# **Calculations**

Tariff schedule for Domestic Conventional meter

| Conventional Meter        |                   | E.11   |
|---------------------------|-------------------|--------|
| (a) Fixed Monthly Charge  |                   | \$6.08 |
| (a) Energý Charge per kWh | (ii) First 50 kWh | \$0.01 |
|                           | (ii) 51 - 500 kWh | \$0.06 |
|                           | (iii) Balance     | \$0.10 |

What this means is that for those customers who for example consume 50 kWh (Life line customers) the monthly bill is calculated as follows:

| Total Monthly Bill                                 | \$6.97 |
|--|--------|
| Add 6% Rural Electrification charge +              | \$0.39 |
| Subtotal   | \$6.58 |
| Energy Charge for the first 50kWh i.e. (50 X 0.01) | \$0.50 |
| Fixed Monthly Charge                               | \$6.08 |

Using an example of monthly consumption of 504 kWh referred to previously, the resultant bill is thus calculated as follows:

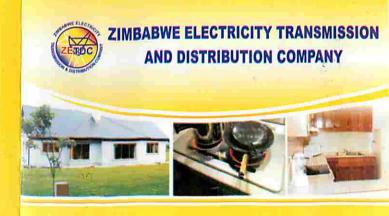
| Fixed Monthly Charge                                   | \$6.08   |
|--|----------|
| Energy Charge for the first 50kWh i.e. (50 X 0.01)     | \$0.50   |
| Energy Charge for units 51 to 500kWh i.e. (450 X 0.06) | \$27.00  |
| Balance for over 500kWh i.e. (504-500) = 4 X 0.10      | \$0.40   |
| Subtotal   | \$33.98  |
| Add 6% Rural Electrification charge                    | + \$2.04 |
| Total Monthly Bill                                     | \$36.02  |

Bill calculation for a monthly consumption of 700 kWh by the same customer

| Fixed Monthly Charge                                   | \$6.08   |
|--|----------|
| Energy Charge for the first 50kWh i.e. (50 X 0.01)     | \$0.50   |
| Energy Charge for units 51 to 500kWh i.e. (450 X 0.06) | \$27.00  |
| Balance for over 500kWh i.e. (700-500) = 200 X 0.10    | \$20.00  |
| Subtotal   | \$53.58  |
| Add 6% Rural Electrification charge                    | + \$3.22 |
| Total Monthly Bill                                     | \$56.80  |

Switch to energy savers today! They are 80% more efficient and they last much longer.

Electricity saved is money saved.



# **DOMESTIC CUSTOMER SELF METER READING** AND BILL **CALCULATION GUIDE**

# **HEAD OFFICE - ELECTRICITY CENTRE** 25 Samora Machel Avenue, P.O. Box 377, Harare Tel: (04) 774491-9, (04) 774509-30, Fax: (04) 790564

Email: zetdc-marketing@zedc.co.zw, pr@zetdc.co.zw

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Some customers have indicated that they have problems understanding the ZETDC electricity or even how the electricity bill is arrived at. Customers can also read their own meters and calculate their own bills, which can be compared with the ones received from ZETDC every month. The following guidelines are meant to assist customers in taking their own meter reading as well as calculating their own bills.

Meter reading cycle

Your electricity meter is read at almost similar intervals every month. For example if your meter is read on the 16th of the month, you should expect our meter reader to visit your premises around the same time in the next month. This is done as a way of ensuring that your meter reading and billing cycle maintains a consistent average of almost 30 days, which is also a standard month's consumption



# Opening reading for the month

The opening reading is the base reading for a particular month. In the above example we mentioned that a customer's meter reading could be done at around the 16th of the month, and this reading therefore becomes an opening or base reading for the following meter reading cycle which could be around the 15th, 16th or 17th of the next month.

We use the following as a base reading



So your base or opening reading for the month is: 48930

Closing meter reading

The closing meter reading is the reading on the meter on the next reading cycle. If we are to use the example above, your next reading or closing cycle is on the 15th of the next month.



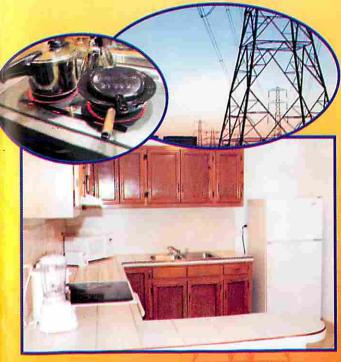
The closing meter reading for the month is therefore: 49434

# Consumption for the month

Consumption or units used by the customer for any billing cycle is calculated by deducting the opening reading (base reading) from the closing reading. In this case consumption for the month is therefore calculated as:

Therefore consumption or units that were consumed for this particular month is:

# 504kWhrs



- damaged by switching your geyser on and off daily. Switch off your geyser when there is no one at home. It is not true that after switching off your geyser, it will consume more electricity, when switched on, to heat the cold water.
- Use kettle to boil enough water you want to use.
- Do not fill the bath tub to swim, have enough X water to bath
- Do not use cups to boil water. X

#### ELECTRICITY SAVING ON LIGHTING

You can still cut on your electricity bill and save electricity on lighting if you;

- Switch off all lights in unoccupied rooms. a)
- Use natural light where possible. b)
- Install time switch for your security lights when c) not at home for extended periods.
- Use motion sensors in areas where you only d) need light when people are in the area.
- Replace all ordinary bulbs with compact e) fluorescent lamps (CFL's) commonly called energy savers.

