



**ETHEKWINI
ELECTRICITY**

**ANNUAL REPORT
08/09**





Our Vision

EThekwini 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

EThekwini Electricity supplies more than 640 000 customers in an area covering nearly 2 000 square kilometres. This encompasses the area of the eThekweni 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. EThekweni Electricity also purchases electricity from Eskom for Tongaat, Winkelspruit, Mpumalanga and Magabeni. From these points electricity is transmitted and distributed for use by the full spectrum of customers ranging from the large industrial and commercial sector to the residential communities. EThekweni Electricity purchases just over 5% of the total energy generated by Eskom. EThekweni Electricity operates under the Electricity Regulation Act, 2006. Its policies are determined by the Metropolitan Council of Durban and the National Energy Regulator of South Africa (NERSA).





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HEAD'S OVERVIEW | SANDILE MAPHUMULO

The close of 2008/2009 year marked the completion of my third year in service as the head of the electricity unit.

The year under review has brought about new hurdles in the electricity supply/distribution Industry and I have been intensely focused on ensuring that the lights within eThekweni were burning bright.

ACKNOWLEDGMENT

The smooth operation of the electrical grid with minimal outages and faults is the result of hard work and dedication. Our 1800 employees and a multitude of contractors worked tirelessly during the year to ensure a healthier electricity supply system. I salute his worship the Mayor, Councillors, City Manager, Deputy City Managers and my Deputy Heads who continuously provided assistance and advice - your contributions were invaluable and continue to be appreciated. I would also like to acknowledge the excellent job of all staff from the service consultants manning the customer service counters to the men and women digging the trenches, your efforts are appreciated and I trust you will continue in a similar fashion as we take on the challenges that lie ahead of us.



RS MAPHUMULO

Eskom has yet again been awarded a higher than inflation increase pushing the national price of electricity in South Africa 31.2% higher as of the 1 July 2008. As a result of the increase, business customers within eThekweni saw an increase of 28%, residential customers 26.2% and the indigent band of customers experienced an electricity tariff hike of 15%.

Whilst the cost of electricity continues to appreciate, the theft of electricity and infrastructure follows a similar pattern. EThekweni has been struggling to keep this situation under control and with more than R50 Million being lost over the last financial year in energy theft; it is evident that people strapped within the global financial crisis has exacerbated the problem. The most common ways in which electricity was being stolen was illegal connections to the electricity grid. This poses a danger as such connections has resulted in electrocution and loss of lives.

With the 2010 soccer world cup around the corner, the demand to make provision for electricity services has increased exponentially. The Electricity Unit is proud to be the official electricity distributor during the world cup and will be responsible for electrifying the stadium and related FIFA activities. Whilst the stadium has been designed to promote energy efficiency, the electrical load required by the stadium to light up the arch way, operate the cable cars and power up 7200 square meters of retail space is in excess of 5 MVA.

The introduction of the scarce skill policy to attract new skill and talent within the unit has worked with great success. The technical staff complement has drastically improved during the year and with the influx of new talent, the acceleration of new projects and periodic maintenance cycles on crucial equipment have been increased.

Last year we called on all citizens to look for ways to reduce their electricity consumption in an attempt to improve the supply demand balance. Many of our customers heeded the call and I extend my gratitude to them for doing so. The national electricity supply system remains under pressure, and the solution now is to start saving energy not only when the thought of "load shedding" looms but at all times and to start educating all citizens to understand the manufacturing process of electricity and the related climate change impacts. Beyond the electricity difficulties that currently face our city and the country, Alternate options for electricity generation should be thoroughly investigated. The country is committed to reducing emissions, and is a signatory to the UN Framework Convention on Climate Change and the Kyoto Protocol. South Africa has committed to reducing its coal component of the primary mix from 88% to 78% by 2012 and to 70% by 2025.

To adequately meet the targets of coal reduction, we need to fully explore the potential of cleaner energy technologies. With an average of more than 2,500 hours of sunshine every year, we also need to vigorously explore alternative energy sources like solar. If every household made use of solar water heaters, almost 10% of the current coal produced energy could be saved. In eThekweni alone, a saving of 150 MW can be achieved by simply introducing solar water heating systems to our residential sector.





HV OPERATIONS | DEPARTMENT

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. The projects undertaken by this department are to provide for increased bulk capacity and 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.

HV PLANNING BRANCH

HV Planning involves the forecasting of future growth and predetermining where development and increase in demand will take place. This is done by constant liaison with major developers, other service units and large customers in order to ensure that the electrical infrastructure upgrades, which normally takes years to construct, are initiated early.

This department also carries out load flow studies to determine weak points in the network and motivate for funding to improve the network and maintain system reliability.

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 following 132/11kV substations by the addition of 2 further transformers and/or switchgear, as necessary, in order to cater for the increased demand on these strategic sources of regional supply:
- Umlazi Substation
- Ottawa 132/11kV Substation
- Replacement of the 11kV switchboard at the 132/11kV Underwood Road Substation.
- Replacement of the 11kV switchboard at the 132/11kV Isipingo Substation.
- Establishment of a new 132/33kV substation in Mondi which will significantly improve the quality of supply to both Engen and Mondi who are significantly large customers.
- Establishment of a new 132/11kV substation in Avoca which will cater for the increase in capacity in that area.
- Establishment of Randles Road 132/11kV substation in Sydenham which will cater for the increase in capacity in that area.
- Establishment of Umhlanga Ridgeside 132/11kV substation in Umhlanga which will cater for the new Ridgeside development.

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
- Reunion 132/11kV Substation
- SAPREF 132/33kV Substation
- Springpark 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.

A network master plan for the eThekweni Electricity's area of Supply is being developed and this will become the basis for future planning and network growth.

HV PROJECTS BRANCH

The HV Projects Division is responsible for the detailed design, specification of equipment and management of major system reinforcement projects. There were 21 projects in progress during the year. The status of these projects is as follows:

- Cornubia 132kV Substation: Commissioned
- Gateway 132/11kV Substation: Commissioned
- Coedmore 132kV Switching Station: Commissioned
- Jameson Park 33/11kV Substation: Transformer commissioned
- Klaarwater Substation: 275kV circuit breaker replacements commissioned
- Pineside 132/11kV Substation: Progressed to final stage of conversion of an existing 33,000-volt substation
- Chatsworth 132/11kV Substation: First phase of replacement/extension of unreliable 11,000-volt switchgear
- Reservoir Hills 132/11kV Substation: First phase of replacement/extension of unreliable 11,000-volt switchgear
- Dalton Rd 132/11kV Substation: Switchboard extension completed, only 132kV cable outstanding
- Shallcross 132/11kV Substation: Construction phase of new substation complete. Ready for commissioning
- Hillcrest 132/11kV Substation: First phase of replacement/extension of unreliable 11,000-volt switchgear
- Fynnlands 132/11kV Substation: Commissioned, will facilitate de-commissioning of unreliable old Fynnlands Substation
- Wentworth 132/11kV Substation: Commissioned, will facilitate de-commissioning of unreliable Bluff Substation
- Tongaat 132/11kV Substation: New substation ready for commissioning after completion of transmission line
- La Mercy 132/11kV Substation: New substation ready for commissioning
- Ridgeview 132/11kV Substation: Well advanced
- Sakuma 132/11kV Substation: Additional transformers commissioned. Capacity doubled. 132kV Capacitor Banks: Project well advanced
- Kingsburgh 132/11kV Substation: Civil works nearly completed
- Parlock 132/11kV Switching Station: Civil works nearly completed
- 132/11kV Substation: Civil works completed

The departmental budget has increased from R200 billion to R300 billion. The increased funds will be used for investing in and replacing important electrical plant, such as transformers and high voltage cables. High voltage equipment are expensive assets and a typical high voltage transformer could cost in the region of 27 million.

The challenges of the branch lie in the retention of skills. In the last year we have lost half of our engineers and half of our project supervisors, which equates to a loss of more than 12 years of experience. New engineers and supervisors generally require about five years of hands on working experience to adequately grasp the concepts of high voltage substation design and construction. The new recruits are learning fast and if the department is able to retain their skill, then the productivity and efficiency of the branch is expected to increase in the future years.

HV SUBSTATIONS BRANCH

The HV Substations Branch deals with the operation and maintenance of equipment that has a primary voltage of 275kV, 132kV and 33kV, and beyond primary to Bus Bar - 11kV and 6kV - which is a secondary voltage. The staff within the branch work with equipment that ranges from power transformers, instrument transformers, current and voltage transformers, to surge arresters and power-line carriers. The different kinds of switchgear are: circuit breakers, isolators, earth switches and vacuum circuit breakers. The old oil switchgear equipment is difficult to maintain and is gradually getting replaced with SF6 and Vacuum circuit breakers.

A significant amount of our plant is older than 40 years of age and there are frequent problems associated with their old age, namely voltage regulation. The completion of some major projects in the past year (and others to be completed shortly) as referred to below, will allow a number of unreliable substations to be de-commissioned. The branch has acquired new state of the art diagnostic multi-testing equipment. The new equipment will allow for more accurate testing and allow us to maintain a high level of safety at our substations. Our primary aim for 2010 is to ensure that all substations that impact on the 2010 FIFA Soccer World Cup venues are stable and ready for the increased loading. It is also a priority to fill the following vacant posts: engineer, diagnostic technicians, HV electrical inspectors and electricians.

The major maintenance of power transformers in the following substations has been completed.

- 132/11 kV transformer 2 at Sukuma Substation
- 33/11 kV transformer 2 at Umhlanga Substation
- 33/11 kV transformer at Eastbury Substation
- 275/132 kV transformer 21/3 at Klaarwater Substation
- 132/11 kV transformer 1A at Hillcrest Substation
- 33/11 kV transformer 1 at Huntleys Hill Substation
- 33/11 kV transformer 1 at Livingstone Substation
- 33/11 kV transformer 2 at Mt Edgecombe Substation

Other projects include full maintenance of tapchangers at the following points of supply:

- On transformer 2A at Durban South Substation
- On transformer 1 at Karim Lane Substation
- On transformer 2A at Northdene Substation

The replacement of the conservator tank, repairing of transformer leaks in Kloof Substation and the replacement of the Inkosi Albert Luthuli International Conference Complex 11kV panel at City Central is in progress. The maintenance of circuit breakers and isolators is part of preventative and corrective maintenance and the branch prides itself in performing these maintenance tasks timeously.

Copper theft is an ongoing national problem that negatively affects our branch. Our sister branch Network Control is in the process of setting up a CCTV monitoring system to increase the security at substations. It is important that we conscientious our workers about the social impact of copper theft, because they are the ones who have access to the knowledge about the importance of substations to electricity supply.

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. Whilst the current year has posed many challenges for the department, I am happy to announce that the staff shortage situation has improved when compared to last year, resulting in more efficient safety and maintenance inspections.

The following is a summary of the major maintenance projects that have commenced during the year :

- Lotus Park to Sukuma 132 KV overhead line (21 towers) - Completed
- Ottawa to Durban North 275kV overhead line (22 towers) - In progress
- Klaarwater to Woodlands 132kV overhead line (17 towers) - In progress
- Illovo to Durban South 275kV refurbished towers 1-62 - In progress
- Avon to Ottawa 275kv overhead line (34 towers) - To be commenced

The branch has invested in new Thermal Image Cameras, which are used as a preventative maintenance tool enabling technicians to identify faults during inspections and attend to them before they occur. In an effort to further improve efficiency levels, the branch has purchased and customised 10 Mercedes Benz Sprinters, creating a unique 4x4 moving workshop which allows the team to access high voltage lines in rough terrain. The vehicles have been specially customised and designed with separate compartments for tools and technicians thus providing for the safe transport of staff and equipment. Our goals for the next financial year are to be able to collect data electronically, generate a database about the GPRS position of towers and their condition. With theft of conductor/steel members still on the rise and elemental damage to lines, we are looking at the option of purchasing emergency towers.

The branch has also initiated steps to curb theft by increasing patrols on the lines, hired private security companies to guard lines, initiated more regular internal inspections and implemented a marketing campaign to spread awareness of the dangers of tampering with high voltage lines.

HV CABLES BRANCH

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

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 40 years. Major projects are under way to replace several unreliable cable circuits of this type in the near future.

A number of cables had to be relocated to suit major development projects. The cost of this relocation was recovered from the developers but the operation put additional pressure on the limited resources of the branch. The increase of construction due to city wide upgrades has also resulted in additional cable damage, requiring immediate attention to restore electricity supply.

Three new 132/11kV substations have been commissioned. Two of these 132kV cable circuits will replace the problematic Bluff and Fynnland 33kV fluid filled cables. The Gateway 132kV will create network reinforcements for the development in the northern area. Cable jointing is a routine activity for the branch, this is an intricate, time consuming and specialised process therefore the branch has initiated the use of an outsourced contractor for cable jointing up to 132kV. The use of the contractor will help the department reduce outage times and ensure improved service delivery.

At the top of our agenda for 2010 is the building up of resources in terms of skills and retaining them. This is a major challenge due to the national skill shortage of high voltage cable jointers and other skilled individuals. We also aim to do more diagnostic testing of cables and continue replacing gas filled cables with XLP cables.

HV NETWORK CONTROL BRANCH

The Network Control Branch comprises of four divisions: HV Network Control, System Performance, Network Performance Management and Control Systems.

HV Network Control Division

The HV Network Control Division is responsible for the control and operation of the High Voltage Network, which incorporates a 24-hour, manned HV Network Control Centre with remote control and alarm facilities. Durban's primary transmission network is monitored and controlled from this Network control room using a sophisticated Supervisory and Data Acquisition (SCADA) system. All load shedding and High Voltage switching operations are controlled from this centre.

System Performance Division

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

Network Management and Control Systems Divisions

The Network Management and Control Systems Divisions are responsible for substation automation and SCADA systems for the real time monitoring of the transmission and distribution networks. The focus of these divisions over the last year has been to increase the reliability of the electrical network so as to reduce outage times. The department has thus engaged in an upgrade programme to replace legacy RTUs at new substations. These divisions have also embarked upon the implementation of an Ethernet communications network to all major substations. This will assist in the streamlining of business processes by allowing for remote configuration and management of isolated equipment in the field. Over the next few years these divisions will interface approximately 600 new RTUs, which will be installed on the distribution network on the SCADA system. We have also been working on innovations regarding access control (CCTV, pepper-spray) at substations to curb theft and vandalism.



MV/LV OPERATIONS | DEPARTMENT

The MV/LV Operations Department is responsible for the planning, construction operation and maintenance of eThekweni Electricity's medium and low voltage network. The department plays a major role in connecting new customers both domestic & Industrial to the electrical grid thus helping to spread electrical services to all sectors of the community. The department is also responsible for providing public/street lighting and has a strategic focus of introducing new and improved energy efficient lighting technologies into the city. Coupled with the above roles, the department manages and controls all medium to low voltage substations.

NETWORK CONTROL BRANCH

The aim of Network Control is to provide a reliable, high quality supply and service to all customers, in support of the Government's economic and social development plans. Our vision is to be an excellent provider of reliable energy services, through a dedicated and committed team of employees, working in a safe and eco friendly environment.

In the 2008/2009 financial year we focused 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. Measures of service and reliability continued to improve, however the number of faults received when compared to last year has increased. During the period under review the following faults were handled:

Total individual faults:	189301
Total LV Faults:	3855
Total MV Faults:	5364
Total HV Faults:	314
Total Faults:	198834

Total incidents of copper theft: 1453

On a 24-hour a day basis, our staff are responsible for maintaining the electrical network within designed operating parameters to include equipment loading and voltage requirements. In the event of a major system disruption, staff must respond appropriately and immediately to facilitate the co-ordination of the system and customer load restoration.

Many hours and great effort is being invested in the Outage Management System (OMS), the new OMS system will allow for the monitoring of faults and help improve information sharing with customers in terms of medium/low voltage faults. Great strides are being made in changing the way we do business, so that we can reduce outage time and frequency by integrating cutting edge technology, work and business processes.

Network Control Branch 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.

CONSTRUCTION PLANNING AND WORKS BRANCH

The Construction Planning and Works Branch is responsible for the planning and design of MV/LV infrastructure and the construction and installation thereof. Plans are underway to provide supply to the Moses Mabida Stadium and the King Shaka Airport. We are also in the process of upgrading supplies to the training venues for the 2010 FIFA Soccer World Cup



i.e. King Zwelethini Stadium (Umlazi), Princess Magogo Stadium (KwaMashu) and Sugar Ray Xulu Stadium (Claremont). We are also upgrading the Durban beachfront and have completed the supply to the Galleria shopping centre in Umbogintwini. Another major project in progress is the electrification of low cost housing, for which we received a R54 Million grant from the Department of Minerals and Energy.

In the next financial year we are going to focus on strengthening our supply with the commissioning of two major substations, Ridgeview and Avoka. This will help provide reinforcement for the 2010 FIFA Soccer World Cup. We are also in the implementation stage of new software planning tools: Bentley's PowerDraft, PowerOffice, ReticMaster and PowerFactory (a power systems analysis package).

MAINTENANCE PLANNING AND WORKS BRANCH

The Maintenance Planning and Works Branch inherit the responsibility to inspect and maintain the electrical network. The maintenance of eThekweni Electricity's network is crucial in ensuring the integrity and reliability of supply to customers. The electrical network has now been in operation for more than 100 years and with an ageing infrastructure, the staff within the Branch acknowledges the importance of a maintenance schedule and the prompt execution thereof.

Whilst the Unit has managed to recruit a maintenance manager and various supervisory staff, namely administration officers, superintendants and clerk of works, the branch has lost the services of three experienced managers due to retirement and transfers.

