuse	3
• Poor performance counselling.	4
• Issues from outside the workplace.	3
• No.of Home visits	9
• No.of Hospital visits	12
• No.of employees currently on temporary disability in terms of KZN Pension Fund Rules.....	5
• No of employees currently on Light duty.	13
• Other items not listed(please specify).....	0

TRAINING BRANCH

Our Training Branch has had significant changes to its reporting Lines. The non-technical Training focuses on ABET, Computer Training, Assisted Education, In Service Training, In-House Courses and External Courses by Service providers. Technical Training falls within the SHERQ and Training Branch of the Technical Support Department of Electricity.

Assisted Education

Many staff require career counseling and guidance for enrolment to programs that they wished to register for. The Training Centre, in conjunction with the tertiary institutions provided the staff with the information via prospectuses and liaison with the Program Coordinators from the different institutions.

Seminars/Workshops/Conferences

As per the WorkPlace Skills Plan - nominations and attendance dates were arranged by the Training Centre.

In Service trainees

In Service Trainees continue to derive benefit and the Training Centre has allowed these students to gain the much needed experience in the Unit. In Service trainees with disabilities continue to remain with the Unit and are coping well with the tasks at hand.

HUMAN RESOURCES ADMINISTRATION BRANCH

This Branch provides a service in the fields of Pay, leave and Administration.

Pay/Leave

There has been a major review of the roles and responsibilities of staff within this Department and as a result the pay and leave functions are in the process of being centralized for the City.

Administration

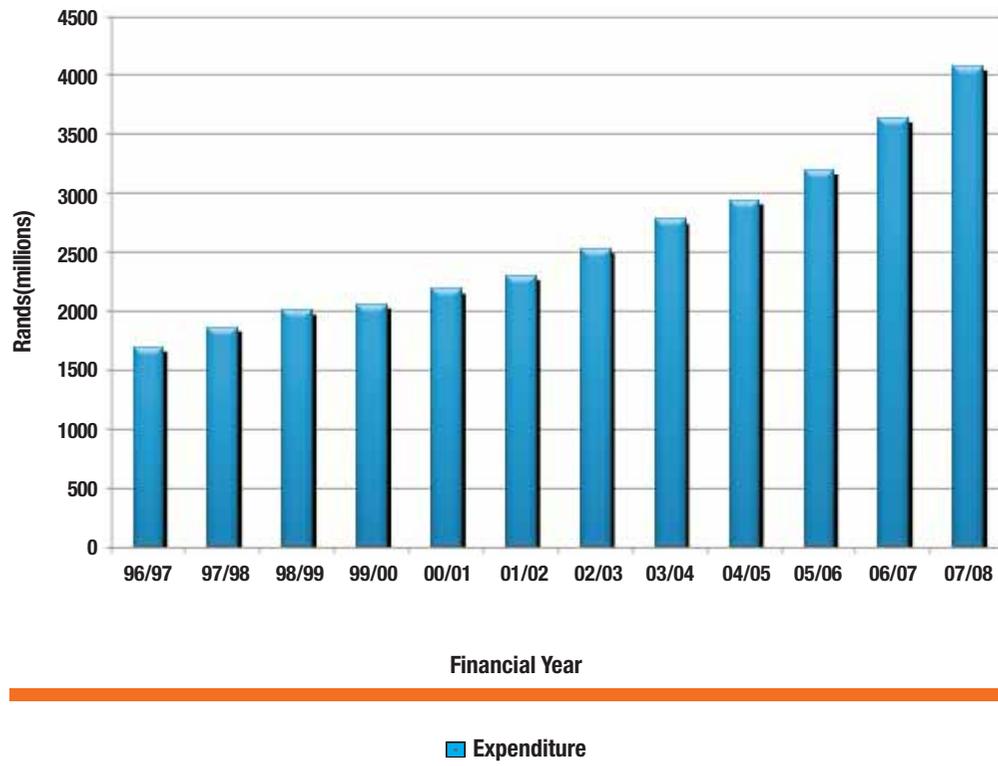
We have appointed 40 Apprentices and 13 Candidate Engineers during the year under review. Total no of employees engaged being 66 new employees and 59 internal promotions.

Staff turnover in terms of terminations is as follows :

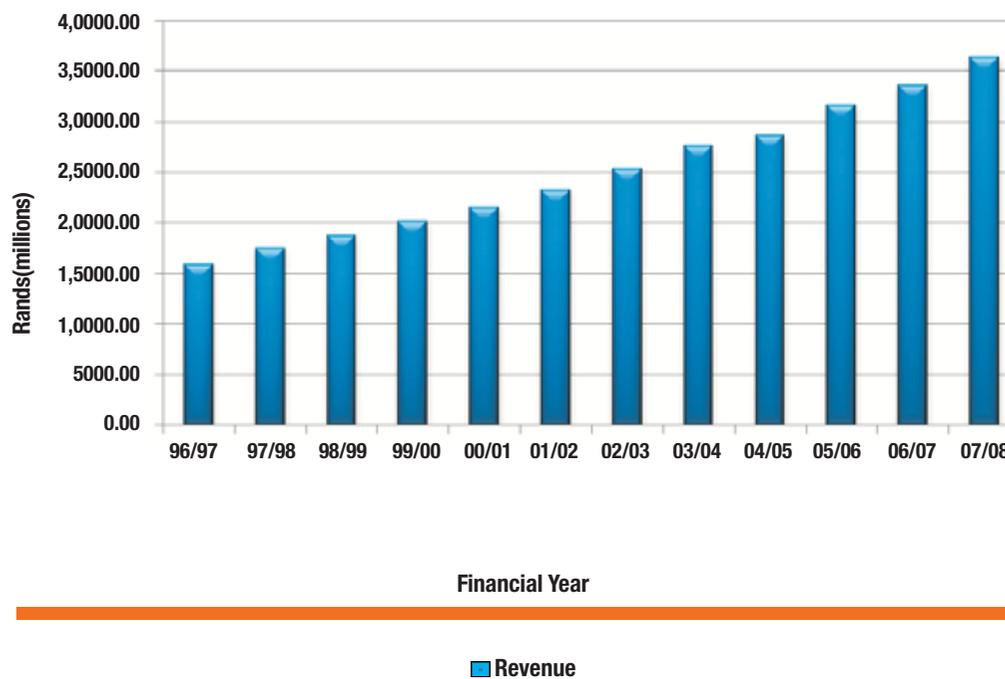
Terminations from 2007-01-01 to 2007-12-31

• Abscondence	1
• Deceased	29
• Dismissals.....	3
• Early Retirement.....	16
• Medical Board	7
• Promotion	7
• Retirement	13
• Termination of Contract.....	32
• Transfers	17
• Resignations	
Better Carrier Prospects	32
Emigrating	9
Higher Salary	12
Personal Reasons.....	32

