Electricity Monitor Instructions

FOR DEVICES WITH CONSTANT POWER DEMAND
(lamps, computers, computer accessories, TVs, TV accessories, gaming stations, space heaters without thermostats, heat tape on pipes and gutters, holiday lights, chargers, fans, etc.)

1. Plug the meter into an outlet.
2. Plug your device into the meter and turn on device. Tip: You may want to use an extension cord to make it easier to see the meter.
3. Press the “FUNCTION” button until the “W” lights up in the middle row menu and “POWER FACTOR” lights up in the bottom row menu. The number in the middle row above the “W” is your watt reading.
4. Use the following formula to calculate the annual cost to run this device:

\[ \text{Annual Cost} = \text{Watts} \times \frac{24 \times 365}{1000} \times \text{Price per kWh} \]

   \( \text{Price per kWh} = \$0.23 \)

DEVICES WITH CONSTANT POWER DEMAND TIP:
Try testing devices both when they’re turned on and when they’re turned off. This will show you which have a “phantom load” that consumes power even when they’re turned off. (Note: It costs $2/year for every continuous watt, so a TV with a 48-watt phantom load costs $96/year – even if it’s never turned on.)

FOR DEVICES THAT CYCLE
(refrigerators, freezers, humidifiers, dehumidifiers, window air conditioners, fish tank heaters, space heaters with thermostats, clothes washers, sump pumps, etc.)

1. Plug the meter into an outlet.
2. Plug your device into the meter. You may want to use an extension cord to make it easier to see the meter.
3. Keep the device plugged into the meter long enough for it to cycle on and off multiple times (e.g., a day for a fridge or dehumidifier – the longer the time period, the more accurate the result).
4. Press the “FUNCTION” button until the “KWh” mode icon shows and record the number it displays.
5. Record the time displayed on the top row. This is the time monitored (HH:MM).
6. Convert the time to decimal hours (e.g., 2 hours and 30 minutes = 2.5 hours).
7. Calculate annual cost using this formula:

\[ \text{Annual Cost} = \frac{\text{KWh}}{\text{Hrs Tested}} \times \frac{24 \times 365}{365} \times \text{Price per kWh} \]

   \( \text{Price per kWh} = \$0.23 \)

DEVICES THAT CYCLE TIP:
If you want to see your electricity rate, which is the delivery rate plus the supply rate, please visit the following website, which provides residential electricity rates in Maine using the standard offer rate for supply:

www.maine.gov/mpuc/electricity/delivery_rates.shtml

* These calculations assume $.23/kWh.
Once you’ve measured the energy used by your devices, how do you save on energy costs?

**Avoid Phantom Loads**

1. Unplug items that consume phantom loads when not in use.

2. If unplugging devices with phantom loads isn’t convenient, consider plugging them into a power strip and switching it off when not in use.

3. If it’s not practical to use a regular power strip, try a smart power strip for entertainment centers and computers. It won’t avoid the phantom load of the TV or computer, but will automatically stop the phantom load from the accessories (DVR, DVD, VCR, printer, display, speaker, etc.).

**Upgrade your lighting**

Switch to LEDs, which are more than 70% more efficient than incandescent bulbs and last for many years. Some will pay for themselves in as little as one week.

**Buy ENERGY-STAR®-rated appliances**

When it comes time to replace old appliances or add new appliances to your home, consider ENERGY STAR®-rated units. They are designed to save you energy over time.

For more tips on saving energy, visit [www.efficiencymaine.com/at-home/energy-money-savings-tips](http://www.efficiencymaine.com/at-home/energy-money-savings-tips)