

## Pros and cons of the ‘smart’ meter

By Richard van Leeuwen

Two fires have occurred at newly installed “smart” meters in B.C. One broke out a day after a smart meter was installed, the other about a month after installation.

Fires occasionally occur at meter bases not using smart meters, and there is no indication or good reason to suspect smart meters are any more of a fire hazard than their predecessors. Any electrical connection is a potential problem unless properly enclosed. Probably to improve their public image, BC Hydro has offered to repair any problems discovered during installation.

Why call them smart? Aside from the marketing aspect, they measure and transmit power usage to the electrical utility, allowing it to bill at different rates depending on the consumption, which varies during the day. Knowing how much power a customer uses during the day allows utilities to charge more for power used during peak times.

Customers can cook dinner or wash clothes to avoid peak times and the higher charges. Utilities have been allowing this for larger industrial customers for years because they have to size their distribution equipment for peak power usage. For most industrial users, if they exceed the former peak power usage during a 15-minute time period, they have to pay a higher fee for power from that point on.

There are several advantages to smart meters. Besides allowing the utility to charge higher rates for peak hours, meter reading can be done remotely and automatically, presumably costing less than human meter readers. Also, power to your house can be interrupted remotely in case of fire or non-payment. Customers armed with the new meters and appliances that communicate with them can reduce power during peak times and shift usage to periods when lower rates are charged.

There are also several disadvantages to smart metres. Poorer people can’t afford the new equipment needed to enjoy the savings. Those concerned about privacy have objected to more personal information being passed to the utility (especially marijuana growers who aren’t stealing power). Some are concerned about the health effects of the electromagnetic signals emitted, although smart meters emit significantly less than cellphones.

Is the extra cost of the smart meter worth the benefits? The return on investment and the value depends on your management of the new devices and your rating of the pros and cons. My opinion is that there is a net gain, but it will take us a while to adjust to the new technology.

Rather than working out new ways to get more power, we at least have to start spending more time using the power we get more economically or work at using less power. There is a limit to the number of dams we can build, coal we can mine and burn and oil we can pump out of the ground.

To that end, the smart meter is a step in the right direction.

IW, Nov. 2011, pge 36 iStock image #15634411

*Richard van Leeuwen is an engineer and forensic investigator specializing in electrical failures.*