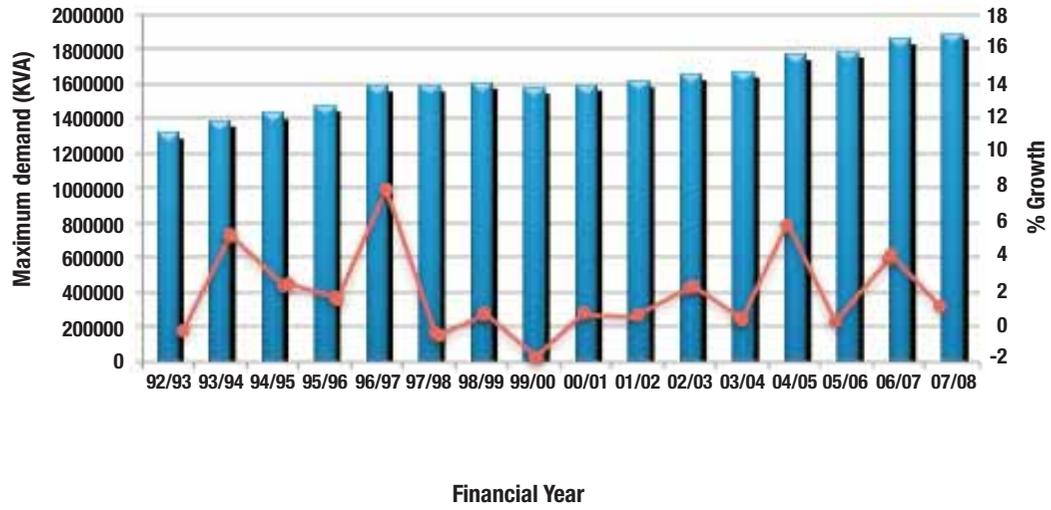
Annual Capital Expenditure



Annual Revenue

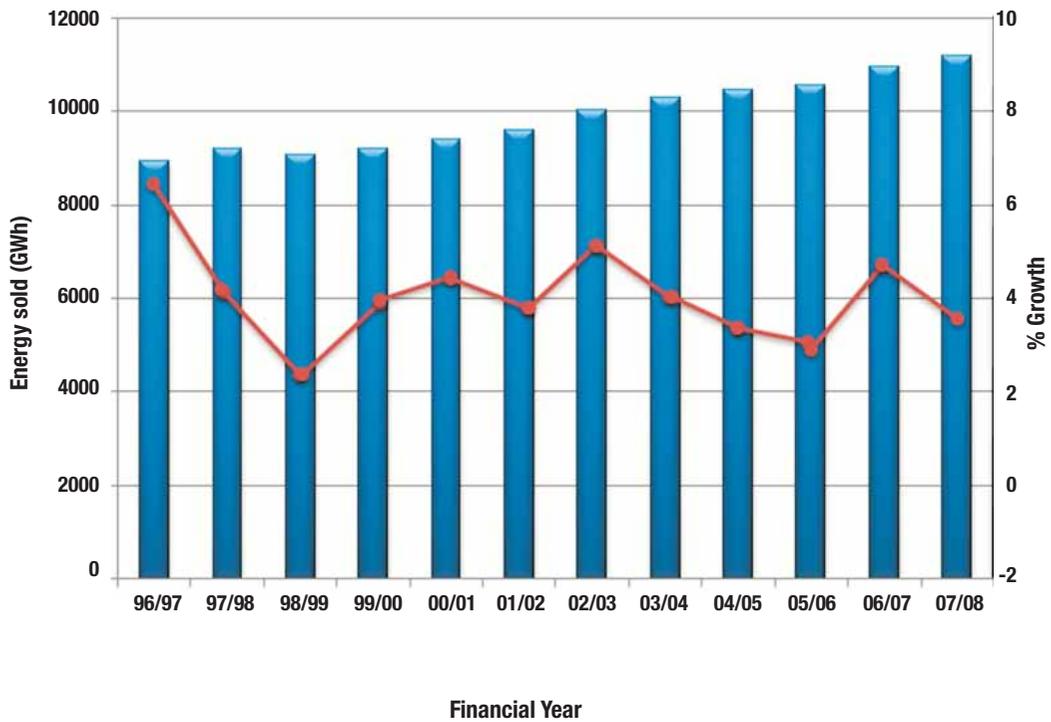


System Maximum Demand per Annum



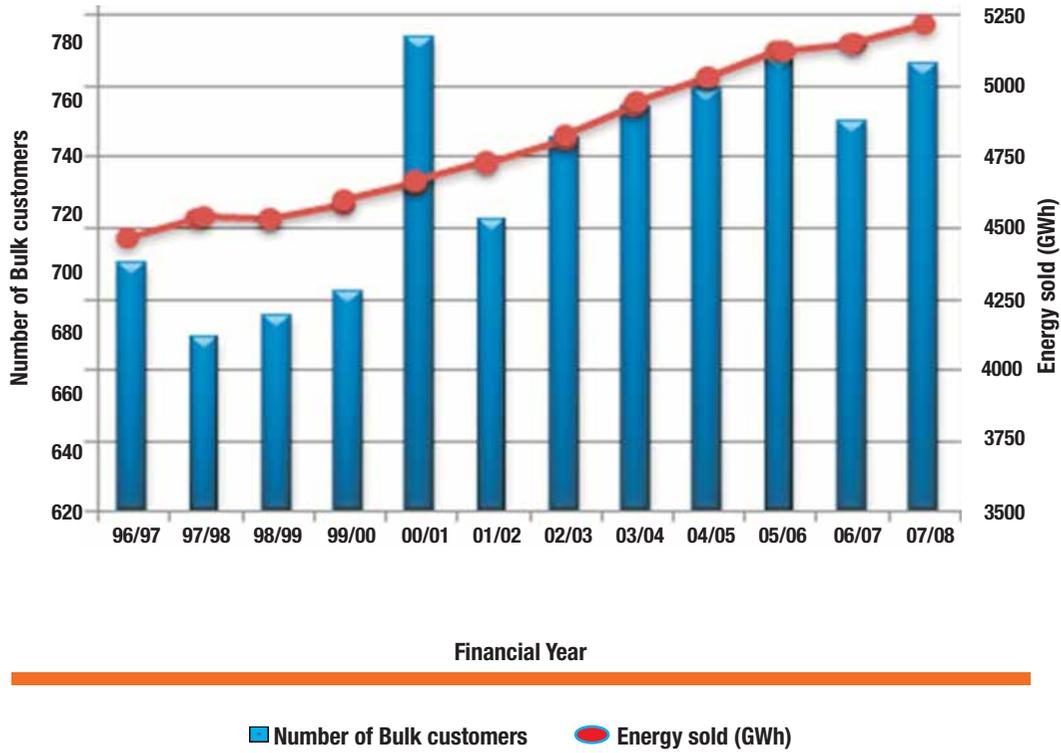
■ Maximum demand (kVA) ● % Growth

Energy Sales per Annum

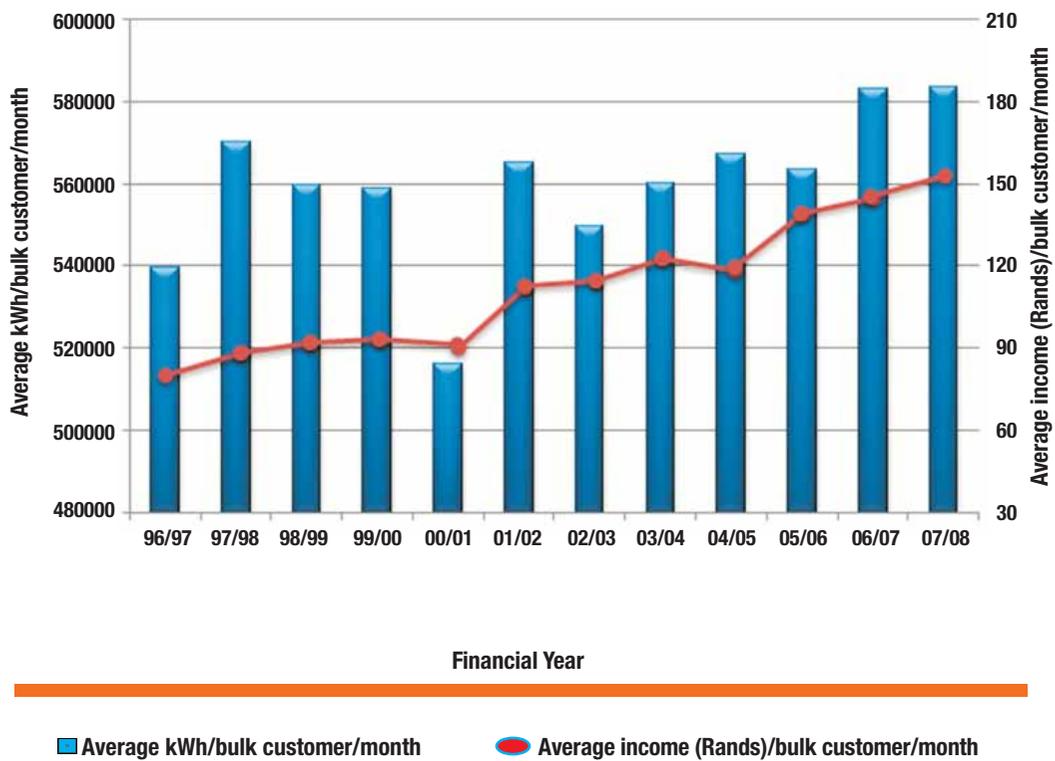


■ Energy (GWh) ● % Growth

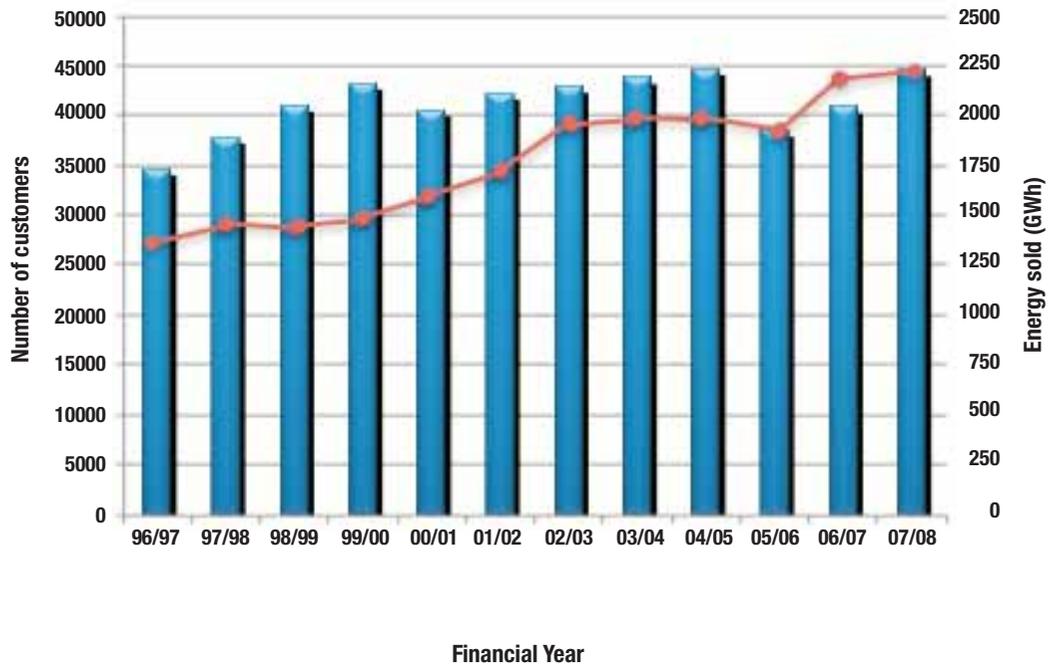
Growth of Bulk Customers



Average kWh per Bulk Customer/Month

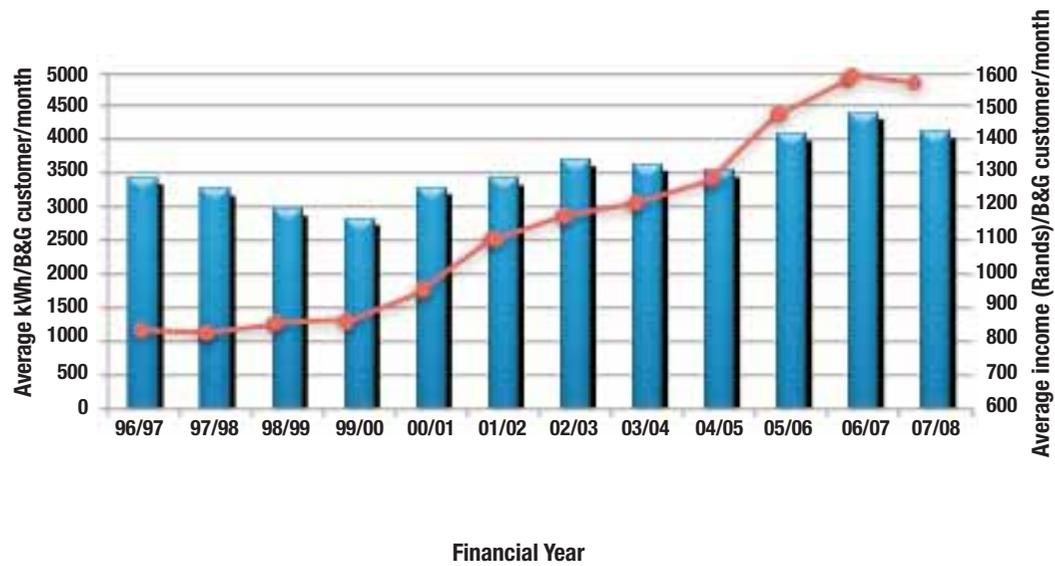


Growth of Business and General Customers



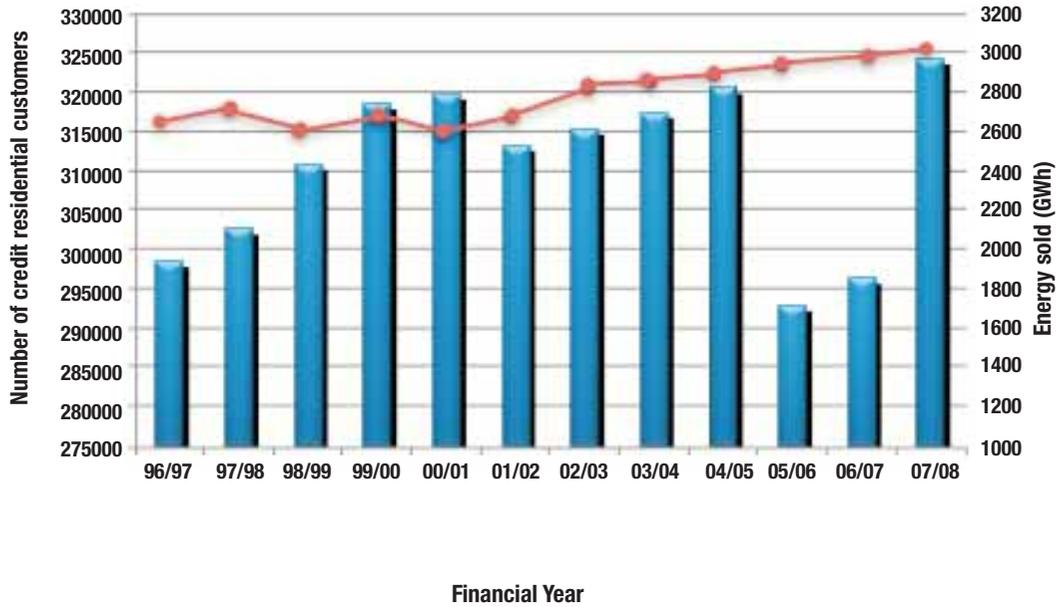
