



City of Alexandria, Virginia

Department of Transportation & Environmental Services
Office of Environmental Quality
www.alexandriava.gov/Environment

Using a Kill A Watt™ meter to reduce your Energy Consumption

Consistent with the City of Alexandria Eco-City Initiative – more specifically, the Eco-City Charter Energy Principle and the Eco-City Action Plan Goal related to reducing energy consumption through conservation practices – the City is providing access to Kill A Watt™ meters through a collaborative effort with the Alexandria Library. These meters will allow citizens to measure the amount of energy being used when electronic devices and appliances are plugged in and not in use (turned off), as well as measure energy consumption for appliances while in use (turned on). So not only will you be able to calculate energy wasted on appliances when not in use and plugged in; you will also be able to know when its time to upgrade an appliance or if your old appliance is actually energy efficient.

Most appliances continue to draw electricity even when they are turned off but remain plugged directly into an outlet. These phantom loads occur in switched-off appliances that use electricity, such as the TV, microwave, stereo, DVD player, video game console, and kitchen appliances. The U.S. Department of Energy estimates that 75% of the energy used to power electronics and appliances in the average home is consumed when these devices are actually turned off. Even when computers, DVD players or game consoles are in standby mode, they continue to draw power. All of this could be avoided by unplugging the devices, or using a power strip to plug in the devices and simply using the switch on the power strip to cut all power when not in use.

PLEASE SEE REVERSE:

**For Instructions on How to Use the Meter in Your Home or Business to
Calculate Your Potential Savings***

**Costs and Savings are based on June-September 2009 prices for kWh generation and distribution, taxes, and surcharges. Actual costs and savings will depend on your specific use patterns and season.*

How to use the Kill A Watt™ Meter in Your Home or Business

The Kill A Watt™ Meter can be used in 3 different ways. Complete the following steps to determine the amount of energy being used and the how much you can potentially save. Be sure to use the Kill A Watt™ meter in “Watt” mode for the below equations.

Table 1: Determine Monthly Phantom Power Load

1. Determine how many watts are used when plugged in but turned off:
 - a. Turn off and unplug the appliance
 - b. Plug the meter into the outlet and push the “Watt” button
 - c. Plug the appliance into the meter (do not turn on the appliance)
 - d. Read and record watts
 - e. Repeat above steps for all appliances and add together for total watts.

On a separate sheet of paper: Insert the total watts from “e” into this equation to get your monthly savings in dollars.

$$\text{Total Watts} \times 0.06 = \$ \underline{\hspace{2cm}} / \text{Month}$$

Table 2: Cost of Running an Appliance

2. Determine the cost of running an electronic device or appliance:
 - a. Turn off and unplug the appliance
 - b. Plug the meter into the outlet and push the “Watt” button
 - c. Plug the appliance into the meter
 - d. Turn on the electronic device or appliance
 - e. Read and record watts

On a separate sheet of paper: Insert the watts read from “d” above into this equation. Insert the #of hours/day and the # of days/month you use the appliance to find out the monthly cost.

$$\text{Watts} \times \underline{\hspace{1cm}} \text{ hours/day} \times \underline{\hspace{1cm}} \text{ days/month} \times 0.000085 = \$ \underline{\hspace{2cm}} / \text{Month}$$

Table 3: Compare your Old Appliance to a Newer Appliance

3. Compare your old appliance with a new appliance you’re considering for purchase:
 - a. Turn off and unplug the appliance
 - b. Plug the meter into the outlet and push the “Watt” button
 - c. Plug the appliance into the meter and turn the appliance on
 - d. Read and record “old” watts
 - e. Compare the “new” watts on the specifications for a new appliance you plan on buying

On a separate sheet of scratch paper: Insert the “old” watts and “new” watts info the equation to determine percentage of savings.

$$(\text{Old Watts} - \text{New Watts}) / \text{Old Watts} \times 100 = \underline{\hspace{2cm}} \% \text{ Savings}$$