TARIFFS
2010/2011

ETHEKWINI ELECTRICITY

FOREWORD

As the 2009/2010 financial year draws to a close, the world's biggest soccer event to hit African soil commences. With an expected influx of visitors roaming the cities of South Africa to watch the FIFA 2010 World Cup, the pressure to deliver public services in all parts of the country has increased. EThekwini Electricity has been cooperating with other Electrical Supply Industry colleagues in planning the development and maintenance of the infrastructure that will ensure reliable supply of electricity nationally.

The Electricity Unit has worked tirelessly to complete important projects over the last year. We are proud to announce that, among other electrification projects, we were able to power up the new Moses Mabhida Stadium, the new King Shaka International Airport and many malls and shopping theatres in Durban. We have, also, been able to extend our network and provide electricity for more than 14 000 households during the year.

The maintenance and rehabilitation of our network continued with greater speed in 2009/2010, as we attracted more skilled employees to join our organisation. Major focus was placed on forging ahead with our intensive network rehabilitation program where emphasis is placed on upgrading ageing equipment and infrastructure which has now been in service for more than 30 years.

The theft of electrical infrastructure and cables has been a frequent occurrence over the last year and, whilst our revenue protection teams worked tirelessly to combat the problem, the issue at hand seizes to grind to a halt. We have increased security and patrols in high theft zones; this has proved to be effective however the cost of these services is exorbitant, pushing up our expense budget.

The National Energy Regulator of South Africa (NERSA) announced a 24,8% increase in electricity tariffs effective April 2010, and subsequent increases of 25,8% and 25,9% for 2011 and 2012 respectively.

The effective increase passed on to the municipality on 1 July 2010 translates to 28,9%. Due to the tariff hike and the swell in expenses we are forced to raise our tariffs; however we have endeavored to keep increases as low as possible. Business and Industrial tariffs have been increased by 26%, Residential 23% and indigent customers will continue to receive 65 kWh free per month and will be subject to a 11,5% increase for energy purchased thereafter.

The new national tariff regime that follows increasing energy costs will impact on South African municipalities directly with no exception to eThekwini, as we will need to increase our expenditure for electricity purchases and pass on the higher costs to our customers. It is inevitable that this will create revenue collection difficulties - a key area of attention that we need to focus on in the coming years to ensure our revenue collection rates do not deteriorate.

As we continue to electrify our communities and grow our economy, we must be mindful of our energy shortages and sustained high energy prices that exist in our country. We must continue to embrace the concept of energy efficiency and consume electricity in an efficient and responsible manner.

Sandile Maphumulo
Head: Electricity

ELECTRICITY TARIFFS AND SUPPLY CHARGES - 2009/2010

The contents of this brochure are intended merely as a guide and are subjected to change.

1. ELECTRICITY FAULTS NUMBERS	
Contact Centre (All Regions)	080 1313 111
Streetlight Faults	080 1313 111
Cable Theft	031 311 9611
E-mail: custocare@elec.durban.gov.za	
2. CUSTOMER SERVICE CENTRES	
ETHEKWINI MUNICIPALITY SWITCHBOARD	031 311 1111
CENTRAL REGION	
Durban: Central Customer Services	031 311 9063
The Rotunda, 1 Jelf Taylor Crescent	
Pinetown: Pinetown Customer Services	031 311 6295/6
Pinetown Civic Centre	
NORTHERN REGION	
Durban: HQ Building	031 311 9068
1 Jelf Taylor Crescent	
Besters: Bester's Customer Service	031 311 6944
Corner MR93 & MR 452	
SOUTHERN REGION	
Isipingo: Isipingo Customer Services	031 311 5623
1st Floor, 3 Police Station Road	
Amanzimtoti: Amanzimtoti Depot	031 311 5632
264 Old Main Road (old Drive In site)	
3. CUSTOMER SERVICE (BULK)	031 311 9285/6/7
4. ACCOUNT QUERIES (BULK)	031 311 1203
5. QUALITY OF SUPPLY	031 311 9464

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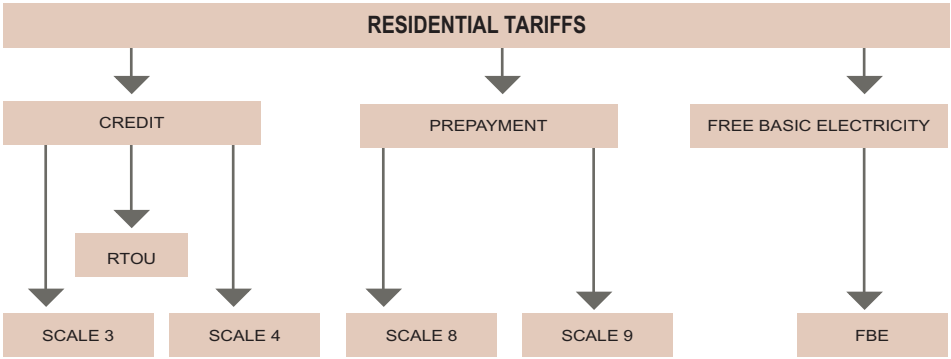
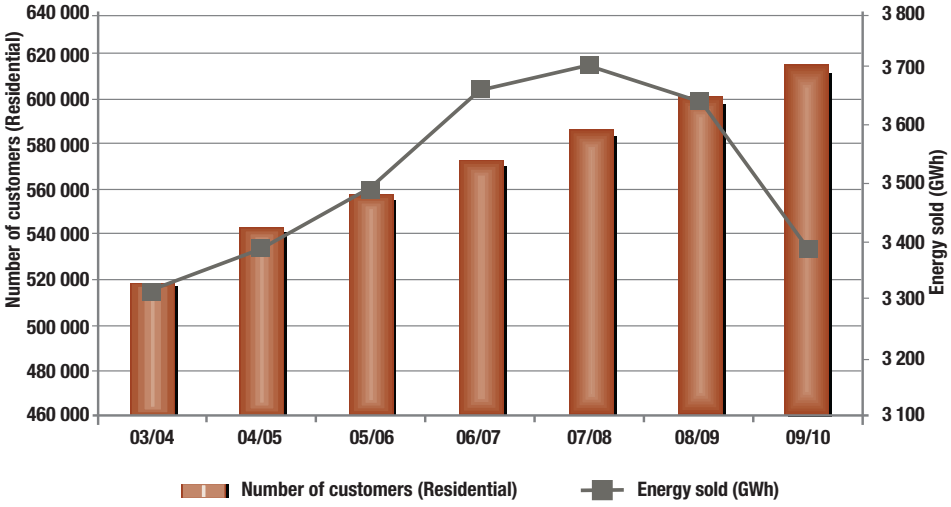
RESIDENTIAL TARIFFS

INTRODUCTION

These tariffs are only available to residential customers operating at either 230 V (single phase) or 400 V (three phase). Customers have the option of either purchasing electricity via a credit based tariff (i.e scale 3 & 4) or alternatively a prepayment based tariff (scale 8 & 9). Indigent residential customers who use below 150 kWh per month quality for the FBE tariff. This tariff allows the customer to claim 65 kWh of free electricity on a monthly basis.



STATISTICAL DATA: RESIDENTIAL TARIFFS



RESIDENTIAL CREDIT TARIFFS

SINGLE PHASE - SCALE 4

Typical Customers
Medium sized residential premises.
Supply size is 60 A. (80 A available in certain circumstances)

Service Charge
The service charge is built into the energy charge, therefore a separate service charge is not applicable

Energy Costs

Energy Charge (c/kWh)	79,08
VAT	11,08
	90,16

THREE PHASE - SCALE 3

Typical Customers
Large residential premises with ducted airconditioning, swimming pool, etc.

Service Charge
The service charge is built into the energy charge therefore a separate service charge is not applicable

Energy Costs

Energy Charge (c/kWh)	79,08
VAT	11,08
	90,16

Meters are typically read once in every three months. Estimated charges are raised based on historical consumption.

RESIDENTIAL PREPAYMENT TARIFFS

SMALL POWER WITH ELECTRICITY DISPENSER - SCALE 8

Typical Customers
Small to medium sized residential premises.
Supply size is 60 A, via a prepayment meter.

Service Charge
The service charge is built into the energy charge therefore a separate service charge is not applicable

Energy Costs

Energy Charge (c/kWh)	79,08
VAT	11,08
	90,16

SMALL POWER WITH ELECTRICITY DISPENSER - SCALE 9

Typical Customers
Small sized residential premises.
Supply size is 40 A, via a prepayment meter. This is a subsidised connection.

Service Charge
The service charge is built into the energy charge therefore a separate service charge is not applicable

Energy Costs

Energy Charge (c/kWh)	79,08
VAT	11,08
	90,16

Prepayment customers pay for electricity in advance by using tokens or encoded numbers purchased from eThekwini Electricity Customer Service Centres or agents.

A deposit of R100 is required as an insurance against the cost of replacing the meter in the event of it being damaged. In the event of a meter being purposely damaged or bypassed, the required deposit is increased to R400.

FREE BASIC ELECTRICITY (FBE)

Typical Customers
Small residential customers.
Supply size is limited to 40 A single-phase.

Note: This tariff is only available to indigent customers who consume less than 150 kWh per month.

Service Charge
The service charge is built into the energy charge therefore a separate service charge is not applicable.

Energy Costs

Energy Charge (c/kWh)	65,33
VAT	9,14
	74,47

65 kWh FREE per month

This tariff is currently available to indigent customers who consume less than 150 kWh per month. All customers on this tariff will be eligable to 65 kWh of free electricity on a monthly basis. An online monitoring system is currently in place that identifies customers who qualify for FBE based on their last 11 months electricity usage. Customers who consume more than an average of 150 kWh per month will not be eligable for FBE. FBE tokens must be collected on a monthly basis.

Note: This tariff is only available via a pre-payment system.

RESIDENTIAL TIME OF USE (RTOU)

This tariff allows residential customers, typically with a consumption greater than 1 000 kWh per month to benefit from lower energy costs should they be able to shift their loads away from peak periods and towards standard/off-peak periods.

(Prices exclude VAT)

Residential Time Of Use (RTOU)	(Non-Seasonal c/kWh)			Service Charge
	Peak	Std	Off-peak	(Rands)
	115,89	57,89	42,89	69,41

Energy Costs
The energy cost is time differentiated into three distinct periods namely: Peak, Standard and Off-Peak.

Service Charge
This charge is fixed and is payable whether electricity is used or not.

Note: The implementation of this tariff is dependant on the availability of suitable metering technology.

Typical Costs Of Using Appliances

The following table shows the typical costs of running appliances on the residential tariffs.

Item	Electrical Rating In Watts	Hours Used Per Day	Days Used Per Month	kWh Used Per Month	Monthly Cost At 90,16 Cents/kWh Incl VAT
Air Conditioner	1 500	12	20	360	R324,58
Cellphone Charger	28	5	7	0,98	R0,88
Clothes Iron	1 500	4	6	36	R32,46
Computer	480	2	15	14,4	R12,98
Dishwasher	2 500	2	25	125	R112,70
Freezer (Chest)	250	6,5	30	48,75	R43,95
Geyser	2 000	5	30	300	R270,48
Heater: 2 Bar	1 000	5	15	75	R67,62
Hotplate: 2 Plate	1 500	3	30	135	R121,72
Kettle	2 000	0,5	30	30	R27,05
Lighting: Single 100 W	100	5	30	15	R13,52
Microwave Oven	1 000	1	20	20	R18,03
M-Net Decoder / DVD Player	25	6	30	4,5	R4,06
Oven: Bake Element	1 500	0,5	20	15	R13,52
Oven: Grill Element	1 500	0,5	15	11,25	R10,14
Oven: Warmer Drawer	400	0,8	25	8	R7,21
Pool Pump	750	8	30	180	R162,29
Refrigerator (With Freezer)	400	6,5	30	78	R70,32
Stove: Back Large Plate	1 500	1,5	30	67,5	R60,86
Stove: Back Small Plate	1 000	1	25	25	R22,54
Stove: Front Large Plate	1 500	2	30	90	R81,14
Stove: Front Small Plate	1 000	1	15	15	R15,52
Total Stove				231,75	R208,95
Television: 51cm Colour	80	6	30	14,5	R13,07
Toaster	800	0,5	15	6	R5,41
Vacuum Cleaner	1 400	3	4	16,8	R15,15
Washing Machine	2 300	4	6	55,2	R49,77