■ Number of business and general customers ● Energy sold (GWh)

Average kWh per Business Customer/Month



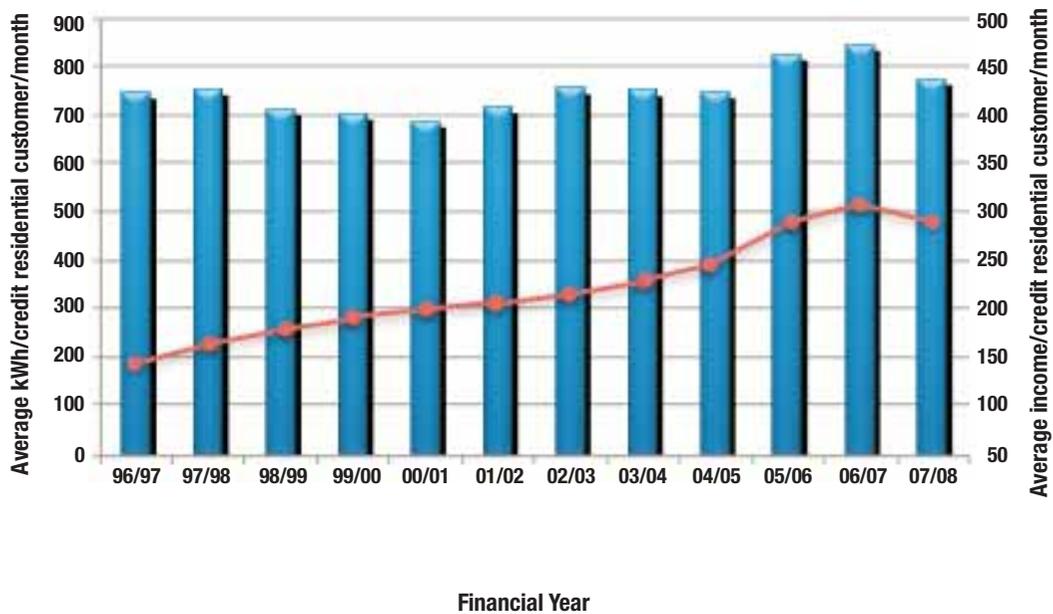
■ Average kWh/B&G customer/month ● Average income (Rands)/B&G customer/month

Growth of Credit Residential Customers



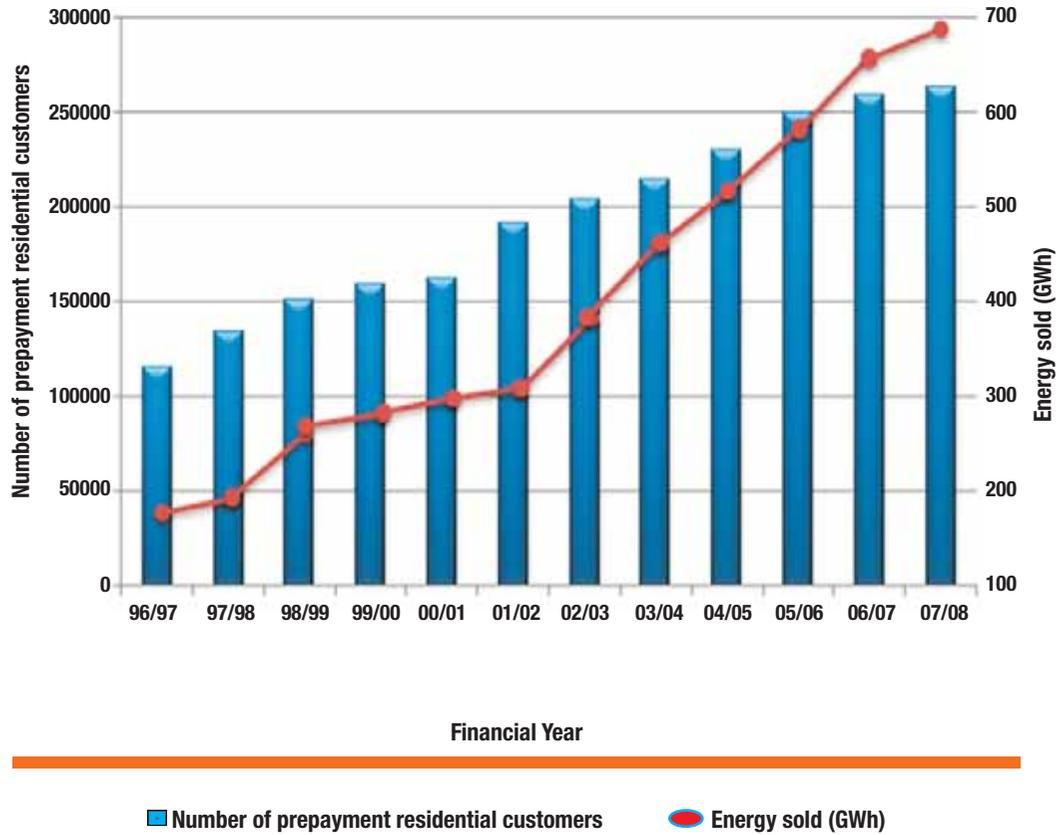
■ Number of credit residential customers ● Energy sold (GWh)

Average kWh per Credit Residential Customer/Month

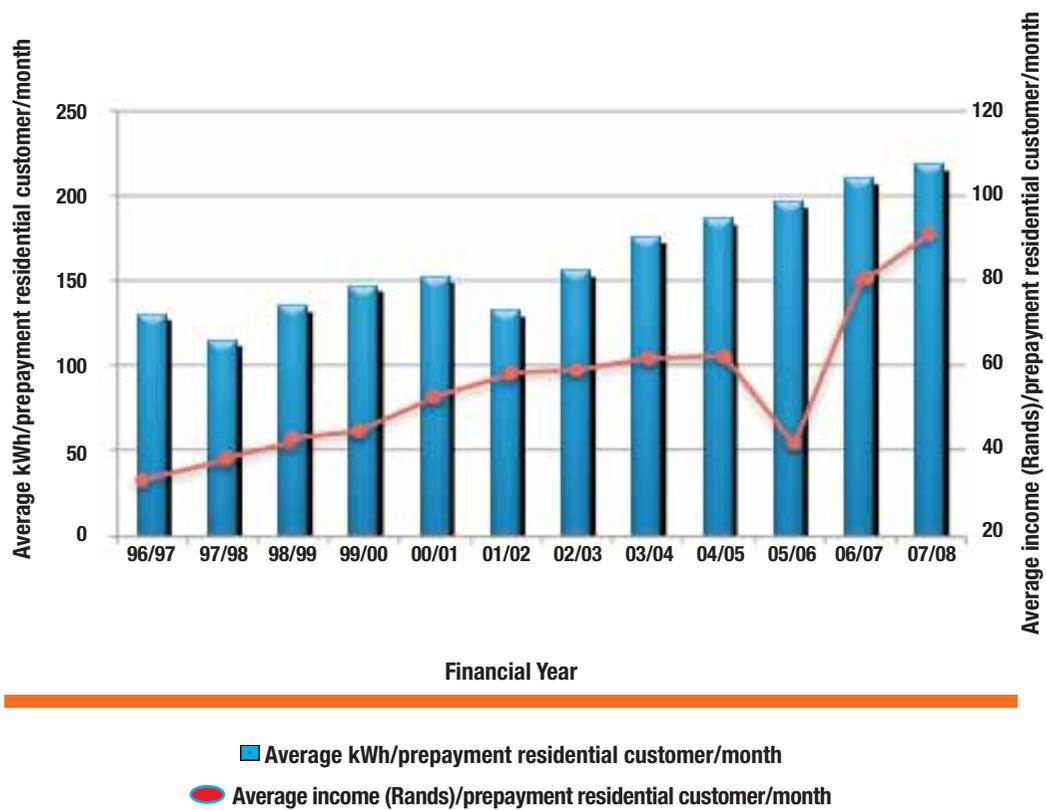


■ Average kWh/credit residential customer/month ● Average income (Rands)/credit residential customer/month

