Finding Vampire Loads with the P3 Kill-A-Watt Meter					Room:		Page:
Appliance Include brand and model (For TVs and monitors, indicate the size diagonally and whether it is CRT tube, LCD, DLP or plasma)	Vampire Watts	Vampire Amps	Operating Watts (If varies, use approx. midpoint)	"True Off" Yes/No	Age Yrs.	Energy Star	Comments
Total Vampire Watts: For the appliances normally left plugged in, circle the Vampire Watts. Enter their sum							

CoolNeighborhoods Watt Meter Project -- Discovering Your Vampire Loads

Instructions for using the P3 Kill-A-Watt meter

The function of the CoolNeighborhoods watt meter project is to help you evaluate the vampire energy requirements of the 110/120 volt plug-in appliances in your home and to discover the amount of energy consumed by new convenience features and technologies. The Meter provides readings for line voltage and the instantaneous amperes and instantaneous watts drawn by an appliance plugged into it. The Watt Meter also will record total kilowatt hours consumed over a period of time.

In the past, appliances turned off and on with the reassuring mechanical snap of a wall switch. The mechanical timers on dishwashers, clothes washers and driers automatically shut off at cycle's end. Most appliances purchased within the past decade cannot be turned off in the sense that they are mechanically disconnected from the electrical supply when switched "off" or have reached the end of an automatic cycle. This is where the watt meter helps you identify your appliances that continue to draw current when not in use, often referred to as a vampire (or phantom) load. Suspect appliances are those with touch pads, a soft touch on/off switch and remote control. These electronic features require a residual current to sense when you activate the touch pad or remote control. Such features are now included on most washers, driers, dishwashers, TVs, microwaves, stoves, and computers built today. Some appliances still include a true off switch, sometimes located out-of-view on the back of the unit as Sony's Play Station 2 has or as a 486 computer had.

The Kill-A-Watt meter's screen is a liquid crystal display, so it requires good light to be viewed. For this reason and personal comfort, we recommend plugging the Kill-A Watt meter into an extension cord. A grounded (three wire) cord **must** be used. A 6 ft appliance cord rated 15 amps is recommended.

To familiarize yourself with the meter, plug in one or two small appliances you are comfortable operating, such as a table lamp or a clock radio. The first value to show on the screen is the voltage. Try out all the meter's buttons so you see what they show when the appliance is operating and also when it is turned off. We will be using the "watt" and the "amp" buttons. Watts are reported in 1 watt units: fractional amounts are not available with the Kill-A-Watt meter. There are usually two results for each appliance: the operating watts drawn when the unit is in use and the vampire watts drawn when it is not operating and presumably shut off. If a "00 WATT" reading shows on the screen when the appliance is turned off, but the appliance's features lead you to suspect there is a small vampire load, push the amp button to see if there is a reading of one or two hundredths amp. If the meter reads "0.00 Amps", assume the appliance is truly off. If the meter reads a few hundredths amps, there is a small vampire load of less than 1 watt which can be indicated by entering "<1" in the vampire amps column for that appliance.

Be sure to test appliances you rarely unplug or cannot turn off, such as cable, satellite and fiber optic boxes. TVs can present interesting challenges and you may want to compare the results of different types of TVs you own. (For example, adjusting the "backlight" setting on LCD TVs, will vary the wattage significantly.) Use the table provided to record what you find. When you know the appliance is Energy Star approved, enter a check in the Energy Star column. Proprietary equipment items supplied by providers of TV signal and high-speed Internet service via cable, satellite, and fiber optics are not evaluated under the Energy Star program. Each vampire watt used during one year consumes 8.8 kilowatt hours. Every 10 eliminated will operate a new Energy Star top-freezer refrigerator for 2 months. About 50% of the electricity provided us by Dominion, Inc. is derived from burning coal.

Some basics: A watt is a measure of electrical energy consumed. Amps times volts equals watts. Voltage is the measure of the "electrical potential difference" or electrical pressure of a circuit. One amp is the flow in one second of a huge number of electrons, 6.24 X10 to the 18th power. (10 to the 18th power is a million billions.)