Total cost = Kilowatts (Rating) x Hours of use x Per unit charge

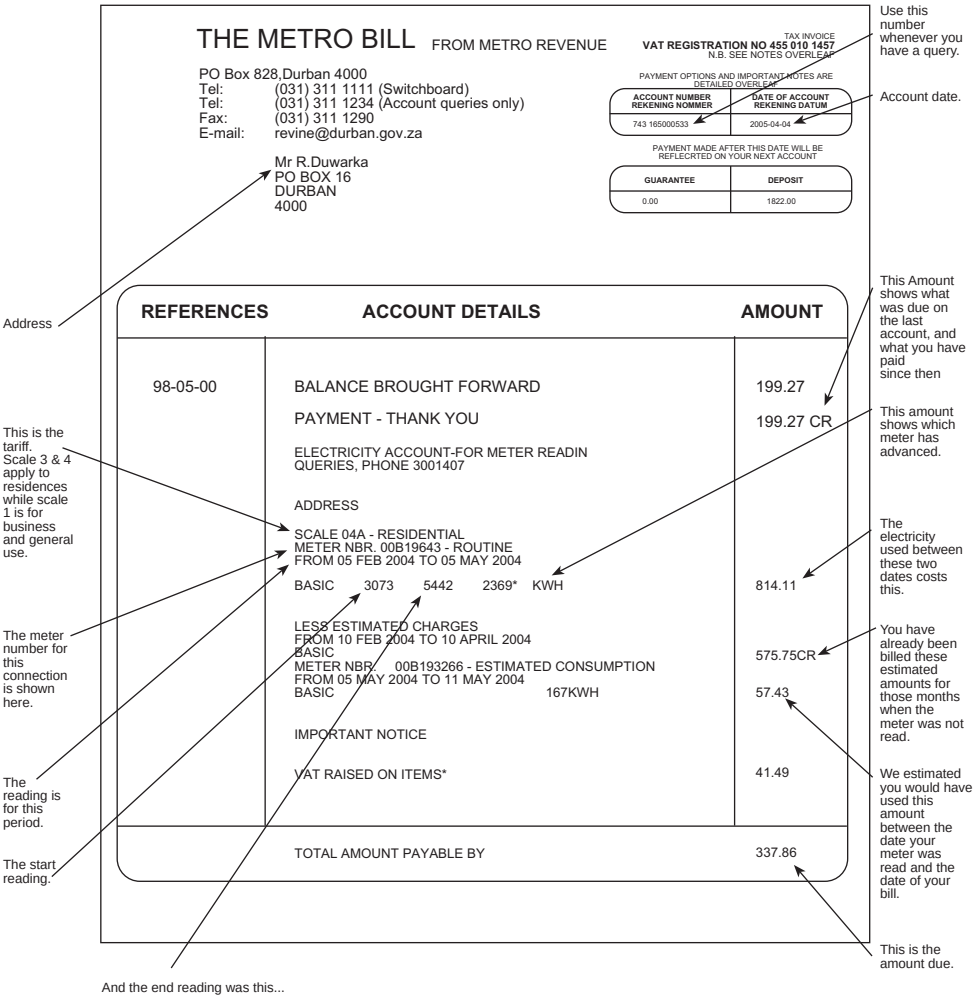
eg. large stove plates rated at 1 500 Watts is used for 2hrs per day for 30 days.
- Convert watts to kilowatts : Divide by 1 000
- Convert cents to Rands: Divide by 100

$\frac{1\,500}{1\,000}$ kW x 2hrs x 30 days x R $\frac{90,16}{100}$

1,5 x 2 x 30 x 0,9016

R81,14

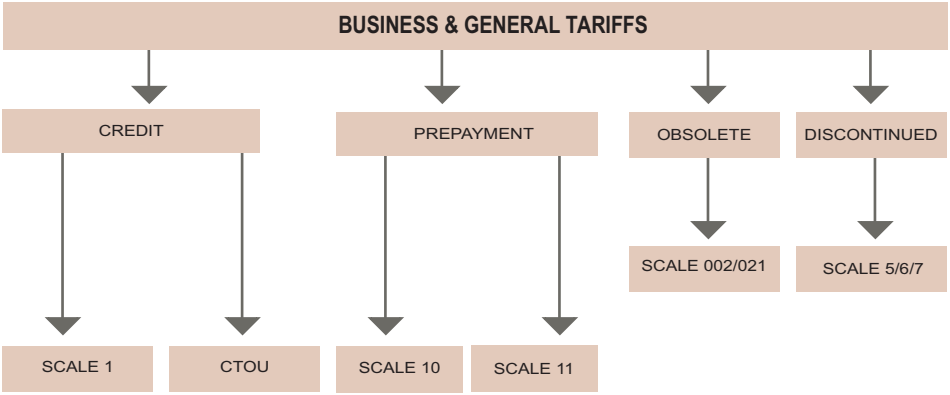
(SAMPLE)


THE METRO BILL
FROM METRO REVENUE
TAX INVOICE
VAT REGISTRATION NO 455 010 1457
N.B. SEE NOTES OVERLEAF
PO Box 828,Durban 4000
Tel: (031) 311 1111 (Switchboard)
Tel: (031) 311 1234 (Account queries only)
Fax: (031) 311 1290
E-mail: revine@durban.gov.za
PAYMENT OPTIONS AND IMPORTANT NOTES ARE DETAILED OVERLEAF
ACCOUNT NUMBER REKENING NOMMER
DATE OF ACCOUNT REKENING DATUM
743 165000533
2005-04-04
PAYMENT MADE AFTER THIS DATE WILL BE REFLECRTED ON YOUR NEXT ACCOUNT
GUARANTEE
DEPOSIT
0.00
1822.00
Mr R.Duwarka
PO BOX 16
DURBAN
4000
REFERENCES
ACCOUNT DETAILS
AMOUNT
98-05-00
BALANCE BROUGHT FORWARD
199.27
PAYMENT - THANK YOU
199.27 CR
ELECTRICITY ACCOUNT-FOR METER READIN QUERIES, PHONE 3001407
ADDRESS
SCALE 04A - RESIDENTIAL
METER NBR. 00B19643 - ROUTINE
FROM 05 FEB 2004 TO 05 MAY 2004
BASIC 3073 5442 2369* KWH
814.11
LESS ESTIMATED CHARGES
FROM 10 FEB 2004 TO 10 APRIL 2004
BASIC
575.75CR
METER NBR 00B193266 - ESTIMATED CONSUMPTION
FROM 05 MAY 2004 TO 11 MAY 2004
BASIC 167KWH
57.43
IMPORTANT NOTICE
VAT RAISED ON ITEMS*
41.49
TOTAL AMOUNT PAYABLE BY
337.86
Use this number whenever you have a query.
Account date.
Address
This Amount shows what was due on the last account, and what you have paid since then
This is the tariff. Scale 3 & 4 apply to residences while scale 1 is for business and general use.
This amount shows which meter has advanced.
The electricity used between these two dates costs this.
The meter number for this connection is shown here.
You have already been billed these estimated amounts for those months when the meter was not read.
The reading is for this period.
We estimated you would have used this amount between the date your meter was read and the date of your bill.
The start reading.
This is the amount due.
And the end reading was this...

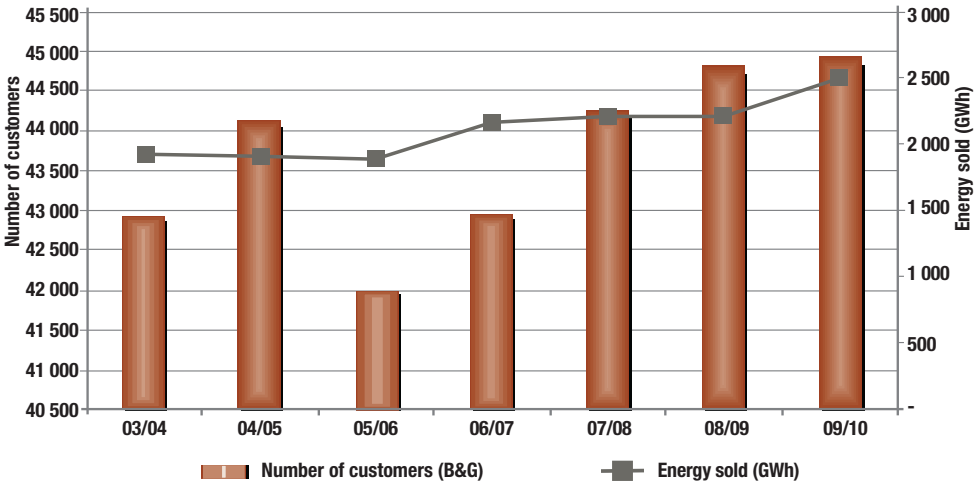
BUSINESS TARIFFS

INTRODUCTION

These tariffs are applicable to business and commercial customers consuming electricity at voltages not exceeding 11 kV. Business and commercial customers have the option of purchasing electricity via a credit based tariff (Scale 1 & CTOU) or alternatively a prepayment based tariff (Scale 10 & 11).



STATISTICAL DATA: BUSINESS AND GENERAL TARIFFS



COMMERCIAL TIME OF USE (CTOU)

This tariff is designed for Business and Industrial customers with a Notified Maximum Demand of 100 kVA and below.

(Prices exclude VAT)

Commercial Time Of Use (CTOU) For customers with Notified Max Demand less than 100 kVA only	High Season (c/kWh)			Service Charge
	Peak	Std	Off-peak	(Rands)
	200,81	79,14	59,23	177,43
	Low Season (c/kWh)			Service Charge
	Peak	Std	Off-peak	(Rands)
	82,32	64,51	56,06	177,43

Enegy Charge The energy charge varies according to the time and season of use.

Service Charge The service charge is fixed and is payable whether electricity is used or not.

This tariff is strictly for customers with a Notified Maximum Demand of 100 kVA and below. In instances where the demand exceeds 110 kVA, the customer shall be charged for the exceedance above 100 kVA as follows:

Maximum Demand Change R/kVA	65,00	9,10	74,10

BUSINESS & GENERAL CREDIT TARIFFS SCALE 1

Typical Customers Commercial and Industrial.

Service Charge This is a fixed charge levied for each point of supply whether electricity is used or not.

Service Charge

Service Charge (R)	129,10
VAT	18,08
	147,18

Energy Costs

Energy Charge (c/kWh)	84,29
VAT	11,81
	96,10

Concession No service charge is applicable for religious buildings.

Voltage Rebate A 2% rebate is applied to the energy charge for supply voltages exceeding 1 000 V.

General Meters are typically read once every three months.

Estimated charges are raised in months where no meter readings are taken and these are reversed when actual consumption is charged for. A deposit equivalent to three months consumption is required. This is periodically reviewed and increased deposits may be charged where required.

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BUSINESS & GENERAL PREPAYMENT TARIFFS

B & G PREPAYMENT - SCALE 10

Typical Customers
Small commercial customers who use electricity mainly during the day or intermittently. Supply size is 60 A, via a prepayment meter.

Service Charge
The service charge is built into the energy charge therefore a separate service charge is not applicable.

Energy Costs

Energy Charge (c/kWh)	93,58
VAT	13,10
	106,68

B & G PREPAYMENT - SCALE 11

Typical Customers
Small commercial customers who use electricity mainly during the day or intermittently. Supply size is 40 A, via a prepayment meter. This is a subsidised connection.

Service Charge
The service charge is built into the energy charge therefore a separate service charge is not applicable.

Energy Costs

Energy Charge (c/kWh)	93,58
VAT	13,10
	106,68

Prepayment customers pay for electricity in advance by using tokens or encoded numbers purchased from eThekwini Electricity customer service centres or agents.

A deposit is required as an insurance against the cost of replacing the meter in the event of it being damaged. In the event of a meter being purposely damaged or bypassed the required deposit is increased.

OBSOLETE BUSINESS TARIFFS — SCALE 002/021

Obsolete Tariff This tariff is currently active, but no longer available to new customers.
This tariff has been superceded by the Commercial Time of Use (CTOU). Please refer to page 9.

(Prices exclude VAT)

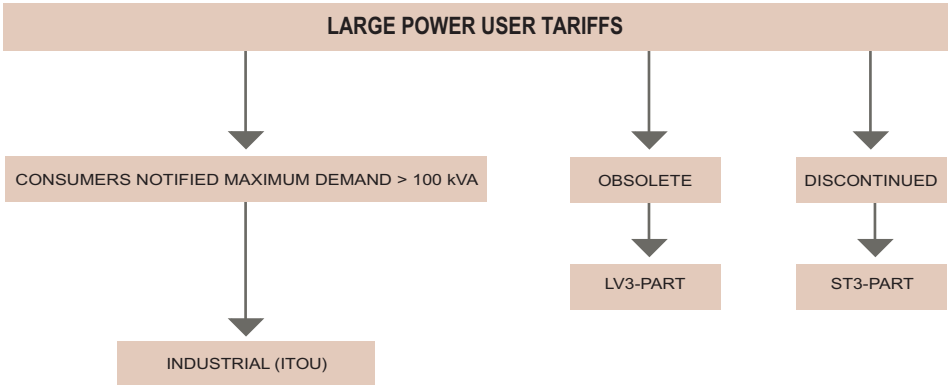
Description	Tariff	Tariff Component	Amount	
Scale 2 Commercial and Industrial Customers who use a significant portion of their electricity during the night and on weekends.	Scale 2 Meter type 002 **Basic:** All time periods **Surcharge:** 07h00 - 20h00 (weekdays only)	Energy Charge (Basic) Energy Charge (Surcharge) Service Charge	34,61 82,29 129,10	(c/kWh) (c/kWh) (R)
	Scale 2 Meter type 021 **Peak:** 07h00 - 20h00 (weekdays only) **Off Peak:** 20h00 - 07h00 (weekdays) Off Peak rate applies all weekend	Energy Charge (Peak) Energy Charge (Off-Peak) Service Charge	116,90 34,61 129,10	(c/kWh) (c/kWh) (R)

Note: Obsolete tariffs attract higher than normal increases, customers are therefore encouraged to review their load profile and investigate the feasibility of migrating to alternate tariffs.

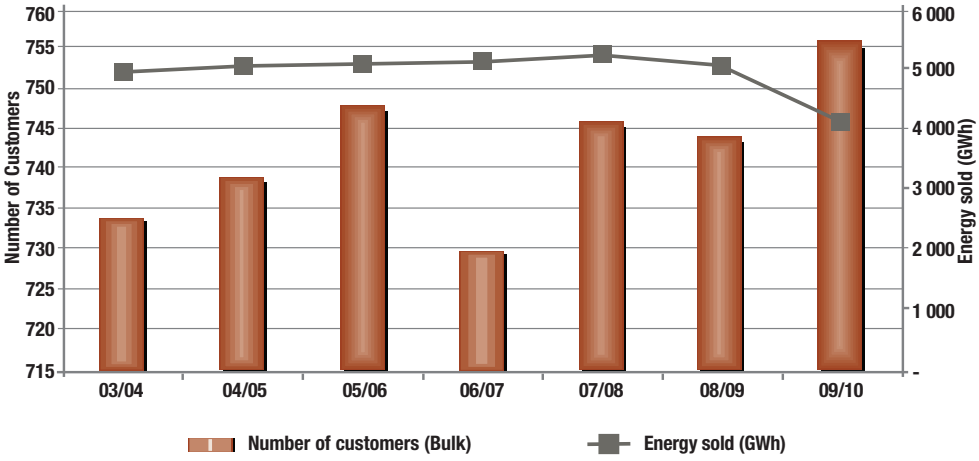
LARGE POWER USER TARIFFS

INTRODUCTION

The large power user agreements are entered into for a minimum period of one year. They are intended for customers who consume electricity on a continuous basis throughout the year. The bulk tariffs are designed to have different rates for the same energy component during different time periods and seasons in order to comply with the cost of supply at different times more accurately.