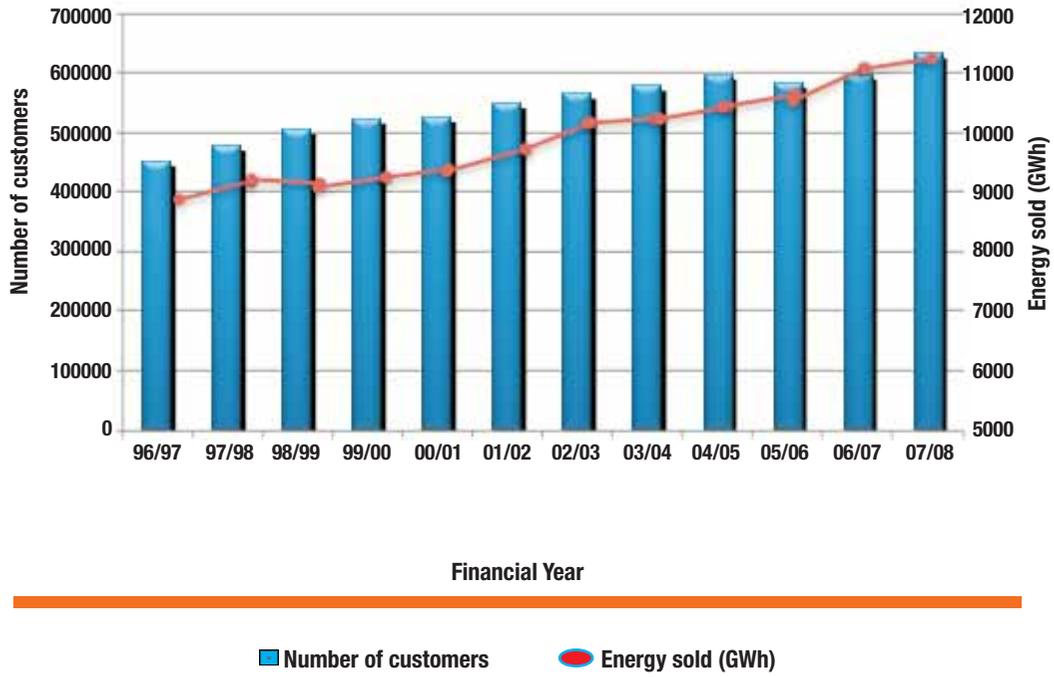
Growth of Prepayment Residential Customers



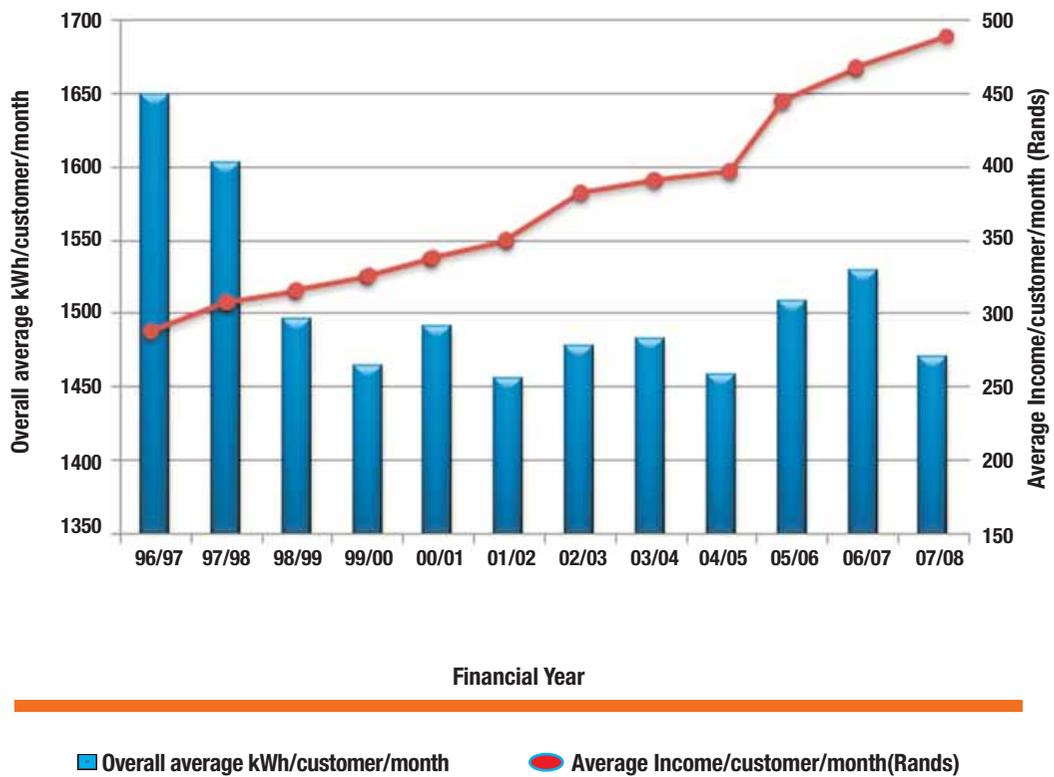
Average kWh per Prepayment Customer Customer/Month



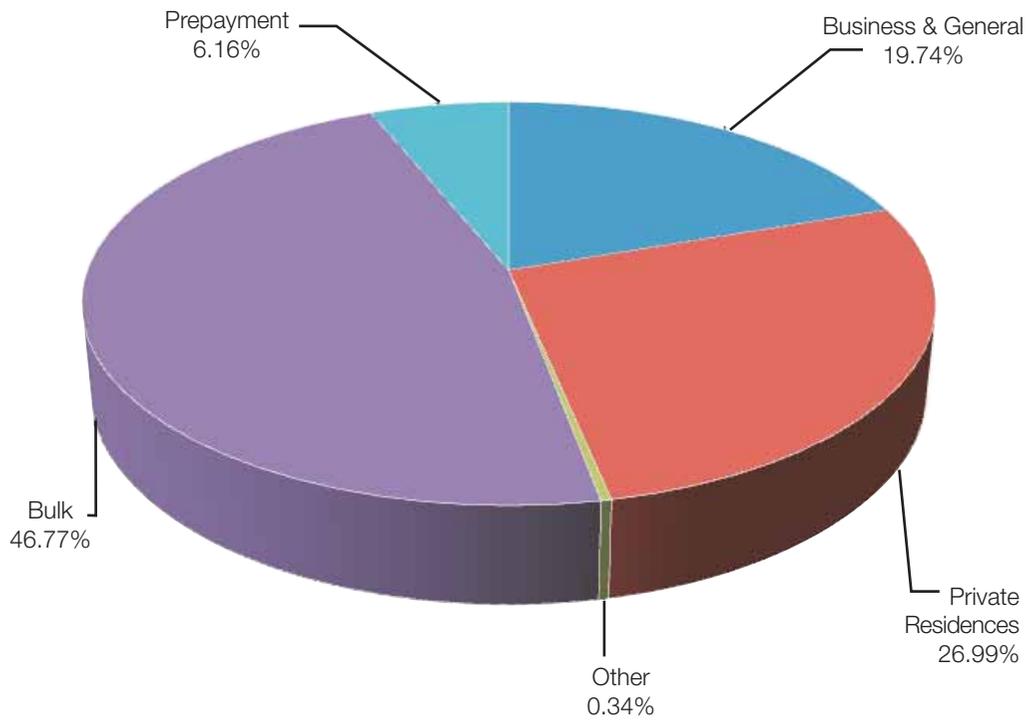
Overall Growth of Customers



Overall Average kWh per Customer/Month

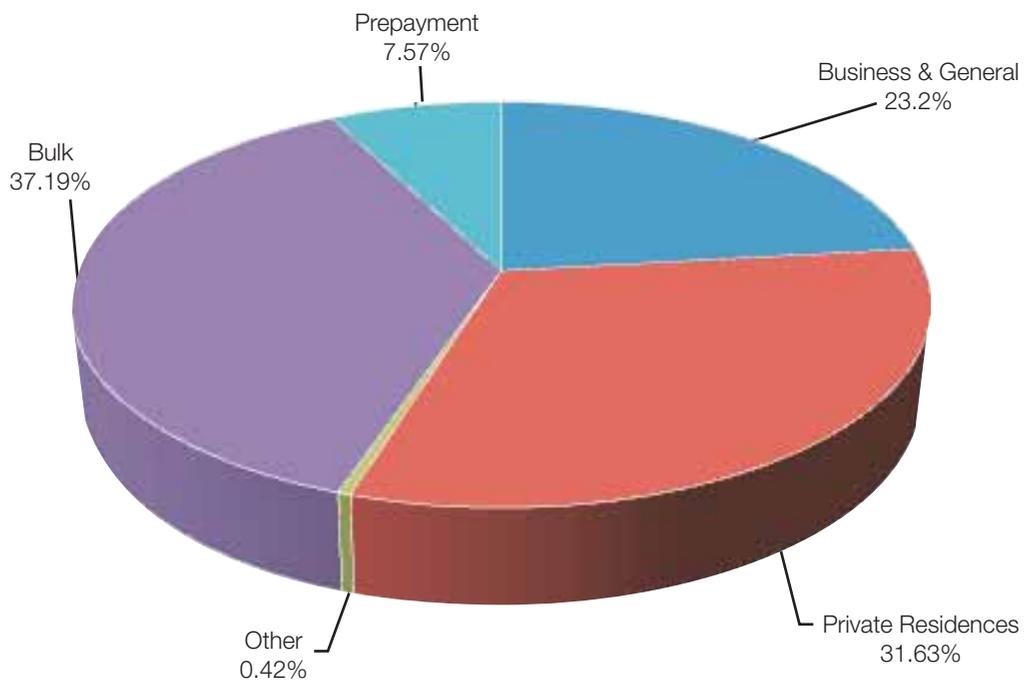


Distribution of Energy Sales for Financial Year 2007/2008



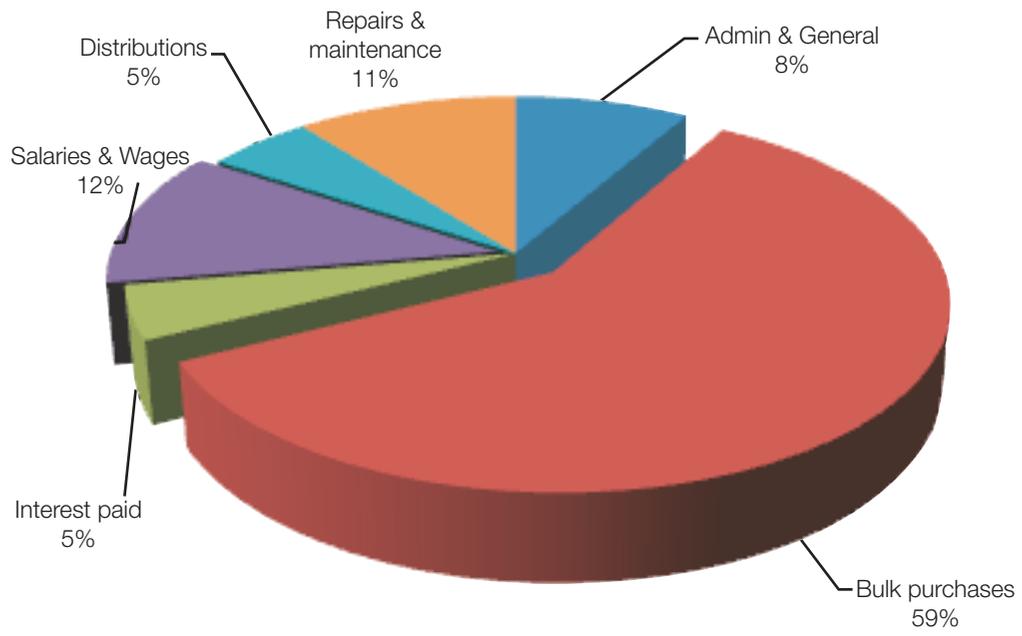
Other: Streetlighting, traffic signals and public lighting

