

Monitoring the juice hogs by the minute

Pilot project aims to curb peak energy usage

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VANCOUVER -- When my wife told me that she had registered our home in a major BC Hydro conservation study, I instinctively nudged Frank.

Frank is the metre-long dachshund rag doll that we jam against the base of our double French doors to keep the winter wind from whistling into our living room. My wife prefers him to weather stripping, because he has a paisley coat that looks like pyjamas. I nudged the wiener dog with my foot to scrunch him tighter against the drafty threshold -- and wondered whether BC Hydro's number crunchers could handle our juice-hog ways. That was in September.

Two months later, as part of the Conservation Research Initiative, a technician came to replace one of our electric meters with a fancy digital one that wirelessly transmits our consumption rate to a BC Hydro monitoring station.

Some 2,000 participants received these smart meters and were told that they would be billed more for the electricity that they used between 4 p.m. and 9 p.m. on weekdays. The power company wants to know if increased rates during peak-consumption hours can persuade customers to do their laundry and other high-voltage activities during quieter grid times.

To attract volunteers, BC Hydro promised that it would normalize everyone's bill at the end of the 12-month study, so that no one paid more than the old rates. Also, everybody received Canadian Tire gift cards. (We promptly blew ours on a seven-amp weed eater.) But the sweetest part of the deal was a gadget called the PowerCost Monitor.

Made by a Newfoundland company, Blue Line Innovations, the device has a sensor unit that looks like a cyborg eye patch and straps to the glass dome of any electric meter. The sensor measures the amount of electricity that a house uses and wirelessly transmits the data to an LED display panel inside the home. The panel looks like a 4x6 picture frame and I have ours perched on my desk.

Currently, our 1,200-square-foot house is sucking juice at the frustrating rate of 17 cents an hour -- frustrating because I am the only person home right now and I'm not doing anything except tapping on a keyboard. In a few hours, my wife and sister-in-law will return from their office jobs and shower heads will erupt and blow dryers will wail. When that happens, the reading will soar to over 40 cents an hour and a little gauge that looks

like a worm wriggling around in a circle will whirl so fast that it will become a digitized blur.

Blue Line says people who can see their bill mounting in real time use 5 to 20 per cent less electricity. I am not sure that applies to us.

True, there was a spike of Al Gore enthusiasm in our household when we first fired up the PowerCost Monitor. My wife bought an armful of compact fluorescent bulbs, but we quickly learned that broom-closet lighting is not the best ambience for every decor challenge. I also spoke eloquently of building a massive floor-to-ceiling drying rack in our south-facing den, until my wife reminded me that we don't even own a drill.

The real eco-fizzler, though, was when BC Hydro phoned to say that we had been booted from the study. Their monitoring station could not establish a consistent link with our smart meter. (We live at the bottom of a steep hill.)

The researchers let us keep the \$150 PowerCost gizmo, which still works, although periodically the display goes blank and we have to give it a gentle nudge, like we do with Frank. We carry the unit from room to room, watching the worm go 'round while we wait for BC Hydro to deliver the final nudge -- the monetary wallop that will change our juice-hog ways forever.