STATISTICAL DATA: LARGE POWER USER TARIFFS



DEFINITIONS

DEFINATIONS FOR UNDERSTANDING BULK TARIFFS

Network Demand Charge (NDC) Is a charge that is variable on a monthly basis and is charged on the actual demand measured.

Network Access Charge (NAC) Is a tariff component that is fixed on an annual basis and is charged as a R/kVA on the notified maximum demand.

Restricted Demand The highest half-hourly demand in kVA taken by the customer between 16h00 and 20h00, Monday to Friday.

Energy Measured in kWh throughout the month.

Notified Maximum Demand The maximum demand notified in writing by the customer which the customer requires to be in a position to demand and remains in force for one year.

Notified Minimum Demand The minimum half-hourly demand notified in writing by the customer for the purpose of claiming a discount and accepted as the minimum value to be used for calculating the Maximum Demand Charge. The Notified Minimum Demand remains in force for one year and may be reduced by giving one month's notice, the revised Notified Minimum Demand shall remain in force for a further period of one year.

Service Charge Is a fixed charge payable per account to recover service related costs.

PUBLIC HOLIDAYS

Date	Public Holiday	Actual Day of the week	TOU treated as
9 August 2010	National Women's Day	Monday	Saturday
24 September 2010	Heritage Day	Friday	Saturday
16 December 2010	Day of Reconciliation	Thursday	Saturday
25 December 2010	Christmas Day	Saturday	Sunday
26 December 2010	Day of Goodwill	Sunday	Sunday
27 December 2010	Public Holiday	Monday	Saturday
1 January 2011	New Year's Day	Saturday	Sunday
21 March 2011	Human Rights Day	Monday	Saturday
22 April 2011	Good Friday	Friday	Sunday
25 April 2011	Family Day	Monday	Sunday
27 April 2011	Freedom Day	Wednesday	Saturday
1 May 2011	Workers Day	Sunday	Sunday
2 May 2011	Public Holiday	Monday	Saturday
16 June 2011	Youth Day	Thursday	Saturday

TIME OF USE TARIFF TERMS

High Demand Period — The period from 1 June to 31 August inclusive.

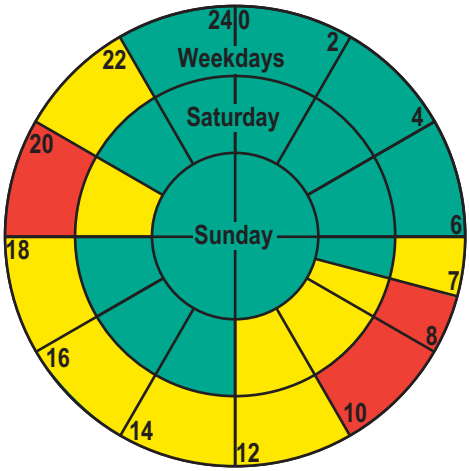
Low Demand Period — The period from 1 September to 31 May inclusive.

Peak, Standard and Off-Peak Periods — The different times during the day, as shown in the graph below, during which varying energy charges apply.

Maximum Demand — The highest half-hourly demand in **kVA** taken by the customer during Peak and Standard periods in the month.

Energy — Measured in **kWh** during Peak, Standard and Off-Peak periods during the days of the month according to the graph below.

Time Intervals



Peak

Standard

Off-Peak

HIGH DEMAND (1 JUNE - 31 AUG) / LOW DEMAND (1 SEP - 31 MAY)			
TIME PERIODS	MON - FRI	SAT	SUN
22h00 - 06h00	OFF-PEAK	OFF-PEAK	OFF-PEAK
06h00 - 07h00	STANDARD	OFF-PEAK	OFF-PEAK
07h00 - 10h00	PEAK	STANDARD	OFF-PEAK
10h00 - 12h00	STANDARD	STANDARD	OFF-PEAK
12h00 - 18h00	STANDARD	OFF-PEAK	OFF-PEAK
18h00 - 20h00	PEAK	STANDARD	OFF-PEAK
20h00 - 22h00	STANDARD	OFF-PEAK	OFF-PEAK

INDUSTRIAL TIME OF USE (ITOU)

This tariff is designed for customers with an Notified Maximum Demand greater than 100 kVA. Customers opting for this tariff will benefit if they can shift their energy loads away from peak periods and towards Standard/Off-Peak periods.

(Prices exclude VAT)

Industrial Time Of Use (ITOU)		Amount	
Peak	HIGH DEMAND SEASON JUNE - AUGUST	143,64	(c/kWh)
Standard		41,92	(c/kWh)
Off peak		25,00	(c/kWh)
Peak	LOW DEMAND SEASON SEPTEMBER - MAY	45,88	(c/kWh)
Standard		29,32	(c/kWh)
Off peak		22,40	(c/kWh)
Network Demand Charge (R/kVA)		50,00 (Based on Actual Demand)	
Network Access Charge (R/kVA)		15,00 (Based on Notified Max Demand)	
Service Charge		R1 860,00	
Voltage Surcharge		Voltage	%Surcharge
		275 kV	0
		132 kV	2,25
		33 kV	3
		11 kV	10,5
		6,6 kV	12,75
		400 V	22,5

Energy Charge The energy charge is time dependant as well as seasonally differentiated.

Network Demand Charge The network demand charge (NDC) is based on the Actual Demand.

Network Access Charge The network access charge (NAC) is based on the Notified Maximum Demand. Customers are encouraged to correctly state their NMD values to avoid unnecessary charges.

Service Charge This is a fixed charge that is payable whether electricity is used or not.

Voltage Surcharge To be raised on the sum of energy, network demand charge and network access charge.

OBSOLETE LARGE POWER USER TARIFFS — LV3-PART

Typical Customers Commercial and Industrial customers who are supplied at 400 V or 11k V, using over 100 kVA who are able to restrict their electricity consumption between 16h00 - 20h00.

Obselete Tariff **LV3-Part:** This tariff is currently active, but no longer available to new customers.

Note: Obsolete tariffs attract higher than normal increases. Customers are therefore encouraged to review their load profile and investigate the feasibility of migrating to alternate tariffs.

Service Charge

Service Charge (R)	589,18
VAT	82,49
	671,67

Energy Costs

Energy Charge (c/kWh)	34,53
VAT	4,84
	39,37

Maximum DemandCharge

Maximum Demand Charge (R)	161,52
VAT	22,61
	184,13

Restricted Demand Discount

Restricted Demand Discount (R)	34,84
VAT	4,88
	39,72

General

Minimum Charges
Minimum charges for agreements signed prior to 1 January 2000 are based upon 70% of the Maximum Notified Demand; the minimum charge for agreements signed after 1 January 2000 is based upon the greater of: 70% of Notified Maximum Demand, or 100 kVA.

Restricted demand period: 16h00 - 20h00

DISCONTINUED TARIFFS

The following tariffs were deemed non cost reflective and have been discontinued as of 1 July 2009:

Supertension	(ST3-Part)
Excess night & weekend demand options	(ST3-Part)
Low Voltage Two-Part Tariff	(LV2-Part)
Scale 5/6/7	(Business & General)

ADVISORY SERVICES

TARIFFS ANALYSIS

Customers are encouraged to study their load profile and ensure that they purchase electricity on the most efficient tariff structure available.

For more information and advice in this regard, please contact the Electricity Pricing & Marketing Branch on: **031 311 9285/6/7**

ENERGY EFFICIENCY ADVISORY SERVICE

EThekwini Electricity works closely with Eskom Energy Advisory services to provide advice on energy efficiency matters with the intention of helping customers to attain high levels of energy efficiencies within their factories.

For more information on this service, please contact the Electricity Pricing & Marketing Branch on: **031 311 9285/6/7**

QUALITY OF SUPPLY SERVICES

EThekwini Electricity has adopted a quality charter recommended by the National Energy Regulator of South Africa (NERSA) which defines its commitment to ensuring the delivery of electricity of apropriate quality and of dealing with problems that customers may experience with regard to quality from time to time.

The Quality of Supply Branch of HV Network Control is responsible for conducting power quality investigations. These investigations are in accordance with the standards reflected in NRS 048 and concentrate primarily on Voltage Dips, Harmonics, Regulation, Unbalance and Frequency Flicker.

Please contact: **031 311 9464** for more information on services offers and applicable tariffs.

Voltage Dip are recorded and may be viewed on eThekwini Electricity's website: http://www.durban.gov.za/durban/Qos_index

GENERAL SERVICES

For general information and advice on all electrical related matters, please contact our Call Centre on:

Toll Free: **080 1313 111**
Email: **custocare@elec.durban.gov.za**

REPORTING OF CABLE THEFT

Theft of Electrical cables in Durban cause unnecessary power outages and inconvenience to customers. We therefore encourage communities to support us in preventing further disruption by reporting suspicious activities:

Telephone: **031 311 9611**
Email: **custocare@elec.durban.gov.za**

POWER FACTOR CORRECTION

The demand components within the bulk electricity tariffs are directly affected by the power factor of operation. It is in the customers best interest to keep the power factor as close to unity as possible because the kVA of operation increases as the power factor decreases resulting in the customer paying higher network demand charges.

Low power factors are caused by inductive loads such are induction motors, flourescent lights etc. In order to compensate for these inductive loads, capactive components have to be introduced into the system and these components are known as power factor correction capacitors

Power factor correction technology has advanced successfully over the years and there are many types of efficient solutions available on the market today.

For further advice on power factor correction, please contact the specialist firms or eThekwini Electricity.

An example (based on ITOU Tariff rates):

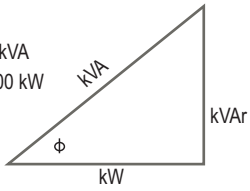
BEFORE POWER FACTOR

Demand charge = R50,00/kVA

Assume Max Demand = 500 kW

Power factor = 0,7

$\text{Cos } \phi = \frac{kW}{kVA}$



kVA = 500/0,7 = 714

Maximum Demand = 714 x 50,00

Demand Charge (per month)	R35 700

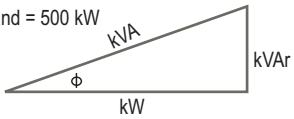
AFTER POWER FACTOR

Demand charge = R50,00/kVA

Assume Max Demand = 500 kW

Power factor = 0,99

$\text{Cos } \phi = \frac{kW}{kVA}$



kVA = 500/0,99 = 505

Maximum Demand = 505 x 50,00

Demand Charge	R25 250
Saving (per month)	R10 450

Note: Reducing your maximum demand will also result in lower network access charges.

METHODS OF PAYMENT

The following methods of payment are available:

1. Direct Debits - The simplest and safest method.
2. By Cheque - Cheques can be posted.
3. In Person - At any authorised eThekwini account vendor

A list of payment methods and pay points is printed on the reverse side of all accounts.

Please note that there are occasionally delays in advice of payment reaching us when accounts are paid at Post Offices. Customers are to ensure that payment is made before the due date to avoid arrears on the account and unnecessary switch off.