Distribution of Revenue from Sales for Financial Year 2007/2008



Other: Streetlighting, traffic signals and public lighting

Distribution of Expenditure for Financial Year 2007/2008



STATEMENT OF FINANCIAL POSITION AT 30 JUNE 2008

	NOTE	2008 R	2007 R
NET ASSETS AND LIABILITIES			
Net Assets		1,643,087,199	1,352,230,312
Capital replacement reserve		366,886,157	246,777,318
Capitalisation reserve		0	682,753
Government grant reserve		355,623,341	288,610,219
Donations and public contribution reserves		87,348,092	51,374,066
Self-insurance reserve			0
COID reserve			0
Revaluation reserve			0
Accumulated Surplus/(Deficit)		833,229,609	764,785,956
Non-current liabilities		1,493,678,757	1,253,516,872
Long-term liabilities	1	1,493,678,757	1,253,516,872
Non-current provisions		0	0
Current liabilities		1,003,236,224	865,831,631
Consumer deposits	2	447,437,705	397,288,923
Provisions		0	0
Creditors	3	555,798,519	447,936,758
Unspent conditional grants and receipts		0	0
VAT	4	0	20,605,950
Bank overdraft		0	0
Total Net Assets and Liabilities		4,140,002,180	3,471,578,815
ASSETS			
Non-current assets		2,727,178,326	2,484,080,780
Property, plant and equipment	5	2,654,371,338	2,408,973,161
Intangible Assets	18	51,921,008	54,221,639
Investments	6	20,885,980	20,885,980
Current assets		1,412,823,854	987,498,035
Inventory	7	52,632,447	48,742,962
Consumer debtors	8	377,844,395	301,073,310
Other debtors	9	74,321,301	32,420,934
Vat	19	19,135,155	0
Bank balances and cash	10	888,890,556	605,260,829
Total Assets		4,140,002,180	3,471,578,815

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 30 JUNE 2008

	Note	ACTUALS 2008 R	ADJUSTED BUDGET 2008 R	ACTUALS 2007 R	Annexure
REVENUE					
Service Charges	11	3,711,512,286	3,715,838,210	3,339,512,653	1
Rental of Facilities and Equipment		1,297,072	1,194,260	1,119,326	2
Interest Earned		42,648,637	30,443,990	27,124,657	3
Interest Earned - Outstanding Debtors	12	26,445,090	18,923,940	18,935,416	
Other Income	13	52,609,525	35,354,960	39,651,233	
Government Grants and Subsidies		90,918,250	93,917,180	80,231,200	
Public Contributions and Donations		38,352,086	5,000,000	11,814,995	
Gains on disposal of Prop; Plant; Equip		4,710,149	3,000,000	8,654,384	
Internal Income		112,680,303	113,716,400	113,064,855	10
Total Revenue		4,081,173,398	4,017,388,940	3,640,108,718	
EXPENDITURE					
Employee Related Costs	14	396,461,496	429,134,670	348,419,940	4
Contrib. to Provision for Bad Debts		2,460,702	7,019,000	23,650,692	5
Depreciation		173,369,075	175,383,540	165,081,343	6
Repairs and Maintenance	15	351,321,008	364,063,690	258,564,682	
Interest Paid	16	156,036,300	156,074,610	171,542,017	
Bulk Purchases		1,961,355,007	1,962,337,080	1,827,602,185	
Contracted Services		38,476,522	45,164,310	28,106,703	7
General Expenses		101,973,779	127,232,490	77,073,609	8
Loss on disposal of Prop; Plant; Equip		282,082	282,100	110,711	
Internal Charges		131,516,807	154,309,490	124,211,481	9
Total Expenditure		3,313,252,778	3,421,000,980	3,024,363,362	
Surplus/(Deficit)		767,920,620	596,387,960	615,745,356	
Cross Subsidisation		-477,063,733	-496,223,070	-357,509,683	11
Other		-290,856,887	-100,164,890	-258,235,673	12
SURPLUS/(DEFICIT) FOR THE YEAR		0	0	-0	

Refer to Appendix E(1) for the comparison with the approved budget

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2008

	2008 R	2007 R
1. LONG-TERM LIABILITIES		
External Financing Fund		
Development Bank of South Africa	1,083,961,306	821,102,621
European Investment Bank	127,887,961	133,392,799
Internal Loans - ESF	188,156,074	201,520,365
Nedbank Loan	93,673,416	97,501,088
Total External Loans	1,493,678,757	1,253,516,872
2. CONSUMER DEPOSITS		
Electricity Deposits	414,440,822	366,920,730
Guarantees in Lieu of Deposits	535,000	405,000
Interest on Consumer Deposits	32,461,883	29,963,193
Total Consumer Deposits	447,437,705	397,288,923
Included in deposits is an accrual of interest at an effective rate of 3.00% p.a (2007: 3.00% p.a) which is paid to consumers when deposits are refunded.		
Guarantees iro prepayment vendors	535,000	405,000
Interest paid	5,387,357	4,974,259
3. CREDITORS		
Trade Creditors	473,977,603	367,123,622
Payments Received in Advance	31,784,123	32,266,018
Retentions	7,956,312	11,488,877
Staff Leave	20,372,620	17,043,587
Other Creditors	21,707,861	20,014,655
	555,798,519	447,936,759
4. VAT		
Vat Payable	0	20,605,950
VAT is payable on the receipts basis. Only once payment is received from debtors is VAT paid over to SARS		

5. PROPERTY, PLANT AND EQUIPMENT

30th June 2008

Reconciliation of Carrying Value	Land R	Buildings R	Infrastructure R	Other R	Total R
Carrying Values at 1 July 2007					
Cost	40,203,893	52,726,179	2,215,938,535	100,104,553	2,408,973,16
Valuation	40,203,893	86,543,738	3,559,177,942	197,500,840	3,883,426,413
Accumulated depreciation	0	0	0	0	0
- Cost	0	(33,817,559)	(1,343,239,407)	(97,396,287)	(1,474,453,253)
- Revaluation	0	(33,817,559)	(1,343,239,407)	(97,396,287)	(1,474,453,253)
Acquisitions					
Capital under construction	13,724,798	1,469,729	162,684,535	64,141,468	242,020,530
Increases/decreases in revaluation	0	0	172,482,821	0	172,482,821
Transfers - Cost	-	-	-	-	-
Transfers - Depreciation	0	281,341	(13,200,235)	13,280,823	361,929
	0	304,466	3,517,185	(2,397,23	1,424,420
Depreciation					
- based on cost	0	(2,569,754)	(135,080,847)	(32,034,291)	(169,684,892)
- based on revaluation	0	(2,569,754)	(135,080,847)	(32,034,291)	(169,684,892)
Carrying value of disposals	0	(50,182)	(584,328)	(572,117)	(1,206,627)
Cost/revaluation	0	(84,653)	(8,794,485)	(756,267)	(9,635,404)
Accumulated depreciation	0	34,470	8,210,157	184,150	8,428,777
Impairment losses	-	-	-	-	-
Other movements - Intangible Assets - Cost	-	-	-	0	0
Other movements - Intangible Assets - Accumulated Depreciation	-	-	-	0	0
Carrying values at 30 June 2008					
Cost	53,928,691	52,161,779	2,405,757,666	142,523,205	2,654,371,338
Revaluation	53,928,691	88,210,155	3,872,350,578	274,166,864	4,288,656,289
Accumulated depreciation	0	0	0	0	0
- Cost	0	(36,048,376)	(1,466,592,913)	(131,643,660)	(1,634,284,949)
- Revaluation	0	(36,352,842)	(1,470,110,098)	(129,246,429)	(1,635,709,369)
	0	0	0	0	0

30th June 2008						
Reconciliation of Carrying Value						
	Land R	Buildings R	Infrastructure R	Other R	Total R	
Carrying Values at 1 July 2006	40,197,172	50,718,617	2,056,469,051	105,684,320	2,253,069,161	
Cost	40,197,172	82,067,084	3,274,198,576	187,706,757	3,584,169,589	
Correction of Error (note 17.4)	0	0	0	0	0	
Valuation	0	0	0	0	0	
Accumulated depreciation	0	(31,348,467)	(1,217,729,525)	(82,022,437)	(1,331,100,429)	
- Cost	0	(31,348,467)	(1,217,729,525)	(82,022,437)	(1,331,100,429)	
- Revaluation	0	0	0	0	0	
Acquisitions	6,721	1,151,708	54,944,807	33,823,335	89,926,570	
Capital under construction	0	3,324,947	237,983,497	0	241,308,444	
Increases/decreases in revaluation	-	-	-	-	-	
Depreciation	0	(2,469,092)	(133,362,464)	(26,027,571)	(161,859,127)	
- based on cost	0	(2,469,092)	(133,362,464)	(26,027,571)	(161,859,127)	
- based on revaluation	0	0	0	0	0	
Carrying value of disposals	0	0	(96,356)	(280,042)	(376,398)	
Cost/revaluation	0	0	(7,948,938)	(1,694,139)	(9,643,077)	
Accumulated depreciation	0	0	7,852,582	1,414,097	9,266,679	
Impairment losses	-	-	-	-	-	
Other movements - Intangible Assets - Cost	-	-	-	(22,335,113)	(22,335,113)	
Other movements - Intangible Assets - Accumulated Depreciation	-	-	-	9,239,624	9,239,624	
Carrying values at 30 June 2007	40,203,893	52,726,18	2,215,938,535	100,104,553	2,408,973,161	
Cost	40,203,893	86,543,738	3,559,177,942	197,500,84	3,883,426,414	
Revaluation	0	0	0	0	0	
Accumulated depreciation	0	(33,817,559)	(1,343,239,407)	(97,396,287)	(1,474,453,253)	
- Cost	0	(33,817,559)	(1,343,239,407)	(97,396,287)	(1,474,453,253)	
- Revaluation	0	0	0	0	0	