#### Here are some of the benefits of energy savers compared with ordinary bulbs;

- Uses 80% less energy.
- Lasts up to 10 times longer 0
- Does not produce heat O
- Provides same brightness with 5 times less wattage
- Replace 10 bulbs and save about US\$5 every month on your electricity bill.

## Replacement comparison table







ENERGY SAVER - CFL

| Ordinary<br>Bulb | 40W | 60W | 75W | 100W |
|------------------|-----|-----|-----|------|
| CFL Bulb         | 8W  | 11W | 14W | 18W  |

# ELECTRICITY SAVING ON FRIDGES

- Defrost regularly to keep it running efficiently.
- Leave a gap (about one meter) between the fridge and cooker.
- Let hot foods cool before refrigeration. Switch off when on extended holiday.
- Check the door seal if freezer tends to frost up
- Do not overload! It uses a lot more power. X
- Do not set freezing temperature lower than X
- Doors should not be left open longer than X necessary

For further enquiry our contact details are as follows:

### HEAD OFFICE - ELECTRICITY CENTRE:

25 Samora Machel Avenue, P.O. Box 377, Harare, Tel: (04) 774491-9, (04) 774509-30, Fax: (04) 790564, Email: zetdc-marketing@zedc.co.zw,

#### HARARE REGION

**Electricity House** Cnr Wynne Street/R. Manyika Rd Tel (04) 706451-5

#### NORTHERN REGION Magamba Way

P.O. Box 293, Chinhovi, Tel: (076) 23071-3

6th Street, P.O. Box 659, Gweru Tel: (054) 26581, (054) 21981 Toll free Nos. Gweru: 0800 4817. Kwekwe: 0800 4818

Cnr Robert Mugabe Way & 1st Street

WESTERN REGION

Tel: (09) 889960/9,

(09) 79526,

(09) 67063/83

**EASTERN REGION** 

P.O. Box 216 Mutare Tel: (020) 64636, (020) 64682

SOUTHERN REGION

Cnr Fife Street & 10th Avenue,

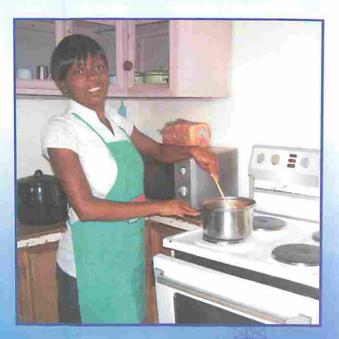
P.O. Box 2079, Bulawayo





# ZIMBABWE ELECTRICITY TRANSMISSION AND DISTRIBUTION COMPANY

# **Managing Your Electricity Bill**



Hints on saving

#### RUNNING COSTS OF APPLIANCES

| THE KITCHEN              |                               |                    |                          |                            |                      |  |  |
|--------------------------|-------------------------------|--------------------|--------------------------|----------------------------|----------------------|--|--|
| APPLIANCE                | TYPICAL<br>WATTAGE<br>(Watts) | DAILY HOURS IN USE | DAYS IN USE<br>PER MONTH | MONTHLY UNITS<br>USED(kwh) | AVERAGE MONTHLY COST |  |  |
| Stove plate large        | 2000                          | 1                  | 30                       | 60                         | 5.40                 |  |  |
| Stove plate small        | 1500                          | 1                  | 30                       | 45                         | 4.05                 |  |  |
| Stove oven bake element  | 2000                          | 0.5                | 20                       | 20                         | 1.80                 |  |  |
| Stove oven grill element | 2200                          | 0.5                | 10                       | 74                         | 6.66                 |  |  |
| Stove warming drawer     | 500                           | 0.75               | 25                       | 10                         | 0.90                 |  |  |
| Microwave oven           | 1300                          | 1.5                | 30                       | 59                         | 5.31                 |  |  |
| Kettle                   | 2000                          | _ 1                | 30                       | 60                         | 5.40                 |  |  |
| Food mixer               | 150                           | 2                  | 5                        | 2                          | 0.18                 |  |  |
| Juice extractor          | 300                           | 0.5                | 12                       | 2                          | 0.18                 |  |  |
| Toaster                  | 1100                          | 0.5                | 30                       | 17                         | 1.53                 |  |  |
| Refrigerator             | 250                           | 24                 | 30                       | 90                         | 8.10                 |  |  |
| Deep freezer             | 250                           | 24                 | 30                       | 90                         | 8.10                 |  |  |
| Geyser (Kitchen)         | 1500                          | 24                 | 30                       | 540                        | 48.60                |  |  |

