

## COMPARISON OF ELECTRICITY USAGE AND COST

(Based on Cape Town, South Africa, electricity rates: 1<sup>st</sup> July 2010)

	Electrical rating in Watt (1000W = 1kW)	Monthly cost (@106.37 cents/kWh)	Hourly cost (@106.37 cents/kWh)
Air Conditioner	2500	R1914.66	R2.66
Heater (2 Bars)	1300	R995.62	R1.38
Heater (3 Bars)	2000	R1531.73	R2.13
Heater Fan	2000	R1531.73	R2.13
Heater Oil (Rib Heaters)	2000	R1531.73	R2.13
<b>Econo-Heat Wall Panel Heater</b>	<b>400</b>	<b>R306.35</b>	<b>43 cents</b>
Lighting: Single Bulb (100W)	100	R76.59	11 cents
Lighting: Single Bulb (60W)	60	R45.95	6 cents

### CALCULATING ELECTRICITY USAGE

To calculate the monthly cost of an electrical appliance, use the following formula:

**Electrical rating in kW x Hours per day x Days per month x Cost per kWh**

*The following calculation is based on the electricity usage of a 400 Watt Econo-Heat wall panel heater:*

- 1 The electrical rating is **400 Watt**. To convert to kilowatt (kW) divide the rating in Watt by 1000.

$$400 \text{ divided by } 1000 = 0.40 \text{ kW}$$

- 2 Electricity usage (kWh) is obtained by multiplying the rating of the appliance (in kilowatt) by the number of hours it is used in a month.

$$0.40 \text{ kW} \times 24 \text{ hours} \times 30 \text{ days} = 288 \text{ kWh (for a full month)}$$

- 3 Finally, the monthly cost to run an appliance is obtained by multiplying the electricity usage (kWh) by the cost of one unit of electricity (106.37 cents for City of Cape Town, South Africa domestic low tariff between 450 to 1500 units per month).

$$288 \text{ kWh} \times 106.37\text{c} = \text{R}306.35 \text{ (in this example, for a full month)} = 43 \text{ cents per hour}$$