Connection Fees

SECTION B

The Schedule of Connection Fees & Charges are revised annually and will be subject to an increase as of 1 July 2011. Only those applications costed and paid for prior to 1 July 2011 will qualify for the existing fees & charges

	BASIC TARIFF	14% VAT	TOTAL TARIFF
1 A **Connection Fee**, subject to Section 2(3) of the Electricity Supply Bylaws:			
1.1 For a single phase (230 V) 40 A subsidised connection supplied via 10 mm^2 airdac, and where the electricity is to be purchased on a Scale 9 or Scale 11 energy tariff of the Second Schedule: ***1(a)**			
1.1.1 With a small power distribution unit	R263,16	R36,84	R300,00
1.1.2 Without a small power distribution unit	R131,58	R18,42	R150,00
NOTE 1 The Engineer may for technical reasons decide to use underground cable.			
NOTE 2 There may be additional charges at the rates prescribed in Item 2 hereof for any supply mains extensions made in excess of one pole and one span (10 mm^2 airdac); but excluding any poles and spans used for road crossings.			
1.2 For connections other than to those referred to in Item 1.1 a charge consisting of a Basic Component, a Supply Mains Component, a Service Mains Component and a Metering Component: ***1(b)**			
1.2.1 A **Basic Component** as follows: ***(b)(i)**			
1.2.1.1 For single phase 230 V connections up to 80 A	R5 701,75	R798,25	R6 500,00
1.2.1.2 For three phase 400 V connections ***1(b)(i)(B)iv**			
(a) Up to 80 A	R11 719,30	R1 640,70	R13 360,00
(b) 81 A to 100 A	R16 456,14	R2 303,86	R18 760,00
(c) 101 A to 120 A	R34 868,42	R4 881,58	R39 750,00
(d) 121 A to 150 A	R41 192,82	R5 767,18	R46 960,00
(e) 151 A to 200 A	R87 675,43	R12 274,57	R99 950,00
(f) 201 A to 250 A	R109 175,44	R15 284,56	R124 460,00
(g) 251 A to 300 A	R130 701,75	R18 298,25	R149 000,00
(h) 301 A to 400 A	R197 780,71	R27 689,30	R225 470,00
(i) 401 A to 450 A	R243 807,02	R34 132,98	R277 940,00
(j) 451 A to 800 A	R257 877,19	R36 102,81	R293 980,00
(k) 801 A to 1 200 A	R272 114,03	R38 095,97	R310 210,00
(l) 1 201 A to 1 600 A	R288 184,22	R40 345,78	R328 530,00
(m) 1 601 A to 2400 A	R513 385,96	R71 874,04	R585 260,00
(n) 2 401 A to 3 200 A	R563 605,26	R78 904,74	R642 510,00

		BASIC TARIFF	14% VAT	TOTAL TARIFF
1.2.1.3	For 11 000 V connections, with requested capacity up to 6 000 kVA			
(a)	A cost per connection of:	R98 333,33	R13 766,67	R112 100,00
	Plus			
(b)	A cost per kVA of requested capacity of:	R98,25	R13,75	R112,00
1.2.1.4	For 11 000 V and 33 000 V connections where the requested capacity exceeds 6 000 kVA and 18 000 kVA respectively:			
	The proportionate costs as determined by the Engineer at prevailing rates for: the supply main extension; the required switch-panels at the major substation; switchgear at the customer's premises, and any other costs as deemed appropriate by the Engineer, is charged.			
1.2.1.5	For 132 000 V connections where capacity exceeds 18 000 kVA :			
	The proportionate costs as determined by the Engineer at prevailing rates, for: 132 000 V switch-panels at the 275 kV/132 kV substation; 132 000 V switchgear installed at the customer's premises, and any other costs as deemed appropriate by the Engineer, is charged.			
NOTE 3	Where requested by the Engineer, customers are required to provide brick substations to the Engineer's specification. Mini-substations up to requested capacity of 500 kVA may be supplied at the Engineers discretion.			
	The customer shall ensure that all substations shall be positioned with direct public road access. Only in exceptional circumstances shall the engineer approve otherwise.			
	Where the Engineer requires the applicant to provide a brick substation a reduction shall be applied to the b asic component of the connection charge as follows:			
(a)	Rebate for a brick substation:	R27 894,74	R3 905,26	R31 800,00
(b)	Rebate for a distributor substation:	R55 789,47	R7 810,53	R63 600,00
1.2.1.6	For Connections within a Township where a Developer has paid for the Supply Mains:			
(a)	A charge per single phase 230 V connection:	R1 254,39	R175,61	R1 430,00
(b)	A charge per three phase 400 V connection:	R2 807,02	R392,98	R3 200,00
1.2.2	A **Metering Component** as follows: ***(b)(ii) / 1(b)(ii)**			
1.2.2.1	For each split single phase electricity dispenser (connected via pilot wire) up to 60 A.	R894,74	R120,35	R1 020,00

		BASIC TARIFF	14% VAT	TOTAL TARIFF
1.2.2.2	For each split single phase electricity dispenser (wireless) up to 60 A.	R1 394,74	R195,26	R1 590,00
1.2.2.3	For a small power distribution unit supplied with the electricity dispenser:	R491,22	R68,78	R560,00
1.2.2.4	For each single phase electromechanical meter up to 80 A:	R578,95	R81,05	R660,00
1.2.2.5	For each three phase single rate electromechanical meter up to 120 A:	R1 736,84	R243,16	R1 980,00
1.2.2.6	For each three phase electronic meter:	R2 684,21	R375,79	R3 060,00
1.2.2.7	For each set of energy and demand meters suitable per feed:(bulk tariffs)	R7 368,42	R1 031,58	R8 400,00
1.2.2.8	For Low Voltage current transformers (Per set):	R500,00	R70,00	R570,00
NOTE 4	Where communication is not via the airdac communication pilot wire for pre-payment metering systems, the customer shall provide and install the necessary communication pilot wires.			
NOTE 5	Current Transformers are required for supplies greater than 120 A			
NOTE 6	Where a meter, in good working order, is recovered, a rebate as determined by the Engineer is to be applied to the replacement meter. The rebate, however, shall not exceed the cost of the replacement meter.			
NOTE 7	A change in tariff may require a change in meter.			
NOTE 8	The type of meter installed shall be at the discretion of the Engineer.			
1.2.3	A **Service Mains Component** as follows: ***(b)(iii)** Any dedicated cables feeding into a customer's premises.			
1.2.3.1	For 230 V connections up to 80 A: A charge for any dedicated cables or lines from meter point to point on the lateral boundary closest to the pole or consumer distribution unit, charged according to rates in Item 2 of this schedule.			
1.2.3.2	For all connections other than 230 V connections, any dedicated cables or lines, charged according to rates in Item 2 of this schedule.			
1.2.4	A **Supply Mains Component**, for any mains extension, charged according to rates in Item 2 of this schedule unless a R/kVA*km is specified:			
1.2.4.1	For all 230 V or 400 V connections up to 150 A (100 kVA): A proportionate share of the cost of LV supply mains extensions, excluding crossovers, in excess of 20 metres per customer if fed by cable, or 1 span per customer if fed by overhead line.			

		BASIC TARIFF	14% VAT	TOTAL TARIFF
	A proportionate share of the cost of MV supply mains extensions in excess of 200 metres per substation for a requested capacity of up to 150 A, according to the ratio of requested capacity to the total capacity that the Engineer envisages supplying from that extension.			
1.2.4.2	For all 400 V connections above 150 A: LV supply mains extensions, excluding crossovers, costed according to the installation that would have been sufficient for the requested capacity. A proportionate share of the cost of MV supply mains extensions excluding the first 50 metres of cable per substation laid in the road reserve or public property, according to the ratio of requested capacity to the total capacity that the Engineer envisages supplying from that extension.			
1.2.4.3	For 11 000 V connections, with requested capacity up to 6 000 kVA: A R/kVA*km cost for MV supply mains based on the requested capacity and the length of the MV cable from the source 132 kV/11 kV substation, of:	R82,46	R11,54	R94,00
1.2.4.4	For 11 000 V and 33 000 V connections where requested capacity exceeds 6 000 kVA and 18 000 kVA respectively:			
(a)	A guaranteed contribution towards the proportionate cost of any 132 000 V supply mains extension, such guaranteed contribution to be reduced to zero in ten equal amounts for each year in which the capacity is utilised above the minimum agreed level. The contribution is to be recovered from the consumer if, in the Engineer's opinion, the requested capacity is utilised below the agreed level.			
(b)	A charge equal to the product of: a Rand/kVA*km rate determined by the Engineer using actual costs, the length of the 11 000 V or 33 000 V supply mains from the source 132 kV/11 kV or 132 kV/33 kV substation, and the requested capacity.			
NOTE 9	The 33 kV network is being phased out and supply at 33 kV is no longer available to new consumers connecting to the grid.			
1.2.4.5	For 132 000 V connections where capacity exceeds 18 000 kVA:			

		BASIC TARIFF	14% VAT	TOTAL TARIFF

A charge equal to the product of:
a Rand/kVA*km rate as determined by the Engineer using actual costs; the length of 132 000 V supply mains from the source 275 kV/132 kV substation or 132 kV switchyard, and the requested capacity.

NOTE 10 Where the Engineer has agreed to a second connection, and where the premises have not been allocated as an informal settlement, a full connection fee (all four components) will be charged for.

NOTE 11 Where a connection can be supplied from an existing meter-room that has adequate capacity, only the Metering Component will be charged for.

2 **Supply Mains** extension and **Service Mains** installations: ***2**

2.1 Cable shall be charged for in accordance with the following scale:

(a) Cables with a standard operating voltage not exceeding 1 000 V:

CROSS SECTIONAL AREA OF CONDUCTORS mm^2	NUMBER OF CORES	CONDUCTOR	RATE PER METRE				
			CABLE	TRENCHING	BASIC TARIFF	14% VAT	TOTAL TARIFF
10	2	Copper	R36,45	R49,51	R85,96	R12,04	R98,00
16	2	Copper	R48,73	R49,51	R98,24	R13,76	R112,00
25	2	Copper	R110,13	R49,51	R159,64	R22,36	R182,00
16	4	Copper	R82,06	R49,51	R131,57	R18,43	R150,00
35	4	Aluminium	R61,89	R49,51	R111,40	R15,60	R127,00
50	4	Aluminium	R81,19	R49,51	R130,70	R18,30	R149,00
95	4	Aluminium	R125,92	R49,51	R175,43	R24,57	R200,00
95	3	Aluminium	R144,34	R49,51	R193,85	R27,15	R221,00
150	3	Aluminium	R180,31	R49,51	R229,82	R32,18	R262,00
150	4	Aluminium	R228,56	R49,51	R278,07	R38,93	R317,00
185	1	Copper	R178,07	N/A	R178,07	R24,93	R203,00
240	3	Aluminium	R245,22	R49,51	R294,73	R41,27	R336,00
240	4	Copper	R980,31	R49,51	R1 029,82	R144,18	R1 174,00
240	4	Aluminium	R286,45	R49,51	R335,96	R47,04	R383,00

NOTE: These costs are also applied when deriving costs of low voltage busbar and insulator conductor.

	BASIC TARIFF	14% VAT	TOTAL TARIFF

(b) Cables with a standard voltage exceeding 1 000 V but not exceeding 11 000 V.

CROSS SECTIONAL AREA OF CONDUCTORS mm^2	NUMBER OF CORES	CONDUCTOR	RATE PER METRE		
			BASIC TARIFF	14% VAT	TOTAL TARIFF
95	3	aluminium	R263,15	R36,85	R300,00
150	3	aluminium	R316,66	R44,34	R361,00
240	3	aluminium	R403,50	R56,50	R460,00
300	3	copper	R1 235,96	R173,04	R1 409,00

(c) Pilot/ Telephone cables per meter: R63,16 R8,84 R72,00

(d) Other types and sizes of cables or conductor specified by the Engineer as being suitable for the service, which are not included in (a), (b) and (c) above, shall be paid for according to the actual cost of supply and installation.

2.2 Overhead lines shall be charged in accordance with the following scale:

(a) Per pole and metre of overhead line:

VOLTAGE LEVEL	TYPE/SIZE OF CONDUCTOR	RATE PER POLE/ METRE OF OVERHEAD CONDUCTOR		
		BASIC TARIFF	14% VAT	TOTAL TARIFF
Pole	7m Pole 9m Pole 10m Pole	R1 022,80 R1 595,61 R1 723,68	R143,20 R223,39 R241,32	R1 166,00 R1 819,00 R1 965,00
Overhead Line LV	10mm CC /m 16mm CC /m 25mm ABC /m 50mm ABC /m) 95mm ABC /m	R28,00 R46,49 R18,42 R41,22 R60,52	R4,00 R6,51 R2,58 R5,78 R8,48	R32,00 R53,00 R21,00 R47,00 R69,00
Overhead Line MV	95mm ABC /m) AAAC Oak /m AAAC Pine /m	R205,26 R48,24 R28,94	R28,74 R6,76 R4,06	R234,00 R55,00 R33,00

(b) Other types and sizes of overhead supply specified by the Engineer as being suitable for the service, which is not included in (a) above, shall be paid for at a rate equal to the actual cost of supply and installation.

		BASIC TARIFF	14% VAT	TOTAL TARIFF
3	**Testing of meters: *10**			
3.1	kWh meters per test:			
(a)	Single phase:	R219,30	R30,70	R250,00
(b)	Poly phase:	R307,02	R42,98	R350,00
(c)	Energy plus demand (bulk) meters per test	R1 315,79	R184,21	R1 500,00
4	Disconnections: ***11**			
4.1	For disconnections and reconnections made at the request of the consumer:			
(a)	Where disconnected at the request of the consumer for a suspension of the service:	R85,08	R11,92	R97,00
(b)	Where disconnected at the request of the consumer to enable him to effect extensions, repairs or maintenance to his house or to allow an electrical contractor to reposition meter box without extension to, or cutting of, the service main:	Nil	Nil	Nil
(c)	Where overhead service mains are temporarily disconnected and coiled back, on request, for the carrying out of fumigation or similar services: For disconnections carried out in consequence of a breach of the Bylaws:	R371,93	R52,07	R424,00
4.2	For disconnections carried out in consequence of a breach of the Bylaws:			
(a)	Where disconnected for non-payment of account, or in consequence of a breach of the Bylaws other than for unauthorised reconnection, illegal bypassing of meter or for tampering; per disconnection:	R85,08	R11,92	R97,00
(b)	Where disconnected as a result of unauthorised reconnection of item 4.2 a) above; per disconnection:	R199,12	R27,88	R227,00
(c)	Where disconnected as a result of the illegal bypassing of the meter, meter tampering or for tampering with the metering installation; per disconnection for :			
	(i) residential connection	R657, 89	R92,11	R750,00
	(ii) business or commercial connection, where the minimum charge shall be the greater of R2 500, 00 or an amount equivalent to 20% of the average monthly electricity consumption.	R2 631,58	R368,42	R3 000,00
NOTE 13	This charge excludes the cost of the meter. If the Engineer requires that the meter be replaced then the additional meter cost, as listed in item 1.2.2 will be charged and there will be no rebate for the tampered or vandalised meter.			