The maintenance of the electrical network for the 2008/2009 year costed the Unit in excess of R210 million. A large portion of the budget was dedicated to identification and rectification of faults. Electrical faults are a day to day issue for the Branch and faults are initiated due to an ageing network, third party damages and theft. Overhead line (OHL) faults are mainly caused due to the encroachment of vegetation such as trees to the bare OHL. In an effort to minimize faults and outages during the world cup season, the Branch has been performing extensive and detailed maintenance work at crucial parts of the network. Due to this extensive maintenance program undertaken by the Branch, the reliability of the network has been improved. Despite numerous efforts to curb theft, the stealing of cables and infrastructure continue to hamper the electricity supply industry with negative impacts to the planning and works branch.

During the year under review, the branch dealt with major damages to the electrical infrastructure due to stormy weather conditions. The areas of Molweni, Hillcrest, KwaMakhutha and Amanzimtoti were affected as a result of the storm. A collective effort by all staff of the Branch ensured that supply to these communities was timeously restored.

In an effort to monitor the condition of strategic underground cables, the branch has invested in sophisticated equipment to perform diagnostic tests on these cables. This will allow for the early detection of faults and rectification thereof thereby preventing an outage condition.

LIGHTING WORKS BRANCH

The Lighting Works Branch is responsible for the construction and maintenance of lighting infrastructure in the entire of the eThekweni Municipality area of supply. This equates to more than 200,000 streetlights. The Branch completed a number of projects throughout the financial year:

- Bayhead Road lighting in Umbilo
- Warwick Avenue Bridge lighting
- Moss Kolnick Drive lighting
- M25 (Bhejane Road) lighting of the corridor to Bridge City, the new mall in KwaMashu
- Old Main Road lighting in Hillcrest.

Our goals for the New Year are to improve upon the skills of our employees (for instance, fault finding skills) and to continue to strictly comply to health and safety standards to achieve an accident free year. We are actively recruiting electricians and electrician assistants, and aim to fill 90% of our vacancies by June. We are using some contractors for maintenance and construction but we are currently doing more work internally when compared to previous years. We filled two superintendent positions, which added stability and control to the branch and improved productivity.

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, including the 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 utilised was R20 million and projects were planned for major route improvements, new major routes, lighting of parks, stadium lighting, beachfront lighting, CBD lighting, cemetery lighting and sundry lighting. The following is a summary of the lighting projects undertaken during the 2008/2009 financial year.

- MR 577 - Newlands to Kwadabeka
- Warwick flyover inbound and outbound carriageways - high-mast and bridge deck lighting design
- City beautification - major routes fitted with decorative arms and decorative luminaries at intersections
- Khangela Bridge - design
- Moses Mabida Stadium precinct - approved lighting designs
- Bhejane Road - major lighting facelift with steel poles and decorative luminaries at intersections
- Beachfront upgrade - approved lighting designs
- Decorations for 2010 FIFA Soccer World Cup - decorative display in Pixley Kaseme Street, Yusuf Dadoo Street and at the entrances to Clermont, KwaMashu and Umlazi.
- 2010 FIFA Soccer World Cup Training Venues: Sugar Ray Xulu Stadium and King Zwelithini Stadium - advised consultants and modified lighting designs
- Isiah Shangase Road - advised consultants and modified lighting designs
- M4 north underpass at Walter Gilbert Road - advised and liaised with architect regarding tunnel lighting design.

With the national electricity crisis in recent years and the ever-increasing emphasis on energy efficiency, the Lighting Planning Branch has dedicated itself to research and investigation into new lighting technologies. Technology such as LED (Light Emitting Diode) lighting is being hailed as the future of lighting and is becoming increasingly present in our environment. We set up a pilot project on Masabalala Yengwa Avenue (previously NMR Avenue), testing and evaluating LEDs from a range of manufacturers at different heights. This project was very successful and proved that LEDs are a feasible new form of technology despite being more expensive than conventional lighting. Another exciting project that will be undertaken in the near future is the design and planning of decorative lighting for Florida Road.

We have recently achieved an acceptable staff compliment and we now aim to work on building their skills and experience within the division. Our long-term goals are to initiate a complete audit of all public lighting systems and undertake the necessary upgrades and improvements thereof.



TECHNICAL SUPPORT | DEPARTMENT

The functions of the Technical Support Department traverses across a wide range of services and these include: Providing a communication medium to interact with critical electrical plant and equipment, providing a service to design and implement electrical protection schemes to avoid damages and electrocution during electrical fault conditions. Other key roles of the department include compilation of technical specifications and designing as well as maintaining a geographical information system. The department is also responsible for providing technical training to all relevant staff.

COMMUNICATION NETWORKS BRANCH

This branch is responsible for the fibre, radio/wireless, technical data, copper pilot and other medium communication networks. These communication networks provide vital 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, upgrade, 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/Grading Process only advanced to the stage of finally grading posts at the end of 2008 with the TASK Final Outcome Report only being published in February 2009 with the result that the filling of the large number of vacant posts only commenced thereafter. Four of the six new divisions in the branch became partially operational with limited staff strengths: 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 optical ground wire (OPGW) on the prevailing overhead lines refurbishment contract on the second circuit was completed between Ottawa and Umdloti. New installations were installed on both circuits between Ottawa and La Mercy, Coedmore and Havenside. Single circuits were installed between Klaarwater and Shallcross, Shallcross and Coedmore substations. The installation of the second circuit between Lotus Park and Umlazi transmission substations was postponed for the third time because of the operational restrictions. In addition, installation of OPGW onto the second circuits are Durban South to Himalayas, Durban North to Umgeni, and Umgeni to Phoenix Industrial.

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

Dense Wave Division Multiplexing (DWDM) equipment was received to extend between approximately 25 major substations on the main fibre rings. Training has taken place and implementation is awaiting the upgrade of panels at substations. This system 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, or links into the electrical distribution infrastructure, as well as assist with streamline swap over to alternative fibre in the event of fibre faults.



A turnkey approach was adopted for the implementation of a cellular-radio based system. This was almost completed at year-end, with approximately 606 out of an identified 733 distributor substations being fitted with telemetry and serial modems. The full system, which incorporates a link into the Scada Master station, is expected to be completed by August 2009.

Development also continues on a collision domain multiple access (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 access multiplexers, with eight being installed during the year at Edwin Swales, Wentworth, Fynnlands, Gateway, Cornubia, Coedmore, Shallcross and Umgeni major substations. The system now consists of 87 multiplexers: 33 with STM1 (155Mbps), 32 with 4xE1 (8Mbps), and 22 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 67 supervisory remote control units have been connected via the multiplexers back to the Control Centre and 96 protection schemes are supported on the fibre system, of which 13 use multiplexers to communicate.

A further 15 new configuration Fibre Optic Communication panels (FCPs) were delivered and fully installed at new 132kV and existing 33kV transmission substations, bringing the total to 141 installed FCP units for the housing of multiplexing equipment in them.

In addition, 16 new configuration Fibre Optic Termination panels (FTP) were delivered to existing 132kV transmission substations and three were fully 'cut-in' to the network as part of the overall upgrading 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 was only one fibre link fault during the year between Control Centre and Windsor Park, which was repaired.

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

A further nine transmission substations were connected to the wide area network (WAN) bringing the total number of major substations with Ethernet nodes to 47.

We installed separate relay bus enclosures where relay busses already existed. Relay busses were installed and linked to the central access system at one major substation. This brings the total number of majors where relays can be remotely accessed to 34.

A further eight major substations were fitted with telephone jacks. This brings the total number of majors with telephone jacks to 52.

No additional camera systems were installed. Remote access was provided to a quality of supply measurement device at Lotus Park, bringing the total of remotely controlled devices to four.

Pilot Network Division

A total of 15 high priority copper pilot cable links were repaired and pilot boards were installed in seven new transmission and 68 new 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, four electronic alarm boards were repaired after being damaged by high voltage surges.

ELECTRICAL WORKSHOP BRANCH

The Electrical workshop Branch is responsible to provide an electrical repair services to various departments within the Unit. The branch is mainly responsible for testing new equipment to make sure they meet our specification prior to installation on site. The branch is also actively involved with on-site duties and performs repairs to damaged and leaking equipment.

Coupled with the above mentioned duties, the branch has commenced with the following projects:

- Scrapping of old equipment and cleaning of the scrap yard.
- Demolition of old Transformer tanks and installation of new ones.
- Replacement of the existing testing bays in the Electrical Workshops.
- Replacement of oil holding tanks

The short term goal of the branch is to procure and set-up an oil regeneration plant. The advantages of this plant are many fold however the primary objective of the plant is that it will allow the Unit to minimise costs for regenerated transformer oil.

MECHANICAL WORKSHOP BRANCH

The Mechanical Workshops Branch provides specialist mechanical support services to the Electricity Unit, other Units within the municipality and external customers. The branch is involved with the designing and manufacturing of wide range of mechanical parts used in the distribution of electricity and maintenance of plant and infrastructure.

Work Programming Division

This division continues to produce work for both internal and external customers. The division undertakes all the costing, planning, tendering, management etc. of all work assigned to the Mechanical Workshops Branch. This division is instrumental in assisting with research and purchasing of machinery and equipment to upgrade and improve productivity and successfully continued to secure the tender for 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. The senior technician has also produced a variety of working drawings and designs for manufacture and installation of support equipment for our distribution network, including updates/amendments to existing drawings to improve cost effectiveness and productivity.

Fitting, Machine & Rigging Workshop

This workshop continues with 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 unavailability, obsolete or stolen items required e.g. switching and earthing gear, transformer parts etc. Machining and assembling of bushings, tap-changes, contacts, high voltage tension cable fittings and specialised turning projects have these available when required for an uninterrupted electrical supply. Fortunately, due to the resourcefulness of a dedicated scarce-skilled workforce, enabling accurate engineering standards are adhered to.

Installation of various types of support structures were undertaken when required, e.g. anti-theft cable bridge crossing and 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 switchgear, 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 substation equipment, copper earth matting, security gates, conservator tanks, fabrication of various components as per customer's requests, and the cutting and removal of an assortment of redundant items. Modifications and repair work to equipment, vehicles and trailers are undertaken on a regular basis and various electrical equipment 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 the 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 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, lifting and rigging of equipment. The branch has successfully continued with the trade worker training programme to develop and prepare lower level staff with some skills for high level jobs for promotional purposes.

New machinery has been purchased e.g. CNC lathe, punching machine, guillotine, and a 13,5 ton truck-mounted remote controlled crane with a 22-metre reach was introduced into service in the Rigging Section replacing an aging vehicle.

We aim to provide an ongoing quality service of excellence to our customer base. Our forthcoming challenges are to improve working facilities, implement the Safety Work Procedures, initiate the Quality Management System Analysis, replace old vehicles and upgrade/replace old machinery in the workshop. Apprentice training and the development of staff skills are also high on the agenda.

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 (NRD) is staffed by five Superintendents and 30 draughting staff. The core function of the NRD is to capture and maintain an accurate set of records of the underground and overhead electrical infrastructure within the eThekweni Electricity area of supply. This data is stored and updated in a Geographic Information System (GIS). 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. The division recently acquired two handheld GPS units that are used to collect data and populate the GIS database. 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 a GIS Technician and two GIS Officers. 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 a Chief Survey Technician, six Survey Technicians and ten Survey Attendants. The core function of this Division is to provide a spatial 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 to site, and this often results in delays in completing work timeously. Projects that are undertaken for the HV Planning Division are usually ongoing 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 Branches 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 Electricity Unit.

PROTECTION AND TEST BRANCH

The Protection and Test 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. The branch's key responsibility is to effectively plan, design, test, commission and maintain all protection/dc systems and to investigate any protection or dc related mal-operations.

The staff within the branch have initiated the following projects during the year under review:

- Protection setting, testing and commissioning of numerous transmission substations, including Shallcross 132/11kV S/S, Tongaat 132/11kV S/S and Avoca 132/11kV S/S.
- Protection setting, testing and commissioning of additional switchgear and equipment in existing transmission substations, including Hillcrest S/S, Chatsworth S/S, Reservoir Hills S/S, Winklespruit S/S, Northdene S/S, Havenside S/S and Waterfall S/S.
- Protection setting, testing and commissioning of 11kV distributor substations for all regional depots.
- Standardisation of the relay configuration of all the Alstom P123 range relays in our system.
- Standardisation of the relay configuration of all the Alstom P139 range relays in our system.
- Performing protection relay maintenance in the MV and HV network as per our five year maintenance cycle.
- Upgrading of battery charger units at various transmission substations.

Like other branch's within the unit, the Protection and Test Branch has experienced many challenges, one of the key issues was the recruiting and retention of specialised technical staff. The branch has also faced difficulty in training of new staff members. Creating the balance between training, gaining experience and meeting pre-planned targets has proved to be difficult.

In a effort to increase productivity of the branch, the staff has decided to keep abreast of the protection maintenance and dc maintenance cycles, keep abreast with technological developments in the protection/testing environment and initiate, plan and coordinate a protection relay upgrade programme

The branch has also made a decision to continue to improve testing techniques and philosophies with new improved test equipment wherever possible and feasible. There are also plans to roll out Station ware to effectively manage protection settings and workflow.

SHERQ AND TRAINING BRANCH

The SHERQ and Training Branch is responsible for the recruiting and training of all apprentices, technicians-in-training and BSc candidate engineers. The branch also offers training to external customers from Sappi, Mondi, Engen and Richards Bay Minerals amongst others. 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. In 2009, 17 BSc candidate engineers were employed and there was an intake of 40 apprentices and 20 technicians.

The safety auditing of consultants, contractors and internal staff has been achieved through the recruitment of Safety Officers, Electrical Machinery Inspectors and Site Safety Monitors. This is to ensure safe working practices are adhered to and the quality of workmanship is maintained and improved.

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 authorisation), 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 energised switchgear can be operated after watching operational videos produced by the training team, using their specialist expertise. It also has a live training yard where practical demonstrations and assessments are carried out. This has its own substation with different types of 11kV 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 though LV up to 11kV.

There are various projects currently in progress. The Branch is continuously expanding and we are relocating to the eThekweni Technical Training Centre to accommodate growth. We will relocate all our switchgear to the new premises. We are also building a Science Expo Facility to encourage school graduates to take up electrical engineering as a part of the new facility.

The branch is currently building a Touch Screen Relay Simulator in order to keep everyone in the technical department up to date with the new relays going into the environment on a continual basis. The branch is keen on creating international training opportunities for staff and plans are underway to send two training officers and six trainees to China to stay abreast with global technological trends in the industry.

TECHNOLOGY SERVICES BRANCH

The core function of the branch is to research 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 good and during its application. The Technology Services Branch also plays a key role in the adjudication of all tenders for technical equipment, material and services supplied to the Electricity Unit. The Branch is also actively involved with the creation and maintenance of all technical codes of practice and instructions used by eThekweni Electricity staff and contractors.

During the year under review the branch has continued its active participation in NRS projects as well as participating in SANS working groups adding vital information for the compilation of new specifications.

Despite the challenges faced for the year, the branch has managed to complete the following projects:

- Introduction of fixed-pattern switchgear to replace metal-clad switchgear
- Migration from paper cables to XLPE
- Implementation of a Documentation Management System

Going forward, the branch will be initiating projects to migrate from fiberglass enclosed mini-substations to metal-enclosed for enhanced safety reasons, introducing a list of technically approved products for internal use, introducing longer term contracts and the formulation of all codes of practice and specifications into a functional electronic format (Adobe Acrobat)



CUSTOMER & RETAIL SERVICES | DEPARTMENT

The Customer & Retail Services Department is chiefly responsible for creating a platform to interact and communicate with the supply side as well as the demand side customers.

Coupled with the liaison function, the department takes responsibility for designing electricity tariffs for all customers within the city. The task of electricity metering and revenue protection also falls within the responsibility of the department.

COMMERCIAL ENGINEERING AND MARKETING BRANCH

The Commercial Engineering and Marketing Branch have three primary functions namely: to raise awareness about key issues involving electricity, to design cost-effective and accurate electricity tariffs and to maintain a statistical database for electricity purchases and sales. The energy crisis of recent years has set energy conservation awareness as the key issue in the industry. Safety precautions and theft of electricity are also at the top agenda for the branch.

Marketing Division

The Marketing Division serves as the link between the members of the public and the eThekweni Electricity Department. The marketing activities create a platform to engage with the public to address the following:

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

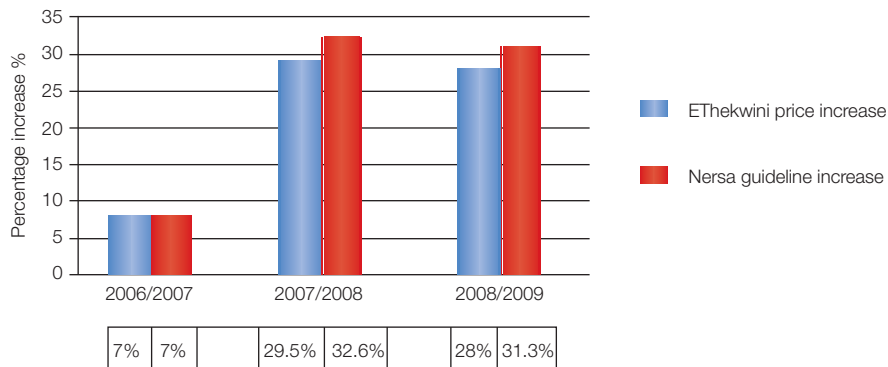
We are continuously holding interactive events to raise awareness and promote the ideals of the department, especially regarding energy efficiency. The 2008/2009 year saw the launch of South Africa's first Energy Office along with the campaign driving the slogan of 'I pledge to save 10%' which was supported by the mayor and key members of government, municipality and public. The division also spearheaded the city's participation in the International Earth Hour on 28 March 2009. Awareness was raised by forming a procession which visited the major malls and the beach front, and culminated with a gathering at the International Convention Center which was joined by the mayor. The 'Earth Hour' initiative saw Durban reduce its energy consumption by an amount that can be equated to switching off 150,000 light bulbs. At a more grassroots level the division held 'Edutainment' road shows, visiting schools and communities and launching the branding 'Switch off, Un-plug, Save 10%'. This was well received and helped instill the awareness that energy is a scarce and valuable resource. The division also took part in the Umgababa Beach Festival where it addressed 8000 people. It held marketing initiatives at the Comrades Marathon, at various malls around Durban and on the radio as well as running workshops in the business and educational sector.

