

# ENERGY VAMPIRES

Learn about the electricity consumption of your appliances and electronics by using an energy meter. Energy meters can help you identify high energy use appliances and electronics in your home, determine how much it costs to use appliances and identify “energy vampires” – appliances that use energy when switched off. One barrier people have with “energy vampires” is that they don’t think the energy costs are significant – but the average U.S. household spends \$100 each year to power devices when they are off or in standby mode.

## Outcomes

- Understand that some electronics and appliances use energy even when they are not in use.
- Unplug electronics when you don’t need them.

## Audience

Youth (ages 14+), adults

## Time

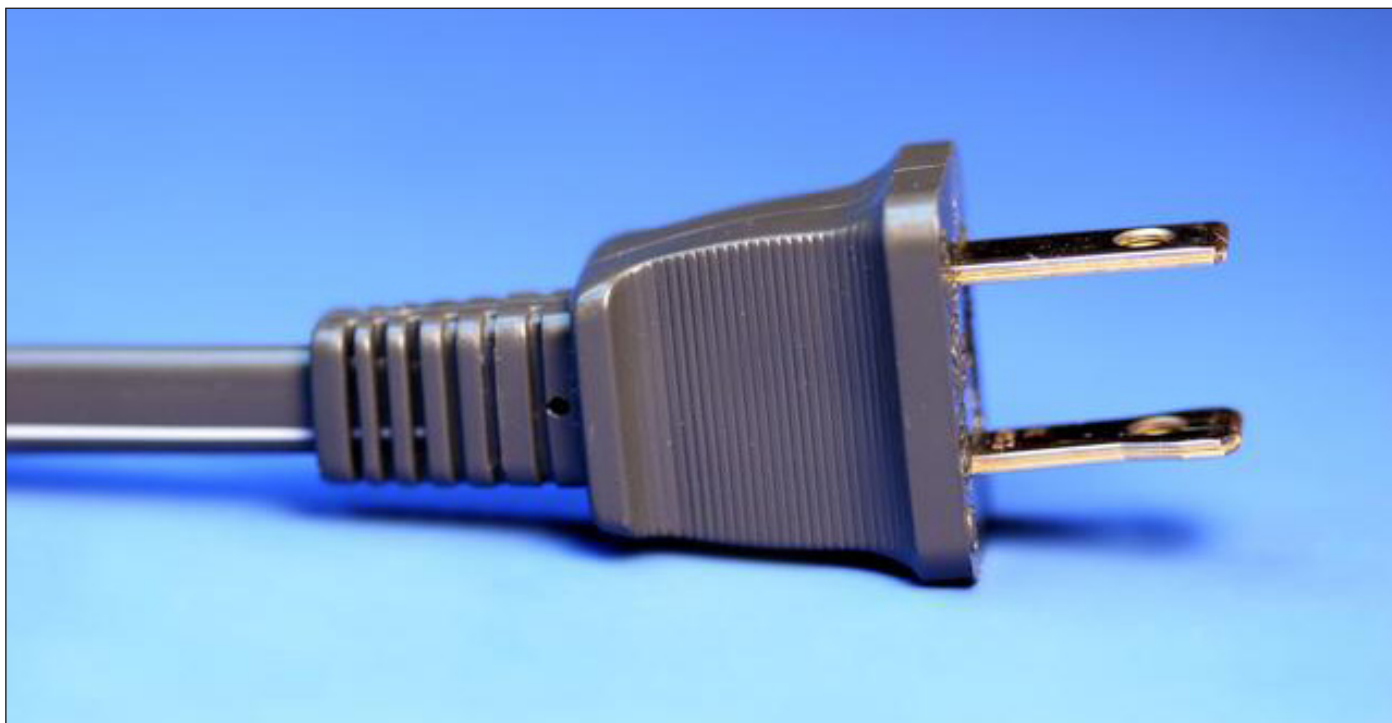
Variable

## Concepts

- Energy vampires are electronics that use energy even when they are not in use.
- Energy vampires waste energy and money.
- Unplugging electronics conserves energy and saves money.

## Supplies

- Energy meter – available for check-out at Hennepin County libraries. Visit [www.hclib.org](http://www.hclib.org) for more information. Energy meters can be purchased for about \$25. Check at hardware stores or search online.
- Electronics to sample if participants are not meeting in a home. Examples include a blow dryer, cell phone charger, gaming console, toaster or fan.



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## Preparation

- Rent or buy an energy meter.
- Since you will most likely need to use a home for an example, have participants gather in a “sample” home to learn how to use the energy meter.

## Procedure

- Choose an appliance to monitor with the energy meter. Remove the appliance’s power cord from the wall outlet. Plug in the energy meter and then connect the appliance’s power cord into the meter’s outlet.
- While the appliance is turned on, have participants observe the energy monitor to determine how much energy your appliance is consuming turned on and record the results.
- While the appliance is turned off, have participants observe the energy monitor to determine how much energy your appliance is consuming turned off and record the results.
- Most appliances use energy when they are plugged in, even if they are turned off. These are known as “energy vampires.”
- Use the chart below or create your own to track each item and the watts used when the item is turned on and off.
- Based on the results, ask participants to make goals for reducing energy consumption. Examples of goals include plugging electronics into a power strip that can be shut off when not in use or using high energy items less frequently.
- Encourage each participant to conduct the same energy meter test in their own home to find out which of their appliances are “energy vampires.”

Item	Watts used (on)	Watts used (off)
Example: toaster	1200 watts	200 watts

## Discussion questions

- What did you learn from using an energy meter? What surprised you?
- What appliance or electronic used the most energy?
- What appliances or electronic items do you leave on all the time? Why?
- What other actions can you take to conserve energy in your house? (Turn your electronics off, set your computer to go on sleep mode, etc.)
- How can we reduce the amount of energy consumed by appliances and electronics?

## Additional activity ideas

### MN Energy Challenge (Center for Energy and Environment)

- Commit to energy efficiency with the MN Energy Challenge. Stay updated on energy saving tips and learn how to save on your energy bill, too. Learn more at [www.mnenergychallenge.org](http://www.mnenergychallenge.org).

### TOLBY Program

- “Turn Off the Lights Behind You” for children in grades 1 through 5 to learn about energy efficiency.
- Program includes a 40 minute class visit and pre and post visit supporting activities.
- Learn more about the TOLBY program at [www.mnenergychallenge.org/For-Teachers/About-A-Visit-From-Tolby.aspx](http://www.mnenergychallenge.org/For-Teachers/About-A-Visit-From-Tolby.aspx).