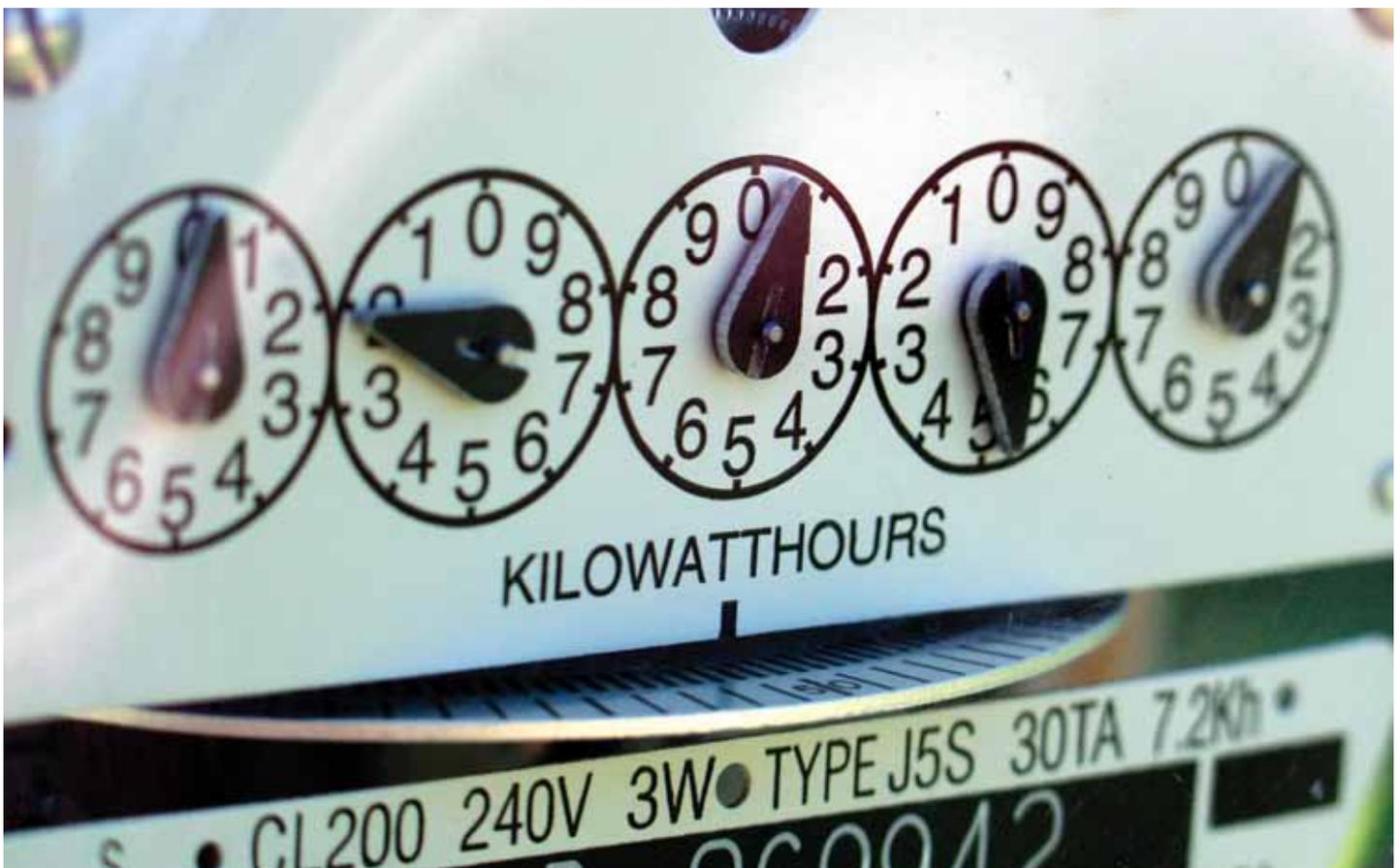


Brought to you by AmeriSpec of Canada

I have heard some talk in the news recently regarding Smart Meters that are supposed to save me money on my electricity bill. What are they and how will they help me save?



If you think a “Smart Meter” is a device that will fool your electricity provider into thinking you are using less electricity than you actually are, you would be wrong. However, if you think a Smart Meter is a device that will save you money on your electricity bill, you are right!

A regular electricity meter tracks the

amount of electricity used over a period of time. The electricity provider charges the home or business owner, based on the difference in the meter readings over a one to two month period. The term “Smart Meter” refers to one that is capable of recording more sophisticated data. Smart Meters not only record the amount of electricity used over a period of time, they also record the time of day

the electricity was used. There are two types of meters; Time-of-Use (TOU) and Interval meters. TOU Meters record the total amount of electricity used during the billing period, as well as the amount used during peak hours. Interval meters record the amount of electricity used during shorter time periods (1 hour intervals, for example) and collects more data than Time of Use meters.



The data from interval meters is typically transmitted to the billing company through transmission lines or wirelessly, while the data from Time of Use meters is collected monthly or bi-monthly, similar to regular meters. The peak hours to be recorded by TOU meters have to be manually programmed into the meter, and if those peak hours change, the meters require reprogramming. The same information can be remotely changed on an interval meter and there is more flexibility in the number of rates charged during a day and over the billing period.

The time of day that the electricity is used is significant, because the cost of electricity generation varies depending on how much demand there is on the system. For example, on a hot summer afternoon when homeowners and businesses are running air conditioners, the demand for electricity is high and the electricity generating facilities must work as hard as possible to produce sufficient electricity for everyone. Generating electricity during these “on peak” times

is very expensive, but there is no real incentive for people to cut back on the amount of electricity they are using during these times. As a consequence, we increasingly face black-out or brown-out situations when the generators reach or exceed capacity. In addition, the extra electricity generation required to meet the peak demands is typically achieved using environmentally unfriendly sources such as coal generation, which creates a significant amount of greenhouse gas emissions and poor air quality. The installation of Smart Meters will make consumers more conscious of how much electricity they are using, and when. The Smart Meters will then reward them by charging lower rates for the electricity if it is used during off peak times, which will in turn help with the environment.

When a Smart Meter is installed, the home owner is billed at a higher rate for electricity used during peak times, and a lower rate for electricity used during off peak hours. With people reducing the amount of electricity they use during

peak hours (due to higher rates), the peak demand is smaller, the required capacity of generators is reduced, and the risk of black-out or brown-outs is also reduced. Electricity generators also benefit from the implementation of Smart Meters, since their systems are designed to accommodate demand during peak hours. The total amount of electricity generated over the course of a day may not be different, however, the amount of electricity required at any one time would likely be lower, thereby eliminating the requirement to use environmentally unfriendly sources of electricity generation.

Information that can be provided to homeowners by Smart Meters includes the cost of the electricity per kilo Watt hour (kWh) and the amount of electricity being used. This data can be provided via a website or by phone to allow the homeowner to decide when to wash a load of laundry or run the dishwasher, for example.

Smart Meters can also be associated with a pay-as-you-go system that requires homeowners to purchase electricity “credits” on a plastic card. The local utility provides the homeowner with a display unit that records when electricity is used and displays the cost of electricity at any given time, as well as the amount left on the card. This type of system is very popular in the United Kingdom, and several Canadian cities have run pilot programs with good results.

To find out if your city is using Smart Meters, please contact your local electricity provider.

To speak with a certified and trained AmeriSpec home inspector, contact us today.

1 (866) 284-6010 info@amerispec.ca