		BASIC TARIFF	14% VAT	TOTAL TARIFF
4.3	Where the service has been removed either as a result of illegal bypassing of the meter or as a result of tampering, per disconnection:			
(a)	For a single phase connection (meter cost included)	R1 618,42	R226,58	R1 845,00
(b)	For a single phase connection in a meter room (meter cost excluded)	R1 267,54	R117,46	R1 445,00
(c)	For a three phase connection in a meter room (meter cost included)	R2 921,05	R408,95	R3 330,00
(d)	For a three phase connection in a meter room (meter cost excluded)	R1 491,22	R208,78	R1 700,00
NOTE 14	Actual cost of re-instatement of services shall apply for all other situations.			
(e)	In addition to the above, business or commercial connections, shall pay the greater or R3000.00 or an amount equivalent to 20% of the average monthly electricity consumption.			
NOTE 15	In addition to the appropriate amounts contained in items **4.2 and 4.3** reconnection shall only occur once any arrear consumption charges, estimated charges for unmetered consumption and/or additional deposits owed by the consumer have been paid. Actual costs of re-instatement of services will apply in situations other than stipulated in 4.3.			
5	**Temporary Supplies** for periods not exceeding 14 days where supply can be provided from existing supply mains (for fetes, religious gatherings, elections, etc.): ***13**			
5.1	For single phase supplies up to 80A (at point of supply)	R549,32	R77,00	R626,00
	Per metre of cable laid thereafter:	R14,90	R2,10	R17,00
	installation consumption per amp per day:	R2,63	R0,37	R3,00
5.2	For three phase supplies per amp of requested supply (at point of supply)	R9,64	R1,36	R11,00
	Per metre of cable laid charged according to rates in Item 2 of this schedule:			
	Installation consumption per amp per day:	R7,89	R1,11	R9,00
6	**Provision of Load Profile Recording Data: *14**			
6.1	Where the period of recording is not in excess of seven days:	R3 508,77	R491,23	R4 000,00
6.2	For each subsequent week or portion thereof:	R70,18	R9,82	R80,00
6.3	Where a suitable profile meter is installed:	R446,32	R62,48	R508,80

		BASIC TARIFF	14% VAT	TOTAL TARIFF
7	**Quality of Supply Recording**			
7.1	Single and three phase (Regulation, Interruptions, Dips and Unbalances)	R3 508,77	R491,23	R4 000,00
7.2	Single and three phase (Regulation, Interruptions, Dips, Unbalances and Harmonics)	R4 385,97	R614,03	R5 000,00
8	**Transfer between residential connection types: *16**			
8.1	Transfer from conventional metering to prepaid:	R807,00	R113,00	R920,00
8.2	Transfer from prepaid to conventional metering:	R508,77	R71,23	R580,00
NOTE 16	The above transfers are subject to the Engineer's approval and to the payment of deposits where necessary. Refer to Sections 2(3), 8(5), 13(1) and 13A(1) of the Electricity Bylaws. Transfers from existing subsidised connections to non-subsidised connections will be subjected to an additional charge of R5000.			
9	**Relocation of meter:**			
9.1	Relocation of a prepaid meter:	R894,74	R125, 26	R1 020,00
9.2	Relocation of a single phase meter of an underground supply to a position on the boundary determined by the Engineer: *17(b)	R1 228,90	R172,10	R1 401,00
9.3	Relocation of a three phase meter of an underground supply to a position on the boundary determined by the Engineer	R1 732,50	R242,50	R1 975,00
9.4	Relocation of a meter within a meter room:	R192,98	R21,02	R220,00
NOTE 17	Where the meter position is moved to a position other than to that determined by the Engineer, the cost of the additional cable required shall be charged for according to Item 2.			
10	**Revisit Fee**, where accommodation or installation is not ready for the installation of council equipment:	R526,00	R74,00	R600,00
11	**Damage to electrical infrastructure**, Any person who damages electricity infrastructure, especially where such damage is a result of failure to comply with known procedures or where such damage is a result of failure to take reasonable precautions (such as obtaining cable records or digging proving trenches prior to excavating) shall be liable for three (3) times the total repair cost.			

***Indicates the numbering as referenced to the First Schedule in the eThekwini Municipality Electricity Supply Bylaws. The First Schedule is now replaced by this document, Schedule of Connection Fees and Charges.**

Energy Efficiency

SECTION C

There are plenty of ways that you can save electricity without spending too much money! The following are some free and low cost interventions which you should definitely consider implementing in your home or office.

Why should we Save Electricity?

South Africa is in the grips of an ENERGY CRISIS! We have all experienced the cost and inconvenience of load shedding – and will continue to do so for the next few years as our national electricity supplier, Eskom, works to increase their generation capacity to meet demand. EVERYONE in South Africa needs to think carefully about this crisis that we face and make all the changes that we can to help reduce the amount of electricity that we use. WHY? There are a number of important reasons:

Electricity is going to cost you more – so get organised now to reduce your future electricity bills

In order for Eskom to fund the projects which will increase their electricity supply, significant electricity tariff increases are on the cards. Since 2007, all customers were subjected to massive electricity price increases and in all likelihood these price increases are expected to continue over the next few years.

The energy crisis may have severe social and economic consequences

The increased cost of electricity, and unavoidable crisis-management initiatives such as load shedding, can have big impacts on business. This threatens jobs and South Africa's ability to keep growing its economy. Each one of us, every time we switch on a light or boil a kettle, contribute to this threat – so our concern for our country and wellbeing of our fellow citizens needs to be at the heart of the action that we now take to save electricity.

We are contributing to the decline of our planet

Coal-fired power stations produce 90% of South Africa's electricity. This burning of coal to make electricity releases excessive amounts of greenhouse gases into the atmosphere – these are the chemicals that are responsible for global warming. As we all know, global warming is the biggest threat to humans and our planet that we have ever faced, and is predicted to cause increased storms and flooding, devastating impacts on our ability to grow food, on coastal and low lying areas with sea level rise, our natural environment and on human health. Our use of electricity is contributing directly to global warming, and hence to these predicted impacts, as well as to poor air quality in the areas where our coal-fired power stations are located.

Free and Low Cost Interventions

Your behaviour – switch off lights and appliances

Your first, cheapest and easiest step to reducing electricity consumption at home is to change you and your family's behaviour. This does not mean extreme measures, such as sitting in the dark or having cold showers, but simply switching off appliances when they are not in use. A behavioural change should also include an awareness of where electricity is being wasted and taking appropriate action e.g. only boiling the amount of water needed instead of a full kettle each time, and switching off lights in parts of the house that are not being used. Also important is to unplug any appliances that would otherwise waste electricity being left in Standby Mode – such as TVs and HiFis.

Water Conserving Showerheads and Taps

Most people think that taking a shower instead of a bath saves water. However, what most people don't realise is that most showerheads are not very good at conserving water and allow many litres of water to pass through per minute. These non-conserving showerheads typically use 18-30 litres per minute, meaning that a 5 minute shower could use 150 litres of water - of which roughly half will be hot water. A water conserving showerhead only uses 8-12 litres of water per minute. This is half the amount of water per minute when compared to a non-conserving showerhead. Water conserving showerheads therefore save electricity as less than half the amount of water needs to be heated. However, be careful what you buy as a good unit will provide the same quality of shower as you're used to, whereas a bad unit may provide a poor quality shower. Water conserving taps are also available and should be fitted at basins to conserve water (and therefore electricity) when washing your hands.

Case study: Water-conserving Showerhead

A Westville homeowner, Anthon Human, wanted to reduce his electricity consumption and realised that a large percentage of his electricity bill was attributable to his geyser. He calculated that their shower uses 26 litres per minute (60% hot, 40% cold) and is used 4 times per day for 5 minutes each time. He decided to install a R 280 water conserving showerhead in their bathroom, the new showerhead only uses 11 litres per minute.

Savings per month

Money	R 232	257,33 kWh per month x R0,9016/kWh
Electricity	257,33 kWh (29%)	5 475 litres per month x 0,047 kWh/litre **60°C** 257,33 kWh **savings** ÷ 887,33 kWh **total**
Water	9 347 litres	300 litres/day x 30 days/month 257,33 kWh per month x 1,35* litres
Green House Gases	247 $kgCO^2$	257,33 kWh per month x 0,96 $kgCO^2$ per kWh

*Average amount of water required to produce 1 kWh of grid power

Free and Low Cost Interventions

Timer, motion and daylight switches

Devices that only need to operate for a certain amount of time each day should be connected to an automatic control switch. For example:

- Pool pumps, water feature pumps and geysers should be connected to a manually programmable timer so that you can minimise the number of hours that they operate.
- Day/night dependant lighting, such as gate or security lighting, should be connected to a daylight switch so that it is only switched on during hours of complete darkness.
- Security or garage lighting should be connected to a motion sensor switch, which ensures that the equipment is only switched on when someone is in the area.

Energy Efficient Downlighters

If you have downlighters in your home then READ THIS! Many people are unaware that there are electricity efficient options for ceiling downlighters. Typically, ceiling downlighters use halogen dichroic globes which are rated at 35-50 W, and collectively these lights consume a large amount of electricity. 20 ceiling downlighters each rated at 50W, consume the same amount of electricity as a kettle or iron, and are generally left on for many more hours at a time!

A highly effective way to save electricity is the installation of electricity-saving CFL (compact fluorescent lamp) downlighters. CFLs with a "warm white" rating have a similar appearance to a halogen dichroic globe, but consume only 25% of the electricity. A note of caution though: the voltage and current type required by the CFLs may differ from that needed for the halogen globes, and a qualified electrician should conduct the changeover.

Case study: CFL Downlighters

An Umhlanga homeowner, Peter Rose, was concerned about the increasing cost of electricity. He recognised that the downlighters in his home consumed a lot of electricity. He decided to replace 80 of his 50 W halogen downlighters with 11 W CFL downlighters. He removed the 12 V circuit and installed the 220 V CFL fittings at a cost of R 5 600.

Savings per year		
Money	R 6 160 per year	6 833 kWh per year x R0,9016/kWh
Electricity	6 833 kWh	80 x (50 – 11)W x 6hrs/day x 365 days/yr
Water	9 225 litres	6 833 kWh per year x 1,35* litres
Green House Gases	6 560 kgCO2	6 833 kWh per year x 0,96 kgCO2 per kWh

*Average amount of water required to produce 1 kWh of grid power

Conclusion

Peter is now saving nearly R 6 200 per annum on his electricity bill. The cost of the CFL downlighters that he installed will be recovered in less than 18 months through this saving.

Medium Cost Interventions

There are many electricity saving interventions which are slightly more expensive to install, but which can make a significant difference to your electricity consumption at home. Although it may not seem necessary to spend money on such interventions now, they will be well worth it as the price of electricity increases!

Natural Lighting

Using natural lighting, combined with adequate ventilation and insulation, is a very effective way of saving electricity. In addition, natural light has a great colour rendering index and is known to increase productivity in the workplace! During the day, even in overcast weather, the light available from natural lighting methods is considerable when compared with artificial lighting.

Roof Insulation

Many Durban homes do not have roof insulation as our climate is thought to be relatively mild in comparison to other parts of South Africa. However, many people don't realise that insulating their roofs can result in significant savings on their heating and cooling costs. Insulation reduces the heat transfer through the roof and therefore reduces the amount of heat entering the home in summer and the amount of heat escaping the home during winter.

Heat Pumps

You can install a heat pump to heat your water instead of using your geyser element, save electricity and potentially get free air-conditioning as an added benefit! Using the vapour compression cycle, similar to an air-conditioner, heat pumps absorb the ambient heat from the air, and using some electricity convert it to high-temperature heat suitable for heating water. For every 1 unit of electrical energy used in the heating process, about 3 units of heat are created. Basically, what this means is that for each kWh consumed you'll get 3 kWh's of heat, far more than the 0.85 kWh's of heat available from an electrical geyser element. An additional bonus is that the by-product of a heat pump is cold dry air, which if correctly ducted into your home will provide free air-conditioning!

Case study: Heat Pumps

A Durban homeowner, whose family uses 300 litres of hot water from their geyser daily, was concerned about their household electricity bill. He decided to install a heat pump to heat their water instead of using their geyser element. The cost of the heat pump installed was R 22,000.

Savings per year		
Money	R 3 873	4 296 kWh per year x R 0,9016/kWh
Electricity	3 449 kWh	(14,10 – 4,65) kWh/day x 365 days/yr
Water	4 656 litres	3 449 kWh per year x 1,35* litres
Green House Gasses	3 311 $kgCO^2$	3 449 kWh per year x 0,96 $kgCO^2$ per kWh

*Average amount of water required to produce 1 kWh of grid power

Conclusion

At the current cost of electricity, the cost of the heat pump will be recovered in about 11 years; in reality the payback period will be far less due to increasing electricity prices.

Medium Cost Interventions

Building Management Systems

In most homes there are a number of large energy consumers, such air-conditioners, televisions, or security systems, which need to be individually switched on and off. A building management system is basically a central system which can be programmed to control all these individual appliances. This not only saves you time, but also reduces electricity being wasted by appliances being left on when not in use.

For example, the alarm system can be attached to the building management system so that when the alarm is activated; all the interior lights and appliances not in use (e.g. television) are switched off. The system can also be programmed to switch off or down air conditioners and under-floor heating. Motion sensors can also be set to activate appliances, such as lights, when someone enters the room.

Solar Water Heaters

Solar water heaters collect and concentrate the sun's energy to heat water. Solar water heaters do not generate electricity and are different to photovoltaic cells (which are used to generate electricity).

The two most common types of solar water heaters are glazed flat plate collectors and evacuated tube solar water heaters. The efficiency of good flat plate collectors is between 50-70% and for good evacuated tube collectors between 60-80%.

Case study: Solar Water Heater

Kloof Homeowners, Gwynn Key and Ian Massey, installed an excavated tube solar water heater to preheat the water for their two geysers, arranged in series with each other. The element of the first geyser was turned off and the second was connected to a timer switch, just in case the weather was too poor for solar heating. Although they have a large hot water storage capacity, the couple typically only use 300 litres per day. The cost of the solar water heater installed was R 24 000.

