

Tracking Energy Efficiency with a PowerCost Monitor - Part 2

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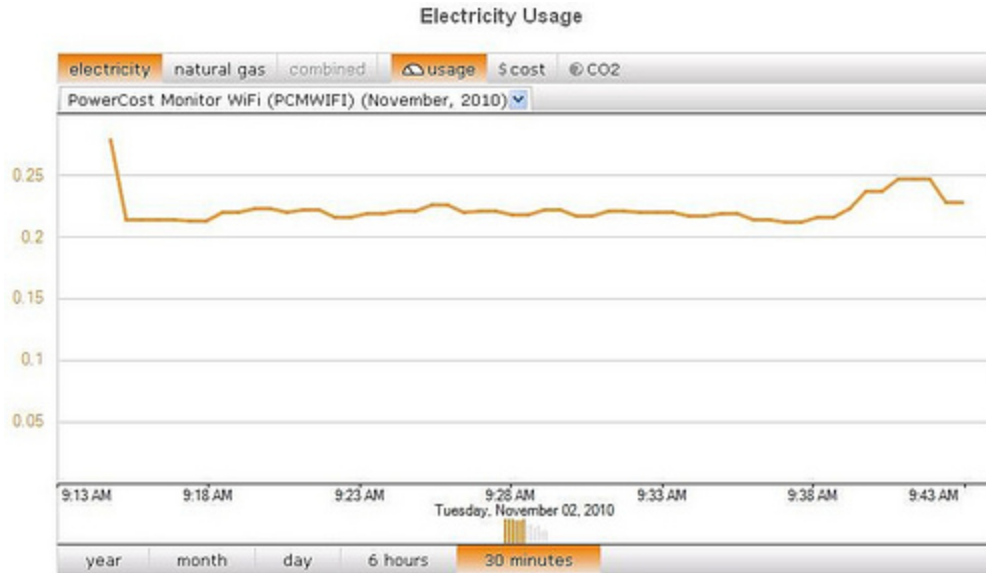
I work from home all day with naught but three small wiener dogs to keep my company. Last week I detailed [how to install the PowerCost Monitor](#) from Blue Line Innovations to keep track of your electricity usage. Since then I have been obsessed with watching the numbers go up and down. My wife came home the other night to find me sitting in the dark trying to get the monitor to read zero by the light of my cell phone.

I hardly even heard her come in. One thing I discovered, while sitting in the dark, is that electronic equipment does use a significant amount of electricity, even when turned off! My normal reading with two computers in sleep mode, talk radio on, and several light bulbs burning was .2-.3kW/Hr. To get down to .1kW/Hr, I had to turn off the lights and radio, and shut the computers down completely. In order to get still more savings, I had to turn off the outlet strips the computers, monitor, TV and cable box were plugged in to.

Having witnessed this with my own eyes, I will be much less likely to leave computers in sleep mode and will shut off the outlets they are plugged into. As far as the TV and cable box go, I don't know how unplugging them/turning off the outlet strip affects the programmed settings. If I can disconnect them from the power and not have to reprogram them every time, then it's worth it. If unplugging them means having to reconfigure them I'm not going to do it--but I am going to write a strongly-worded letter to the maker of both units.

Watching the monitor is fun for some one as cheap as I am, and as much of a geek--but then I added the WiFi adaptor, and networked it into Microsoft Hohm. (*This proved so easy, I'm not even going into details about it. Suffice to say, its plug and play with just a few questions to be answered about your house and electric meter, none of which were difficult.*) Now through the [Microsoft Hohm](#) website, I can not only monitor my household electrical usage from any computer, or smartphone, I can see a more accurate picture of the usage, with a minute by minute graph! Plus, the portable monitor only reads one decimal place, the Hohm graph gives me a more exact reading down to the second decimal place.

I could spend all day running around the house with my laptop computer, flipping switches and turning appliances on and off--and that would be fun, but I have other things to do. So I will post a few graphs here, and tell you what I found based on my new monitoring system. The weak link is still the sensor unit reading the speed of the wheel going around in the electrical meter, but as long as you wait at least two minutes for the reading to change, you get an accurate measurement.



In Chart 1, you can see the typical usage for my house with one computer on, and TV and Cable box plugged in. At 9:39 the upward spike is me restarting the computer to complete installation of the software for the WiFi adaptor.

