

The Energy Information Loop:

Here's the path information takes from your smart meter to your electricity bill.

Smart Meters

On an hourly basis, the smart meter tracks the amount of electricity you use in your home.



Collectors

Each day, this hourly information is sent by wireless connection or through telephone or power lines to a data collector located in your neighbourhood.



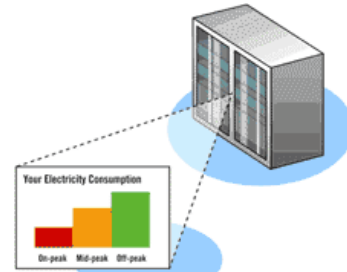
Meter Data Collection

These collectors relay energy usage information to larger control computers operated by Grimsby Power which ensure that all the meters have been read and all the necessary information has been captured.



Smart Meter Data Repository

Grimsby Power then sends this information to the provincial smart meter data repository, which calculates how much electricity was used during on-peak, mid-peak and off-peak hours. In its role as interim Smart Metering Entity, the IESO is responsible for managing this repository. This energy use information will also help in the development of electricity forecasts and will help the Ontario Energy Board determine future time-of-use prices. Only authorized parties, such as Grimsby Power and other Local Distribution Companies (LDC's), will have access to the highly secure database.



Customer Information and Billing

Information from the data repository is sent back to Grimsby Power so it can be used to prepare invoices.



Home Energy Management

Homeowners will have access to their energy use data in two ways: Grimsby Power's invoices will provide consumption data each billing cycle; and in the future, a proposal is being worked on that the previous day's energy consumption information will be available each morning on a secure personalized web page. This information allows you to manage your energy use based on time-of-use prices.



Smart Meter Frequently Asked Questions

***For any questions not on FAQ list please email Grimsby Power directly at: smartmeters@grimsbypower.com**

Purpose of the Smart Meter	Why do we need Smart Meters?
	<p>The Ontario Government has mandated all Ontario Electricity Distributors to install smart meters on every home and small business by the end of 2010. Over the next 20 years, Ontario will need to refurbish, rebuild, replace, or conserve 25,000 megawatts of electricity generating capacity – more than 80% of Ontario’s current capacity – at an estimated cost of \$70 billion. The Government expects that conservation will help us to make the best use of our existing electricity resources and slow the growth in our demand. Ontario is introducing new tools – like Smart Meters – to help conserve electricity. Smart Meters are expected to encourage us all to think more about how and when we use electricity and to help us better understand and manage our own household’s energy use. Smart meters will track the amount of electricity we use, the time of day and the day of the week we use it, and send that information electronically to Grimsby Power. The new meters will eliminate the need for manual and estimated readings and will ensure meter readings are precise.</p>
	How will smart meters affect me?
	<p>It is important to note that although your smart meter is being installed, nothing will change at this time. You are not required to do anything and you will be billed for electricity in the same way at the current electricity rates.</p>
	What will change in the future?
	<p>Initially, your new smart meter will function the same way as your old meter to collect your electricity consumption, but in the future your meter will become a valuable tool in helping you manage your energy use. Once the Time-Of-Use (TOU) rates are introduced to Grimsby Power next year, as mandated by the Ontario Energy Board, the price you pay will vary by the time of day, the day itself and the season.</p> <p>Grimsby Power will let you know well in advance when Time-of-Use electricity rates are coming into effect for Grimsby Power (currently scheduled for Spring 2011) and will provide you information on how to take advantage of your smart meter and the new rate structure. Please note that if you currently have a contract with an energy retailer or if you sign one, you may not be able to take advantage of Time-of-Use Rates.</p>
Can I opt out or refuse to get a Smart Meter?	
<p>No. The Ontario Government has mandated everyone in the province to have a smart meter before the end of 2010.</p>	
Can I volunteer to get a Smart Meter right now?	
<p>No. In order to maximize efficiency of the smart meter deployment process across the province, our customers will not be able to select when they receive a smart meter. We will be initiating our mass deployment of smart meters beginning Spring, 2010. We hope to have all of Grimsby Power equipped with smart meters by the end of Summer 2010.</p>	

