Kill-A-Watt

The Kill-A-Watt is a tool that records the amount of electricity used by items in your home. Having knowledge about your power consumption can help you make informed decisions and save you money.

Although the Kill-A-Watt device can show volts (Volt), amps (Amp), watts (Watt), volt-amperes (VA), hertz (Hz), power factor (PF), kilowatt-hours (KWH) and hour usage; only the kilowatt-hours is needed to calculate the amount of energy an appliance or electronic equipment uses. The hour usage reading can also be used to calculate your usage over a period of time.

Using the Kill-A-Watt:

1. Plug the Kill-A-Watt into the outlet, and then plug your appliance into the Kill-A-Watt.

2. Some appliances, like a freezer, uses various amounts of electricity throughout the day as its motor cycles on and off. To get a more accurate reading, leave it plugged for a period of time (day).

3. Push the KWH button at the end of your chosen time period. Record the number.

4. Then push it again, and record that number. One is the kilowatt hours (KWH) and the other is clock hours and minutes. The amount of energy used is the KWH number. The clock hours tell you the duration it took to use that amount of energy.

5. To calculate your cost, multiply the KWH by your utility's rate. In Bellingham 2010, it's about $.095 per KWH.

Equation Example:

 # from Kill-A-Watt

$$8.47 \times \$.095 = \$.76$$

KWH	Utility Rate	Cost to Use
	as of Sept. 2010 in Bellingham	

Use Examples:

1. Toaster Oven: Toasting a muffin. The task used .07 KWH of electricity. .07 x .095 = .01, so the cost of toasting a muffin is one cent.

2. Blender: Making a smoothie. The KWH reading was .02 KWH of electricity. The dollar cost was .02 x .095 = .0019 or $.0019. If I used it this way every day for a year: .02 x 365 = 7.30 KWH/yr. 7.30 x .095 = .69 or $.69

3. Electric Tea Kettle: Boiling 30 ounces of water used .10 KWH of electricity. .10 x .095 = .01 or $.01. Over a 4 day period, the KWH reading was 1.32 KWH. Energy usage: 1.32 KWH. The dollar cost: 1.32 x .095 = .13 or $.13

4. Extrapolating to a year, assuming my personal habits and the electric rate stayed the same, the energy usage would equal 120.95 KWH. The cost would be: 120.95 x .095 = 11.49 or $11.49.

5. Cordless phone with answering machine, plugged into the wall with a transformer (little black box). This type of usage is constant and hence energy use is referred to as a Ghost Load. To calculate its energy usage, leave it plugged in for an extended amount of time; calculate as above.

See what else you can discover. Many items have a "stand by" mode, how is the amount different vs. active use. Other devices, while off, still use electricity to run a clock or other tasks. Learn and compare, and have fun!