Further, the marketing division often participates in community radio talk shows and this provides a platform for the unit to interact with members of the community directly providing useful and up-to-date electricity related information.



Tariffs Division

This division designs electricity tariffs and provides tariff advice to key executive consumers. Tariffs are designed to be cost-effective whilst ensuring accurate cost recovery and reflectivity. The division is also responsible for auditing the Eskom bill, which amounts to approximately R6.5 billion per annum. Changes in the industry (shortage of electricity and rising electricity prices) have caused a drive for a reduction in consumption through improved efficiency as well as research into renewable energy sources like solar power, hydro-electric power and wind generated power. We are also implementing new 'Time of Use Tariffs' for residential and commercial consumers and revamped 'Time of Use Tariffs' for industrial consumers. Some tariffs will become obsolete in forthcoming years, namely the 'Scale 2 tariff', 'LV3 part tariff' and the 'Scale 5, 6 and 7 tariffs'. These tariffs will attract higher than average increases in coming years to dissuade consumers from using them as they are not cost-effective/cost reflective. These pricing signals are aimed at reducing peak loads, thus minimising the risk of load shedding.



The cost of electricity in South Africa is on the rising edge and by following the trend as depicted in the above graph; it is evident that electricity is no longer a cheap resource for South Africans.

Eskom's 'Power Conservation Programme' (PCP) has put immense pressure on the department to communicate on a one to one level with our key consumers in order to assist them in achieving a 10% saving. We visited 30 of our top consumers, establishing Baseline Consumption Data and set a framework for PCP implementation. The programme has been very successful, with most consumers achieving the benchmark 10% saving.

Industrial Sales Division

This Division concentrates primarily on conducting tariff analysis and sale of electricity to our commercial and industrial consumers. Due to the supply-demand constraints, this division has lost its key focus and is therefore no longer active. It is envisaged that the Industrial Sales Division will be replaced by a division that focuses specifically on advising our consumers on energy efficiency best practises

CUSTOMER SERVICES BRANCH

The Customer Services Branch covers a wide spectrum of services and support to consumers and other branches. The following are some of the branches key deliverables:

- Facilitate applications for service connections/alterations
- Meter readings
- Auditing of meter readings
- Cashiering facilities
- Providing technical advice to electrical contractors and consultants
- Investigating electrocutions and reporting to the Department of Labour
- Resolving a wide spectrum of complaints and queries raised by consumers

Administration/Technical

The HQ Rotunda continues to experience high volumes of consumers due to the closure of Umhlanga Water Customer Service Centre, which has relocated to Verulam. Consumers are now using Electricity HQ for its convenient parking to register for water and electricity. The electricity shop (Rotunda) at HQ has recently been painted and made more consumer friendly with extra counters and new chairs for consumers to use thus avoiding standing in long queues. In the forthcoming year we shall implement our plan to roll out handheld meter reading units to all sections and to implement systems to handle the processing of applications at Kingsburgh as we have done successfully at the Verulam Sizakala Centre. We are also improving the application forms and reviewing procedures so that staff can deal consistently and more efficiently with consumers.

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 consumers are increasingly locking premises for security reasons can be given better attention and premises accessed for readings. New contract meter readers have also been appointed to improve service delivery.

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 Revenue Protection Branch ensures that non-technical energy losses on the distribution network are kept to a minimum by effectively disconnecting consumers who are in arrears, combating illegal connections and swiftly reconnecting consumers that have settled their accounts.

Combating illegal connections continues to be at the top of the agenda with the Revenue Protection Enhancement Project being widely implemented. The Branch installed 1500 vandal-proof prepaid meters, which resulted in the recovery of over R5 million. The Branch is also implementing a Sweep Project in association with the consulting company, Itron. This entails inspecting and mapping out the GPRS coordinates of prepaid meters in order to pave the way for future auditing and identify any illegal tampering of meters. The project is 70% complete. A new division called the Business Risk Branch has been established which will assist in combating illegal connections as well as fraud, theft and corruption.

The number of disconnections has increased steadily and now stands at between 18,000-20,000 per month. We plan on initiating an advanced form of processing solution using highly evolved digital pen and paper technology to track the activity of disconnectors. The new technology will produce a time stamp and GPRS coordinate of each disconnection, allowing us to track the events and process the information quickly and efficiently. This in turn speeds up the reconnection process if the consumer settles the account.

METER ENGINEERING BRANCH

The core function of the Meter Engineering Branch is to ensure that metering equipment that are used for billing purposes are properly specified, installed and maintained. The metering branch consists of 4 divisions, namely Special Metering, Workshops, Projects and Bulk Metering divisions.

The Projects Division

The Projects division is responsible for the acquisition, specification and commissioning of new metering technologies. During the past year, this section has been involved in the implementation of automated meter reading projects. These projects use GSM for the transmission of metering data back to the central station for billing purposes. GPRS is currently being investigated as a cost effective alternative means of communication.

The Bulk Division

The Bulk metering division is responsible for all new applications and upgrades for the metering of large power users. This involves complex meter installations and maintenance. The division is directly responsible for the generation of metering data and maintenance of approximately 800 of the largest consumers that bring in almost forty percent of the revenue. In addition, the division undertakes load profile requests for tariff analysis, planning and forecasting purposes.

The upgrade of multi feeder systems that have been metered with summation current transformers in the past, to the individual electronic metering is being continued. This will improve the accuracy of metering and revenue collection. The division has also successfully replaced all electromechanical bulk meters with electronic meters.

The Special Metering Division

The special metering division is mainly responsible for all new metering applications and upgrades of small businesses, commercial and sectional title residential consumers. Rectification of on site faults on all complex metering installations also forms a significant part of the division's responsibilities.

The Workshop Division

The primary function of the division is to repair, calibrate and test all single and three phase meters. Prepayment meters are tested in house or sent back to the suppliers for specialized repairs. The section has an approximate throughput of 800 meters per month and is continuously under pressure to process these meters in order to minimize the capital expenditure. The workshop has been housed in a larger premise and geared to cope with high volumes of meter tests and calibration.

The filling of technical posts continues to be a hurdle due to the scarcity of skilled metering personnel. A restructure of the Meter Engineering Branch is under consideration and priority will be given to motivation and training of staff. The focus for the forthcoming year will be the investigation into new technologies for the residential sector, such as smart metering. This will enable automatic meter reading and remote control of meters. Smart Metering will also support load limiting which can be used to avoid load shedding in the future. The meter engineering branch will continue striving to provide an efficient and effective service to all consumers

CONTACT CENTRE BRANCH

The Contact Centre provides a fault reporting service on a 24-hour, seven days a week basis. The contact centre is equipped to document faults and alert the necessary branches for corrective action. The centre deals with all consumer categories reporting a wide range of faults, typical faults include:

- Loss Of Electricity supply
- Metering faults
- Street light failure
- Poor quality of supply
- Cable Theft

General queries and reports are fielded by our toll-free number and email

Toll-Free number: 080 1313 111
E-mail: custocare@elec.durban.gov.za

As members of the public join forces to help curb cable theft, there has been an influx of calls in this regard, the contact centre has therefore set-up a dedicated 24 hour hotline to report cable theft.

Cable Theft Hotline: 031 311 9611

In an effort to improve levels of service, the contact center branch is in the process of establishing a new Outage Management System (OMS) with Network Control Branch, this will allow for quicker response times to consumer queries. The new system will make use of Short Message Service (SMS) and automatic voice recorded phone calls, to keep consumers updated on the progress of faults and estimated restoration times.



ADMINISTRATION | DEPARTMENT

The Administrative Department controls various branches that provide crucial services to the unit. The Department has the important task of initiating, auditing and processing all financial transactions for the unit. Coupled with the vast financial responsibility, the department also takes care of the information technology sector, routine building maintenance and all the units logistical and transportational requirements. Further to the above, the department provides a document management system that is in accordance with an approved governmental archival system. The department is also responsible for controlling business risk and compiling mitigation strategies

ADMINISTRATION BRANCH

The Administration Branch covers three key areas of the department: Administration, Buildings, and Transport. The Administrative Section 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, transcribing of meetings, disciplines 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 Depot and Headquarters Complexes. We recently renovated the Springfield complex and relocated all our faultsmen to the complex under the centralised control of one senior manager. This improved efficiency and service delivery.

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. Last year we successfully executed an exciting project to convert 10 Mercedes Sprinters to 4x4 and equip them with mobile workshops for the HV Lines Branch who needed to access lines in rough terrain. This was the first project of its kind undertaken by the department and was a major success.

A new project is in progress to enhance access control at our Head Quarters, Springfield Complex and Training Centre. We are researching the idea of using biometric methods of identification (fingerprint or retina identification).

We have filled key staff positions during the year but continue to lose skilled staff. This adds strain to the workload of existing resources. Overall, staff are to be commended for a successful year.

PRODUCTIVITY BRANCH

Inspectorate

The Division has 15 Productivity Officers who are stationed within the six 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. The number of in-house teams that we monitor has gone up from 55 to 73. This far exceeds the growth of the amount of contractor teams monitored, which has risen from 105 to 118. This is a positive sign that the department is consolidating skills. It is our aim to continue increasing the number of in-house staff because it makes monitoring more efficient and maximises productivity within the branch.



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 scrutinised.

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 has to keep abreast of these changes and ensure that our Work Standard database is kept up to date.

A new project that we are initiating for the new financial year is the mapping and re-engineering of Business Process Management in order to streamline business and increase productivity.

INFORMATION TECHNOLOGY BRANCH

The Information Technology Branch is responsible for the development, implementation, support and maintenance of eThekweni Electricity's vast and varied ICT systems. This includes ICT infrastructure for the Wide Area Network connecting our 16 sites across the eThekweni Metropal and all the associated hardware that hosts these systems.

2009 proved to be a very busy year, with a number of key ICT projects starting. Particular mention must be made of the IDM (Identity Management Project), which necessitated upgrades to Groupwise and E-Directory with the key objectives being improving the Security Management of our core business applications, implementation of an Identity Management Framework, establishment of security auditing and improving the management of desktop and server environments.

The Asset Management Initiative embarked on by the Municipality has spawned a number of projects for IT in 2009/2010. One of the major projects is the upgrade of our Enterprise Asset Management System, Ellipse, to incorporate best asset management practice and align with PAS55. In addition to this, we have acquired a mobility platform to enable the implementation of Mobile solutions that would extend the functionality of the EAM to field workers. In the first phase, we intend implementing an Asset Inventory Survey solution and Inspections & Defects solution. For asset tagging, we have initiated a pilot project to determine the feasibility of using RFID technology to improve the tracking of assets throughout its lifecycle.

The ever increasing demands on ICT resources, in particular Disk Storage, has necessitated upgrades of our Storage Area Network and the further consolidation of servers. The virtualisation of our File and Print servers has significantly reduced the administration overhead and resolved some of the capacity problems associated with the legacy server architecture. We have vertical scalability and hence are no longer chassis bound.

We have seen an exponential growth in the number of remote users connecting to our network and services. This has increased our exposure and security risks, and as a response, we have developed a unique USB security key, using public key / private key technology that ensures only authorised users with a valid key are able to securely access our network over the internet. The entire solution was developed 'in-house' for a fraction of the cost of similar solutions. Unfortunately, the System Engineer responsible for the main development has since resigned.

2010 promises to be a challenging year for ICT. In addition to the already busy programme, we are looking to implement an Outage Management System, a Business Intelligence and Condition Monitoring System, extend the functionality of the HRM modules in Ellipse and introduce the first Super Vendor for the issuing of prepayment electricity tokens to increase the point of sale footprint for our customers.

Whilst there are numerous projects in the planning or execution phase, the skills shortage in the IT Branch remains acute. We have lost a number of key skills which will be difficult to replace in the short-term. This will necessitate the continued use of contract skills while we increase the drive to recruit permanent staff.

FINANCE BRANCH

The Finance Branch is responsible for the financial control over all activities of the Department. This includes, inter alia, the management, monitoring and control of revenue, expenditure, capital expenditure, insurance claims, financial systems, procedures and the provision of advice and guidance on matters related to finance to all personnel. The Department's annual and medium term budgets, annual financial statements and monthly management reports are prepared by the Finance Branch. The Branch also monitors compliance with statutory and internal regulations.

During the year under review, the Finance Branch contributed to several projects in the Department, namely, the Outage Management System (OMS), the Revenue Management System (RMS) and the Asset Management System (AMS). In addition, the annual financial statements for the 2008/2009 year and the multi year budgets for the 2009/2010 year onwards were prepared and approved within deadlines.

Further progress was made during the year in the implementation of the new accounting standards to comply with Generally Recognised Accounting Practice (GRAP) as required by National Treasury. The emphasis for this year was mainly to meet certain requirements of the new asset accounting standards which was successfully implemented. This entailed the input of many long hours by Finance staff to meet the financial year deadline.

Plans for the next financial year are to continue with the implementation of further phases of the new accounting standards and the OMS, RMS and AMS projects referred to above. The estimated completion periods for these projects vary between the next two to four years. A new project to introduce super vending for the sale of prepayment electricity is already in the preliminary stage of discussions and design. The aim of this project is to increase the department's footprint of sales outlets for prepayment electricity within the eThekweni region and to provide several alternative methods of sale. In addition to the Finance Branch, several other branches are involved in this project. A further multi year project intended for commencement is the Regulatory Reporting Manuals (RRM) required by the National Energy Regulator of South Africa (NERSA). This project involves some major changes to systems and processes as well as the training of personnel throughout the Department.

In conclusion, it is fair to say that the efficiency and effectiveness of the Finance Branch is due to the dedication and enthusiasm which the staff have always displayed. Management appreciates their contributions towards the achievements of the Branch.

PROCUREMENT BRANCH

Bid Administration

The Bid Administration Section administered 99 contracts for the supply of goods and services of which 29 are labour contracts and 80% of the work was awarded to BBE contractors.

The various labour contracts include amongst others maintenance, construction, street lighting, reconnection and disconnection. The 29 labour based contracts were awarded to 111 various contractors based on their capabilities, resources, competence and price. Hence certain contractors are able to be awarded up to 5 contracts simultaneously. The contractors with the most electricians are capable of providing the most number of crews and will be allocated the most work.

Eight appeals were received by the Appeals Committee and were successfully defended.

The following table is reflective of the actual awards to Black Business Enterprises for labour contracts:

Black	PPG	Women	Disabled	Location			SMME
				EM	KZN	SA	
82%	37%	10%	0%	98%	100%	100%	98%

PURCHASE ORDER STATISTICS JULY 2008 TO JUNE 2009

ORDER TYPE	NO.OF ORDERS	VALUE
Stock Purchase Order	4,687	345,341,067
Non Stock Purchase Order	2,340	58,601,337
Service Purchase Order	6,124	198,171,761
Stock Purchase Order	4	370,000
Non Stock Purchase Order	3	132,674
Service Purchase Order	3,419	420,196,243
Field Release Purchase Order	235	150,147,067

STORES

We operate 24 stores located throughout the distribution area and stock 11,249 items. In addition to the warehousing and issuing of stock items, the stores are responsible for receiving of all direct (outside) purchases.

	Jul 2008- Dec 2008	Jan 2009 - Jun 2009	Total YTD
Total Stock Value	R347,577,424	R408,952,950	R756,520,374
Average Stock Value	R57,927,904	R68,158,825	R63,043,364
Stock Turns (Excluding Strategic)	6.35	5.03	-

BUSINESS RISK CONTROL BRANCH

The Business Risk Control Branch commenced its operations in March 2009. The Branch comprises the Risk Management, Forensic Investigations and Network Theft Sections. The Risk Management Section is responsible for the identification, assessment and mitigation of risks within eThekweni Electricity. The Forensic Investigation Section is responsible for the investigation of incidents relating to fraud and corruption within the organisation, whilst the Network Theft Section is responsible for the investigation and mitigation of theft on eThekweni Electricity's reticulation network.

During the financial year the Branch successfully completed a number of forensic investigations and simultaneously identified potential risks to the organisation. Through intense consultations with the various stakeholders within the organisation, a risk register has been successfully compiled enabling the organisation to prioritise its risk mitigation strategies. The Branch has also been conducting various compliance reviews and will be recommending changes to processes and procedures to ensure compliance with legislation. The operation of the Network Theft Section is currently being outsourced to private security companies which have been extremely successful in the apprehension and conviction of culprits responsible for the theft of assets on the network. Since November 2009 a total of 39 arrests have been made in connection with cable and electricity theft. Our goal is to employ in-house investigators to perform this function in the near future.

We have initiated a marketing campaign urging the public to report cable theft and illegal connections to our hotline (031 311 9611). The campaign comprises posters in public service centres and notices in metro bills, raising awareness about the dangers of network theft.

We are currently facilitating the implementation of technological solutions to assist the organisation curb incidents of theft on the network. Negotiations with suppliers have been successful and we are confident that the implementation of these solutions is imminent.

In the ensuing year, the branch intends to prioritise the recruitment of its personnel. With a reasonable complement of staff and available resources we hope to intensify our operations, which we are confident will add value to the organisation.



HUMAN RESOURCES DEPARTMENT

The Human Resources Department provides services to the staff of eThekweni Electricity in the fields of recruitment, selection, industrial relations and special projects.

The department also has the responsibility of compiling and implementing a staff resource plan to ensure there is adequate staff available for proper service delivery. Further, the department is active in providing staff welfare programs and non-technical training.

