

Notes for remarks

by

Paul Shervill
Vice-president, Conservation
Ontario Power Authority

to

The Municipal Engineers Association
Kingston

November 25, 2009

CHECK AGAINST DELIVERY

Thanks, Jim. I'm very pleased to be here with you to talk about Ontario's electricity industry because, as you may have picked up from Jon's remarks, it's a very exciting time right now in our industry.

And Kingston is a great place to witness what people are calling call Ontario's "energy renaissance."

You have only to look across the harbour to Wolfe Island to see the future. The 86 wind turbines you see there illustrate the new era.

Just six years ago, Ontario generated only 15 megawatts from wind power.

This has jumped to more than 1,100 megawatts now, including the 197 megawatts on Wolfe Island that came into commercial operation last June.

To put this in everyday terms, that's 1,100 megawatts of clean, renewable electricity coming from Wolfe Island is enough to power more than 300,000 homes.

And there's more good news.

Just down the road in Napanee, Canada's largest solar farm has begun producing power.

The 126,000 solar panels spread across 90 acres in Stone Mills Township are expected to generate enough electricity in the next year to power 1,000 homes.

This facility is just one of about 150 solar projects of varying sizes across Ontario and this puts the province among the leaders in North America in installed solar capacity.

You can see why we're so excited. And we're only in the initial stages of implementing the new Green Energy Act.

The enthusiasm we're seeing about this new legislation convinces us that the whole electricity industry is going to be turned on its ear in the next generation.

The electricity sector hasn't really changed much in its first 100 years but it's certainly going to change a lot in the next 10.

And there will be a lot of really exciting opportunities ahead for municipalities.

Those of you with a background in the electricity sector probably know this.

But most of you spend your work days on other vital issues such as roads, water, waste and traffic lights.

So please allow me to tell you a bit about the Ontario Power Authority and what our role is in transforming Ontario's electricity industry.

Let's start with the things we don't do. We don't own or operate power stations – that's the job of Ontario Power Generation and a number of other private companies.

We don't own or operate transmission lines – that's Hydro One and other transmitters.

And we aren't involved in local distribution. That's the job of Utilities Kingston, Toronto Hydro or the local utility in your community.

The Power Authority's job is to develop an integrated power system plan to make sure the lights always go on when you flick a switch.

We lead and co-ordinate conservation initiatives across Ontario and we ensure there is investment in new generation where it is needed.

If that sounds like a simple task, consider what Ontario faced when there was no one doing it.

After the breakup of the old Ontario Hydro in 1999 – that's when OPG and Hydro One were created – the assumption was made by the government of the day that the magic of the market would ensure abundant, reasonably priced electricity.

It didn't happen that way.

Just recall the soaring prices in the summer and fall of 2002 and the very real concern that there would be brownouts when people cranked up their air conditioners on hot days.

A lot has changed since then.

For a start, the outlook for electricity supplies in the medium term is very good and prices have been very stable.

There are questions for the future, to be sure. A big one is whether to build new nuclear plants.

But at least we have a context in which to ask these questions.

Since it was created in 2004, the Power Authority has made good progress in its mandate to make sure Ontario has a sustainable and reliable supply of electricity well into the future.

Two years ago, we provided a blueprint for what is needed in terms of conservation, supply and transmission infrastructure for the next 20 years.

We now have 12,000 megawatts of supply under contract and we are working our way toward the toughest conservation targets in North America.

Our target is a reduction in peak demand of 6,300 megawatts by 2025.

That's the equivalent of removing one in five users from the grid.

We have accomplished the first interim target of 1,350 MW by 2007, and we have an additional 400 MW "in the bank" on the way to the second interim target of 1,350 MW by the end of 2010.

It's a daunting challenge but I know we are going to be able to do it.

We've developed a portfolio of conservation programs that ensures we have something in place for every sector of the economy.

And we will be working with local utilities to design and unveil new programs as we move forward.

Best of all, we're doing this while we work toward eliminating all coal-fired generation by 2014.

Ontario is the only jurisdiction in the world to be completely phasing out coal and this is the largest climate-change initiative in Canada.

Everything the province has accomplished so far is reinforced by the new Green Energy Act.

You might know that the Feed-in Tariff Program established under the Act offers attractive, guaranteed prices for renewable energy projects under long-term contracts 20 years or longer.

We're confident that this program is going to be a roaring success.

Our website has been visited by more than 25,000 people since the program was launched in late September, and we've had nearly 500 applications to participate.

This phenomenal interest suggests to me that we are on the verge of harnessing the sun, the rivers and the wind that blows through Ontario in a way that we never have before.

The FIT program offers tremendous opportunities for municipalities.

Just look at what the City of Kitchener is planning with a former Michelin tire plant it bought last year that it's renovating as a maintenance shop.

The city's engineers – perhaps even some of whom are in the room today – reckoned that a 300,000-square-foot roof could be put to good use by hosting a series of photovoltaic solar panels.

They were right. Under the FIT Program, the city could meet the electricity needs of the new facility and net about \$3.5 million in revenue over the next 20 years.

The benefits of a scheme such as this are obvious.

First, this new revenue frees up money that could be spent elsewhere by a cash-strapped municipality.

Second, it sends a signal to people that the city gets it.

That it understands the implications of the huge debate about climate change and that it is willing to do its bit to heal the earth.

Renewable energy already accounts for about 25 percent of Ontario's electricity generation.

By the end of this year, we will have almost 9,000 megawatts of renewable supply.

The Green Energy Act is an invitation for municipalities to join in the transformation of the electricity sector.

The Act allows municipalities, local distribution companies and other community-based organizations to develop their own generation programs.

Funds to help these initiatives are under development so stay tuned.

So the action is shifting – literally as the Kitchener case shows – to your backyard.

That's typical of what we will see in the next few years.

You're going to hear in just a few minutes about smart meters that will allow you to choose how much you will pay for your electricity, but I just want to sketch what's going to happen.

When I said earlier that the Green Energy Act will be turning our industry on its ear, this is what I meant.

The coal plants will be gone in a few years, and they will be largely replaced by hundreds, perhaps thousands, of small generating sites on rooftops and in farmyards.

So rather than having big central generating stations pushing power out through long lines to the edges of the system, it will become more of a two-way system.

The transmission and distribution lines will become more of a gathering system to pull in energy from a lot of small sources.

This means less energy will move over large distances with huge transmission lines, and municipalities won't have to give up as many corridors as in the past.

I'm sure this will be particularly attractive to rural municipalities who have found themselves between a central source of generation and the place where the electricity is consumed.

We call this a smart grid – and for good reason.

In this new era, power and communications will flow two ways rather than just one.

I like to think that we're on the verge of a revolution similar to the one that has shaken the telecommunications industry.

We're in our rotary-dial era right now, but I'm confident that you are going to get the kind of product development in our sector that you've seen there.

People will have devices that will help them manage their energy use more effectively.

Think of this: what if you could control all your home devices from your BlackBerry or your cell phone?

If you want to turn the lights on before you get home or crank up the heat on a cold winter night, you will be able to do it from your portable device in the next three to five years.

So I challenge all of you to go back to your municipalities and take a fresh look at your operations.

Join the more than 20 municipalities across Ontario that have undertaken greenhouse gas and energy inventories as part of a Federation of Canadian Municipalities program.

These inventories will allow your municipality to save money, and they will provide a reference point for planning. They will also enable you to participate in the carbon-trading schemes that are coming.

Electricity stands at the crossroads of so many agendas in our society – energy reliability, the environment and economic growth.

The tremendous era of change we are now entering also offers great opportunities.

I hope you join in.

Thank you and I'd be happy to take some questions now.