

Residential Customers  
Understanding Your  
Consumption

Installation of next-  
generation meters

Project overview

Technology

Rollout

Looking ahead

Radiofrequencies and next-  
generation meters

Media

Frequently asked questions

Factors that influence your  
consumption

Consumption of appliances

Electricity meter

Comparison of electricity  
prices

Rates and bills

Service charges

Comparing two bills

Trouble paying your bill

Conditions of electricity  
services

Installation of Next-Generation Meters

FREQUENTLY ASKED QUESTIONS

ROLLOUT OF NEXT-GENERATION METERS

1. My meter is working well. Why change it? +

Half of Hydro-Québec's meters are more than 25 years old and two thirds of them will have outlived their useful lives within the next 5 years. The decision to change them is not an option, but a necessity.

Like approximately one hundred power utilities around the world, Hydro-Québec has chosen to adopt current industry-standard technology, rather than to continue with outdated technology that is no longer being manufactured. The tendency has been to set up an advanced metering infrastructure (AMI) that enables automated instead of manual meter reading.

2. How will it benefit me? +

- ▶ Your bill will reflect your actual electricity use instead of an estimate.
- ▶ Since Hydro-Québec will no longer have to enter your premises to read your meter, it will be much more convenient for you.
- ▶ If you move, you no longer will have to fill in a meter-reading card, and your power can be connected remotely.

3. Is this new technology being used anywhere else? +

Yes. About a hundred power utilities around the world have adopted this technology, which has become the industry standard.

Some facts and figures:

North America <sup>1</sup>	<ul style="list-style-type: none"><li>▶ As of September 2011, there were over 30 million smart meters in North America.</li><li>▶ More than 4.7 million smart meters have been installed in Ontario.</li></ul>
United States <sup>2</sup>	<ul style="list-style-type: none"><li>▶ More than half of end users in 20 states now have smart meters.</li><li>▶ By 2015, 65 million smart meters will be deployed in the U.S., representing nearly 55% of households.</li></ul>
Europe <sup>3</sup>	<ul style="list-style-type: none"><li>▶ More than 40 million smart meters have been installed in Europe to date.</li><li>▶ Smart meter rollout plans for the next few years: France – 35 million meters, England – 27 million and Spain – 23 million.</li></ul>

1. Chartwell Inc., *The Chartwell Advanced Metering Infrastructure/Smart Meters Database*.
2. Institute for Electric Efficiency, *Utility-Scale Smart Meter Deployments, Plans & Proposals* (September 2011).
3. GTM Research, *European Smart Metering Hotspots: Meters Installed, Confirmed Plans and 2020 Forecast*, Business Wire.

4. Has Hydro-Québec started installing the new meters? +

Yes, in June 2011.

So far, we've installed about 15,000 meters. This initial rollout phase took place in Boucherville and its industrial park, in the regional county municipality of Memphrémagog, a widespread rural area, and it is underway in the Villeray neighborhood of Montréal.


5. When does Hydro-Québec plan to install them throughout the province? +


Once the Régie de l'énergie [Québec energy board] has issued its approval, the province-wide rollout will continue through 2012 and will be completed by 2017.

6. Will I be notified before my meter is replaced with a next-generation meter? +

Yes. Once the rollout has reached your area, we will send you a letter or leave you a voice message to let you know that an installer will be visiting shortly to replace your meter.

Click here to see a sample letter.







Sample letter  
Residential rate



Sample letter  
Business rates

## 7. Can I ask Hydro-Québec to come and replace my meter if I don't live in the area where meters are being installed? +

No. Next-generation meters must be installed according to a strictly established timetable, because they are part of a mesh network. To create the radio-frequency mesh network, in which each meter sends data to the closest one, which in turn, relays it to the next and so on, meters must be replaced gradually and systematically, perimeter by perimeter. That's why a meter can't be replaced outside a perimeter.

You will be notified when the meters in your area will be replaced.

## THE DAY YOUR METER IS REPLACED

### 8. Will I need to do anything when the installer comes to replace my meter? +

No. You won't need to do anything at all.

### 9. Do I have to be home when the installer comes to replace my meter? +

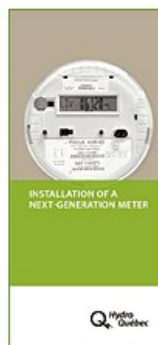
- ▶ Not if your meter is outdoors and accessible.

The installer will proceed with the replacement and leave a notice to that effect on your door, along with a pamphlet. Just make sure that the installer can get to the meter safely and easily.

- ▶ Yes, if your meter is indoors or inaccessible.

If you are out and your meter is not accessible, the installer will leave a notice asking you to call and arrange an appointment.

Click here to see **an example** of the pamphlet and notice.



Pamphlet  
example



Notice  
example

### 10. How long does it take to change the meter? +

New meter installation takes 10 to 30 minutes.