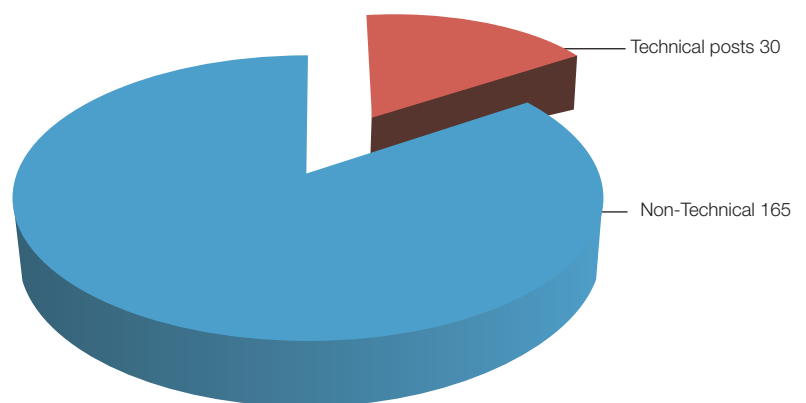
HUMAN RESOURCES SERVICES BRANCH

The Skills Recruitment Campaign has been on the top of our agenda. We are actively working on the challenge of securing permanent employment and retaining skills. We are offering agency staff the opportunity to apply for permanent positions and are giving casual employees more security and better benefits. Seventy-nine posts that were occupied by agency temps were advertised and 70 were filled, with the balance currently being processed. The branch also established a Scarce Skills allowance policy as a part of the retention strategy to help retain critical staff in the organisation.

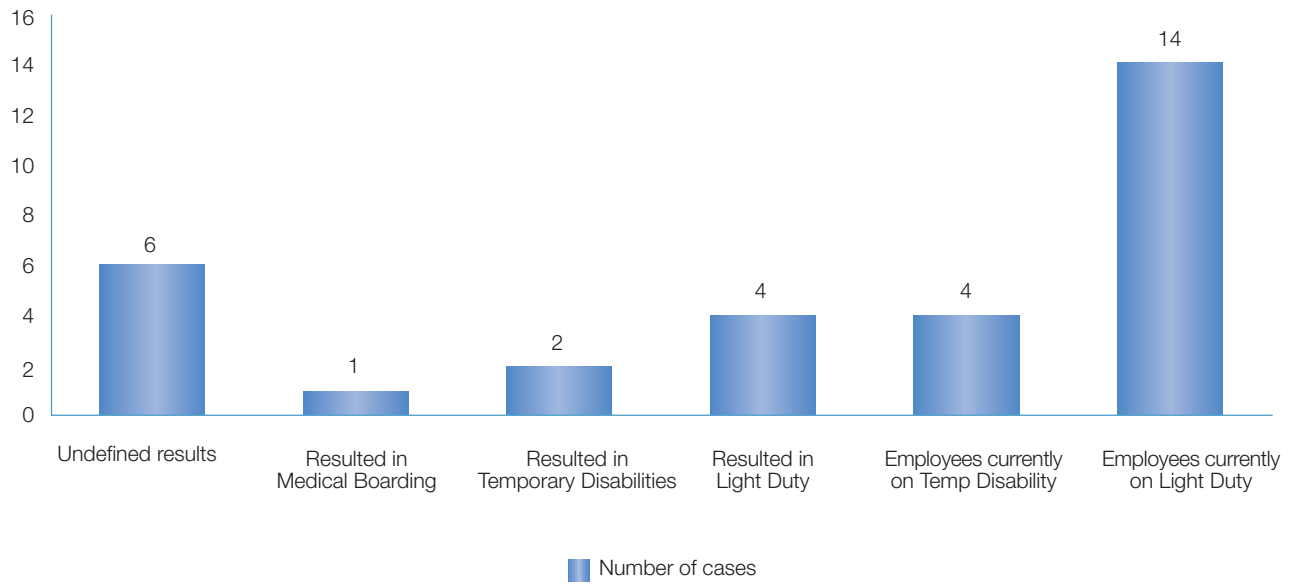
HR has also been addressing the challenge of skill recruitment at a grassroots level, participating in a Maths Symposium to encourage students to study maths and science, and offering support and bursaries to school leavers. We also have a graduate training programme which gives students specialised training in HR. A number of these students have been offered permanent employment in the Municipality.

This financial year has seen HR dealing more intensively with HIV/AIDS. We held an awareness campaign and workshops for staff offering advice and detailed information. The department also experienced a wage negotiation strike, which resulted in few employees being issued with warning letters. The strike lasted approximately two weeks and was referred to a mediator. The consequent proposal was accepted by both labour and management and the strike drew to a close. An exciting new development in our branch will be the implementation of a Dynamic Resource Link, which is a new computer system offering a self-service HR facility

STATICAL INFORMATION: NUMBER OF POST FILLED DURING THE YEAR



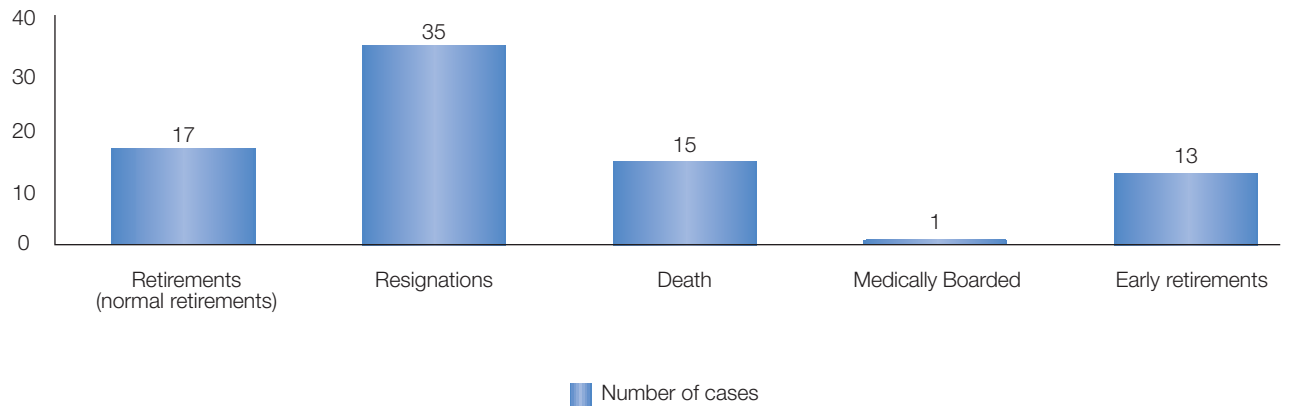
STATICAL INFORMATION: MEDICALS RESULTS



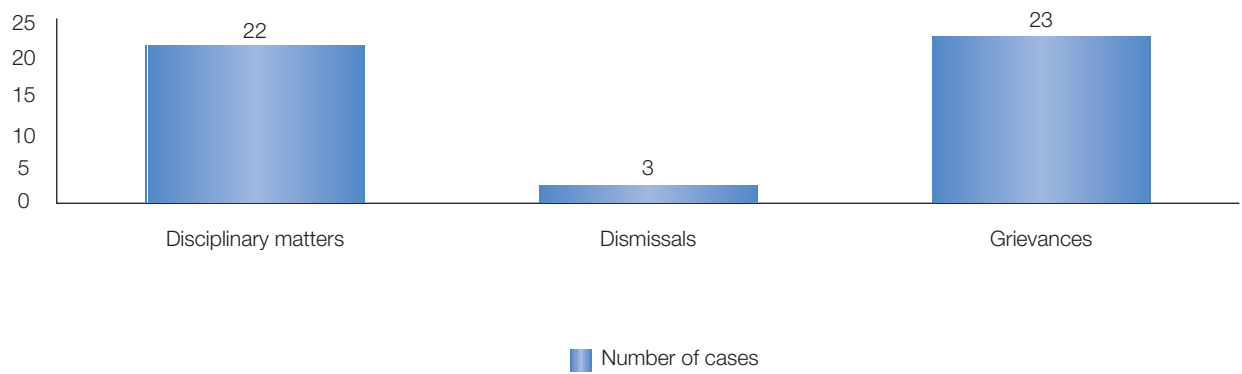
STATICAL INFORMATION: EMPLOYEE WELFARE



STATICAL INFORMATION: LABOUR TURNOVER



STATICAL INFORMATION: INDUSTRIAL RELATIONS



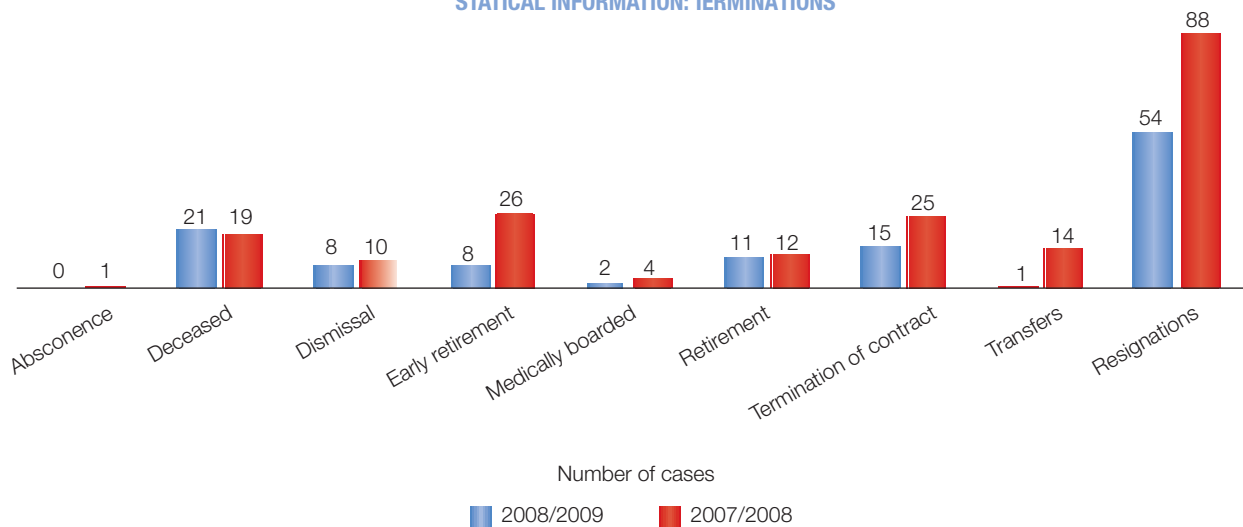
HUMAN RESOURCES ADMINISTRATION BRANCH

The Human Resources Administration Branch was previously made up of the Pay, Leave and Administration Section. In July 2008 the Pay and Leave sections of all Units of the eThekweni Municipality were centralised. As a result, the Human Resources Administration Branch has now taken on the role of the 'link' between the employees of Electricity and the Centralised Pay and Leave sections. We assist the families of our deceased employees in completing all relevant documentation, and liaising with the various parties to ensure payment is made timeously to the families.

We are not only limited to assisting the field employees of the Electricity Unit, but also play a role in providing a service to the line management of the Unit with statistical information, duty schedules, organograms, etc.

During the year under review 7 Candidate Engineers were appointed. The total number of employees engaged being 127 and 152 internal promotions have been processed for the year under review.

STATICAL INFORMATION: TERMINATIONS



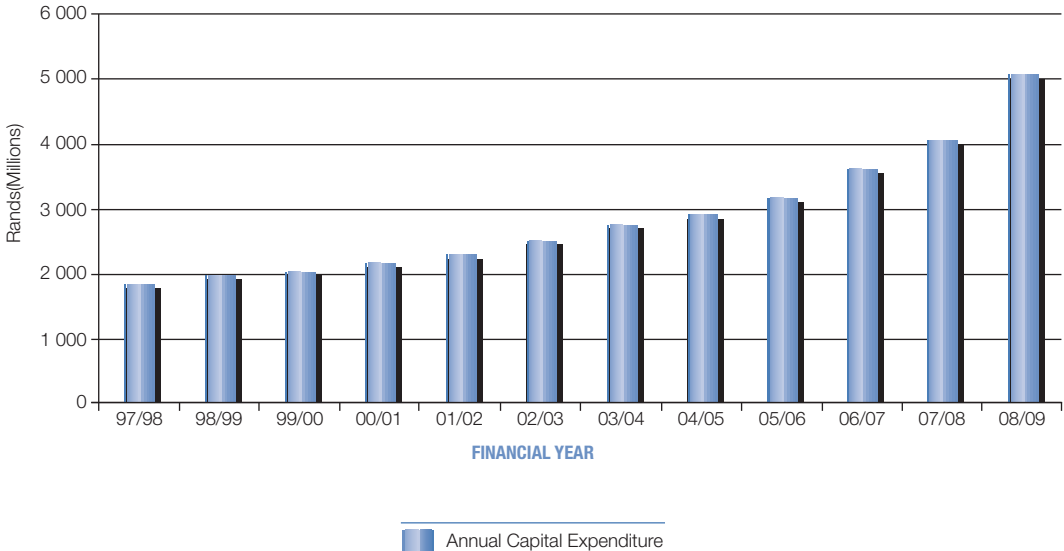
TRAINING/SKILLS DEVELOPMENT BRANCH

The Skills Development Branch is responsible for ensuring that the Unit meets the requirements of the 'Skills Development Act'. We focus on non-technical training which includes ABET, Computer Training, Assisted Education, In Service Training, In-House Courses and External Courses by service providers. We assist the unit in developing and implementing the Workplace Skills Plan - monitoring and reporting on the WSPs of all its employees. We also source potential in-service trainees from the tertiary institutions for practical training in the Unit. Overall, our branch strives to meet the learning needs of the unit and identify learning solutions and innovations.

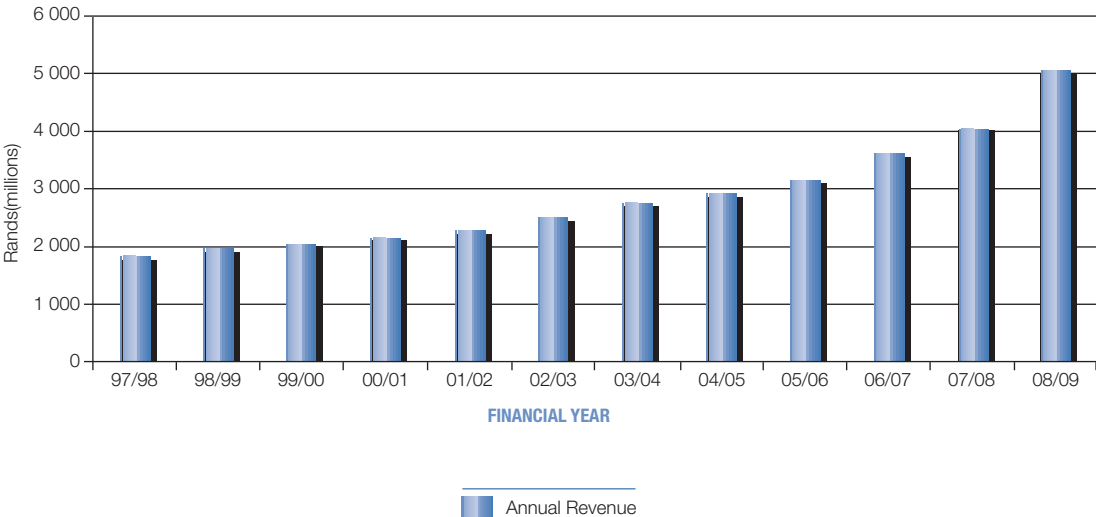
The major project undertaken in the financial year was the development of the Skills Development Portal System. Managers were trained in using the system and assisted to create their teams in the Skills Development Portal. They were then trained in producing WSP reports from this system.

The financial year saw our branch become more customer focused by employing a dedicated Skills Development Practitioner who assists managers on skills development issues. In the future, the branch plans are to increase attendance at our training courses and to develop more technical learnership programmes within the Unit.

