

# Are you asleep at the switch?

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Do you know that Canadians are the biggest consumers of energy in the world? We use more electricity, per person, than any other country. In Canada, Ontario is just behind Quebec. Ontario, in particular, faces a mounting electrical supply shortage due to increasing demands on a limited electricity supply grid. Unless new solutions are identified and implemented, Ontario's peak demand could exceed supply within the next 3 years.



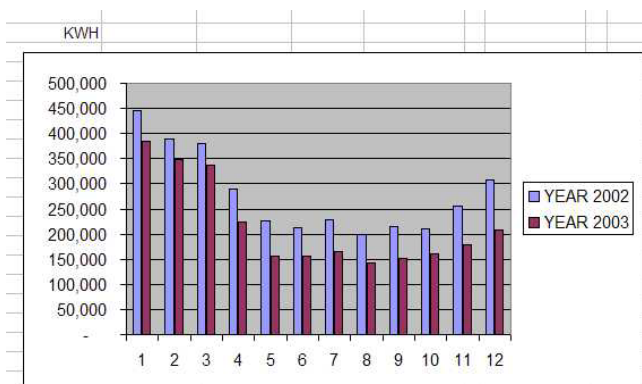
So, what is the answer? Conservation! Turn the switch off and you save energy. Plain and simple! But unless there is awareness of the individual's energy consumption, and the individual pays for the energy consumed, there is little incentive to conserve. What gets measured gets managed! Bulk meters help the utility with measuring the total building power consumption, but they do very little to measure the individual residential units' energy consumption. Sub-metering is the answer!

A number of studies and demonstration projects, in the US and Canada, and one (a condominium unit) in Oshawa cited below, confirm both the short term and long term benefits of sub-metering, including:

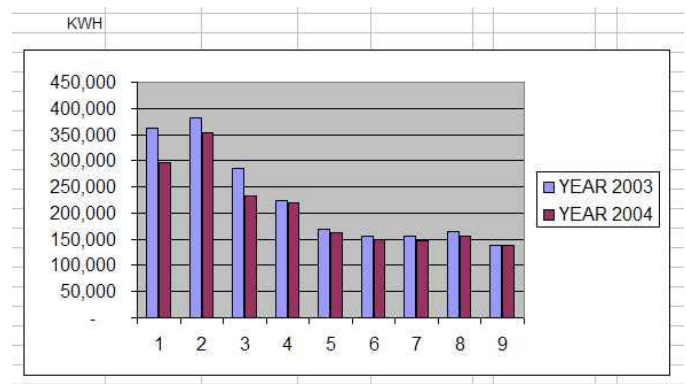
1. **Sub-metering saves energy:** Based on our data, sub-metering conclusively illustrates annual savings of over 20% of the total condominium complex electric consumption in the first year.
2. **Sub-metering energy savings persist over time:** Savings have proven to be sustainable over long periods of time. In fact our study concludes that there is additional saving in year two. Furthermore energy conservation is reinforced each month by the individual receipt of an energy bill and the owners are more inclined to invest in energy efficient measures as they will gain the most.
3. **A majority of residents benefit from sub-metering:** The only owners that may be unhappy about the results are those condominium owners who used more than the average, and those excessive users were being subsidized by the other users.
4. **Sub-metering is eminently fair:** You get what you pay for, you pay for what you use. Simple and fair! Past data collected reveal that 20-25% of total residential unit usage is consumed by only 10% of the residents.
5. **Sub-metering benefits all owners:** In the case of condominium owners, the reduced energy cost in each condominium unit reduces the total condominium energy bill and introduces additional capital to make improvements. The condominium association will have a better handle on predictable costs, mainly common area energy costs under their control.
6. **Sub-metering benefits utilities and society:** We all understand that reducing energy reduces the burden on utilities, reduces distribution infrastructure costs, improves the environment, and makes the world a better place.

To promote conservation, the Government of Ontario has established targets for the installation of 800,000 smart electricity meters by December 31, 2007. The Ontario Energy Board has a 30-year history of electricity-pricing studies that indicate, without a doubt, that consumers can and will conserve electricity in response to time-varying electricity prices. Sub-metering and smart metering help conserve energy.

A recent installation of sub-meters by Intellimeter, made at a condominium complex in Oshawa, has proven remarkably successful. In 2002, each of the 161 condominium townhouse units were equipped with a sub-meter. Between 2002 and 2003 alone, the meters measured a drop of 748,602 kWh, which translates to a 24% decrease in energy consumption. The following year showed a 179,911 kWh (7%) drop compared to 2003's usage, demonstrating a total decrease of 31% between Jan. 2002 and Sept. 2004.



Consumption (kWh) for 2002 vs. 2003



Consumption (kWh) for 2003 vs. 2004