	<p>Are there any advantages for me?</p> <p>Smart meters measure how much energy you use and when you use it, which will provide you with the opportunity to take action to better manage your hydro bill. The smart metering system will store your electricity use info, which will allow you to review your electricity use information the next day. Your meter will automatically and regularly send your readings via wireless technology and the smart meter system will help us to better manage power outages.</p>
<p>Appearance of the Smart Meter</p>	<p>What is a Smart Meter and what does it look like?</p> <p>A smart meter looks like the meter you have now. However, a smart meter is much more technologically advanced compared to your current old-style meter. It can record how much electricity you use and when you use it (hourly), and communicates this information automatically via wireless and other technologies to Grimsby Power. In contrast, conventional electricity meters measure the total amount of electricity consumed over an entire billing period (two months) and must be read manually.</p>
<p>Installation of the Smart Meter</p>	<p>Will you be booking appointments for installation?</p> <p>No, we will not be booking appointments, unless your meter is inside your home.</p> <p>Who is installing the meters?</p> <p>Grimsby Power has contracted a company called Olameter to install Smart Meters in Grimsby. Olameter representatives will carry identification and will NOT be asking for your hydro bill and will NOT ask you to sign anything.</p> <p>Do I need to be home? What are the hours of installation?</p> <p>As a courtesy, our installers will knock on your door before they begin the installation. Residents who have an outside meter will not need to be at home when the smart meter is installed. We simply ask that you please make a clear path to your meter for our meter installers so they can work as quickly and efficiently as possible. The installations will take place between 8:30am and 4:30pm Monday to Friday.</p> <p>How long will the installation take?</p> <p>The installation generally takes only a few minutes to complete.</p> <p>Will my power be interrupted?</p> <p>Yes. The installation of your smart meter will require a very short power interruption (usually less than a minute). We apologize for any inconvenience this may cause you and you will need to reset digital clocks and other electronic devices.</p> <p>What about my freezer? What if I am on oxygen?</p> <p>There will only be a minimal interruption of power, which should only last a few minutes.</p> <p>How will I know when my smart meter has been installed?</p> <p>We will leave an information package at your door letting you know that we have completed the installation. This package will include a Smart Meter answer booklet, and helpful tips for you to consider when being solicited by a door-to-door energy retailer.</p> <p>Is Grimsby Power Inc. allowed to access my property without my permission to install this meter?</p> <p>Yes, Grimsby Power may enter a customer's property at any time to replace the meter. This authority is granted under the Electricity Act (section 40) and also in our Conditions of Service.</p>

	<p>What is going to happen to the old meters?</p> <p>Grimsby Power will be recycling the old meters.</p>
<p>Billing with the Smart Meter</p>	<p>Will my first bill after the meter replacement look any different? (Why do I see two meters listed on my bill when I only have one meter?)</p> <p>The first bill after the meter change will display two sets of electricity usages – first for the meter that was replaced and second for the new smart meter. This will appear on the first bill after the installation of your smart meter only; after that your bill will look the same as it did before the meter change.</p>
	<p>Is there a cost for my smart meter and how will it appear on my bill?</p> <p>The cost of the smart meter initiative will be recovered through the electricity rates paid by all customers in the same way that costs for existing meters and services are recovered today. It is also important to remember that you are not required to sign a contract with an energy retailer just because you have a smart meter. Always review any contract you are offered in detail prior to making a decision. Please note that Grimsby Power is not an energy retailer and charges for the cost of electricity at the Ontario Energy Board prescribed rates.</p>
	<p>What if I am enrolled in Equal Billing?</p> <p>Nothing will change at this time. Your account will continue to be evaluated annually to ensure that your monthly billing amounts are adjusted according to your consumption.</p>
	<p>Will my pre-authorized payments continue as scheduled?</p> <p>Yes, nothing will change at this time. Your pre-authorized payments will continue as scheduled.</p>
<p>Time-of-Use Pricing</p>	<p>What is Time-of-Use pricing?</p> <p>Time-of-use(TOU) rates are electricity prices, established by the Ontario Energy Board, that vary by the time of day, day of week and season, and more closely reflect the actual wholesale price of electricity. Grimsby Power intends to introduce TOU rates for customers with smart meters once the necessary systems are in place and fully tested. Currently we are looking at an implementation date of Spring 2011.</p>
	<p>Are these prices regulated? How often are they reviewed or updated?</p> <p>Time-of-Use (TOU) prices are set by the Ontario Energy Board and are reviewed twice annually.</p>
	<p>When will I be billed for Time-of-Use pricing?</p> <p>The majority of Ontario customers will begin to see time-of-use rates by 2011. Customers will receive advance notification from Grimsby Power when TOU rates will be phased in. Currently we are looking at Spring 2011.</p>
	<p>Why should I keep track of when I use electricity?</p> <p>Today, we pay the same price for electricity during all hours of the day because our rates are based on averaging out the more expensive (daytime) and cheaper (nighttime) prices of electricity. This is simply because our existing meters can't report when it was used. In the future, electricity prices will be different at different times of the day to more closely reflect the market price of electricity. When demand for electricity is low like in the late evening and on weekends, the cost of electricity per kilowatt-hour will be less, and when demand is high, like in the late afternoon and early evening, it will cost more.</p>