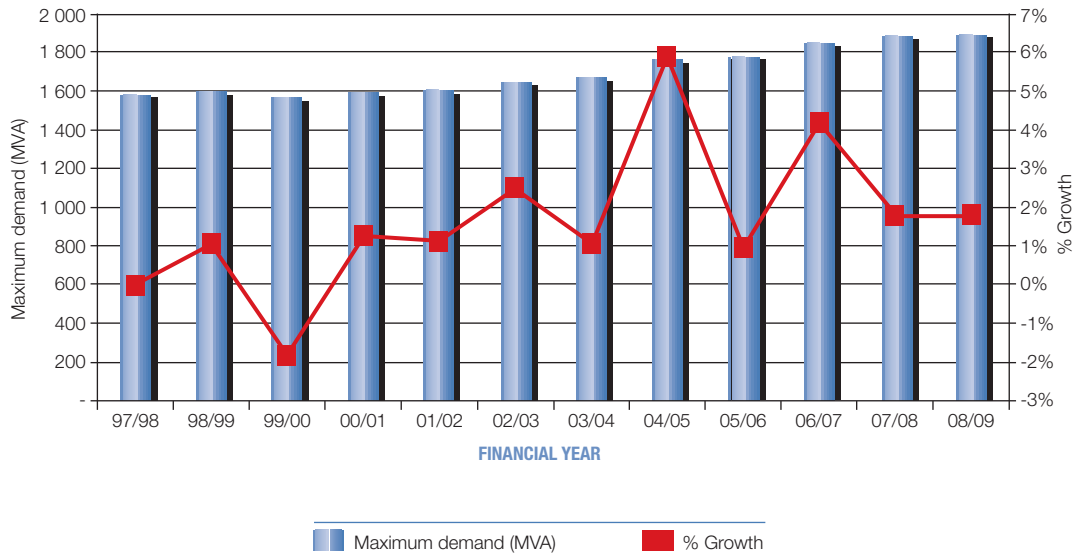
ANNUAL CAPITAL EXPENDITURE



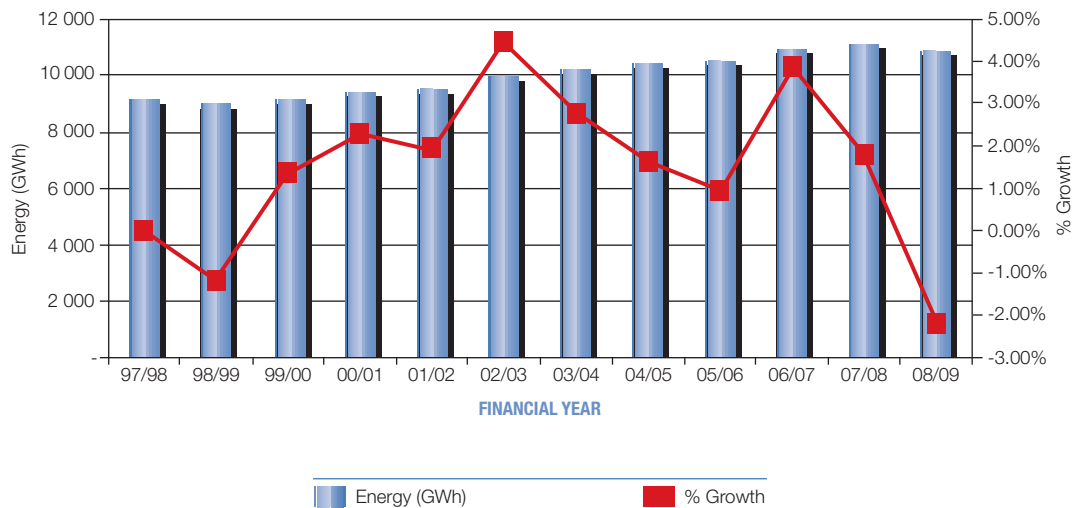
ANNUAL REVENUE



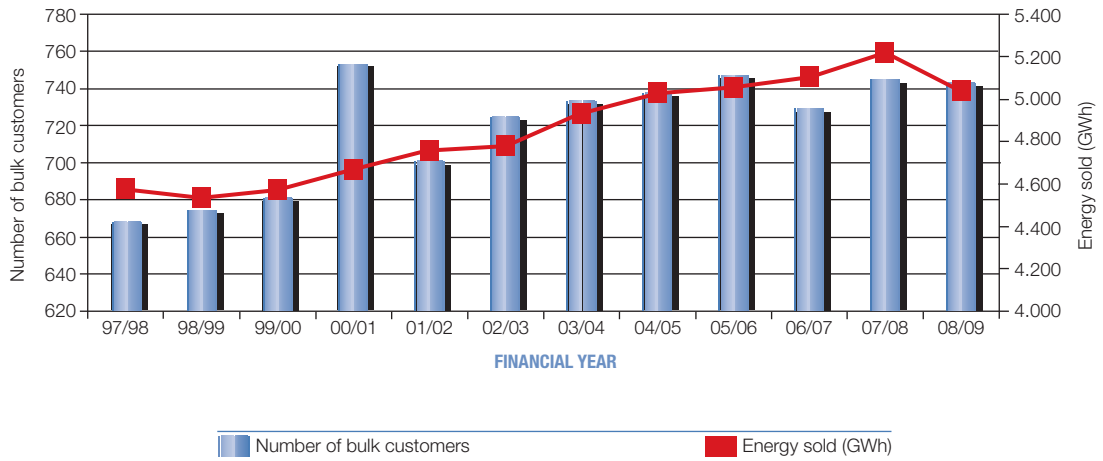
SYSTEM MAXIMUM DEMAND



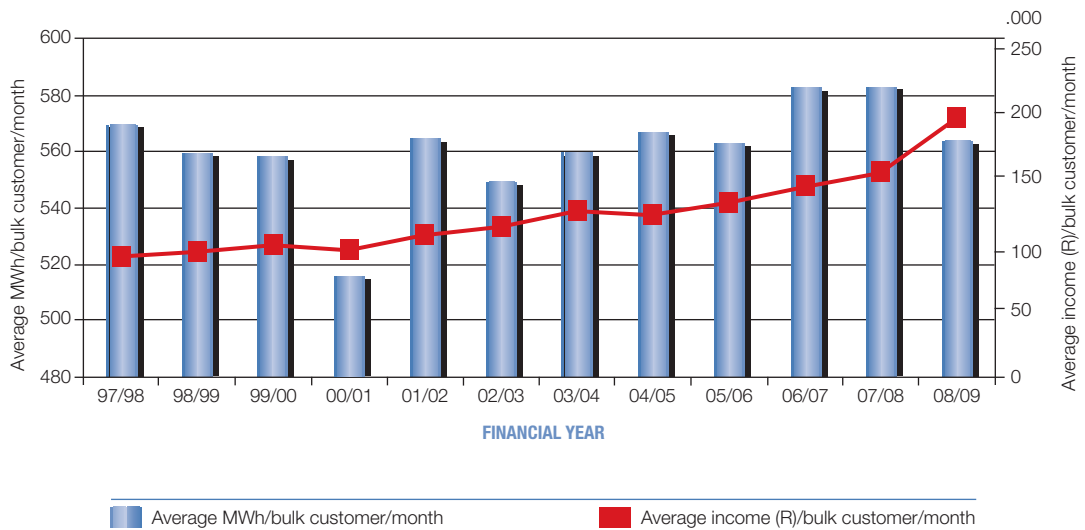
ENERGY SALES PER ANNUM



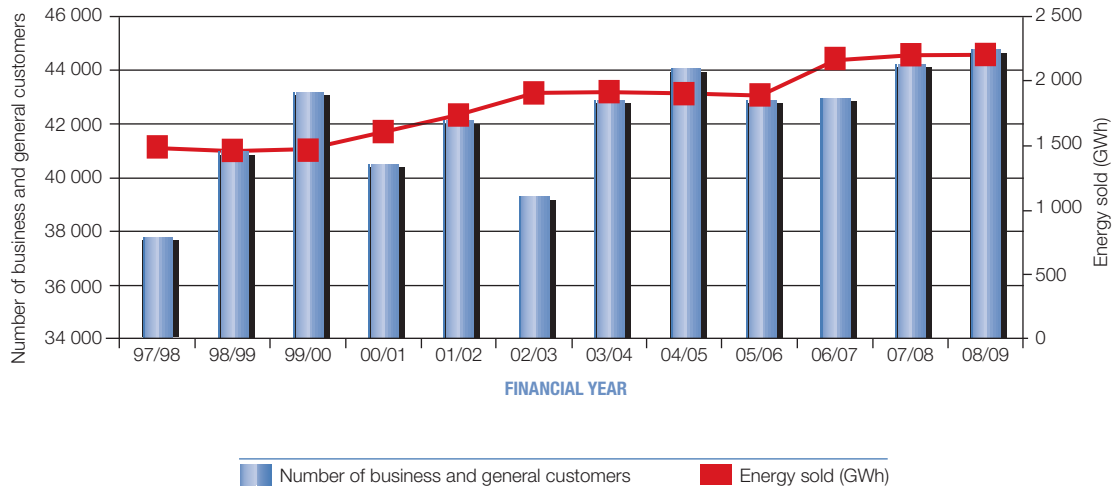
GROWTH OF BULK CUSTOMERS



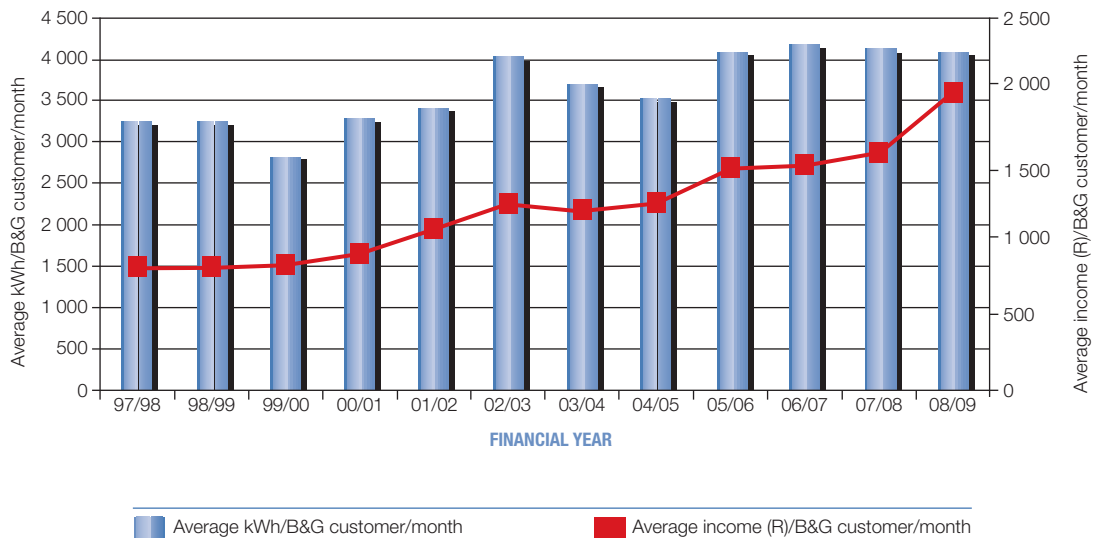
AVERAGE MWh PER BULK CUSTOMER/MONTH



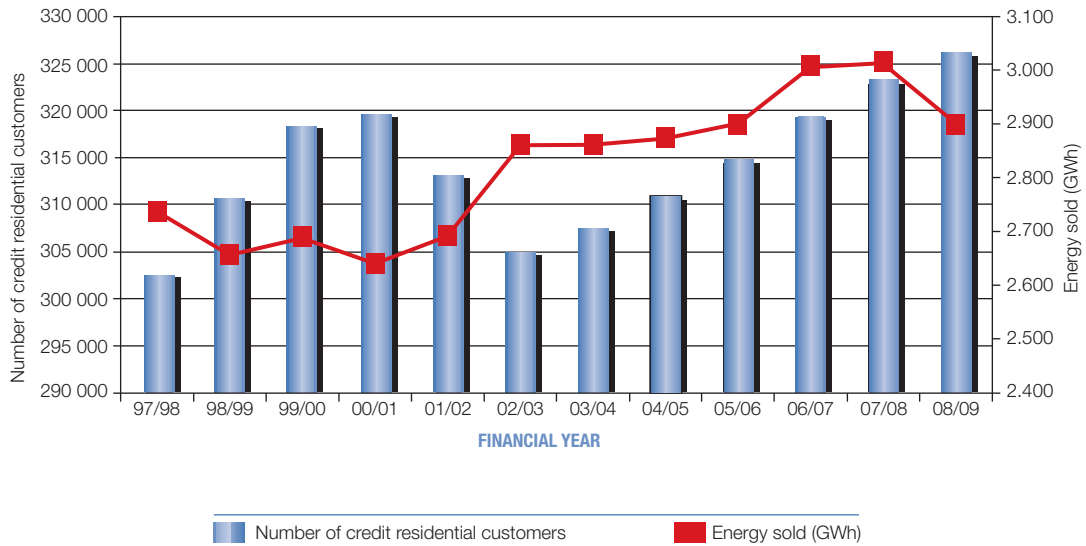
GROWTH OF BUSINESS AND GENERAL CUSTOMERS