### 11. Will my power be cut when the installer comes to replace my meter? +

Yes. The power will be cut briefly, while the old meter is removed and the new one put in. Following this short service interruption, you'll have to reset the time on your various appliances and electronics.

If you have equipment requiring uninterrupted power, we suggest you check that your backup power supply is working before the installer comes to replace your meter.

### 12. Will the power be cut when the installer comes to replace the meter at my place of business? +

No. Replacement of a business meter **generally does not** require a service interruption, because most of the meters in use are equipped with a transformer that provides power during the replacement.

The installer will come and speak to you before replacing your meter.

That way, if the power does need to be cut briefly, you'll have time to turn off your computers or other equipment. You'll probably have to reset the time on your various electric and electronic devices.

**13. I have a backup power supply. Will replacing the meter interfere with it in any way?** 

No. Replacing the meter will not interfere with your backup power supply, which can supply power while the installer is removing the old meter and putting in the new one.

However, we recommend that you check that your backup power supply is working properly.

**14. Who will install my next-generation meter?** 

After issuing a call for tenders, Hydro-Québec selected Capgemini Québec to assist with meter installation.

- ▶ Capgemini Québec trucks will be easily recognizable; they will be identified as being mandated by Hydro-Québec.
- ▶ The installer will carry a photo ID card.

**15. Does the new meter look different from the old one?** 

Unlike an electromechanical meter, with its spinning disc that engages with a small gear to move the hands on several dials, the new electronic meter has an alphanumeric LCD window that will display a variety of information.

**16. I used to fill in a meter-reading card. Once my new meter has been installed, will I be able to keep on submitting my meter readings on the Hydro-Québec Web site or by phone?** 

You will no longer be able to report meter readings online or by phone, because the new meter will be read automatically. The Web and phone meter-reading services will no longer be available, once the new meter is installed.

**17. Can Hydro-Québec put the new meter in a different place?** 

No, but you can have an electrician move your meter wherever you want, at your own expense.

A next-generation meter fits into the same socket as the existing meter, so there is no need to put it in a different location.

**18. Can I keep my existing meter and submit my readings?** 

No, you may not keep your existing meter, because Hydro-Québec will not be sending out meter readers anymore. The entire meter fleet will be replaced by next-generation meters.

## TECHNOLOGY

**19. How do next-generation meters communicate among themselves to send data to Hydro-Québec?** 

Next-generation meters will act as both a transmitter and a receiver. Each meter plays an active role by recording customer electricity use and transmitting the data to another meter, which transmits it in turn to another meter, and so on, until it gets to a router. The router may send it to another router or directly to a data collector. The collector forwards it to the head-end data server.

From there, it goes on to the meter data management system (MDMS), which stores and analyzes the data from the advanced metering infrastructure (AMI). The data's last stop is Hydro-Québec's internal billing system.

[Watch the video](#)

**20. Are next-generation meters reliable?** 

Absolutely. They are regulation-compliant and exceed Measurement Canada's precision standards. A Measurement Canada seal is affixed to all meters installed by Hydro-Québec to guarantee their precision.

**21. Will the next-generation meter save my consumption data in memory during a power outage?** 

Yes, the meter will save it.

yes, the meter will save it.

## 22. Will the next-generation meter help me manage my electricity use?

No, not right away. However, the new technological platform will enable Hydro-Québec to implement this type of functionality in the future.

## 23. With my electromechanical meter, I can tell if I'm using a lot of electricity, because the disc spins faster. Will I be able to get the same information from the next-generation meter?

### Energy indicator

The energy indicator displays on every screen. It consists of two little lines that generally move from left to right at the bottom of the screen. The faster they move, the more energy is being consumed.



Energy indicator

## RATES AND BILLS

## 24. With my new meter, will I be able to tell how much electricity I've used?

A variety of information will scroll across the alphanumeric LCD window of the new electronic meters.

Among other things, it will show a running total of kilowatthours consumed since the meter was installed, the way a car odometer shows a running total of kilometres traveled. It will be easier to read than the dials of an electromechanical meter.

[Click here to go to the section that details the main display screens.](#)



## 25. Where do I find the data from my new meter on my bill?

Figuring out your electricity use from the figures displayed on your meter is simple.

Consumption displayed on meter	-	Consumption in preceding period	=	Consumption in current period
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The data from your old and new meters will be shown separately on your next bill.

Here's an example:

Note: The Hydro-Québec installer will read your old meter before putting in the new one, so your next bill will accurately reflect your electricity use.



Bill example

## 26. When the new meters are installed, will Hydro-Québec start charging time-of-use rates (that depend on the day and time)?

No, there are no plans to introduce time-of-use rates.

At the request of the Régie de l'énergie, Hydro-Québec ran the Time It Right pilot project from December 1, 2008, to March 31, 2010. Participating customers were charged a variable rate, based on the time of day and season of use, to help them manage their electricity bill better. The project showed that there is no real interest in those types of rates here in Québec at the moment.