| APPLIANCE             | TYPICAL<br>WATTAGE<br>(Watts) | DAILY HOURS IN USE | DAYS IN USE<br>PER MONTH | MONTHLY UNITS USED(kwh) | AVERAGE MONTHLY |
|-----------------------|-------------------------------|--------------------|--------------------------|-------------------------|-----------------|
| Geyser (Bathroom)     | 3000                          | 24                 | 30                       | 1080                    | 97.20           |
| Iron (Clothes)        | 1500                          | 3                  | 8                        | 36                      | 3.24            |
| Hair dryer            | 600                           | 0.3                | 10                       | 2                       | 0.18            |
| Washing machine small | 300                           | 2                  | 4                        | 22                      | 1.98            |

| THE LOUNGE           |                               |                    |                          |                         |                            |
|----------------------|-------------------------------|--------------------|--------------------------|-------------------------|----------------------------|
| APPLIANCE            | TYPICAL<br>WATTAGE<br>(Watts) | DAILY HOURS IN USE | DAYS IN USE<br>PER MONTH | MONTHL MONITS USED(kwh) | AVERAGE MONTHLY COST (USD) |
| 1 Bar radiant heater | 1500                          | 5                  | 20                       | 150                     | 13.50                      |
| Fan heater           | 1000                          | 5                  | 20                       | 100                     | 9.00                       |
| Hi-fi System         | 100                           | 4                  | 20                       | 8                       | 0.72                       |
| Television           | 250                           | 4                  | 30                       | 30                      | 2.70                       |
| TV decoder           | 28                            | 12                 | 30                       | 10                      | 0.90                       |
| Electric Fan         | 250                           | 4                  | 30                       | 30                      | 2.70                       |

| LIGHTING                |                               |                    |                          |                            |                            |
|-------------------------|-------------------------------|--------------------|--------------------------|----------------------------|----------------------------|
| APPLIANCE               | TYPICAL<br>WATTAGE<br>(Watts) | DAILY HOURS IN USE | DAYS IN USE<br>PER MONTH | MONTHLY UNITS<br>USED(kwh) | AVERAGE MONTHLY COST (USD) |
| Incandescent lights x 6 | 360                           | 5                  | 30                       | 54                         | 4.86                       |
| Energy Savers x 6       | 66                            | 5                  | 30                       | 9.9                        | 0.89                       |
| Flood light             | 250                           | 9                  | 30                       | 68                         | 6.12                       |

| GENERAL            |                               |                    |                          |                            |                            |  |
|--------------------|-------------------------------|--------------------|--------------------------|----------------------------|----------------------------|--|
| APPLIANCE          | TYPICAL<br>WATTAGE<br>(Watts) | DAILY HOURS IN USE | DAYS IN USE<br>PER MONTH | MONTHLY UNITS<br>USED(kwh) | AVERAGE MONTHLY COST (USD) |  |
| Swimming pool pump | 600                           | 6                  | 30                       | 108                        | 9.72                       |  |
| Vacuum cleaner     | 550                           | 1.5                | 8                        | 7                          | 0.63                       |  |













### DOMESTIC HINTS ON SAVING ELECTRICITY

#### ELECTRICAL ENERGY IS THE BEST

It is clean, safe, reliable, environmentally friendly and cost competitive

Quit often, electricity wastage is a result of bad behavior on electricity usage. Implementing behavioral change on the hints listed below will not cost you money. Electricity saved will also reduce your monthly bill. Be wise and start saving electricity today!!

#### **ELECTRICITY SAVING ON COOKING**

The Stove is one of the largest consumers of electricity in the home. Changing cooking practices can save both money and electricity.

- Match pots and pans with stove plates to ensure maximum heat transfer from stove plate.
- Switch off stove plates 5 minutes before your cooking time. The stove plate retains enough heat to fully cook the food.
- Stove switches must always be in good working order.
- Use cooking utensils with flat bottoms to increase surface area of heat transfer thus reducing cooking time.
- Keep oven doors closed until food is cooked. More electricity is used on maintaining heat lost due to frequent opening of oven doors.
- X Do not use grill compartment to make toast or defrost food.
- X Do not use the stove to warm up the house.

#### ELECTRICITY SAVING ON WATER HEATING

The geyser consumes about 40% of electricity consumption in the home. You can save both money and electricity if you;

- Ensure that your thermostat is set at no more than 65 degrees Celsius.
- Install a geyser blanket where practicable it reduces electricity consumption.
- Insulate at least the first 1.5 meters of hot water outlet pipes.
- Take short showers instead of baths, shower uses less hot water from the geyser.
- Install a geyser time switch to switch on your geyser at 0300hrs and switch it off at 0500hrs.
  - Make sure your geyser is switched off during the peak periods of 0600hrs to 0900hrs and 1700hrs to 2000hrs. It is not true that your geyser element is