AVERAGE kWh PER BUSINESS AND GENERAL CUSTOMER/MONTH



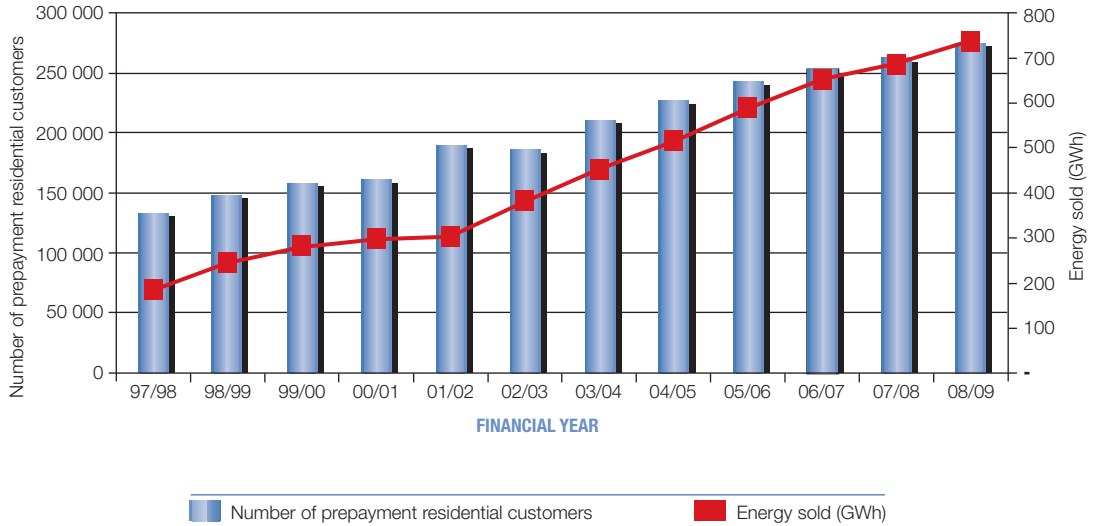
GROWTH OF CREDIT RESIDENTIAL CUSTOMERS



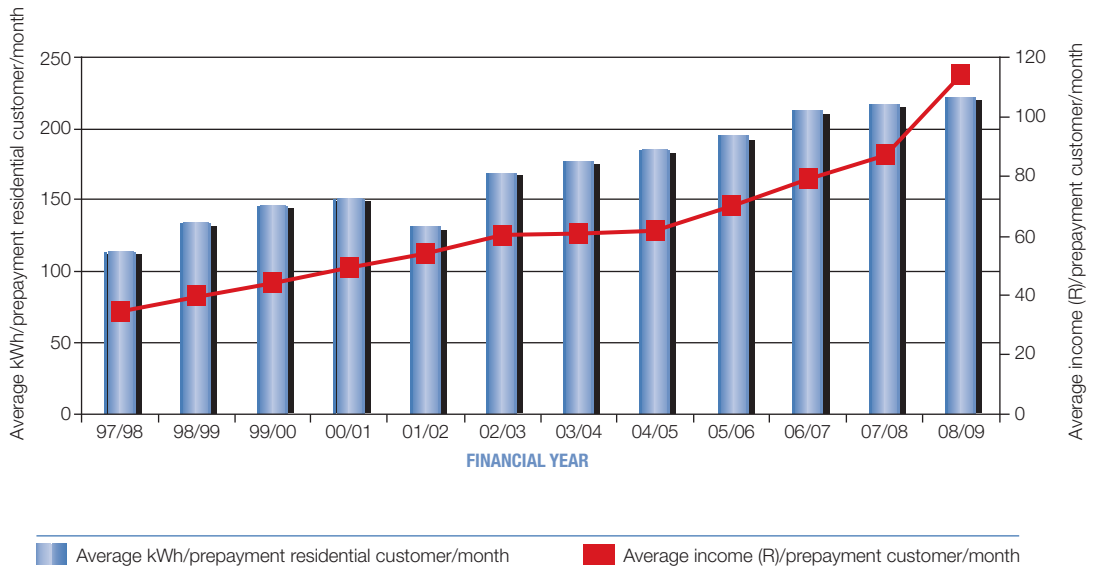
AVERAGE kWh PER CREDIT RESIDENTIAL CUSTOMER/MONTH



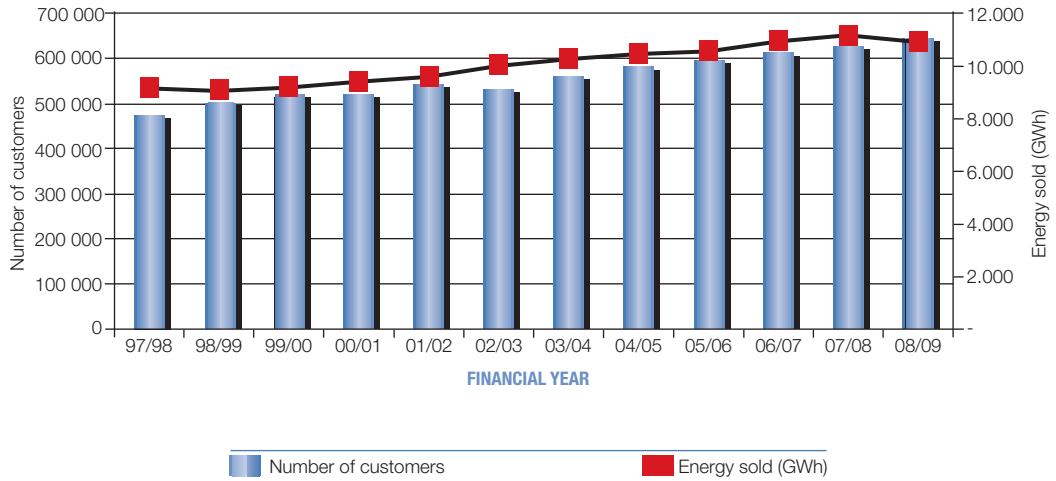
GRROWTH OF PREPAYMENT RESIDENTIAL CUSTOMERS



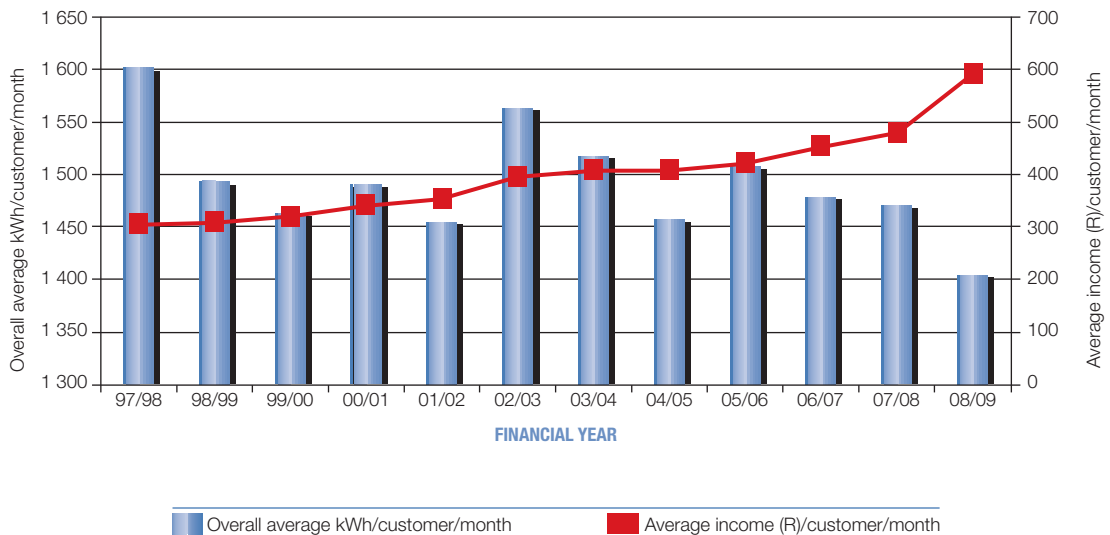
AVERAGE kWh PER PREPAYMENT RESIDENTIAL CUSTOMER/MONTH



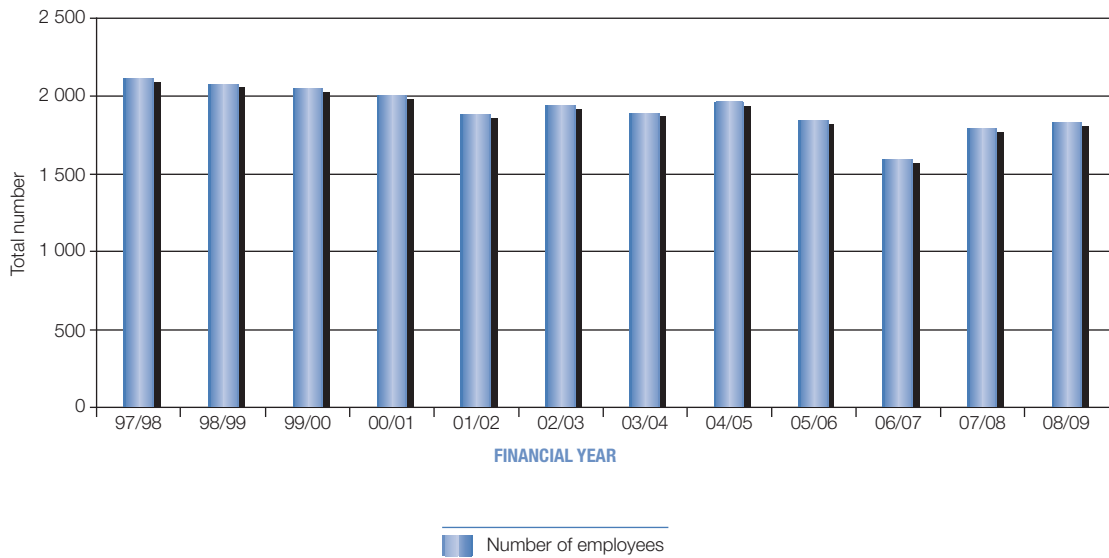
OVERALL GROWTH OF CUSTOMERS



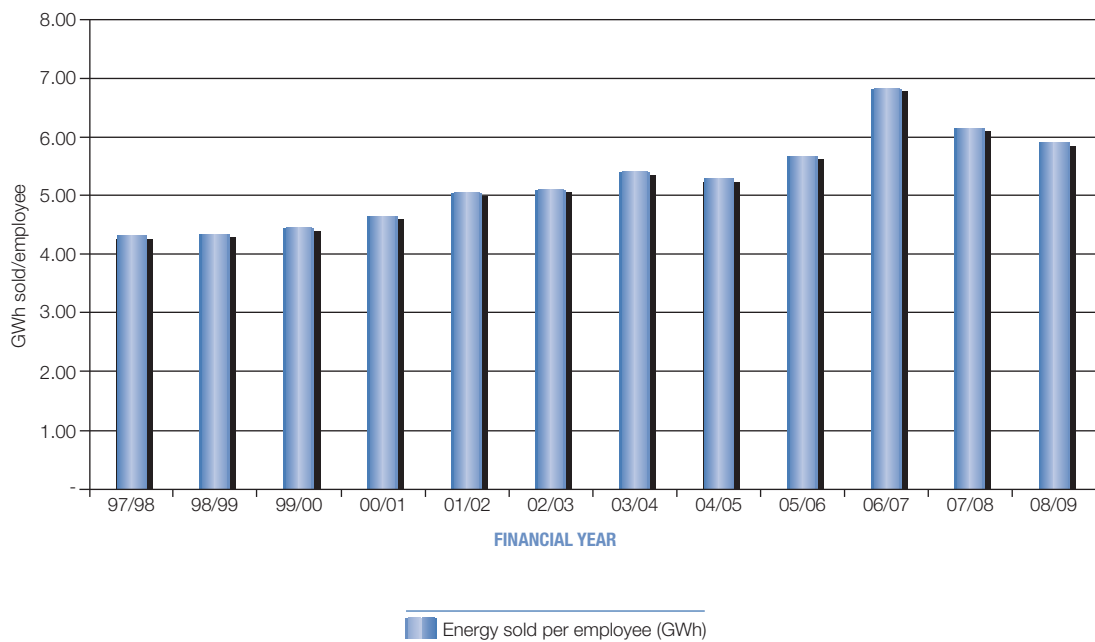
OVERALL AVERAGE kWh PER CUSTOMER/MONTH



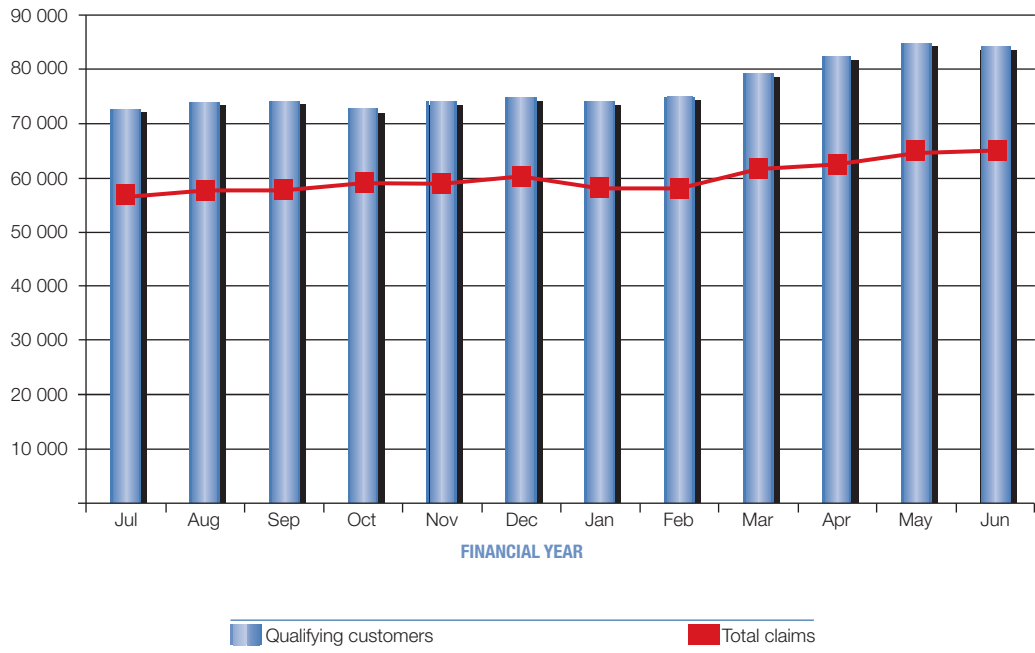
NUMBER OF EMPLOYEES



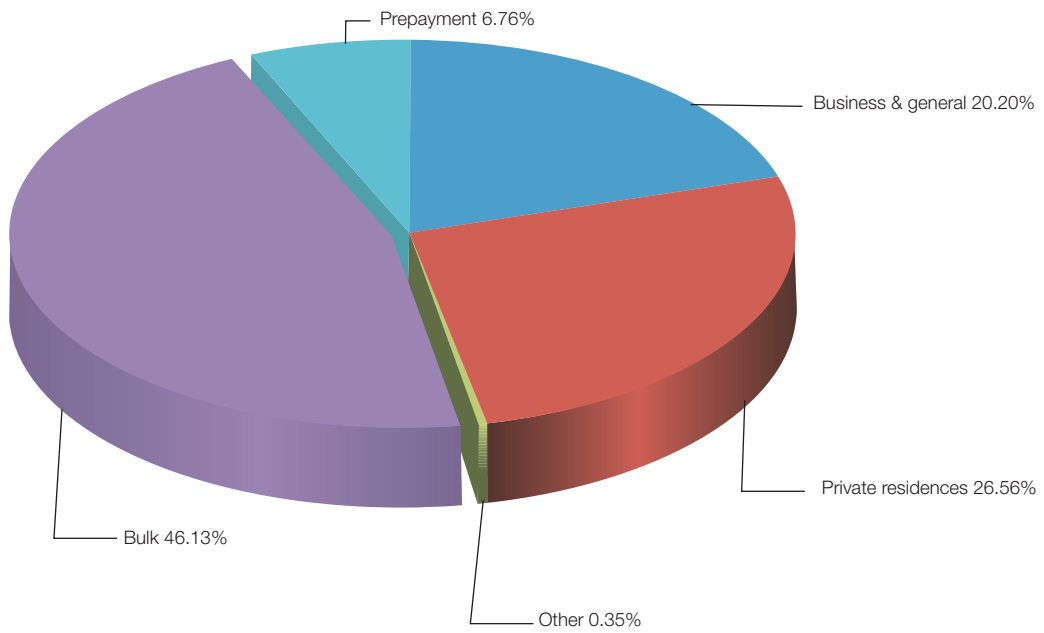
ENERGY SOLD PER EMPLOYEE (GWh)



FREE BASIC ELECTRICITY

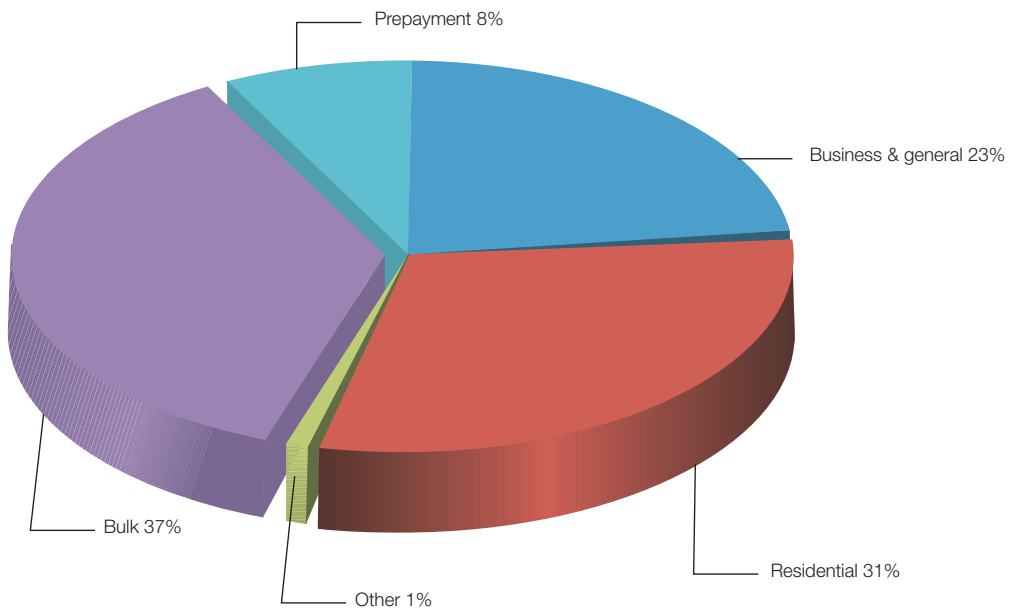


DISTRIBUTION OF ENERGY SALES FOR FINANCIAL YEAR 2008/2009



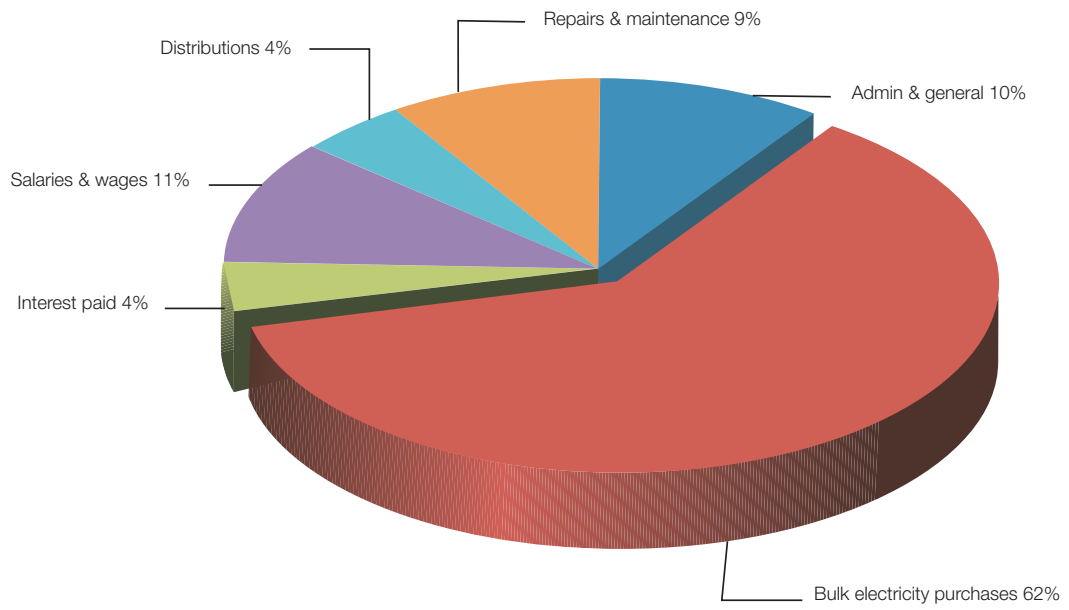
Other: Streetlighting, Traffic signals & Public lighting

DISTRIBUTION OF REVENUE FROM SALES FOR FINANCIAL YEAR 2008/2009

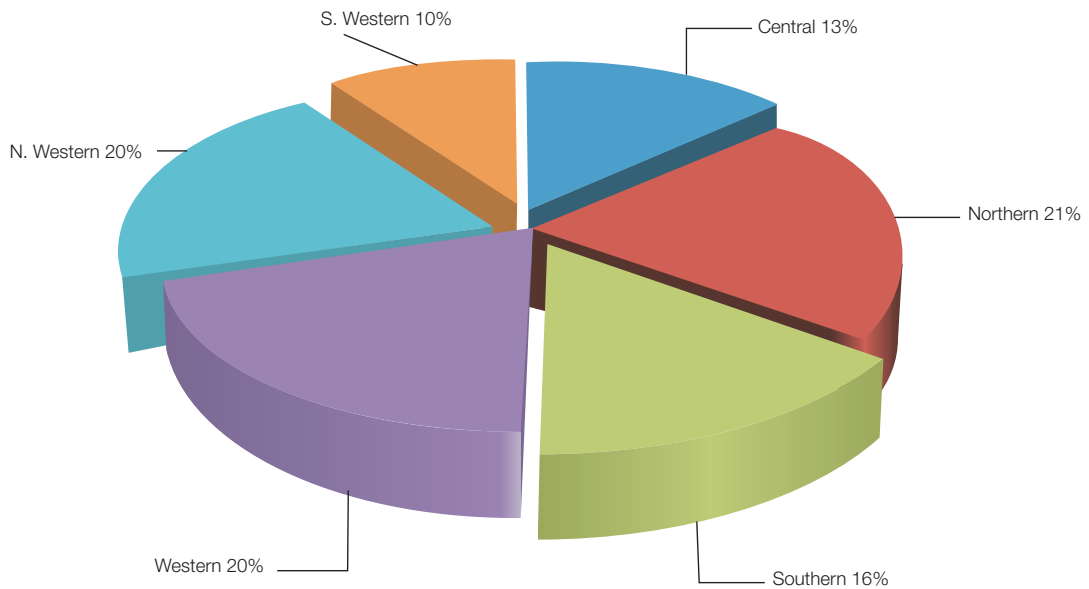


Other: Streetlighting, Traffic signals & Public lighting

DISTRIBUTION OF EXPENDITURE FOR FINANCIAL YEAR 2008/2009



NEW CONNECTIONS PER REGION FOR FINANCIAL YEAR 2008/2009



STATEMENT OF FINANCIAL POSITION AT 30 JUNE 2009

	NOTE	2009 R	2008 R
NET ASSETS AND LIABILITIES			
Net Assets		2 056 608 764	1 643 087 199
Capital replacement reserve		551 990 799	366 886 157
Capitalisation reserve		0	0
Government grant reserve		502 413 122	355 623 341
Donations and public contribution reserves		86 977 408	87 348 092
Self-insurance reserve		0	0
COVID reserve		0	0
Revaluation reserve		0	0
Accumulated Surplus/(Deficit)		915 227 435	833 229 609
Non-current liabilities		1 696 428 912	1 493 678 757
Long-term liabilities	1	1 696 428 912	1 493 678 757
Non-current provisions		0	0
Current liabilities		1 174 372 505	1 003 236 224
Consumer deposits	2	518 122 192	447 437 705
Provisions		0	0
Creditors	3	656 250 313	555 798 519
Unspent conditional grants and receipts		0	0
VAT	4	0	0
Bank overdraft		0	0
Total Net Assets and Liabilities		4 927 410 181	4 140 002 180
ASSETS			
Non-current assets		3 027 805 722	2 727 178 326
Property, plant and equipment	5	2 941 867 590	2 654 371 338
Intangible Assets	18	65 052 152	51 921 008
Investments	6	20 885 980	20 885 980
Current assets		1 899 604 459	1 412 823 854
Inventory	7	74 962 495	52 632 447
Consumer debtors	8	487 097 122	377 844 395
Other debtors	9	108 049 988	74 321 301
Vat	19	7 497 667	19 135 155
Bank balances and cash		1 221 997 187	888 890 556
Total Assets		4 927 410 181	4 140 002 180