Savings per year		
Money	R 3 159	3 504 kWh per year x R0,9016/kWh
Electricity	3 504 kWh	(16,42 – 6,82) kWh/day x 365 days/yr
Water	4 730 litres	3 504 kWh per year x 1,35* litres
Green House Gases	3 364 kgCO^2	3 504 kWh per year x 0,96 kgCO^2 per kWh

*Average amount of water required to produce 1 kWh of grid power

Conclusion

Gwynn and Ian are now saving R 2 557,92 per year on their electricity bill. At the current cost of electricity, Gwynn and Ian will recover the cost of the solar water heater in approximately 12 years. However, in reality, the payback period will be far shorter due to increasing electricity prices. Importantly though, Gwynn and Ian are always able to take a hot shower regardless of load shedding!

Bylaws

SECTION D

DEFINITIONS

1. In these Bylaws, unless the content otherwise requires:

"**appliance**" means an appliance as defined in the code of practice;

"**area of supply**" means the area within which the Council is authorised by law to supply electricity;

"**Act**" means the Machinery and Occupational Safety Act, Act No. 6 of 1983 and the Regulations made thereunder;

"**Basic component**" means the component of the total connection fee that is charged to recover, where deemed appropriate, the proportionately shared costs of transformation, switchgear, protection, and allocated portions of cable or overhead lines;

"**boundary metering**" means a meter erected in a position that is easily accessible for meter reading purposes without entry into the fenced or walled area of the property, and which is no more than 3m from the road frontage boundary of the property;

"**Category of connection**" means the groups into which connections are allocated. Groups of connections are separated according to the level of voltage at which supply is provided, type of supply and metering, the number of phases, whether supplied from a mini substation or a brick substation, and the requested capacity of the supply;

"**code of practice**" means Code of Practice 0142 - 1981: The Wiring of Premises, as published in the Government Gazette by General Notice 463 of 9 July 1982;

"**Connection fee**" means the charge to an applicant for a connection, which is determined by the Engineer and consists of a Basic component, a Service Mains component, a Metering component and a Supply Mains component;

"**consumer**" means the owner or occupier of any premises within the area of supply which are supplied with electricity by the Council, or any person who has entered into a contract with the Council for the supply of electricity or any person who is lawfully obtaining a supply of electricity from the Council;

"**Council**" means the Durban Transitional Metropolitan Council;

"**credit dispensing unit**" means a unit which dispenses credit for electrical energy in the form of cards and/or tokens for transfer of credit to an electricity dispenser;

"**credit meter**" means a device which records the electricity consumed on a continuous basis, is read at regular intervals and an account is rendered on the monthly basis in accordance with clause 17 of the Electricity Supply Bylaws;

"**Engineer**" shall mean the Executive Director of the Durban Electricity Service Unit, or his duly authorised representative;

"**electrical contractor**" means an electrical contractor as defined in the Act;

"**electrical installation**" means an electrical installation as defined in the Electrical Installation Regulations;

"**Electrical Installation Regulations**" means the Electrical Installation Regulations of 1992 promulgated under section 35 of the Machinery and Occupational Safety Act of 1983 (Act No. 6 of 1983);

"**electricity dispenser**" means a device which measures electrical energy consumed and deducts such energy from the quantity credited by means of cards and/or tokens issued by a credit dispensing unit and isolates the supply to the consumer in the event of the expiry of such credit;

"**formally wired**" means wiring which has been installed by a contractor or a developer, and which is in accordance with SABS 0142;

"**high voltage**" or "**HV**" means 33 000V or 132 000V;

"**informal housing**" means any dwelling in any area set apart, reserved, made available, released or acquired for communal or tribal occupation under Black Common Law of Custom or any dwelling in a "designated area" designated in accordance with the Less Formal Township Establishment Act (Act No. 113 of 1991);

"**kVA*km**" means the product of the requested capacity of an applicant, and the length of the cable or line from or portion thereof by which the connection is supplied;

"**low voltage**" or "**LV**" means 400V or 230V;

"**medium voltage**" or "**MV**" means 11 000V;

"**meter**" shall be the generic term for a credit meter or an electricity dispenser;

"**Metering component**" means the component of the total connection fee that is charged to recover the cost of the equipment required to measure the consumption of electricity;

"**MVA**" means 1 000kVA;

"**poly-phase supply**" means a supply which necessitates a poly-phase cable, in accordance with the Service Unit's standard practices;

"**Rand per kVA*km**" or "**R/kVA*km**" means the rate of charge in rands per kVA of capacity per km of supply at a particular voltage level, applied to new connections of 1 000kVA and above;

"**residential premises**" means a dwelling house or building constructed or adapted to be used solely as a residence by one family together with such outbuildings as are ordinarily used therewith;

"**service main**" means cables or wires and other apparatus for the supply of electricity by the Council laid or erected between the supply main and:

(i) in the case of an underground service main, the meter or main fuse or other protective device on the consumer's premises: or

(ii) in the case of an overhead service main, the point at which such cable or wire is connected to the consumer's premises;

"**Service Mains Component**" means the component of the total connection fee that is charged to recover the cost of the service mains, which is at that portion the cable or overhead lines used specifically by, and dedicated to an individual supply;

"**Single-phase supply**" means a supply which is via a single-phase cable, in accordance with the Service Unit's standard practices;

"**site area**" means the area according to survey data, contained within the boundaries of the sub-division, sub divisions, or plot of land on which the premises are situated, or, where the boundaries of the site have not been defined by survey, the area contained within the recognised boundaries or limits of the site as determined by the Engineer;

"**small power distribution unit**" means a compact unit consisting of a number of socket outlets and a light fitting all protected by circuit breakers;

"**small power residential premises**" means a dwelling unit or building constructed or adapted to be used mainly as residence by a family unit, together with such outbuildings as are ordinarily used therewith, where supply us single-phase and is metered by an electricity dispenser;

"**small power users**" means such power users as referred to in Item 7 and Item 8 of the Second Schedule, where the supply is single-phase and is metered by an electricity dispenser;

"**substation**" means a building housing the Council's electrical equipment, including all integral parts of such building, such as doors and windows and ancillary building work, as well as ventilating, lifting and other equipment installed in conjunction therewith;

"**Supply Main**" means the cable or overhead lines forming that part of the Council's electrical distribution system to which more than one premises are connected and to which the service mains to individual supplies are connected;

"**Supply Mains component**" means the component of the total connection fee that is charged to recover the cost of the supply mains, which is used, or which the Engineer anticipates to use to supply more than one premises.

NON-DISCRIMINATION

1. (1) Subject to the provision of subsection (2) hereof, no provision of these Bylaws shall be applied so as to discriminate between persons on the grounds of race, religion or gender nor shall it be construed so as to have effect of authorising such discriminations.

   (2) Notwithstanding the provisions of subsection (1) hereof, discrimination on the grounds of gender may expressly be authorised in terms of any provisions of these Bylaws which prescribes the wearing of appropriate apparel in a public place or imposes a restriction upon the entry of person or persons into public ablution, toilet and change-room facilities or prescribe different standards for such facilities.

NEW ELECTRICAL INSTALLATIONS

2. (1) No person shall install or permit to be installed a new electrical installation in any premises within the area of supply and connect any such installation to the Council's supply main, except under the authority of the written permission of the Engineer, which authority the Engineer may grant, subject to such conditions as he may determine, or refuse;

   (2) Application for such authority shall be made to the Engineer on an application form obtainable from the Engineer. Such form shall be signed by the owner of the premises or his duly authorised representative and shall be accompanied by:

   (a) plans and specifications of the electrical installation which it is proposed to install;

   (b) in the case of premises outside the City, a plan of the locality in which the premises are situated;

   (c) a copy of the building plan certified as having been approved by competent authority in respect of each building to be supplied with electricity by means of the installation;

   (d) in the case of premises, whether inside or outside the city, a site plan, drawn to scale, indicating the position of the building on site, the proposed location of the meter, and its distances from all boundaries according to the Engineer's requirements.

   (3) Application for various types of connection shall be accepted in areas where that type of connection has been authorised by the Engineer;

   (4) Where any application in terms of section 3(1)(b) hereof is made in respect of premises which have been formally wired, the appropriate connection fee referred to in section 3(1)(c) hereof shall, unless otherwise determined by the Engineer, be the fee as prescribed under Item 1(b) of the First Schedule to these Bylaws.

APPLICATION FOR CONNECTION & NOTICE OF INTENTION TO COMMENCE WORK

3. (1) Before any work authorised by the Engineer in terms of Section 2 is commenced:

(a) the electrical contractor shall give notice of his intention to commence such work in accordance with the Electrical Installation Regulations;

(b) application shall be made to the Engineer for authority to connect the installation authorised to the supply main; and

(c) the applicant shall pay a charge based upon the fees prescribed in the First Schedule that are in force at the time that payment is made. The charge for connections to small power users equipped with an electricity dispenser and who require to purchase electricity on the Scale 9 or Scale 11 tariffs of the Second Schedule, are prescribed in Item 1(a) of the First Schedule. The charges for other connections shall consist of:

(i) the appropriate Basic component as prescribed in Item(b)(i) of the First Schedule;

(ii) the appropriate Metering component as prescribed in Item(b)(ii) of the First Schedule;

(iii) the Service Mains component for extensions as required by the Engineer, and as prescribed in Item (b)(iii) and Item 2 of the First Schedule; with the following provisos:

I. Where connections are supplied via overhead cable, the charge will exclude the costs of the first pole costs which is included as part of the Basic component of Section 3(1)(c)(i);

II. Where additional overhead lines or cable used for road crossings are included as part of the Basic component of Section 3(1)(c)(i);

III. Where additional poles are required in order to obtain the statutory clearance over telephone or telegraph wires, such poles or poles shall be deemed to be included as part of the Basic component of Section 3(1)(c)(i);

(iv) The Supply Mains component for extensions as required by the Engineers and as prescribed in Item 1(b)(iii) and Item 2 of the First Schedule; provided that where additional poles are required in order to obtain the statutory clearance over telephone or telegraph wires, such pole or poles shall be deemed to be included as part of the Basic component of Section 3(1)(c)(i);

(v) Where an application is made for an increase in supply capacity, the applicant shall be required to pay fees and charges referred to in Section 3(1)(c) hereof as if this were a new application, provided that where the requested capacity does not exceed 6 000kVA and the existing supply is uprated:

I. The Basic component will be the difference in the charges between the existing and requested capacity.

II. The Metering component shall only be charged if the meter is required to be changed.

III. The Service Mains component shall only be charged if the service cable is required to be changed.

IV. The Supply Mains component shall only be charged if the supply mains cable is required to be changed.

(2) Where the variation between the length of cable used in connecting the premises or sub-station to the supply main and the length of cable paid for in terms of sub-paragraph (iii) or (iv) of paragraph (c) of sub-section (1) exceeds 10 per centum or 10 metres in length (whichever is the greater) the consumer's account shall be adjusted to reflect the cost of the length of cable actually used.

(3) In giving the notice referred to in sub-section (1)(a) the electrical contractor shall allow sufficient time between the giving of such notice and the date when the supply is required, to enable the Council to effect any extension of the supply main as may be necessary as well as the provision of the service main and to obtain such statutory consents as may be required, and for the purpose of determining the adequacy of the period of notice the electrical contractor shall consult the Engineer: provided that the Council shall in no way be liable for any loss, damage or other consequence to the applicant the electrical contractor or any other person resulting from any delay in the extension of the supply main or the provision of the service main however caused.

NOTICE OF INTENTION TO ALTER OR ADD TO EXISTING ELECTRICAL INSTALLATION

4. Before making any alteration or addition to any electrical installation installed within the area of the supply that requires an increase in electricity supply capacity, or an alteration to the service, the electrical contractor shall give notice to the Engineer of his intentions in accordance with the Electrical Installation Regulations.

NOTICE OF COMPLETION & INSPECTION OF WORKS

5. (1) Upon the completion of any work authorised in terms of section 2 or in respect of which notice has been given in terms of section 4, the electrical contractor carrying out such installation, alteration or addition shall give notice of such completion to the Engineer, by submitting the completed original "Certificate of compliance by an accredited person" form, as specified in the Electrical Installation Regulation.

(2) The Engineer may, upon receipt of the notice referred to in sub-section (1), inspect and test the work in the presence of the electrical contractor concerned or his authorised representative.

(3) The Engineer may, if in his opinion the inspection or test cannot otherwise be satisfactorily carried out, require the elcetrical contractor, upon proper notice, to open up any joint or wires, trap doors or floor boards or to remove any fittings or castings.

(4) Subject to the provisions of section 5(1) and section 13(1) the Engineer shall connect or authorise the connection of the installation to the supply main.

(5) Deleted.

(6) An inspection and test made by the Engineer in terms of this section shall in no way relieve the electrical contractor concerned of any responsibility or liability for defects in the electrical installation, or operate as a guarantee that the work on such installation has been carried out efficiently.

INSPECTION OF INSTALLATION

6. The Engineer shall at the request of a residential user or lessor and upon payment of the fee prescribed in Item 3 of the First Schedule - hereto carry out an inspection of the residential user or lessor's electrical installation.

CONNECTION TO SUPPLY MAIN

7. (1) The service main shall be installed by the Engineer after due compliance by the owner with the provisions of these bylaws and the code of practice. The position, type and size of the service main shall be determined by the Engineer, provided that he may, upon application by the owner, approve an alternative position, type or size of service main if such alternative is technically acceptable.

(2) Deleted.

(3) Deleted.

(a) The Engineer may in his discretion, subject to the acquisition by the Council of necessary servitudes or wayleaves, convert any service main or portion thereof to supply main.

(4) Where, in the opinion of the Engineer, it is necessary in order to give a supply of electricity to a consumer or consumers to extend the supply main, such extension shall be paid in accordance with Section 3(1)(c).

