SMART METERS

A **smart meter** is an advanced meter, with two way communications capability, that that enables in-home display of information and provides customers with more detailed information about their electricity use than a conventional electro-mechanical meter.

BC Hydro is automating, modernizing and upgrading its electricity grid and metering system. This includes replacing all of BC Hydro's 1.8 million customer meters with digital, solid state, smart electricity meters. These meters enable two-way communication between the customer and the utility, giving customers more information about their consumption than ever before.

What makes a smart meter smart?

20th Century Meter	21st Century Smart Meter
• No communications capability	• Integrated two-way communications between the customer and BC Hydro
• Customer cost/consumption feedback provided through bills only	• Customer cost/consumption feedback provided near real-time and via multiple choices
• No outage detection (customer must call in)	• Automated outage detection and notification
• Limited ability to support conservation rates and then, only simple rate structures	• Full ability to support multiple types and complex conservation rates
• Manual, on-site meter reading only	• Automated and remote meter reading – on a schedule and on request
• No tamper detection capability	• Automated meter tamper alarms, support for theft detection strategies

Customer Benefits

- Enable customers who use the new tools, information, and conservation rates to reduce electricity use to save between $145 and $450 per year. Smart meters will be supported by new energy pricing tools to give customers more choices over their electricity use and greater ability to save money.
- Create new jobs and economic opportunities while making B.C. electricity self-sufficient with clean, renewable and affordable power, and achieving our provincial greenhouse gas reduction targets.

- Improve reliability, provide additional service options and conservation tools for customers, and help to facilitate energy conservation and efficiency, while keeping BC Hydro's rates amongst the lowest in North America.
- Enable future technologies and innovation that contribute to a smarter grid, such as plug-in electric vehicles, a self-healing grid, home automation and energy management systems.
- Together BC Hydro's Smart Metering Program and initial Smart Grid Program will provide some of the foundational infrastructure for a Smart Grid at a cost of $930 million. The programs will deliver a positive net present value of approximately $500 million helping to keep rates low.

What are other jurisdictions doing?

- Power consumption worldwide is expected to triple by 2050.
- Currently, over 150 jurisdictions globally including 116 utilities in North America are moving forward to install smart meters and put smart grids in place.
- Alberta – Fortis Alberta plans to install more than 400,000 smart meters across its entire service area by the end of 2010.
- Ontario – The province has well over 1 million smart meters installed and recently kicked off a province-wide rollout of Time of Use rates.
- California – Southern California Edison's 5.3 million smart meters will be deployed between 2009 and 2012.
- New legislation requires that smart meters be installed in residencies throughout the European Union by 2023.