	2008 R	2007 R	
6. INVESTMENTS			
C.I.F. Investment	20,885,980	20,885,980	
Investments held in the Consolidated Investment Fund are invested in accordance with Municipal Investment Regulations which forms part of the Municipal Finance Management Act, No. 56 of 2003. Moneys were invested in			
Moneys were invested in fixed deposits and call deposits with the Banks , earning an average interest rate of 10.544% (2008) and 8.775% (2007)			
7. INVENTORY			
Stock on hand	52,632,447.00	48,742,962	
8. CONSUMER DEBTORS			
	GROSS BALANCES	PROVISION FOR BAD DEBTS	NET BALANCES
As at 30 June 2008			
Service Debtors	517,844,395	-140,000,000	377,844,395
Total	517,844,395	(140,000,000)	377,844,395
As at 30 June 2007			
Service Debtors	441,073,310	(140,000,000)	301,073,310
	441,073,310	(140,000,000)	301,073,310
Electricity: Ageing			
Current (0 - 30 days)	333,595,359	299,618,007	
31 - 60 Days	104,759,921	83,747,071	
61 - 90 Days	11,755,068	8,521,021	
91 - 120 Days	6,887,330	5,000,360	
121 - 365 Days	60,846,716	44,186,851	
+365 Days			
Total	517,844,394	441,073,310	

Summary of Debtors by Customer Classification	Consumers	Industrial/ Commercial	National and Provincial Government
	R	R	R
30 JUNE 2008			
Current (0 - 30 days)	171,692,299	158,910,186	0
31 - 60 Days	28,389,156	70,133,034	0
61 - 90 Days	10,339,082	0	0
91 - 120 Days	7,479,950	0	0
121 - 365 Days	70,900,688	0	0
+365 Days	0	0	0
Sub-total	288,801,175	229,043,220	0
Less: Provision for bad debts	(78,078,000)	(61,922,000)	0
Total debtors by customer classification	210,723,175	167,121,220	0
Summary of Debtors by Customer Classification	Consumers	Industrial/ Commercial	National and Provincial Government
	R	R	R
30 JUNE 2007			
Current (0 - 30 days)	169,450,962	130,167,045	0
31 - 60 Days	27,961,195	55,785,876	0
61 - 90 Days	8,521,021	0	0
91 - 120 Days	5,000,360	0	0
121 - 365 Days	44,186,851	0	0
+365 Days	0	0	0
Sub-total	255,120,389	185,952,921	0
Less: Provision for bad debts	(80,976,000)	(59,024,000)	0
Total debtors by customer classification	174,144,389	126,928,921	0
	2008	2007	
	R	R	
Reconciliation of bad debts provision			
Balance at beginning of the year	140,000,000	125,000,000	
Contributions to Provision	3,013,355	23,785,816	
Bad debts Written off against provision	-3,013,355	(8,785,816)	
		0	
	140,000,000	140,000,000	
9. OTHER DEBTORS			
Insurance Recoverables	34,854,407	8,768,017	
Private Jobs - Cost of Work done	8,153,861	7,721,546	
Prepayment Meter Token Sales	5,978,052	3,956,590	
Sundry Debtors - General	23,011,078	10,162,485	
Debtors for Collection ex Rev	41,084	15,476	
Mechanical Workshops	1,118,350	745,445	
Debtors Capital	1,131,163	1,051,375	
Insurance Sundry Accounts	33,306	0	
	74,321,301	32,420,934	

10. BANK, CASH & OVERDRAFT BALANCES

Ethekwini Electricity has the following bank accounts:

Electricity Expenditure Account

First National Bank - Umhlanga -
Account Number 62085722348

Cash book balance at beginning of year - overdrawn	913,098,846	965,149,283
Cash book balance at end of year - overdrawn	857,374,801	913,098,846
Bank statement balance at beginning of year - overdrawn	1,882,914	1,015,064,979
Bank statement balance at end of year	14,883,329	1,882,914

Change in bank account - effective 1 October 2005 from: Standard Bank - Durban Main - Account Number 050024671

Electricity EFT Account

First National Bank - Umhlanga -
Account Number 62085722463

Cash book balance at beginning of year	5,065,301,505	2,400,676,674
Cash book balance at end of year	8,078,774,444	5,065,301,505
Bank statement balance at beginning of year	258,481,302	1,362,716,713
Bank statement balance at end of year	476,406,127	258,481,302

Change in bank account - effective 1 October 2005 from: Standard Bank - Durban Main - Account Number 050158678

	ACTUALS 2008	ADJUSTED BUDGET 2008	ACTUALS 2007
11. SERVICE CHARGES			
00101 - Bulk Supply	1,353,175,863	1,375,053,390	1,222,939,459
00102 - Business Cooking - Scale 5	19,056,723	20,689,020	18,484,497
00103 - Business and General Scale 1	657,305,799	629,458,390	599,884,690
20300 - Electricity	-3,314,211	-3,381,280	-2,427,688
00106 - Industrial Water Heating & Pumping	5,822,757	6,944,670	5,571,236
00107 - Lotus Park	3,600	94,040	31,874
00108 - Prepayment Meters	265,928,439	242,104,200	240,629,636
00109 - Residential Scale 3 and 4	1,150,908,331	1,142,957,850	1,090,027,092
00111 - Sundry Income - Private Lights	535,826	262,760	132,824
00112 - Two Rate - Scale 2	162,006,242	149,778,600	150,526,086
00114 - Tongaat - Small Power Users	0	5,022,470	4,421,987
00115 - Tongaat - Bulk	0	8,837,170	8,263,564
00120 - Poverty Relief/Indigent/EBBST	9,453,064	28,227,740	1,027,398
00201 - Surcharge Business Levy	90,629,853	109,789,190	0
Total Service Charges	3,711,512,286	3,715,838,210	3,339,512,653
12. OTHER INCOME			
00408 - Meter Reconnection and Test Fees	8,781,244	8,611,400	6,965,412
00412 - Sundry Income - Taxable	886,670	661,500	481,829
00413 - Sundry Sales	319,884	530,000	29,575
00418 - Sweep Reconnection Fees	45,713	352,060	177,861
00430 - Transaction Fees	0	0	0
00119 - Traffic Signals	1,500,000	1,500,000	1,067,948
Conventional Connection Fees	3,527,415	3,700,000	2,892,470
Prepayment Connection Fees	37,548,599	20,000,000	28,036,138
Total Other Income	52,609,525	35,354,960	39,651,233

13. GOVERNMENT GRANTS AND SUBSIDIES			
00121 - Municipal Infrastructure Grant	0	0	0
00122 - Electrification Programme - D.M.E	0	0	0
00123 - Equitable Share	0	0	0
00500 - Capital Grant - MIG	1,082,250	4,081,180	1,305,200
00502 - Capital Grant - Equit Share	42,336,000	42,336,000	40,320,000
00503 - Capital Grant - Electr. Prog	47,500,000	47,500,000	38,606,000
Total Government Grants and Subsidies	90,918,250	93,917,180	80,231,200
13.1 M.I.G. Grant			
Balance unspent at beginning of year	0	0	
Current years receipts	1,082,250	1,305,200	
Conditions met - transferred to revenue	(1,082,250)	(1,305,200)	
Conditions still to be met - transferred to liabilities	0	0	
13.2 Electrification Programme - D.M.E			
Balance unspent at beginning of year	0	0	
Current years receipts	47,500,000	38,606,000	
Conditions met - transferred to revenue	(47,500,000)	(38,606,000)	
Conditions still to be met - transferred to liabilities	0	0	
13.3 Equitable Share			
Balance unspent at beginning of year	0	0	
Current years receipts	42,336,000	40,320,000	
Conditions met - transferred to revenue	(42,336,000)	(40,320,000)	
Conditions still to be met - transferred to liabilities	0	0	

14. EMPLOYEE RELATED COSTS			
10100 - Staff Salaries	221,973,846	226,434,630	197,430,884
10101 - Staff Overtime	41,254,814	42,100,720	30,630,438
10103 - Leave Commutation	3,372,902	5,000,000	2,643,620
10104 - Pensioners Medical Aid	6,620,030	7,358,330	6,569,880
10105 - Council Pensions	5,526,560	6,153,390	5,860,320
10106 - Housing Subsidy	3,597,560	5,998,440	3,050,446
10107 - Durban Pension Fund	38,568,117	40,983,730	35,688,921
10110 - Medical Aid	15,435,676	16,686,240	14,640,821
10112 - Long Service Allowances	38,963	63,000	24,903
10114 - Group Life Cover	0	27,560	28,239
10116 - Holiday Bonus	16,926,397	21,402,380	15,605,504
10198 - Task Implementation	351,301	2,000,000	308,356
10199 - Contingency Staff Vacancy	0	170,000	
10220 - Cell Phone Allowances	753,484	770,000	0
10300 - Executive Packages	6,046,217	6,938,670	6,191,761
10400 - Locomotion Allowances	18,396,319	27,990,490	16,544,995
10401 - Travelling Allowances	79,338	134,210	68,556
10402 - Telephone Allowances	7,583	15,500	10,611
10403 - Travel and Subsistence	125,641	202,490	141,257
10500 - Temporary Staff	2,938,674	2,938,920	2,871,821
10501 - Uniforms	878,908	1,741,760	750,824
10502 - Education Fees	301,325	400,000	388,409
10503 - Travel & Removal Costs	89,178	120,000	59,988
10506 - Unemployment Insurance Fund	2,092,107	2,406,390	1,915,291
10507 - Employment Services	7,757,523	7,767,820	7,772,566
10508 - Leave Comm - Trf Ex Provision	3,329,033	3,330,000	(778,472)
Total Employee Related Costs	396,461,496	429,134,670	348,419,940
15. INTEREST PAID			
29560/40100 - Interest	150,648,943	150,687,250	94,147,257
29561/40110 - Interest - DBSA Loans	0	0	72,420,501
29564/40120 - Interest - Streetlighting	0	0	0
29563/40130 - Interest - Consumer Deposits	5,387,357	5,387,360	4,974,259
Total of Interest Paid	156,036,300	156,074,610	171,542,017
16. BULK PURCHASES			
	ACTUALS	ADJUSTED	ACTUALS
	2008	BUDGET	2007
		2008	
00901 - Eskom - Maximum Demand Charge	324,328,379	324,335,240	296,218,910
00902 - Eskom - Unit Charge	1,635,477,521	1,635,477,850	1,530,789,881
00905 - Service Fees	198,029	231,080	209,831
00906 - Lotus Park	3,600	92,910	31,874
00908 - Elect - Landfill Site - Marianhill	314,104	600,000	345,785
00909 - Elect - Landfill Site - La Mercy	-1,841	300,000	5,904
00909 - Elect - Landfill Site - Bissar Road	1,035,215	1,300,000	
Total Bulk Purchases	1,961,355,007	1,962,337,080	1,827,602,1