(5) Where in the opinion of the Engineer, the extension of the supply main involves the adoption of an extraordinary method of construction, the consumer shall, before such extensions made, pay to the Engineer in place of the fees prescribed in Item 2 of the First Schedule, the estimated cost of the extension. Where the actual cost of the extension is greater or less than the amount paid, the difference shall be paid by or refunded to the consumer. The proviso to sub-section (4) of this section shall, mutatis mutandis apply when additional consumers are connected to any such extension.

(6) (a) For the purpose of supplying electricity to premises only one service main shall be permitted; provided that the Engineer may at the request of a consumer authorise the installation of one or more additional service mains where portions of any premises are separately let or occupied or where this is, in his opinion, necessary for technical reasons.

(b) Where the portions of any premises which are separately let or occupied are supplied with electricity through a single meter, the owner of such premises may, with the prior consent of the Engineer, install meters for the purpose of measuring the quantity of current consumed by each tenant or occupier of the several portions of the premises and may charge for such current at a rate not exceeding the prescribed tariff rate. Where meters are installed by the owner, he shall be responsible for the payment of all electricity supplied to the tenants or occupiers of the several portions of the premises.

(c) Where, for the convenience and the advantage of a group of consumers on a single site or premises the Engineer agrees to meter each individual consumer at a point or points from the service main connection point, each consumer's meter shall nevertheless be deemed to be at the service main connection point for the purpose of definition of responsibility of maintenance of supply.

(7) The Council shall have the right to connect and maintain at its own expense, current limiting or peak load control devices to any portion of a consumer's electrical installation for the purpose of ensuring that the normal service and supply mains are adequate for the maintenance of an efficient supply or for controlling current consumed in relation to peak demands on the Council's electricity supply system, and the Council shall not be liable for any loss, damage or inconvenience arising from any restriction in or interruption of the supply of current resulting from the operation of any such device.

8. (1) (a) Any meter which is to be installed shall be located in a position approved by the Engineer. Except in the case of an installation comprising a small power distribution unit together with an electricity dispenser, the equipment shall be affixed to a panel of an approved type provided by the consumer.

METERING

In the case of any new electrical installation, such approval shall be obtained before the installation is commenced.

(b) In the case of an installation comprising a small power distribution unit and electricity dispenser, the consumer shall provide and install conduit and conduit inspection boxes to the detail of the Engineer. The Engineer shall supply and install the electricity dispenser. The small power distribution unit shall be installed to the satisfaction of the Engineer.

(2) Where more than one meter is required by a consumer to measure the quality of electricity supplied through a single service main, the additional meter shall be installed by the Engineer upon payment of the fee prescribed in Item 1(b)(ii) of the First Schedule.

(3) Where a number of meters are to be installed at one point within the premises, the consumer shall, when so required by the Engineer, provide a meter-room to accommodate such meters.The position and dimensions of such room shall be determined by the Engineer after consultation with the owner or his duly authorised representative.

(4) All current and potential metering transformers installed in any premises shall be of a type approved by the Engineer and shall either accommodated on a panel of an approved type, supplied by the consumer or incorporated in the consumer's incoming switchgear. The metering transformers shall be supplied by the Council unless, in the opinion of the Engineer they will not be capable of re-use by the Council on the termination of the supply.

(5) Where a consumer elects to transfer to another tariff or to a bulk agreement, applications for transfer shall only be accepted in areas, where that type of transfer has been authorised by the Engineer and will only be performed by the Engineer upon payment of the fee prescribed in Item 15 or Item 16 of the First Schedule.

ACCOMMODATION & EQUIPMENT TO BE PROVIDED BY CONSUMER

9. (1) Where the total load of any electrical installation in any building is 20kVA or more, the owner of such building shall, where the Engineer so requires, provide accommodation to the satisfaction of the Engineer for such equipment as may be necessary for the supply. Such accommodation shall:

(a) comply with the requirements of the Engineer in regards to access, floor space, ceiling height, ventilation, cable ducts, drainage, lighting and doors;

(b) be of fire-proof construction;

(c) be so located as to give convenient access to the interior thereof at all times.

(2) The access to any sub-station erected on the premises of a consumer shall be kept clear at all times to permit the removal or replacement of equipment without undue difficulty even under emergency conditions. The owner shall bear the cost of any damage to property, other than Council property, caused by such operations unless such damage is due to the wilful misconduct or negligent acts of the Council or its officers or servants.

(3) Where a transformer sub-station is erected on the premises of a consumer, the Council shall have the right to use such sub-station for the purpose of supplying other consumers; provided that where a sub station is used or the Engineer envisages that it will be used, the consumer on whose premises the sub

station is situated, shall be entitled to a reduced connection fee as indicated in the Note in Item 1(b)(i)(B)IV of the First Schedule hereto.

(4) All conduits, cables, switches, plugs, fuses and other fittings, forming part of the electrical installation, including the switchgear or isolators require to control the supply at the point of connection of the electrical installation to the service main, shall be provided by the consumer.

CHANGES FROM OVERHEAD TO UNDERGROUND MAINS

10. Where a consumer requires the Engineer to install an underground service main in place of an existing overhead service main, the cost of all cable calculated in accordance with Item 2 of the First Schedule shall be paid by the customer, subject, however, to an adjustment as provided for in sub-section (2) of Section 3.

REMOVAL OR RE-LOCATION OF METERS & SERVICE MAINS

11. (1) Where, because of structural alterations to premises it becomes necessary:

(a) to remove the service main and meter, such removal shall be effected by the Engineer free of charge. Upon re-connection of the premises, the consumer shall be required to pay the fees and charges referred to in paragraph (c) of sub-station (1) of section 3 hereof;

(b) to re-locate, adjust or alter the service main or supply main, the full cost of such re-location, adjustment or alteration shall be borne by the consumer.

(2) Where the position of the meter is changed by the Engineer at the request of a consumer, the full cost of the work involved shall be borne by the consumer; provided that where the meter to an underground supply is to be relocated to a point on the boundary where the cables enters the premises, the charge shall be the fee prescribed in Item 17(b) on the First Schedule.

Where the meter to an underground supply is relocated, the service cable between the new and old meter positions shall be abandoned and the ownership thereof shall be transferred to the consumer.

(3) Where, due to reconstruction of supply mains or for the correction of any unsafe or unsatisfactory condition for which the consumer is not, in the opinion of the Engineer, responsible it becomes necessary to alter an existing service main or meter position, such alteration and any consequent alteration to the consumer's electrical installation shall be carried out at the expense of the Council.

INTERFERENCE WITH OVERHEAD SUPPLY OF SERVICE MAINS

12. (1) No person shall permit any tree, shrub or other plant growing on property owned or occupied by him, to interfere with any overhead supply or service main.

(2) Where any tree, shrub or other plant growing on any land interferes with any overhead supply or service main or in the opinion of the Engineer is likely to cause such interference, the Engineer may either cut down or trim such tree, shrub or other plant or he may serve a notice on the owner or occupier of such land change upon him to cut down or trim such tree, shrub or other plants within the time specified in any such notice. Upon failure to comply with such notice, the Engineer may himself take steps to remove the cause of the interference and recover any costs incurred from the person upon whom the notice was served from the owner or occupier of such land.

SUPPLY OF ELECTRICITY OTHER THAN TO SMALL POWER USERS

13. (1) Every applicant for a supply of electrical current from the Council shall deposit with the Council such sum as the Council deems sufficient to cover the estimated cost of two months' supply, provided that:

(a) the Council may permit an application to deposit such sum as it deems sufficient to cover the estimated cost of one month's supply where the applicant elects to pay by the direct debit method;

(b) the Council may require an applicant to deposit such sum as it deems sufficient to cover the estimated cost of three months' supply in such circumstances as the Council deems appropriate.

(2) Should the amount deposited in terms of sub-section (1) subsequently prove to be insufficient, the consumer shall, within 7 days of being called upon to do so by the Council, deposit such further sum as may be necessary to increase the deposit to an amount sufficient to cover the actual or provisionally assessed cost of two months' supply or, if the Council deems it appropriate, of three months' supply. The Council may, if it considers the amount deposited to be excessive, authorise the refund of a portion thereof.

(3) The Council may accept a written guarantee in lieu of any deposit required in terms of sub-section (1) or (2) hereof.

(4) Where an applicant for the supply of electric current or an existing consumer of electric current is a corporate person (other than a public legal body or a public listed company), such applicant or consumer shall, in addition to any security provided in compliance with the aforegoing provisions of this section, lodge with the Council when required by him to do so, a guarantee for an amount specified by and in terms approved by the Council and given by such natural person or persons as the Council may approve in their personal capacities; provided that the Council may at any time require any such consumer to furnish a further guarantee for such additional amount as the Council may determine.

(5) Failing compliance with any request for a deposit or increased deposit or for a guarantee as provided in this section, the supply of electricity may be withheld until such deposit has been made or the guarantee furnished or if the supply has already been connected, it may forthwith be disconnected and thereafter the supply shall not be reconnected until the deposit has been paid or the guarantee furnished.

(6) The deposit lodged with the Council in terms of this section may be applied to the payment or part payment of any amount due to the Council by the consumer either for electricity supplied or for services rendered in connection with such supply.

(7) On 30 June in each year the Council shall cause the deposit account of every consumer who made a deposit under this section prior to the 31 December in the year immediately proceeding to be credited with simple interest at such rate, not exceeding 3% per annum, as the Council may from time to time determine; provided that no such interest shall be credited where the deposit has been held by the Council for less than six months. The interest so credited shall be paid to the consumer at the time the amount deposited by him in terms of this section is refunded; provided that the Council may in the case of deposits of R50 and over and where the consumer so requests, credit the interest to the consumers' account for current consumed or provisionally estimated to have been consumed.

SUPPLY OF ELECTRICITY TO RESIDENTIAL CONSUMERS EQUIPPED WITH AN ELECTRICITY DISPENSER AS REFERRED TO IN ITEM 7,8,9, & 10 OF THE SECOND SCHEDULE

13A. (1) The supply of electricity under these scales is only available in areas designated by the Engineer from time to time where a token operated electricity dispensing system has been put into effect.

(2) Application for the supply of electricity under these scales shall be made to the Engineer and shall be accompanied by the fees prescribed in Item 1 of the first schedule.

(3) On payment of the fee referred to in (2) above, the Engineer shall provide and install all equipment required for delivering electricity to the consumer's premises. If a small power distribution unit is supplied it will become and remain the property of the consumer. All other equipment, including the line or cable and electricity dispenser will be maintained by the Electricity Department and shall remain its property.

(4) The Engineer shall be entitled to change a credit meter for an electricity dispensing unit where he considers that for technical or other reasons it is in the best interest of the service, in which case the electricity service shall bear the cost of the changeover.

(5) The Engineer shall be entitled to remove its equipment on termination of the supply to the consumer.

(6) The energy consumption shall be paid for in advance by the purchase of tokens or the equivalent from the City Treasurer or his authorised representative. Such tokens shall only be issued to consumers giving their consumption address and supplying an identification number.

(7) The consumer shall afford Electricity Department officials free access to the premises at all reasonable times for the purpose of inspecting and/or maintaining the electricity dispenser.

(8) Every consumer of electrical current under this section shall be required to deposit with the Council such sum as the Council deems sufficient to cover or partially cover all the costs of replacing an energy dispenser. Such deposits will be refundable to the consumer who made the deposit after notification by the dispenser. Such deposits will be refundable to the consumer who made the deposit after notification by the consumer that he intends to cease taking supply; provided that his connection and metering is still operating correctly.

(9) On 30 June each year the Council shall cause the deposit of every consumer who made the deposit under this section prior to 31 December in the year immediately proceeding to be credited with simple interest at such rate, not exceeding 3% per annum, as the Council may from time to time determine, provided that no such interest shall be credited where the deposit has been held by the Council for less than six months. The interest so credited shall be paid to the consumer at the time the amount deposited by him in terms of this section is refunded.

(10) Only one instance of charging a connection fee according to Item 1(a) of the First Schedule, shall be permitted at any one premises.

PROVISION OF ELECTRICAL CONSUMPTION DATA

14. (1) Load Profile recording data may be obtained from the Council on payment of the fee prescribed in Item 14 of the First Schedule.

(2) Metering pulse may be provided where a bulk or Time-of-Use meter is installed on payment of the monthly fee as prescribed in Item 12 of the First Schedule.

TEMPORARY SUPPLY OF ELECTRICITY

15. (1) Subject to the provisions of sub-section (2) hereof where application is made for a temporary supply of electricity, the Engineer shall furnish the applicant with the estimated cost of connection and disconnection. The applicant shall pay such estimated amount before the supply is given and shall pay for the electricity consumed at the prescribed tariff rate. Where the variation between the actual cost of connection and disconnection and the estimated cost exceeds 10 per centum, the applicant's account shall be adjusted to reflect the actual cost.

(2) Temporary single-phase supplies for the periods not exceeding 14 days for fetes, religious gatherings, election lighting and similar purposes may be provided to premises situated immediately adjacent to suitable existing supply or service mains upon payment of the charge prescribed in Item13 of the First Schedule.

DUTIES OF CONSUMER

16. (1) Every consumer shall maintain the electrical installation, sub-stations and all appliances on the premises owned or occupied by him in good order and repair and shall be responsible for the safe-keeping of all meters, service fuses, service mains, and other electrical apparatus and fittings belonging to the Council which are placed and installed on his premises. The consumer shall be responsible for any loss of or damage to any apparatus and fittings to the Council which directly or indirectly results from a failure on his part to exercise all reasonable care in safeguarding the same, or is caused by any wilful or negligent act or omission of the consumer or of his employee or agent or any person who is upon the said premises with the consent, tacit or otherwise, of the consumer, or given on his behalf, and the consumer shall pay to the Council on demand the cost of making good or of repairing any such loss or damage as ascertained and certified by the Engineer.