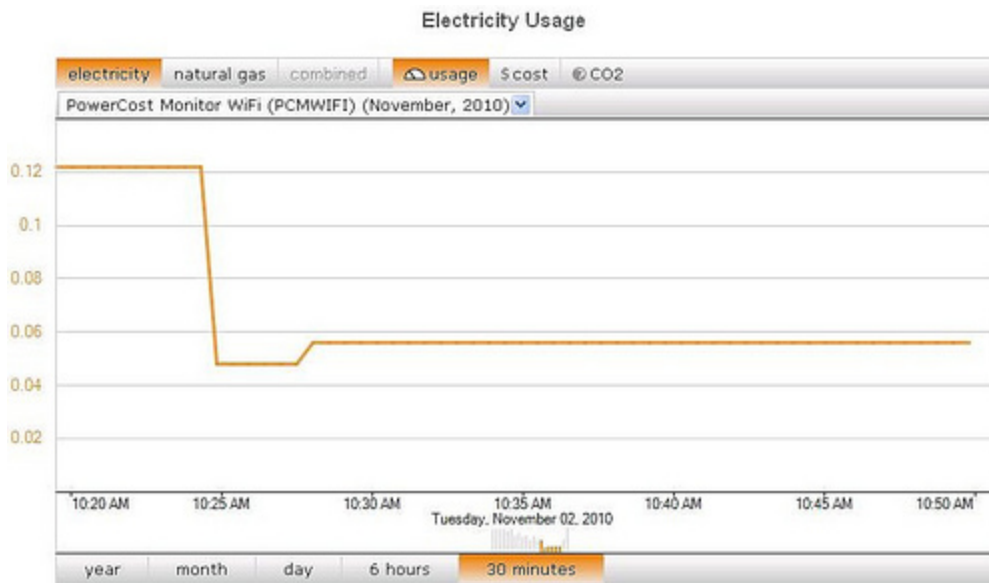


Chart 2 shows two things: First, it shows the reduction on energy usage as I turned everything off around 10:22. Secondly it shows how the Hohm chart will automatically scope itself as finely as possible to still keep the graph on the chart. The more regular your usage is, the finer the readings on the chart will be, and any time the graph drops below the .5kW/Hr mark the portable monitor will read zero--which is not quite right, but is still a pretty good goal to shoot for.

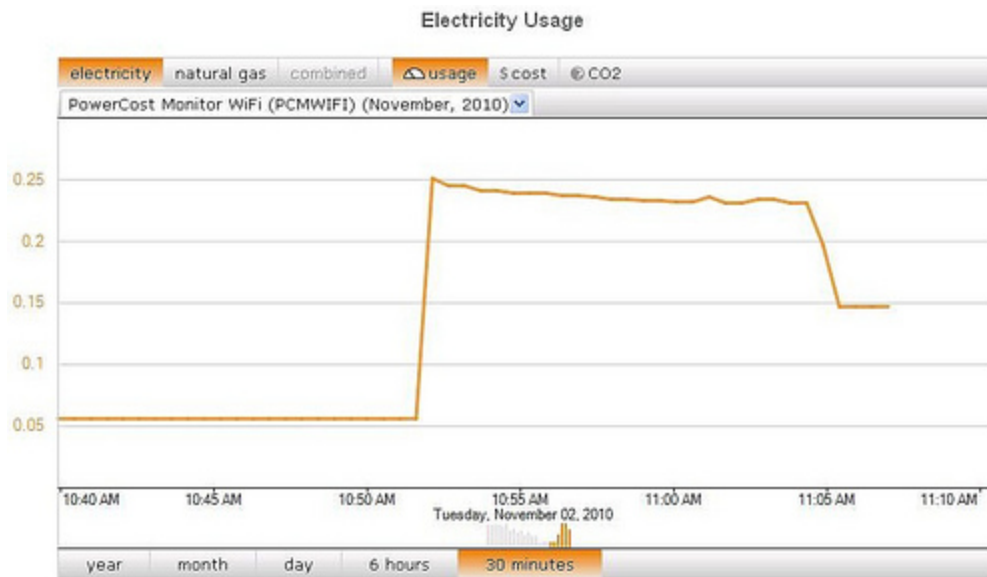


Chart 3 shows my fridge going on again. In a house as small as mine, without central air or a dishwasher and with gas heat, stove and clothes dryer, this is the biggest energy user in the place. So don't stand in front of it with the door opened looking for something to eat!

Now all these charts are set at the finest setting, but you can also look at you usage by the year, month or day.

All in all this power usage monitoring system could become the best tool in a Dad's arsenal to get kids to turn off the lights, and shut the door. All this for less than an hour of installation time, and about \$250 for the monitor and WiFi adaptor. [Add a Comment](#)

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<http://www.savings.com//blog/post/2-Tracking-Energy-Efficiency-with-a-PowerCost-Monitor.html>