ENERGY CONSUMPTION AT HOME

At Barbados Light and Power Company Limited we encourage you to take control of your energy bill by selecting energy efficient appliances for purchase and adopting energy-wise practices at home.

The Basics

1. When purchasing a major appliance, always consider the energy costs to operate it over its lifetime, in addition to the initial price. The cost to operate an appliance is determined by:
- how much power it uses (wattage)
- how long it operates
- the electricity rate

2. The biggest energy users in the home are normally appliances with motors or heating elements (e.g. air conditioners, washing machines, dryers, pumps, cookers) and those that operate for long periods (e.g. fridges and freezers). Before purchasing, read the energy labelling e.g. Energuide (for products made or sold in Canada) or Energy Star (USA), then choose an energy efficient model.

3. Other causes of high bills are:
- high wattage lamps which burn all night
- hot or humid days (fans, fridges and air conditioners run longer)
- lifestyle changes (extra house guests, children at home on vacation, extra appliances, etc.)
- lights or other equipment left on for long periods of time (e.g. lights left on all day and/or all night)

4. Although frequently blamed as the source of high bills, the electric meter RARELY runs fast. In fact, disc meters get slower with age and the newer electronic meters shut down if they become faulty.

CALCULATING YOUR ENERGY CONSUMPTION

1. Find the wattage (W) on the appliance label. If you cannot find the wattage (W), but the volts (V) and amps (A) are listed then multiply the volts (V) x amps (A) to get watts (W). This is only an approximate number for some appliances.

2. Divide your monthly electricity bill by the kWh used. This calculates the average electricity rate ($/kWh). You may average this over a few months.

3. Convert the wattage (1) to kilowatts and multiply by the average electricity rate (2). [Watts/1000] x electricity rate. This is the cost to operate the appliance for one hour.

4. Now determine how many hours the appliance is in use per month. (You can estimate how many hours it works per day and multiply by 30 to determine monthly usage). For appliances which cycle on and off such as fridges, estimate the actual run-time of the compressor during the period.

5. Finally, multiply the hourly cost (3) by the number of hours used per month (4) to find out the energy cost per month. For example, an 1100W microwave used for 10 minutes a day at an electricity rate of $0.38 per kWh costs $0.42 per hour of use (1100/1000 x 0.38). For 10 minutes per day, which equates to 5 hours usage per month (10x30/60), the microwave will cost $2.10 per month (5 x $0.42). By comparison, a similar wattage toaster oven will cost three times as much since it may take three times longer to heat the same amount of food.

An example of the cost of operating electricity is as follows:

ENERGY CONSUMPTION CHART

Appliance Usage (kWh)	**Monthly** ($0.38/kWh)	**Cost**
Fridge	120	$45.60
Freezer	90	$34.20
TV (125W, 6 hrs per day)	20	$7.60
Stereo	15	$5.70
Indoor Lights	50	$19.00
Outdoor lights	125	$47.50
Cooking	200	$76.00
Computer	10	$3.80
Washing	10	$3.80
Iron	10	$3.80
Miscellaneous	5	$1.90
Total	655	$248.90

Energy Conservation makes $ense

AIR CONDITIONING

- Always select energy efficient models. Save by managing the runtime of the compressor. Choose the right size unit for the room size and set the thermostat to where it is just comfortable. We recommend not lower than 25°c.
- Use a ceiling fan in bedrooms to provide wind chill so you can raise the temperature setting on the unit and still feel cool. Install a timer to turn off the unit automatically after a few hours by which time you are asleep.
- Save by cleaning filters monthly. Caulk all areas where dissimilar materials (e.g. wood to wall) meet on external walls. Try to shade the external compressors but always maintain ample airflow around them by ensuring that the unit is not covered by plants.

REFRIGERATION

- Choose energy efficient models by looking for the Energy star/ Energuide labels.
- Manage compressor run-times by reducing how often the door is opened and by setting the thermostat control to midrange.
- Locate in a well-ventilated area. Don't enclose in a cupboard

COOKING & BAKING

- Electric ranges can be costly due to high wattage heating elements. For smaller meals use a microwave instead.

SMALL APPLIANCES

- Electronic loads use small amounts of power even when they are turned off. This can add up over time. Unplug appliances such as televisions and stereos which are not in use for long periods.

WATER HEATING

- Even if you use solar water heating, do not turn on the electric switch for long periods. In some models a thermostat controls the output temperature and will switch on the electric heater as needed to maintain the temperature, but others remain on all of the time.

LIGHTING

- Use compact fluorescent lamps in rooms that are frequently occupied. You can save 80% over incandescent bulbs with the same light output.
- Other advantages are: they are cooler (this reduces the heating load on air conditioners), they are available in daylight and cool white colours and screw bulbs can be fitted to bayonet fixtures by means of adaptors.
- Remove some of the bulbs in multi-lamp fixtures and use dimmers for chandeliers.
- Use fluorescent or high-pressure sodium lamps for outdoor lighting instead of the popular 150W and 175W security lamps which use more energy as they age.

COMPUTERS

- Like other electronic equipment, the computer is not a heavy consumer of power. However, large screen monitors and some power accessories can increase consumption. Use power saving features provided whenever possible.

"Watts" Up With My Electricity Bill?

Visit our website at www.blpc.com.bb

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We are there