(2) Where a consumer discovers any fault or defect in any electrical installation, he shall immediately cut off the supply at the main switch and arrange for the rectification of the fault or defect.

(3) Where, in the opinion of the Engineer, the electrical installation in any premises is not in accordance with the bylaws or the code of practice or where in his opinion there is any defect in such installation or sub-station or in any appliance used in or on such premises which is likely to cause injury to life or damage to property, he may, by notice, call upon the consumer to bring the installation sub-station or appliance into conformity with the bylaws or wiring regulations or to remove the defect within the period specified in the notice. Upon the failure of the consumer to comply with such notice within the period specified, the Engineer shall have the right to disconnect the supply of electricity to such premises.

(4) If a consumer fails to perform the duties imposed on him by sub-section (1) or if he fails to comply with the terms of a notice given to him in terms of sub-section (3) within the period specified in such notice, the Engineer may, at the cost of the consumer, himself cause any work to be carried out which he considers necessary to bring the electrical installation, sub-station and appliances on the premises concerned into good order and repair and remedy any defect therein or to bring the electrical installation into conformity with the bylaws or the code of practice, as the case may be. (P.N. 502/85)

(5) A user or lessor is required in terms of the Electrical Installation Regulations to be in possession of a valid certificate of compliance for each installation used or leased by him.

ACCOUNTS

17. (1) All electricity consumed shall be paid for at the appropriate tariff rate prescribed in the Second Schedule.

(2) Accounts shall, as far as practicable, be rendered monthly and shall be paid within 21 days from the date of the account. Where a consumer fails to pay the account within such period, the Engineer or the City Treasurer may cut off the supply. A consumer whose supply of electricity has been disconnected in terms of this section shall not be entitled to be reconnected to the Council's supply main until the amount of the account and the prescribed reconnection fees have been paid in full.

(3) Meters will, as far as practicable, be read at intervals not exceeding six months and electricity consumed between meter readings shall be deemed to have been consumed evenly between such meter reading dates. No deduction of or addition to the prescribed monthly fixed or minimum charges will be made unless the date of reading is at least five days before or after a full period of one month or a multiple thereof from the previous reading. Where a meter is read less than or more than one month or a multiple thereof after the commencement of an account or where an account is terminated less than or more than a month thereof after the preceding reading of the meter, the monthly fixed or minimum charge will be proportioned accordingly. For the purpose of assessing fixed or minimum charges 'one month' shall be reckoned as 30 days.

(4) (i) In those months in which any meter is not read the City Treasurer shall render an account for a provisional sum for electricity, such provisional sum to be assessed by him with due regard, wherever possible, to the average monthly value of fixed or minimum charges and of electricity consumed upon the premises served by the meter and to any tariff changes that may have occurred, provided that where there has been no previous consumption the City Treasurer may determine the amount of the said provisional sum by reference to such consumption on other similar premises as he considers would constitute a reasonable guide.

(ii) In those months in which any meter is read the City Treasurer shall render an account for the total quantity of electricity consumed since the previous reading, together with the appropriate fixed or minimum charges and shall deduct therefrom the total amount of provisional sums (if any) which may have been charged in terms of paragraph (i) since such previous meter reading.

(iii) The provisions of sub-section (2) shall apply to accounts rendered in terms of this sub-section.

(5) Where any meter is found to have ceased to register and to have registered inaccurately to an extent of more than 2 and a half % the quantity of electricity to be paid for by the consumer from the date of reading of the meter prior to its failure to register or becoming faulty up to the time of its repair or replacement shall, unless the consumer is able to establish to the satisfaction of the Engineer that a lesser or greater quantity of electricity was in fact consumed, be estimated by the City Treasurer on the basis of:

(a) the average monthly consumption of electricity upon the premises served by the meter during a period of up to twelve months prior to the last registration, or the date on which it ceased to register accurately or, if this is not possible;

(b) the quantity of electricity consumed upon such premises during the corresponding month or months of the previous year or, if this also is not possible;

(c) the average monthly consumption upon the premises served by the meter over a period of up to twelve months after its repair, where consumption is measured using a credit meter; or on the average consumption of similar consumers within the same area, where supply is via an electricity dispenser.

(6) The record by any meter installed on any premises by the Council shall be conclusive proof of the quantity of electricity consumed provided that where such meter is tested as hereinafter provided and found to be more than 2 and a half % inaccurate, the City Treasurer shall correct the consumer's account to conform to the result of the test and shall refund to the consumer any amount paid by him in excess of the amount due. No such adjustment shall, however, be made in respect of any period prior to the last metered period for which an account is rendered to the consumer unless the consumer is able to establish to the satisfaction of the Engineer that the meter was inaccurate during such prior period.

(7) The Engineer may and shall at the request of any consumer and upon the payment of the fee prescribed in Item 10 of the First Schedule, test the accuracy of any meter installed by the Council. Where any such test is carried out at the request of the consumer, the fee paid by him shall be refunded if the meter is found to be more than 2 and a half % inaccurate.

(8) Deleted.

(9) Where portions of any premises which are separately let or occupied are separately metered, and the owner of the premises accepts responsibility for the payment of all or some of the accounts of the tenants or occupiers, he shall not be permitted to summate the current consumed by such tenants or occupiers in order to obtain any benefits under the tariffs.

(10) Cheques drawn on any branch bank situated within the area of supply need not include bank exchange.

INTERRUPTION OF SUPPLY

18. (1) The Council shall not be liable for any loss or damage, direct or consequential, due to or arising from any interruption, diminution or discontinuance of the supply of electricity or any temporary increase or surge therein, occasioned by a strike, blackout, war, Act of God, legislative action or embargo or any other cause beyond the Council's control or by any fault occurring in the machinery, supply or service mains or other apparatus of the Council or by the rectification of any such fault. The consumer is deemed to hold the Council indemnified against any action, claim, expense or demand arising from or in connection with any of the matters aforesaid.

(2) The Engineer may without notice, interrupt the supply of electricity to any premises for the purpose of carrying out emergency repairs to supply or service mains.

TERMINATION OF SUPPLY

19. (1) A consumer may terminate the supply of electricity by giving the City Treasurer at least 14 days' notice of his intention to cease taking a supply.

(2) Any consumer who vacates the premises supplied without giving notice as required by sub-section (1) hereof, shall be liable to pay for all electricity consumed on the premises up to the premises up to date that the new occupant of the premises accepts responsibility for the electricity supplied thereto.

(3) Upon the termination of the supply, the Engineer shall be entitled to disconnect the supply to the premises unless an application for the continuance of the supply to such premises has been made to the City Treasurer in terms of section 13 of these Bylaws.

(4) A consumer who has given notice in terms of sub-section (1) hereof may claim a refund of the amount deposited by him, or so much thereof remains after the deduction of any amount owing by him for

electricity supplies or service redeemed together with interest on the amount deposited, calculated up to the date on which the refund is claimed unless such interest has already been credited to the account as in section 13.(7) provided. The City Treasurer shall make payment of the amount due within 30 days from the date of the receipt of any such claim.

(5) Where no claim for a refund of the amount deposited is made -

(a) within 30 days of the date of the termination of such supply, no interest shall accrue after the expiration of such period;

(b) within five years from the date of termination of supply, the deposit shall be forfeited to the Council: provided that if a claim is made after the expiry of five years from the date of termination of supply, the City Treasurer may in his absolute discretion refund such amount.

(6) Should electricity not be consumed for a continuous period of 6 months by:

(i) consumers on the small power users' tariff;

(ii) consumers whose supply has been disconnected for non-payment of account and who have not applied for reconnection during the specified period.

The Engineer shall be entitled to remove all of the Department's apparatus and equipemnt installed on the consumers' premises.

PROHIBITED ACTS

20. No Person shall -

(a) Tamper or interfere with any meter, supply or service main, main fuse or other electrical apparatus belonging to the Council;

(b) erect any pole, mast or wire or other similar structure in close proximity to any overhead supply or service main or in such position or in such manner as is likely to cause danger from electrical current to himself or any other persons or damage to the electrical installation;

(c) tap or attempt to tap or cause or permit to be tapped, any supply main or service main in any manner by which an unmetered needed supply of electricity or supply other than or in excess of that contracted for might be obtained, abstracted or diverted;

(d) except as provided in sub-section (6) of section 7 of these Bylaws sell or supply electricity supplied to him by the Council to any other person or knowingly permit any such sale or supply to be made;

(e) without the written permission of the Engineer directly or indirectly connect any electrical installation to a supply or service main;

(f) operate any motor or other machinery in such a manner as to cause undue or unnecessary disturbance to the electrical pressure on the supply main conveying such electrical current to his premises, or disregard any directions given to him by the Engineer in regard to the proper operation of such motor machinery;

(g) use any electrical current supplied by the Council in any unauthorised manner or in contravention of the Bylaws or commit any act which is likely to interfere unduly with the efficiency of the supply. In the event of any such interference, the Engineer may, if his directions in regard thereto are not carried out, disconnect the supply of electricity.

(h) connect any defective appliance to an electrical installation.

DISCONNECTION AND RECONNECTION

21. (1) Where an electrical installation has been disconnected by the Engineer either at the request of the consumer or in consequence of a breach of any of these Bylaws, or of a failure to comply with a notice served by the Engineer, the supply shall not be reconnected or used until the reconnection fee prescribed in Item 11 of the First Schedule has been paid in full and the breach giving rise to the disconnection has been remedied; provided that no reconnection fee shall be payable when the supply of electricity is temporarily disconnected in order to enable the owner to repair the roof of his premises.

(2) No person other than the Engineer or person specially authorised thereto by the Engineer in writing shall reconnect or attempt to reconnect or permit the reconnection of any electrical installation which has been disconnected by the Engineer to the supply or service main.

(3) In the event of a contravention of the preceding provisions of this section, it shall be presumed (unless the contrary is proved) that the reconnection or attempted reconnection was done or permitted as the case may be by the consumer.

(4) Where a new consumer takes over premises already connected to the Council's supply main no connection fee shall be payable unless for any reason the adjustment or replacement of the service main is necessary in which event the cost of adjustment or replacement shall be borne by such new consumer.

NOTICES, ORDERS & OTHER DOCUMENTS

22. (1) Every notice, order or other document provided for in these Bylaws and requiring authentication by the Council shall be sufficiently authenticated if signed by the Engineer.

(2) Any notice, order or other document which is required by these Bylaws to be served upon or given to an occupier of premises shall be deemed to have been properly served upon or given to him if it is addressed to him personally or is addressed to the occupier as such of the premises.

BYLAWS ADDITIONAL TO OTHER POWERS

23. These Bylaws shall be deemed to be in addition to and not in substitution for any power, right or privilege conferred upon the Council or the Engineer by any other law and shall not derogate in any way from any penalty or liability to which any person may be subject under any other law.

SPECIAL CONTRACTS

24. Where the provisions of these bylaws conflict with the terms and conditions of an agreement for the supply of electricity concluded by the Council under the authority conferred by paragraph (d), (e) and (f) of Section 180 of the Local Government Ordinance, 1942 (Ordinance No. 21 of 1942), or any amendment thereof, the terms and conditions of such agreement shall prevail.

REGISTRATION OF ELECTRICAL CONTRACTS

25. Deleted.

OFFENCES & PENALTIES

26. (1) Any persons who -

(a) Contravenes any provision of these Bylaws; or

(b) contravenes any conditions imposed upon the granting of any application, consent, approval, concession, relaxation, permit or authority in terms of these Bylaws; or

(c) fails to comply with the terms of any notices served upon him in terms of these Bylaws;

Shall be guilty of an offence and liable, upon conviction, to the maximum penalty prescribed for the offence by section 266 (7)(a) of the local Authorities ordinance, No. 25 of 1974.

(2) Failure to comply with the terms of any condition or notice referred to in sub-section (1) (b) or (c) above shall constitute a continuing offence and a person failing to comply with the terms of such condition or notice shall be guilty of a separate offence for each day during which fails to comply with such terms.

REPEAL

27. The Electricity Supply Bylaws published under Provisional Notice No. 184 of 1931, as amended, the Service Connection Charges, etc. as published under Provisional Notice No. 197 of 1936, as amended, the Electricity Supply Tariffs as published under Municipal Notice No. 25 of 1961, the Electricity Supply Bylaws of the erstwhile Tongaat Town Board published under the Provisional Notice No. 502, as amended and the Bylaws relating to the registration of electricity compliance as published under Provincial Notice No. 66 of 1955 are hereby repealed.


DUDLEY PRINGLE
ZIMPONDWENI
TONGAAT
MAMBUNDWINI
INANDA
WATERLOO
NORTHERN
UMDLOTI BEACH
PHOENIX
BESTERS CUSTOMER SERVICE CENTRE
CATO RIDGE
DRUMMOND
KWANYUSWA
EMBO
KWAMASHU
UMHLANGA ROCKS
CENTRAL
BOTHAS HILL
CLAREMONT
MPUMALANGA
HILLCREST
WESTVILLE
SPRINGFIELD
GILLITTS
PINETOWN CUSTOMER SERVICE CENTRE
DURBAN CUSTOMER SERVICE CENTRE
SHONGWENI
CATO MANOR
ZWELIBOMVU AREA
QUEENSBURGH
UMLAZI
BRUMONT
SOUTHERN
BLUFF
UMBUMBULU
ISIPINGO CUSTOMER SERVICE CENTRE
UMBOGINTWINI
AMANZIMTOTI CUSTOMER SERVICE CENTRE
ADAMS MISSION
ILLOVO
INDIAN OCEAN
UMGABABA
MAGABENI
N
ETHEKWINI ELECTRICITY AREA OF SUPPLY
OLD DURBAN METROPOLITAN BOUNDARY
UNICITY BOUNDARY

ETHEKWINI ELECTRICITY

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