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 30 JUNE 2009

	Note	ACTUALS 2009	ADJUSTED BUDGET 2009	ACTUALS 2008
REVENUE				
Service Charges	11	4 578 056 585	4 796 084 330	3 711 512 286
Rental of Facilities and Equipment		1 327 627	1 272 040	1 297 072
Interest Earned		74 102 489	41 567 140	42 648 637
Interest Earned - Outstanding Debtors		31 830 648	25 970 000	26 445 090
Other Income	12	75 306 048	39 075 130	52 609 525
Government Grants and Subsidies	13	174 886 585	172 727 560	90 918 250
Public Contributions and Donations		3 045 567	5 000 000	38 352 086
Gains on disposal of Prop; Plant; Equip		7 467 179	3 000 000	4 710 149
Internal Income		145 867 016	119 129 150	112 680 303
Total Revenue		5 091 889 744	5 203 825 350	4 081 173 398
EXPENDITURE				
Employee Related Costs	14	460 156 643	536 182 200	396 461 496
Contrib. to Provision for Bad Debts		19 103 994	19 755 140	2 460 702
Depreciation		259 736 504	259 776 390	173 369 075
Repairs and Maintenance		391 069 539	437 823 940	351 321 008
Interest Paid	15	182 419 882	187 938 370	156 036 300
Bulk Purchases	16	2 640 807 130	2 682 355 670	1 961 355 007
Contracted Services		57 839 145	61 281 250	38 476 522
General Expenses		133 618 958	255 418 620	101 973 779
Loss on disposal of Prop; Plant; Equip		591 658	595 300	282 082
Internal Charges		137 148 446	186 827 720	131 516 807
Total Expenditure		4 282 491 899	4 627 954 600	3 313 252 778
Surplus/(Deficit)		809 397 845	575 870 750	767 920 620
Cross Subsidisation		-395 876 280	-395 876 230	-477 063 733
Other		-413 521 565	-179 994 520	-290 856 887
SURPLUS/(DEFICIT) FOR THE YEAR		0	0	0

STATEMENT OF CHANGES IN NET ASSETS FOR THE YEAR ENDED 30 JUNE 2009

ELECTRICITY	Housing Development Fund	Capital Replacement Reserve	Capitalisation Reserve	Government Grant Reserve	Donations and Public Contributions Reserve	Self-Insurance Reserve	C.O.I.D. Reserve	Revaluation Reserve	Accumulated Surplus / (Deficit)	TOTAL
	R	R	R	R	R	R	R	R	R	R
Opening Balance 01 July 2007	0	246 777 317	682 754	288 610 219	51 374 066	0	0	0	764 785 956	1 352 230 312
Surplus / (Deficit) for the year									290 856 887	290 856 887
Transfer to Capital Replacement Reserve		188 552 493							(188 552 493)	0
PPE purchased		(68 443 653)							68 443 653	0
Capital Grants used to purchase PPE				90 918 250					(90 918 250)	0
Donated / contributed PPE					38 352 086				(38 352 086)	0
Contribution to Insurance Reserve										0
Insurance claims processed										0
Transfer to Housing Development Fund										0
Offsetting of Depreciation			(682 754)	(23 905 128)	(2 378 060)				26 965 942	0
Closing Balance at 30 June 2008	0	366 886 157	0	355 623 341	87 348 092	0	0	0	833 229 609	1 643 087 199
Re-stated Balance	0	366 886 157	0	355 623 341	87 348 092	0	0	0	833 229 609	1 643 087 199
Surplus / (Deficit) for the year									413 521 565	413 521 565
Transfer to Capital Replacement Reserve		267 102 468							(267 102 468)	(0)
PPE purchased		(81 997 826)							(81 997 826)	0
Capital Grants used to purchase PPE				174 886 585					(174 886 585)	0
Donated / contributed PPE					3 045 567				(3 045 567)	0
Contribution to Insurance Reserve									0	0
Insurance claims processed									0	0
Transfer to Housing Development Fund										0
Offsetting of Depreciation / Asset Disposals				(28 096 804)	(3 416 251)				31 513 055	0
Balance at 30 June 2009	0	551 990 799	0	502 413 122	86 977 408	0	0	0	915 227 435	2 056 608 764

Reconciliation of Surplus for the year

Surplus for the year	216 515 554
Capital Replacement Reserve	50 586 914
PPE Purchased:	
Capital Grants used to purchase PPE	174 886 585
Donations and Public Contributions	3 045 567
Offsetting of Depreciation	(31 513 055)
Total Received for the Year	<u>413 521 565</u>

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2009

	2009 R	2008 R
1. LONG-TERM LIABILITIES		
External Financing Fund		
Development Bank of South Africa	1 329 111 316	1 083 961 306
European Investment Bank	121 811 700	127 887 961
Internal Loans - ESF	156 010 742	188 156 074
Nedbank Loan	89 495 154	93 673 416
Total External Loans	1 696 428 912	1 493 678 757
2. CONSUMER DEPOSITS		
Electricity Deposits	481 804 608	414 440 822
Guarantees in Lieu of Deposits	610 000	535 000
Interest on Consumer Deposits	35 707 584	32 461 883
Total Consumer Deposits	518 122 192	447 437 705
<p>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.</p>		
Guarantees iro prepayment vendors	610 000	535 000
Interest paid	6 056 586	5 194 000
3. CREDITORS		
Trade Creditors	556 091 104	473 977 603
Payments Received in Advance	28 424 359	31 784 123
Retentions	4 899 239	7 956 312
Staff Leave	23 297 587	20 372 620
Other Creditors	43 538 024	21 707 861
	656 250 313	555 798 519
4. VAT		
Vat Payable	0	0
<p>VAT is payable on the receipts basis. Only once payment is received from debtors is VAT paid over to SARS</p>		

5. PROPERTY, PLANT AND EQUIPMENT

30th June 2009

Reconciliation of Carrying Value	Land R	Buildings R	Infrastructure R	Other R	Total R
Carrying Values at 1 July 2008					
Cost	53 928 691	52 161 779	2 405 757 666	142 523 205	2 654 371 338
Valuation	53 928 691	88 210 155	3 872 350 578	274 166 864	4 288 656 288
Accumulated depreciation	0	0	0	0	0
- Cost	0	(36 048 376)	(1 466 592 912)	(131 643 659)	(1 634 284 947)
- Revaluation	0	(36 048 376)	(1 468 287 765)	(133 022 228)	(1 637 358 369)
	0	0	1 694 853	1 378 569	3 073 422
Acquisitions	2 793 132	5 826 554	239 872 786	70 007 377	318 499 849
Capital under construction	0	0	231 114 980	0	231 114 980
Increases/decreases in revaluation	-	-	-	-	-
Transfers - Cost	0	0	2 843 350	(5 455 451)	(2 612 101)
Transfers - Depreciation	0	0	0	0	0
Depreciation	0	(2 745 280)	(211 179 887)	(41 017 811)	(254 942 978)
- based on cost	0	(2 745 280)	(211 179 887)	(41 017 811)	(254 942 978)
- based on revaluation	0	0	0	0	0
Carrying value of disposals	0	0	(444 436)	(1 045 643)	(1 490 078)
Cost/revaluation	0	0	(3 194 583)	(1 709 241)	(4 903 824)
Accumulated depreciation	0	0	2 750 147	663 598	3 413 745
Impairment losses	-	-	-	-	-
Other movements - Intangible Assets - Cost	-	-	-	0	0
Other movements - Intangible Assets - Accumulated Depreciation	-	-	-	0	0
Carrying values at 30 June 2009					
Cost	56 721 823	55 243 053	2 666 269 606	163 633 108	2 941 867 590
Revaluation	56 721 823	94 036 709	4 342 987 111	337 009 549	4 830 755 192
Accumulated depreciation	0	0	0	0	0
- Cost	0	(38 793 656)	(1 676 717 505)	(173 376 441)	(1 888 887 602)
- Revaluation	0	(38 793 656)	(1 676 717 505)	(173 376 441)	(1 888 887 602)
	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 2007	40 203 893	52 726 179	2 215 938 535	100 104 553	2 408 973 161
Cost	40 203 893	86 543 738	3 559 177 942	197 500 840	3 883 426 413
Valuation	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
Acquisitions	13 724 798	1 469 729	162 684 535	64 141 468	242 020 530
Capital under construction	0	0	172 482 821	0	172 482 821
Increases/decreases in revaluation	-	-	-	-	-
Transfers - Cost	0	281 341	(13 200 235)	13 280 823	361 929
Transfers - Depreciation	0	304 466	3 517 185	(2 397 231)	1 424 420
Depreciation	0	(2 569 754)	(135 080 847)	(32 034 291)	(169 684 892)
- based on cost	0	(2 569 754)	(135 080 847)	(32 034 291)	(169 684 892)
- based on revaluation	0	0	0	0	0
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	53 928 691	52 161 779	2 405 757 666	142 523 205	2 654 371 338
Cost	53 928 691	88 210 155	3 872 350 578	274 166 864	4 288 656 289
Revaluation	0	0	0	0	0
Accumulated depreciation	0	(36 048 376)	(1 466 592 913)	(131 643 660)	(1 634 284 949)
- Cost	0	(36 352 842)	(1 470 110 098)	(129 246 429)	(1 635 709 369)
- Revaluation	0	0	0	0	0

	2009 R	2008 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 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	74 962 495	52 632 447
8. CONSUMER DEBTORS		
As at 30 June 2009		
Service Debtors	644 745 676	-157 648 553
Total	644 745 676	(157 648 553)
Net Balance	487 097 123	
	487 097 123	
As at 30 June 2008		
Service Debtors	517 844 395	(140 000 000)
	517 844 395	(140 000 000)
Net Balance	377 844 395	
	377 844 395	
	2009 R	2008 R
Electricity: Ageing		
Current (0 - 30 days)	417 374 178	333 595 359
31 - 60 Days	50 744 174	104 759 921
61 - 90 Days	11 290 916	11 755 068
91 - 120 Days	37 469 895	6 887 330
121 - 365 Days	127 866 513	60 846 716
+365 Days		
Total	644 745 676	517 844 394

Summary of Debts by Customer Classification	Customers	Industrial/ Commercial
	R	R
30 JUNE 2009		
Current (0 - 30 days)	215 036 241	202 340 513
31 - 60 Days	36 318 358	14 425 816
61 - 90 Days	11 290 916	0
91 - 120 Days	37 469 894	0
121 - 365 Days	77 585 654	50 278 283
+365 Days	0	0
Sub-total	377 701 063	267 044 612
Less: Provision for bad debts	(107 370 270)	(50 278 283)
Total debts by customer classification	270 330 793	216 766 329
Summary of Debts by Customer Classification	Customers	Industrial/ Commercial
	R	R
30 JUNE 2008		
Current (0 - 30 days)	169 450 962	130 167 045
31 - 60 Days	27 961 195	55 785 876
61 - 90 Days	8 521 021	0
91 - 120 Days	5 000 360	0
121 - 365 Days	44 186 851	0
+365 Days	0	0
Sub-total	255 120 389	185 952 921
Less: Provision for bad debts	(80 976 000)	(59 024 000)
Total debts by customer classification	174 144 389	126 928 921
Reconciliation of bad debts provision	2009	2008
	R	R
Balance at beginning of the year	140 000 000	140 000 000
Contributions to Provision	20 000 000	3 013 355
Bad debts Written off against provision	-2 351 447	-3 013 355
		0
	140 000 000	140 000 000
9. OTHER DEBTORS		
Insurance Recoverables	55 726 227	34 854 407
Private Jobs - Cost of Work done	11 656 303	8 153 861
Prepayment Meter Token Sales	9 223 772	5 978 052
Sundry Debtors - General	29 365 199	23 011 078
Debtors for Collection ex Rev	63 796	41 084
Mechanical Workshops	47 939	1 118 350
Debtors Capital	1 174 391	1 131 163
Insurance Sundry Accounts	792 361	33 306
	108 049 988	74 321 301

	2009 R	2008 R
10. BANK, CASH & OVERDRAFT BALANCES		
Ethekekwini Electricity has the following bank accounts:		
Electricity Expenditure Account		
First National Bank - Umhlanga - Account Number 62085722348		
Cash book balance at beginning of year - overdrawn	857 374 801	913 098 846
Cash book balance at end of year - overdrawn	786 001 813	857 374 801
Bank statement balance at beginning of year - overdrawn	14 883 329	1 882 914
Bank statement balance at end of year	5 743 965	14 883 329
Electricity EFT Account		
First National Bank - Umhlanga - Account Number 62085722463		
Cash book balance at beginning of year	8 078 774 444	5 065 301 505
Cash book balance at end of year	12 019 213 334	8 078 774 444
Bank statement balance at beginning of year	476 406 127	258 481 302
Bank statement balance at end of year	609 108 869	476 406 127

	ACTUALS 2009	ADJUSTED BUDGET 2009	ACTUALS 2008
11. SERVICE CHARGES			
00101 - Bulk Supply	1 711 042 139	1 772 428 650	1 353 175 863
00102 - Business Cooking - Scale 5	24 500 260	26 557 070	19 056 723
00103 - Business and General Scale 1	850 982 875	861 683 410	657 305 799
20300 - Electricity	-4 500 199	-4 501 420	-3 314 211
00106 - Water Heating & Pumping Scale 6 and 7	6 630 683	7 488 670	5 822 757
00107 - Lotus Park	0	0	3 600
00108 - Prepayment Scale 8 and 9	353 635 610	346 267 440	265 928 439
00109 - Residential Scale 3 and 4	1 416 756 092	1 545 971 740	1 150 908 331
00111 - Sundry Income - Private Lights	486 368	374 500	535 826
00112 - Two Rate - Scale 2	192 926 573	222 617 190	162 006 242
00114 - Tongaat - Small Power Users	0	0	0
00115 - Tongaat - Bulk	0	0	0
00120 - Poverty Relief/Indigent/EBBST	23 530 472	17 197 080	9 453 064
00201 - Surcharge Business Levy	2 065 712	0	90 629 853
Total Service Charges	4 578 056 585	4 796 084 330	3 711 512 286
12. OTHER INCOME			
00408 - Meter Reconnection and Test Fees	9 338 496	9 128 080	8 781 244
00412 - Sundry Income - Taxable	354 213	1 000 000	886 670
00413 - Sundry Sales	604 461	450 000	319 884
00417 - Tender Document Fees	215 500	0	0
00418 - Sweep Reconnection Fees	37 607	375 000	45 713
00425 - Training - Local Government	64 167	69 960	0
00426 - Training - Contractors	328 609	135 000	0
00427 - Training - Outside Organisations	444 200	418 610	0
00430 - Transaction Fees	0	0	0
00431 - Meter Test Fees	326 392	0	0
00119 - Traffic Signals	2 162 408	2 890 300	1 500 000
00202 - EB Steam - Wheeling Charges	18 289 177	0	0
00204 - Lotus Park - Wheeling Charges	21 082	8 180	0
Conventional Connection Fees	5 177 384	3 600 000	3 527 415
Prepayment Connection Fess	37 942 352	21 000 000	37 548 599
Total Other Income	75 306 048	39 075 130	52 609 525

	ACTUALS 2009	ADJUSTED BUDGET 2009	ACTUALS 2008
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	7 199 609	5 041 000	1 082 250
00502 - Capital Grant - Equit Share	93 526 976	93 526 560	42 336 000
00503 - Capital Grant - Electr. Prog	74 160 000	74 160 000	47 500 000
Total Government Grants and Subsidies	174 886 585	172 727 560	90 918 250
13.1 M.I.G. Grant			
Balance unspent at beginning of year	0	0	
Current years receipts	7 199 609	1 082 250	
Conditions met - transferred to revenue	(7 199 609)	(1 082 250)	
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	74 160 000	47 500 000	
Conditions met - transferred to revenue	(74 160 000)	(47 500 000)	
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	93 526 976	93 526 560	
Conditions met - transferred to revenue	(93 526 976)	(93 526 560)	
Conditions still to be met - transferred to liabilities	0	0	

