

Green Resource Hub Watt Meter Lending Program for offices



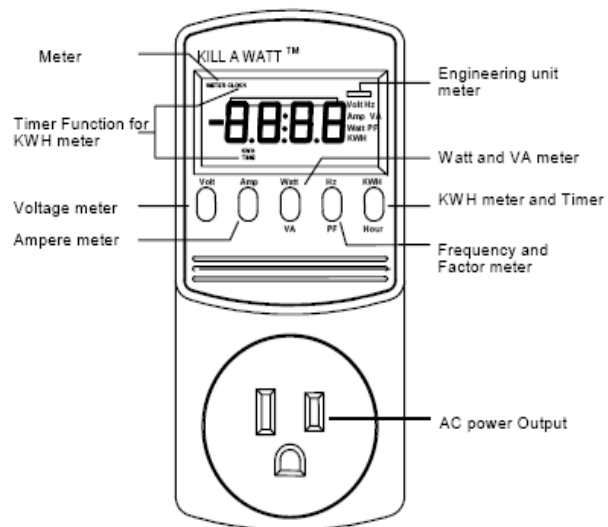
Step 3: Measure each appliance's electricity consumption. With your watt meter, you have two ways to measure electricity use, in watts or kilowatt-hours. Watts (W) are a measure of the amount of electricity your appliance is drawing at a single point in time. Kilowatt-hours (kWh) are a measure of the amount of energy your appliance draws over a period of time.



Start by plugging your watt meter into a power source, and then plug an appliance into the watt meter, as shown at left. Press the center button (see diagram below) to see the number of watts your appliance is pulling. (Tip: Make sure the word "Watts" shows up on the right side of the display screen. If you press the center button again, the meter will display "VA", which isn't what you want here.)

Let's say you're assessing a printer. If someone prints something while you're watching, you'll see the number spike up. If the printer goes into sleep mode while you're watching, you'll see the number dip down. This is why we also need to learn to use the kilowatt-hour function.

Press the button on the far right of your watt meter to read kilowatt-hours. If you've just plugged in your appliance, the display will likely read 0.00 kwh. Over time, this number will begin to count up. Press the right button again, and the display shows you how long the meter has been counting kilowatt-hours, probably only a couple minutes at this point. Try leaving the meter plugged in and check back in a few hours.



Let's say the display reads 0.12 kwh. Press the right button again to display the clock. If it reads 1:45, your printer pulled 0.12 kwh of electricity over an hour and 45 minutes.

Once you're comfortable measuring watts and kilowatt-hours, begin entering data into your spreadsheet. If you're using the sample spreadsheet available through our website, you'll find further instructions there. When you've finished entering all of your information, you will be ready to move onto the next section and develop an energy savings plan for your appliances.

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Develop an Energy Savings Plan for your Appliances

You can use your completed inventory to develop a strategic energy savings plan for your appliances.

Step 1: The first step toward reducing your appliances' energy consumption is to make sure you turn them off when you're not using them.

You can start by shutting down your computer at night. According to the Alliance to Save Energy, 50% of employed adults in the US don't shut down their PCs at the end of the work day, which translates to \$2.8 billion dollars worth of wasted electricity per year (PC Energy Report 2009). Put differently, the same report explains that "If all the world's 1 billion PCs were powered down for just one night, it would save enough energy to light up New York City's Empire State Building – inside and out – for more than 30 years."



Other things to shut down at night are any copiers or printers, external monitors, and any other peripherals. In fact, even consider turning off your monitor when you go to lunch or anytime you aren't using it. Do the same for lamps, radios, etc.

Step 2: Phase out energy hogs. If you have an old fridge or printer that uses a ton of energy, put it on the priority list for an upgrade. When the time comes to replace* it, focus on ENERGY STAR models, which meet stringent energy efficiency standards. Look for the ENERGY STAR logo when shopping for appliances, or find them listed at www.energystar.gov.



If you have a water cooler that dispenses hot water, you may be surprised at how much energy it draws over the course of the day. A more efficient solution is to trade in your water cooler for one that only dispenses cold water, and then heat the water for your tea in the microwave or an electric water pot.

Step 3: Eliminate "phantom load" wherever possible. If you completed your inventory using the sample spreadsheet available on our website, your results

* Be sure to properly recycle or dispose of any retired appliances. Tompkins County businesses can visit www.recycletompkins.org for more info.

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should show you which of your appliances draw a “phantom load”. Phantom load refers to the electricity drawn by appliances when they’re turned off. In many cases, phantom loads can account for the majority of the electricity drawn by a given appliance over the course of a day. For example, you might have a stereo that ends up drawing more power while it’s turned off and unused than when you’re actually listening to it! This is obviously a big waste of energy and money, and a great opportunity to tighten up your energy usage.



One way to eliminate phantom load is to identify the appliances that draw a phantom load, and unplug them when they’re not in use. If unplugging is a hassle, consider plugging the appliances into a power strip. Then all you need to do is flip the switch on the strip to disconnect the appliances from the power source when you’re not using them. If you think you’ll forget to flip that switch, consider investing in a “Smart Strip” power strip. (Google for more info).

Step 4: Make sure that the Energy Saver settings are enabled on your computers, copiers, and other equipment. Even Energy Star computers can be inefficient if you don’t have the proper settings enabled. Take 10 or 15 minutes to figure out your machine’s energy savings settings, and find the setup that works best for you and minimizes unnecessary electricity consumption.

Armed with your freshly completed energy audit, you’ll probably see opportunities for energy savings beyond the initial steps covered in this packet. Get creative and find the combination of strategies that work best for your office. With a little work, you can achieve noticeable reductions in your electricity consumption.



I, _____, have provided a deposit of \$_____ in order to rent a watt meter (unit #____) from the Green Resource Hub of the Finger Lakes. Today’s date is _____. I will return the meter to the Hub office at 109 South Albany St., Ithaca, NY by _____ to receive my deposit.

Borrower’s signature

Hub Representative’s Signature

Thank you for using the Hub’s Watt Meter Lending Program! If you have any questions, please don’t hesitate to contact us at 607-216-1552 or wattmeter@greenresourcehub.org.