	<p>Will I automatically save money with Smart Meters?</p> <p>No. Your smart meter is a “tool” that measures and records how much electricity you use at different times of the day. When teamed with time-of-use rates, it provides you the opportunity to better manage your electricity bill by reducing electricity use during higher cost periods and by moving your electricity use to lower cost periods. You’ll see the results of your conservation efforts.</p> <p>Is this just a way to increase my electricity rates?</p> <p>No. The primary purpose of time-of-use rates and smart meters are to reduce need for imported power from other jurisdictions and investment in new electricity supply projects, both of which help to keep future electricity commodity prices down.</p> <p>How can I monitor and track my electricity use?</p> <p>In the future, you will be able to access your electricity use through the internet or telephone. The current plan calls for your previous day’s data to be ready for viewing by 8am the following day and for 13 months of history to be accessible to you.</p> <p>Why is it so much more expensive to use electricity during workdays?</p> <p>When everyone is using a lot of power at the same time a peak demand is created. Higher demand means higher market prices as more expensive types of generation are run to meet the demand. It can also mean importing electricity from more expensive jurisdictions on days when our own generation is not enough. Therefore, it makes sense for us to work collectively to reduce our usage at peak times to smooth out the peak.</p> <p>Can I still provide my meter reading?</p> <p>Yes, you may continue to provide Grimsby Power with your meter readings, but once your smart meter is installed this will not be necessary.</p>
<p>Retailers</p>	<p>What if I am with a retailer?</p> <p>Customers have the option of purchasing the electricity commodity – the portion of the electricity costs that will be subjected to time-of-use (TOU) rates – from an electricity retailer. In most cases customers can obtain a fixed price per kilowatt-hour (kWh) in exchange for signing a fixed-term contract. Customers who choose not to have a contract with an electricity retailer will be billed using TOU rates when they are introduced. It is important to note that Grimsby Power does not conduct any door-to-door sales activities. For more information on electricity retailers, see our electricity retailers section on our website at www.grimsbypower.com</p>
<p>Safety and Security</p>	<p>How secure and confidential are my meter readings?</p> <p>Grimsby Power is required by law to ensure that smart meters and associated communication networks are equipped with security features to prevent unauthorized access. We must also comply with federal laws regarding the privacy, protection and disclosure of personal information. Any data sent to the central data repository will be provided in such a way as to prevent identification of an individual customer.</p>

How safe is the radiofrequency communication?

Grimsby Power's Smart Metering system makes use of low power radiofrequency (RF) transmitters to communicate meter readings and weak RF fields in the range of 2.4 GHz are produced during the system's normal operation. These fields comply with Health Canada guidelines by a very wide margin ranging from hundreds to hundreds of thousands times less than Health Canada limits. Because of the very weak fields produced by Grimsby Power's Smart Metering system, it is likely that RF exposure of most individuals will be predominated by other RF sources in the home such as cordless phones, wireless routers, and microwave ovens.

For more information of the safety concerns pertaining to the RF emissions from smart meters please read attached document from Tom Galuska, marketing manager of Sensus Metering Systems (Grimsby Power is using Sensus for their smart meter initiative).