	ACTUALS 2008	ADJUSTED BUDGET 2008	ACTUALS 2007
14. EMPLOYEE RELATED COSTS			
10100 - Staff Salaries	241 983 879	258 204 9200	221 973 846
10101 - Staff Overtime	52 814 951	53 126 060	41 254 814
10103 - Leave Commutation	3 651 610	5 000 000	3 372 902
10104 - Pensioners Medical Aid	6 790 980	7 199 260	6 620 030
10105 - Council Pensions	5 385 840	6 010 160	5 526 560
10106 - Housing Subsidy	4 088 635	6 335 320	3 597 560
10107 - Durban Pension Fund	42 806 281	52 266 730	38 568 117
10110 - Medical Aid	17 091 003	30 315 640	15 435 676
10112 - Long Service Allowances	32 000	58 000	38 963
10114 - Group Life Cover	0	0	0
10116 - Holiday Bonus	18 231 712	23 457 310	16 926 397
10120 - Market/Scarce Skills Allowance	19 776 588	19 776 590	0
10198 - Task Implementation	6 688	2 000 000	351 301
10199 - Contingency Staff Vacancy	0	10 000 000	0
10220 - Cell Phone Allowances	897 185	1 328 870	753 484
10300 - Executive Packages	7 586 108	7 853 490	6 046 217
10400 - Locomotion Allowances	19 917 424	30 839 890	18 396 319
10401 - Travelling Allowances	74 433	141 680	79 338
10402 - Telephone Allowances	6 589	7 910	7 583
10403 - Travel and Subsistence	167 372	167 380	125 641
10500 - Temporary Staff	2 769 175	4 416 420	2 938 674
10501 - Uniforms	897 039	1 844 460	878 908
10502 - Education Fees	279 779	450 000	301 325
10503 - Travel & Removal Costs	73 137	126 340	89 178
10506 - Unemployment Insurance Fund	2 232 542	2 623 990	2 092 107
10507 - Employment Services	9 670 727	9 701 780	7 757 523
10508 - Leave Comm - Trf Ex Provision	2 924 966	2 930 000	3 329 033
Total Employee Related Costs	460 156 643	536 182 200	396 461 496
15. INTEREST PAID			
29560/40100 - Interest	176 363 296	181 874 370	150 648 943
29561/40110 - Interest - DBSA Loans	0	0	0
29564/40120 - Interest - Streetlighting	0	0	0
29563/40130 - Interest - Consumer Deposits	6 056 586	6 064 000	5 387 357
Total of Interest Paid	182 419 882	187 938 370	156 036 300
16. BULK PURCHASES			
00901 - Eskom - Maximum Demand Charge	444 662 350	455 674 330	324 328 379
00902 - Eskom - Unit Charge	2 189 928 165	2 219 207 980	1 635 477 521
00905 - Service Fees	244 926	322 780	198 029
00906 - Lotus Park	0	8 180	3 600
00908 - Elect - Landfill Site - Marianhill	330 263	691 200	314 104
00909 - Elect - Landfill Site - La Mercy	-1 748	691 200	-1 841
00909 - Elect - Landfill Site - Bissar Road	5 643 174	5 760 000	1 035 215
Total Bulk Purchases	2 640 807 130	2 682 355 670	1 961 355 007

	2009 R	2008 R
17. CAPITAL COMMITMENTS		
Commitments in respect of Capital Expenditure:		
Approved and contracted for - Electricity	126 570 043	109 240 508
Approved but not yet contracted for - Electricity	450 047 140	440 843 124
Total	576 617 183	550 083 632
This expenditure will be financed from:		
Government Grants	143 044 440	109 970 800
Own Resources	433 572 743	440 112 832
18. INTANGIBLE ASSETS		
Servitudes		
Opening Balance	42 596 574	43 728 855
Acquisitions	248 697	667 719
Disposals - Cost	0	(1 800 000)
	42 845 271	42 596 574
Computer Software		
Opening Balance	9 324 434	22 954 624
Accumulated Depreciation	(9 324 434)	(12 461 840)
	0	10 492 784
Acquisitions	11 990 449	4 302 184
Depreciation for the year	(4 793 527)	(3 684 183)
Transfers - Cost	19 922 526	(361 929)
Transfer - Depreciation	(4 912 567)	(1 424 421)
Disposals - Cost	0	(260 021)
Disposals - Depreciation	0	260 021
	22 206 881	9 324 434
19. VAT		
Vat Receivable	7 497 667	19 135 155

CUSTOMER BASE STATISTICS

* Adjusted to registered meters on database

	97 / 98	98 / 99	99 / 00	00 / 01	01 / 02	02 / 03*	03 / 04*	04 / 05*	05 / 06*	06 / 07*	07 / 08*	08 / 09*
NUMBER OF CUSTOMERS												
Business & General	37 816	40 996	43 238	40 576	42 199	39 374	42 952	44 143	42 010	42 980	44 261	44 832
Private Residences	302 653	310 811	318 525	319 763	313 244	304 831	307 608	310 955	314 975	319 516	323 389	326 386
Other	1 894	1 798	1 749	1 619	1 537	1 563	1 449	1 398	1 173	4	4	4
Bulk	669	682	754	754	702	725	734	739	748	730	746	744
Prepayment	134 384	151 221	158 982	162 839	191 020	187 044	211 784	227 895	243 549	254 017	263 712	275 670
Total	477 416	505 501	523 176	525 551	548 702	533 537	564 527	585 130	602 455	617 247	632 112	647 636
UNITS (kWh)												
Business & General	1 482 189 609	1 458 813 260	1 470 443 457	1 604 265 450	1 733 881 698	1 906 430 575	1 912 939 115	1 900 283 815	1 887 628 514	2 161 999 56	2 203 077 556	2 205 258 603
Private Residences	2 736 976 112	2 657 073 205	2 688 920 844	2 640 769 302	2 691 882 060	2 860 048 650	2 862 123 618	2 873 337 222	2 900 907 487	3 006 373 582	3 013 288 241	2 900 914 449
Other	204 481 477	181 010 121	182 979 615	197 188 369	102 439 716	86 911 187	132 286 050	140 222 213	123 385 815	36 693 199	37 605 719	37 677 922
Bulk	4 574 251 466	4 531 910 454	4 573 099 876	4 668 286 749	4 758 234 877	4 780 752 550	4 931 845 221	5 029 924 160	5 056 990 152	5 105 603 247	5 221 414 480	5 037 894 890
Prepayment	185 252 692	244 605 860	280 478 980	296 930 339	302 677 501	380 972 540	451 783 592	514 181 235	587 881 511	652 855 481	687 805 495	738 475 562
Total	9 183 151 356	9 073 412 900	9 195 922 772	9 407 440 209	9 589 115 852	10 015 115 502	10 290 977 596	10 457 948 645	10 556 793 479	10 963 525 073	11 163 191 492	10 920 221 425
UNITS GROWTH												
Business & General	3.78%	-1.58%	0.80%	9.10%	8.08%	9.95%	0.34%	0.34%	-6.91%	14.54%	1.90%	0.10%
Private Residences	2.41%	-2.92%	1.20%	-1.79%	1.94%	6.25%	0.07%	0.07%	0.96%	3.64%	0.23%	-3.73%
Other	6.57%	-11.48%	1.09%	7.77%	-48.05%	-15.16%	52.21%	52.21%	-12.01%	-70.26%	2.49%	0.19%
Bulk	2.38%	-0.93%	0.91%	2.08%	1.93%	0.47%	3.16%	3.16%	3.15%	0.96%	2.27%	-3.51%
Prepayment	2.88%	32.04%	14.67%	5.87%	1.94%	25.87%	18.59%	18.59%	14.33%	11.05%	5.35%	7.37%
Total	2.70%	-1.19%	1.35%	2.30%	1.93%	4.44%	2.75%	1.62%	0.95%	3.85%	1.82%	-2.18%
INCOME IN RAINDS												
Business & General	373 968 739	408 643 217	436 274 970	445 179 115	547 072 134	591 530 415	619 394 717	672 858 784	687 641 951	779 362 349	844 191 522	1 075 040 391
Private Residences	568 935 987	613 826 976	655 686 067	722 925 897	753 137 505	824 037 901	894 861 179	941 481 632	981 363 145	1 090 027 087	1 150 908 334	1 416 756 093
Other	28 529 103	30 791 039	32 191 903	35 205 659	13 405 297	15 775 113	18 036 972	22 214 691	20 181 773	13 433 024	15 189 096	19 709 806
Bulk	716 497 239	747 881 450	798 197 146	847 835 582	883 707 491	965 030 032	1 079 243 856	1 062 055 560	1 153 442 450	1 231 234 899	1 353 175 863	1 711 042 139
Prepayment	55 664 362	71 865 355	84 182 759	96 138 266	123 766 823	134 997 906	154 263 532	168 477 331	204 733 254	241 183 183	275 381 501	377 042 920
Total	1 743 595 430	1 873 008 037	2 006 532 845	2 147 284 519	2 321 089 250	2 531 371 367	2 765 800 256	2 867 087 998	3 047 362 573	3 355 240 542	3 638 846 315	4 599 591 348
CENTS/UNIT												
Business & General	25.23	28.01	29.67	27.75	31.6	31.03	32.38	35.41	36.43	36.05	38.32	48.75
Private Residences	20.79	23.10	24.38	27.38	28.0	28.81	31.27	32.77	33.83	36.26	38.19	48.84
Other	13.95	17.01	17.59	17.85	13.1	18.15	13.63	15.84	16.36	36.61	40.39	52.31
Bulk	15.66	16.50	17.45	18.16	18.6	20.19	21.88	21.11	22.81	24.12	25.92	33.96
Prepayment	30.05	29.38	30.01	32.38	40.9	35.44	34.15	32.77	34.83	36.94	40.04	51.06
Total	18.99	20.64	21.82	22.83	24.21	25.28	26.88	27.42	28.87	30.60	32.60	42.12
Ave Units/Mnth/Cust												
Business & General	3 266	2 965	2 834	3 295	3 424	4 035	3 711	3 542	4 087	4 192	4 148	4 099
Private Residences	754	712	703	688	716	782	775	747	825	784	776	741
Other	8 997	8 389	8 718	10 150	5 554	4 634	7 608	8 359	8 766	764 442	783 452	784 957
Bulk	569 787	559 495	558 785	515 947	564 843	549 512	559 928	567 199	563 390	582 831	583 268	564 280
Prepayment	115	135	147	152	132	170	178	186	196	214	217	223
Total	1 603	1 496	1 465	1 492	1 456	1 564	1 519	1 459	1 509	1 480	1 472	1 405
Ave Rants/Month/Cust												
Business & General	824	831	841	914	1 080	1 252	1 202	1 254	1 489	1 511	1 589	1 998
Private Residences	157	165	172	188	200	225	242	252	260	284	297	362
Other	1 255	1 427	1 534	1 812	727	841	1 037	1 324	1 434	279 855	316 440	410 621
Bulk	89 250	92 331	97 531	93 704	104 904	110 923	122 530	119 763	128 503	140 552	151 159	191 649
Prepayment	35	40	44	49	54	60	61	62	70	79	87	114
Total	304	309	320	340	353	395	408	408	422	453	480	592

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
80/81	960 246	12.53%	5 034 342 435	9.01%	5 288 290 000	8.53%	4.80%	96.30%	71.82%	198 892
81/82	1 075 492	12.00%	5 624 814 026	11.73%	5 981 248 000	13.10%	5.96%	89.60%	73.00%	198 338
82/83	1 051 830	-2.20%	4 998 457 230	-11.14%	5 201 796 550	-13.03%	3.91%	93.00%	71.40%	205 961
83/84	1 060 522	0.83%	5 435 381 442	8.74%	5 680 986 500	9.21%	4.32%	92.00%	71.10%	214 095
84/85	1 078 638	1.71%	5 859 883 622	7.81%	6 145 270 000	8.17%	4.64%	93.00%	71.89%	223 420
85/86	1 084 951	0.59%	6 105 393 784	4.19%	6 464 060 277	5.19%	5.55%	94.00%	73.37%	228 193
86/87	1 126 872	3.86%	6 373 238 576	4.39%	6 689 247 137	3.48%	4.72%	99.60%	71.21%	237 857
87/88	1 151 613	2.20%	6 590 701 115	3.41%	6 889 777 935	3.00%	4.34%	97.20%	70.47%	245 831
88/89	1 196 636	3.91%	6 986 105 898	6.00%	7 337 830 336	6.50%	4.79%	98.40%	72.73%	252 518
89/90	1 232 618	3.01%	7 201 068 113	3.08%	7 634 669 960	4.05%	5.68%	100.00%	72.92%	284 661
90/91	1 268 538	2.91%	7 426 490 766	3.13%	7 697 377 076	0.82%	3.52%	100.00%	73.87%	290 070
91/92	1 286 335	1.40%	7 548 660 345	1.65%	7 928 532 199	3.00%	4.79%	97.50%	72.90%	299 948
92/93	1 313 385	2.10%	7 688 164 852	1.85%	8 145 319 531	2.73%	5.61%	100.00%	70.80%	329 969
93/94	1 383 431	5.33%	8 047 317 773	4.67%	8 494 913 446	4.29%	5.27%	99.90%	72.80%	359 516
94/95	1 426 277	3.10%	8 202 460 186	1.93%	8 738 907 153	2.87%	6.14%	99.90%	72.90%	386 361
95/96	1 469 256	3.01%	8 419 518 677	2.65%	9 021 770 028	3.24%	6.68%	99.90%	73.46%	428 035
96/97	1 585 122	7.89%	8 941 330 717	6.20%	9 571 358 173	6.09%	6.58%	99.90%	74.37%	451 751
97/98 #	1 585 060	0.00%	9 183 151 356	2.70%	9 813 695 486	2.53%	6.43%	99.90%	76.26%	477 416
98/99 #	1 601 635	1.05%	9 073 412 900	-1.19%	9 851 495 987	0.39%	7.90%	99.90%	76.55%	505 501
99/00 #	1 572 339	-1.83%	9 195 922 772	1.35%	9 956 607 592	1.07%	7.64%	98.60%	77.37%	523 176
00/01 #	1 592 211	1.26%	9 407 440 209	2.30%	10 105 748 000	1.50%	6.91%	98.60%	78.52%	525 551
01/02 #	1 610 173	1.13%	9 589 115 852	1.93%	10 224 641 034	1.18%	6.22%	98.10%	79.45%	548 702
02/03 #	1 650 089	2.48%	10 015 115 502	4.44%	10 552 641 000	3.21%	5.09%	98.00%	78.49%	533 527
03/04 #	1 667 942	1.08%	10 290 977 595	2.75%	10 803 947 948	2.38%	4.75%	99.90%	74.15%	564 527
04/05 #	1 765 855	5.87%	10 457 948 645	1.62%	11 053 953 456	2.31%	5.39%	99.80%	76.53%	585 130
05/06 #	1 783 038	0.97%	10 556 793 479	0.95%	11 186 048 110	1.19%	5.63%	99.90%	72.75%	602 455
06/07 #	1 857 178	4.16%	10 963 525 073	3.85%	11 580 771 534	3.53%	5.33%	98.13%	73.98%	617 247
07/08 #	1 890 043	1.77%	11 163 191 492	1.82%	11 751 787 312	1.48%	5.01%	97.27%	75.90%	632 112
08 / 09 #	1 897 005	0.37%	10 920 221 425	-2.18%	11 504 658 024	-2.10%	5.08%	95.65%	74.42%	647 636

Figures now include sales and purchases for Tongaat, Mpumalanga and Magabeni.

EXPENDITURE PER ANNUM

ITEM OF EXPENDITURE DISTRIBUTION and Admin	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Admin and general	116 661 603	114 852 554	295 184 635	309 775 667	340 287 001	384 858 119	424 125 981	468 674 230	624 140 246	766 654 479	844 540 463	1 068 195 348
Distribution	297 697 234	332 950 185	159 970 654	178 709 812	203 666 642	217 681 180	231 773 520	237 287 044	248 674 868	258 564 682	351 321 008	391 069 539
Sub-Total	414 358 837	447 802 739	455 155 289	488 485 479	543 953 643	602 539 299	655 899 501	705 961 274	872 815 114	1 025 219 161	1 195 861 471	1 459 264 887
% increase	15%	8%	2%	7%	11%	11%	9%	8%	24%	17%	17%	22%
% of total expenditure	22%	22%	22%	22%	24%	24%	24%	24%	27%	28%	29%	29%
FUNDS												
Capital Development	-	-	-	-	-	-	-	-	-	-	-	-
Rates and General	102 110 206	110 509 462	117 609 509	127 863 067	136 554 095	147 832 718	157 905 047	169 912 469	189 162 190	357 509 683	477 063 733	395 876 280
Working Capital	10 842 022	35 446 087	26 356 120	51 263 120	11 688 488	99 076 208	121 334 894	149 687 274	90 000 000	258 235 673	290 856 887	413 521 565
Durban Metro	-	-	-	-	-	-	-	-	181 914 287	-	-	-
Sub-Total	112 952 228	145 955 549	143 965 629	179 126 187	148 242 583	246 908 926	279 239 941	319 599 743	461 076 477	615 745 356	767 920 620	809 397 845
% increase	-7%	29%	-1%	24%	-17%	67%	13%	14%	44%	34%	25%	5%
% of total expenditure	6%	7%	7%	8%	6%	10%	10%	11%	14%	17%	19%	16%
LOAN CHARGES												
Sub-Total	297 480 440	318 910 226	318 036 375	325 115 264	320 336 624	273 858 000	315 325 905	316 056 450	R0*	-	-	-
% increase	30%	7%	0%	2%	-1%	-15%	15%	0%	0%	-22%	-9%	17%
% of total expenditure	16%	16%	15%	15%	14%	11%	11%	11%	0%	5%	4%	4%
Interest Paid	-	-	-	-	-	-	-	-	218 808 794	171 542 017	156 036 300	182 419 882
ELECTRICITY PURCHASED												
Energy	874 849 779	925 878 528	968 823 865	1 011 443 391	1 093 769 108	1 234 592 321	1 328 370 998	1 348 184 097	1 376 760 971	1 531 383 275	1 637 026 628	2 196 144 780
Demand	168 189 269	170 188 146	176 737 637	184 242 277	196 929 985	173 807 591	201 826 269	256 148 681	268 764 753	296 218 910	324 328 379	444 662 350
Sub-Total	1 043 039 048	1 096 066 674	1 145 561 502	1 195 685 668	1 290 699 093	1 408 399 912	1 530 197 267	1 604 332 678	1 645 525 724	1 827 602 185	1 961 355 007	2 640 807 130
% increase	6%	5%	5%	4%	8%	9%	9%	5%	3%	11%	7%	35%
% of total expenditure	56%	55%	56%	55%	56%	56%	55%	54%	51%	50%	48%	52%
TOTAL												
Total Amount	1 867 830 553	2 008 735 188	2 062 718 795	2 188 412 598	2 303 231 943	2 531 706 137	2 780 662 614	2 945 950 145	3 198 226 109	3 640 108 719	4 081 173 398	5 091 889 744
% increase	10%	8%	3%	6%	5%	10%	10%	6%	9%	14%	12%	25%

NOTE: Ratios of Admin and General Distribution have varied as a result of restructuring.



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