17. CAPITAL COMMITMENTS		
Commitments in respect of Capital Expenditure:		
Approved and contracted for - Electricity	109,240,508	38,338,019
Approved but not yet contracted for - Electricity	440,843,124	252,954,293
Total	550,083,632	291,292,312
This expenditure will be financed from:		
Government Grants	109,970,800	43,109,516
Own Resources	440,112,832	248,182,796
18. INTANGIBLE ASSETS		
Servitudes		
Opening Balance	43,728,855	43,121,454
Acquisitions	667,719	607,401
Disposals - Cost	(1,800,000)	0
	42,596,574	43,728,855
Computer Software		
Opening Balance	22,954,624	22,335,113
Accumulated Depreciation	(12,461,840)	(9,239,624)
	10,492,784	13,095,489
Acquisitions	4,302,184	619,511
Depreciation for the year	(3,684,183)	(3,222,216)
Transfers - Cost	(361,929)	
Transfer - Depreciation	(1,424,421)	
Disposals - Cost	(260,021)	0
Disposals - Depreciation	260,021	0
	9,324,434	10,492,784
19. VAT		
Vat Receivable	19,135,155	0

Customer Base Statistics

	96 / 97	97 / 98	98 / 99	99 / 00	00 / 01	01 / 02	02 / 03	03 / 04	04 / 05	05 / 06	06 / 07	07 / 08
NUMBER OF CUSTOMERS												
Business & General	34648	37816	40996	43238	40576	42199	42889	43793	44709	38486	40852	44568
Private Residences	298514	302653	310811	318225	319763	313244	316524	317461	320513	292907	296405	324233
Other	1996	1894	1798	1749	1619	1597	1563	1449	1399	1173	4	4
Bulk	690	689	675	682	754	702	725	734	788	748	730	746
Prepayment	115903	134384	151221	158982	162839	191020	204199	214800	230394	249839	259368	263063
Total	451751	477416	505501	523176	525951	548702	564727	578237	597733	583153	597299	632614
UNITS (KW/H)												
Business & General	1,428,220,845.00	1,482,189,609.00	1,458,813,260.00	1,470,443,457.00	1,604,265,450.00	1,733,881,698.00	1,906,430,575.00	1,912,999,115.00	1,900,283,815.00	1,887,628,514.00	2,161,999,564.00	2,203,077,555.72
Private Residences	2,672,469,895.00	2,736,976,112.00	2,657,073,205.00	2,688,920,844.00	2,640,769,302.00	2,691,882,060.00	2,860,048,650.00	2,862,123,618.00	2,873,357,222.00	2,900,907,487.00	3,006,373,582.00	3,013,288,241.24
Other	191,879,147.00	204,481,477.00	181,010,121.00	182,979,615.00	197,188,369.00	102,439,716.00	86,911,187.00	132,286,050.00	140,222,213.00	123,385,815.00	36,693,199.00	37,605,719.40
Bulk	4,467,818,537.00	4,574,251,466.00	4,531,910,454.00	4,573,099,876.00	4,668,286,749.00	4,758,234,877.00	4,780,752,550.00	4,931,845,221.00	5,029,924,160.00	5,056,990,152.00	5,105,603,247.00	5,221,414,480.29
Prepayment	180,942,293.00	185,252,692.00	244,605,860.00	280,478,980.00	296,930,339.00	302,677,501.00	380,972,540.00	451,783,592.00	514,181,235.00	587,881,511.00	652,855,481.00	687,805,495.05
Total	8,941,330,717.00	9,183,151,356.00	9,073,412,900.00	9,195,922,772.00	9,407,440,209.00	9,589,115,852.00	10,015,515,502.00	10,290,977,596.00	10,457,348,645.00	10,556,733,479.00	10,963,525,073	11,163,191,491.69
UNITS GROWTH												
Business & General	7.32%	3.78%	-1.58%	0.80%	9.10%	8.08%	9.95%	0.34%	0.34%	-6.91%	14.54%	1.90%
Private Residences	5.68%	2.41%	-2.92%	1.20%	-1.79%	1.94%	6.25%	0.07%	0.07%	0.96%	3.64%	0.23%
Other	2.14%	6.57%	-11.48%	1.09%	-7.77%	-48.05%	-15.16%	52.21%	52.21%	-12.01%	-70.26%	2.49%
Bulk	5.34%	2.38%	-0.93%	0.91%	2.08%	1.93%	0.47%	3.16%	3.16%	3.15%	0.96%	2.27%
Prepayment	38.24%	2.38%	32.04%	14.67%	5.87%	1.94%	25.87%	18.59%	18.59%	14.33%	11.05%	5.35%
Total	6.20%	2.70%	-1.19%	1.35%	2.30%	1.93%	4.44%	2.75%	1.62%	0.95%	3.85%	1.82%
INCOME												
Business & General	R 343,457,013.00	R 373,968,739.00	R 408,643,217.00	R 436,274,970.00	R 445,179,115.00	R 547,072,134.00	R 591,530,415.00	R 619,394,717.00	R 672,858,784.00	R 687,641,951.00	R 779,982,349.00	R 844,191,521.68
Private Residences	R 510,441,750.00	R 568,995,987.00	R 613,826,576.00	R 655,686,067.00	R 722,925,897.00	R 753,137,505.00	R 824,037,910.00	R 894,861,179.00	R 941,481,632.00	R 981,363,145.00	R 1,090,027,108.00	R 1,150,908,333.50
Other	R 26,281,877.00	R 28,529,103.00	R 30,791,039.00	R 32,191,903.00	R 35,205,659.00	R 13,405,297.00	R 15,775,113.00	R 18,036,972.00	R 22,214,691.00	R 20,181,773.00	R 13,433,027.00	R 15,189,095.90
Bulk	R 665,704,962.00	R 716,497,239.00	R 747,881,450.00	R 798,197,146.00	R 847,855,582.00	R 883,707,489.00	R 965,030,962.00	R 1,079,243,856.00	R 1,062,055,560.00	R 1,153,442,450.00	R 1,231,234,899.00	R 1,353,175,863.00
Prepayment	R 42,209,335.00	R 55,664,322.00	R 71,865,355.00	R 84,182,759.00	R 96,138,266.00	R 123,766,823.00	R 134,997,906.00	R 154,263,532.00	R 188,477,331.00	R 204,733,254.00	R 241,183,183.00	R 275,381,500.6
Total	R 1,588,094,837.00	R 1,743,595,430.00	R 1,873,008,037.00	R 2,006,532,845.00	R 2,147,284,519.00	R 2,321,089,250.00	R 2,531,371,567.00	R 2,765,800,256.00	R 2,867,087,998.00	R 3,162,703,023.00	R 3,355,240,542.00	3,638,946,314.77
CENTS/UNIT												
Business & General	24.05	25.23	28.01	29.67	27.75	31.55	31.03	32.38	35.41	36.43	36.05	38.32
Private Residences	19.10	20.79	23.10	24.38	27.38	27.98	28.81	31.27	32.77	33.83	36.26	38.19
Other	13.95	13.95	17.01	17.59	17.85	13.99	18.15	13.63	15.84	16.36	16.36	40.39
Bulk	14.80	15.66	16.50	17.45	18.16	18.57	20.19	21.88	21.11	22.81	24.12	25.92
Prepayment	23.33	30.05	29.38	30.01	32.38	40.89	35.44	34.15	32.77	34.83	36.94	40.04
Total	17.76	18.99	20.64	21.82	22.83	24.21	25.28	26.88	27.42	29.95	30.60	32.60
AVE UNITS/MONTH/CUST												
Business & General	3.435	3.266	2.965	2.834	3.295	3.424	3.704	3.640	3.542	4.087	4.410	4.119
Private Residences	7.46	7.54	7.12	7.03	6.88	5.154	7.56	7.51	7.47	8.25	8.45	7.74
Other	8.011	8.997	8.389	8.718	8.718	5.654	4.934	7.608	8.359	8.766	764,442	763,452
Bulk	539,592	569,787	559,495	558,785	515,947	564,843	549,512	559,929	567,199	563,390	582,831	583,268
Prepayment	130	115	135	147	152	132	155	175	186	196	210	218
Total	1649	1683	1496	1465	1492	1456	1478	1483	1459	1509	1529	1471
AVE RANDS/MONTH/CUST												
Business & General	R 826	R 824	R 831	R 841	R 914	R 1,080	R 1,149	R 1,179	R 1,254	R 1,469	R 1,590	R 1,578
Private Residences	R 1,142	R 1,157	R 1,165	R 1,172	R 1,188	R 2,000	R 2,18	R 2,25	R 2,45	R 2,279	R 3,06	R 2,96
Other	R 1,097	R 1,087	R 1,142	R 1,142	R 1,182	R 1,277	R 1,324	R 1,307	R 1,434	R 1,434	R 2,729,855	R 3,16,439
Bulk	R 80,389	R 89,250	R 92,331	R 97,531	R 93,704	R 104,904	R 110,923	R 122,530	R 119,763	R 128,303	R 140,552	R 151,159
Prepayment	R 30	R 35	R 40	R 44	R 49	R 54	R 55	R 60	R 61	R 38	R 77	R 87
Total	R 293	R 304	R 309	R 320	R 340	R 353	R 374	R 399	R 400	R 452	R 468	R 479

