

The Power Cost Monitor — Measuring Your Electricity Consumption Every 30 Seconds

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I'm developing a series of articles to help homeowners reduce their power consumption in a step by step way. The outline for the series was a piece of cake. Filling in the specifics, however, has been a bit more of a challenge than I first thought. Truthfully, I'm still stuck on the second article: "Identifying the Electricity Consumers in Your Home." The title for the second article also changes all the time, so don't go looking for it when it's finally published.

The thing is, assessing your plug load, particularly around lighting, is relatively easy. You look up at the ceiling, figure out how many bulbs are on, what their wattage is, estimate the number of hours they're on during a 24 hour period and you've figured out your lighting load. But the rest is a little trickier. While I was doing my lighting consumption for my house, I discovered that lighting accounts for 20% of my overall electricity consumption. That means 80% is unaccounted for. Using my trusty Kill A Watt, I can get to the gaming stations, the lamps, clocks, TVs, and phones. But what about the appliances whose plugs I can't reach? Or the built-ins that hide the plugs and make it difficult to access?



Power Cost Monitor

Power Cost Monitor WiFi

Enter the [Power Cost Monitor](#). This is another electricity monitoring device that allows you to measure electricity consumption for any electrical device in your home, including your central air conditioner, oven, dryer, and any hard to reach electronic or appliance where you can't access the plug. The Power Cost Monitor sounded intriguing so I contacted Peter Porteous, CEO of Blue Line Innovations, the company that makes the Power Cost Monitor, to find out how it works.

The device consists of two parts — the first part you hook up to your electricity meter. The monitoring unit is compatible with 90% of all electric meters in North America.

The second part is a handheld device that reads changes in electricity consumption when appliances are turned on ("baseline" vs. with appliance on). It will tell you in dollars or kilowatt hours, how much electricity the appliance is using. When I spoke with Peter he mentioned three things about it:

1. The monitor reports changes in electricity consumption at 30 second intervals. This is the outside amount of time their customers are willing to accept. Reporting periods longer than 30 seconds lose their relevance because so much can happen in 30 seconds. A few lights can get switched on, someone can turn on the stove, start watching a movie or start a load of laundry, and you don't know which action has caused the increase in power use.
2. Now the Power Cost monitor can hook up to your computer using WiFi so you can see your readings in chart form and track your consumption over time.
3. Kids love to use it because they point it at a device, like a dishwasher, start pushing buttons on the dishwasher like "power scrub" or "heat dry" and watch the numbers on the monitor climb. Then they'll do the same with the washing machine, adding "hot water" or "second spin" and see the same thing. They learn how behaviour and choices affect the amount of electricity we consume.

You can see how receiving your electric bill once every two months isn't giving you nearly enough information for you to act on. Having information fed to you every 30 seconds helps you identify how much electricity devices in your home are using, and suddenly you the information you need to start doing something about it.

Discovering what your base load is, that is, what's using power even when everything is off, can help you take concrete steps towards lowering your consumption. Peter told me that when he first used his monitor, his baseline electricity consumption was 1.1kw/hour. Now, after identifying behaviour patterns, phantom powers and appliances that were using a lot of electricity, he's been able to reduce his baseline load to 300 watts/hour.

For a dealer near you, see the [Power Cost Monitor website](#).

Or you can order online through [Amazon.com](#)