

# Measure, manage your power usage

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Here's a quick quiz: which uses more power: your toaster, your hair dryer, your microwave or your kettle?

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What uses more power, your DVD player or your nightlight?

And for bonus points, a trick question: on a monthly basis, what consumes more total power, your DVD player or your nightlight?

The unfortunate truth is that most of us have little idea how much electricity the various things in our homes use. But knowing that information is the first step to figuring out ways we can lower our power consumption and save money.

Step one: measure

"If you can't measure it, you can't manage it" is a well-known business rule, but it applies equally to power consumption.

Yet, most of us have just one measure of our power consumption: the monthly bill.

That bill is not a great measure, because its focus is how many dollars we owe rather than how many kilowatt-hours (KWH) we've used. Since what we owe is affected by factors such as rate changes and water heater charges, the dollar amount of a bill is not a very good indication of the actual power consumption. It's much better to look at kilowatt-hours consumed.

Fortunately, the number of KWH used during a billing period can be found on a power bill if you look closely. Then, with simple division, daily consumption can be calculated.

But there are better ways to measure your power usage, so you can better manage it.

Four strategies

1. Check the label: virtually everything that uses electricity will have a label indicating its power consumption, usually in watts. (Sometimes it's in amperes, which you can convert to watts by multiplying by 115.) Checking the label is a simple approach that doesn't cost a penny. However, the downside is that wattage is just a snapshot of what something uses when it's on; its actual contribution to your monthly bill will depend on how much time it's on.
2. Read your power meter at a set time every day to figure out how many KWH you are using each day. You might notice different consumption on different days of the week - such as laundry day, because dryers are huge energy hogs, or days when everyone took a bit long to shower. Then you can take action. Reading the meter doesn't cost a cent, but it takes a bit of effort. Perhaps a good project for the young scientist in your family.

3. Buy a portable power meter that can measure the power consumption of anything that plugs into an outlet. Simple meters are available at hardware stores for \$30 or less. Some can also record how much power is used over a period of time, so they can give a very accurate indication of something's true contribution to your monthly bill. Unfortunately, most meters don't work for stoves, dryers and hot water heaters.

4. Get a PowerCost Monitor® or similar meter for your home. It's an easily-installed device that gives a real-time readout of the amount and cost of power being used. The big benefit of such meters is that they provide instant feedback when you turn things on in your home, so you'll soon have a very good indication of how much everything uses and what's really running up your bill. The PowerCost Monitor® is the brainchild of Blueline Innovations of Newfoundland ([www.bluelineinnovations.com](http://www.bluelineinnovations.com)). It costs about \$120, but according to the manufacturer, it can help homeowners save 6-18 per cent on their power bills.

Back to the quiz

So what about that toaster, hair dryer, microwave and kettle? In our home, they are 900, 1,300, 1,400 and 1,500 watts respectively. For comparison, a compact fluorescent light bulb is 13 watts.

And since most DVD players consume a constant trickle of phantom power even when they are off, it's a good bet your DVD player, even if unused, uses more power than a nightlight.

Measuring the power usage of common household equipment is not as complicated as you might think. Then once you do measure it, you're in a much better position to manage it.

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