Maximum Demand and Energy Sales Per Annum

Year	MaximumkVA	Percent growth	Energy (kWh) sold	Percent growth	Energy (kWh) purchased	Percent growth	Percent loss	Power factor at system peak	Average monthly load factor	Number of customers
78/79	804,613	4.23%	4,335,416,770.00	6.21%	4,563,596,600	6.22%	5.00%			175443
79/80	853,345	6.06%	4,618,422,364.00	6.53%	4,872,542,450	6.77%	5.22%	91.60%	72.91%	181261
80/81	960,246	12.53%	5,034,342,435.00	9.01%	5,288,290,000	8.53%	4.80%	96.30%	71.82%	198892
81/82	1,075,492	12.00%	5,624,814,026.00	11.73%	5,981,248,000	13.10%	5.96%	89.60%	73.00%	198338
82/83	1,051,830	-2.20%	4,998,457,230.00	-11.14%	5,201,796,550	-13.03%	3.91%	93.00%	71.40%	205961
83/84	1,060,522	0.83%	5,435,381,442.00	8.74%	5,680,986,500	9.21%	4.32%	92.00%	71.10%	214095
84/85	1,078,638	1.71%	5,859,883,622.00	7.81%	6,145,270,000	8.17%	4.64%	93.00%	71.89%	223420
85/86	1,084,951	0.59%	6,105,393,784.00	4.19%	6,464,060,277	5.19%	5.55%	94.00%	73.37%	228193
86/87	1,126,872	3.86%	6,373,238,576.00	4.39%	6,689,247,137	3.48%	4.72%	99.60%	71.21%	237857
87/88	1,151,613	2.20%	6,590,701,115.00	3.41%	6,889,777,935	3.00%	4.34%	97.20%	70.47%	245831
88/89	1,196,636	3.91%	6,986,105,898.00	6.00%	7,337,830,336	6.50%	4.79%	98.40%	72.73%	252518
89/90	1,232,618	3.01%	7,201,068,113.00	3.08%	7,634,669,960	4.05%	5.68%	100.00%	72.92%	284661
90/91	1,268,538	2.91%	7,426,490,766.00	3.13%	7,697,377,076	0.82%	3.52%	100.00%	73.87%	290070
91/92	1,286,335	1.40%	7,548,660,345.00	1.65%	7,928,532,199	3.00%	4.79%	97.50%	72.90%	299948
92/93	1,313,385	2.10%	7,688,164,852.00	1.85%	8,145,319,531	2.73%	5.61%	100.00%	70.80%	329969
93/94	1,383,431	5.33%	8,047,317,773.00	4.67%	8,494,913,446	4.29%	5.27%	99.90%	72.80%	359516
94/95	1,426,277	3.10%	8,202,460,186.00	1.93%	8,738,907,153	2.87%	6.14%	99.90%	72.90%	386361
95/96	1,469,256	3.01%	8,419,518,677.00	2.65%	9,021,770,028	3.24%	6.68%	99.90%	73.46%	428035
96/97	1,585,122	7.89%	8,941,330,717.00	6.20%	9,571,358,173	6.09%	6.58%	99.90%	74.37%	449755
97/98 #	1,585,060	0.00%	9,183,151,356.00	2.70%	9,813,695,486	2.53%	6.43%	99.90%	76.26%	475522
98/99 #	1,601,635	1.05%	9,073,412,900.00	-1.19%	9,851,495,987	0.39%	7.90%	99.90%	76.55%	503703
99/00 #	1,572,339	-1.83%	9,195,922,772.00	1.35%	9,956,607,592	1.07%	7.64%	98.60%	77.37%	522428
00/01 #	1,592,211	1.26%	9,407,440,209.00	-13.24%	10,105,748,000	1.50%	6.91%	98.60%	78.52%	525551
01/02 #	1,610,173	1.13%	9,589,115,852.00	1.93%	10,224,641,034	1.18%	6.22%	98.10%	79.45%	543121
02/03 #	1,650,089	2.48%	10,015,115,502.00	4.44%	10,552,641,000	3.21%	5.09%	98.00%	78.49%	564727
03/04 #	1,667,942	1.08%	10,290,977,595.00	2.75%	10,803,947,948	2.38%	4.75%	99.90%	74.15%	578237
04/05 #	1,765,855	5.87%	10,457,948,645.00	1.62%	11,053,953,456	2.31%	5.39%	99.80%	76.53%	597253
05/06 #	1,783,038	0.97%	10,556,793,479.00	0.95%	11,186,048,110	1.19%	5.63%	99.90%	72.75%	583153
06/07 #	1,857,178	4.16%	10,963,525,073.00	3.85%	11,580,771,534	3.53%	5.33%	98.13%	73.98%	597359
07/08 #	1,890,043	1.77%	11,163,191,491.69	1.82%	11,751,787,312	1.48%	5.01%	97.27%	75.90%	632684

Denotes figures now include sales and purchases for Tongaat, Mpumalanga and Magabeni, which were merged in Durban Electricity and purchases from Maidstone Mill

Expenditure Per Annum

ITEM OF EXPENDITURE DISTRIBUTION and Admin	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08
ADMINISTRATIVE AND GENERAL												
Admin and general	R1101,997,727	R116,661,603	R114,852,554	R295,184,635	R309,775,667	R309,775,667	R384,858,119	R424,125,991	R468,674,290	R624,140,246	R766,654,479	R844,540,463
Distribution	R257,676,691	R297,697,234	R332,950,185	R159,970,654	R178,709,812	R203,666,642	R217,681,180	R231,773,520	R237,287,044	R248,674,868	R258,564,692	R351,321,008
Sub-Total	R359,674,418	R441,358,837	R447,802,739	R455,155,289	R488,485,479	R643,953,643	R602,539,299	R655,989,501	R705,961,274	R872,815,114	R1,025,219,161	R1,195,861,471
% increase	94.3%	15.2%	8.1%	1.6%	7.3%	11.4%	10.8%	8.9%	7.6%	23.6%	17.5%	16.6%
% of total expenditure	21.2%	22.2%	22.3%	22.1%	22.3%	23.6%	23.8%	23.6%	24.0%	27.3%	28.2%	29.3%
FUNDS												
Capital Development	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0
Rates and General	R93,923,239	R102,110,206	R110,509,462	R117,609,509	R127,863,067	R136,554,096	R147,832,718	R157,905,047	R169,912,469	R189,162,190	R357,509,683	R477,063,733
Working Capital	R27,070,107	R10,842,022	R35,446,087	R26,356,120	R51,263,120	R11,688,488	R99,076,208	R121,334,894	R149,687,274	R80,000,000	R258,235,673	R290,856,887
Durban Metro	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0
Sub-Total	R120,993,346	R112,952,228	R145,955,549	R143,965,629	R179,126,187	R148,242,583	R246,908,926	R279,239,941	R319,599,743	R461,076,477	R615,745,356	R767,920,620
% increase	62.8%	-6.6%	29.2%	-1.4%	24.4%	-17.2%	66.6%	13.1%	14.5%	44.3%	33.5%	24.7%
% of total expenditure	7.1%	6.0%	7.3%	7.0%	8.2%	6.4%	9.8%	10.0%	10.8%	14.4%	16.9%	18.8%
LOAN CHARGES												
Sub-Total	R229,480,449	R297,480,440	R318,910,226	R318,036,375	R325,115,264	R320,336,624	R273,858,000	R315,325,905	R316,056,450	R316,056,450	R316,056,450	R316,056,450
% increase	16.8%	29.6%	7.2%	-0.3%	2.2%	-1.5%	-14.5%	15.1%	0.2%	0	-21.6%	-9.0%
% of total expenditure	13.5%	15.9%	15.9%	15.4%	14.9%	13.9%	10.8%	11.3%	10.7%	0	4.7%	3.8%
Interest Paid	R0	R0	R0	R0	R0	R0	R0	R0	R0	R218,808,794	R171,542,017	R156,036,300
ELECTRICITY PURCHASED												
Energy	R 827,103,047	R 874,849,779	R 925,878,538	R 968,823,865	R 1,011,443,391	R 1,093,768,108	R 1,234,592,321	R 1,328,370,998	R 1,348,184,097	R 1,376,760,971	R 1,531,383,275	R 1,637,026,628
Demand	R 160,669,920	R 168,189,269	R 170,188,146	R 176,737,637	R 184,242,277	R 196,629,985	R 173,807,391	R 201,826,269	R 256,148,581	R 268,764,733	R 296,218,910	R 324,328,379
Sub-Total	R 987,772,967	R 1,043,039,048	R 1,096,066,674	R 1,145,561,502	R 1,195,685,668	R 1,290,699,093	R 1,408,399,912	R 1,530,197,267	R 1,604,332,678	R 1,645,525,724	R 1,827,602,185	R 1,961,355,007
% increase	4.3%	5.6%	5.1%	4.5%	4.4%	7.9%	9.1%	8.6%	4.8%	2.6%	11.1%	7.3%
% of total expenditure	58.2%	55.8%	54.6%	55.5%	54.6%	56.0%	55.6%	55.0%	54.5%	51.5%	50.2%	48.1%
TOTAL												
Total Amount	R1,697,921,180	R1,867,830,553	R2,008,735,188	R2,062,718,795	R2,188,412,598	R2,303,231,943	R2,531,706,137	R2,780,662,614	R2,945,950,145	R3,198,226,109	R3,640,108,719	R4,081,173,398
% increase	13.9%	10.0%	7.5%	2.7%	6.1%	5.2%	9.9%	9.8%	5.9%	8.6%	13.8%	12.1%

NOTE : Ratios of Admin and General Distribution have varied as a result of restructuring.
 * Include depreciation of R160 million not included previously, owing to financial statements now presented as GAAP and GRAP.



ETHEKWINI ELECTRICITY

1 Jelf Taylor Crescent

P.O Box 147

Durban

Tel: 031 311 1111

Fax: 031 311 9010

Contact Centre: 080 1313 111

E-mail: customer@elec.durban.gov.za