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Remarks
to the Ontario Energy Network Luncheon

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Let me start by saying how delighted I am to once again kick off the OEN's speaking program for the year.

It would be reasonable to assume that the first speaker in the Ontario Energy Network series will set the tone for the year, what we will expect to deal with this year in Ontario's electricity sector, making predictions.

I've done that in the past and I'm not so foolish to do it again. But electricity is certainly top of mind and has been in the news a lot lately.

Given that interest I am going to talk today about some of the topics that are front and centre in our industry, including renewable power, smart meters and time-of-use rates, and the price of electricity. I am also going to talk about a subject that is near and dear to my heart - our electricity market.

You are likely to hear a lot of comment on these topics in the coming months, from a variety of perspectives. My intent is to try to provide relevant and factual information on some of those issues. I believe that it is up to us as a sector to provide good information, whether that information is for stakeholders, interest groups, the public, or politicians that represent the public. Hopefully my comments today will contribute to that.

Let me start with renewables. As you know, the government's recently released Long Term Energy Plan calls for a significant increase in the amount of renewable power in Ontario to 10,700 MW by 2018. Renewable integration is already occurring and during the next 24 months will average just under 200 MW a month.

Yet critics would tell you that renewable sources like wind and solar and biogas will never amount to much, that the price we pay for electricity has skyrocketed because of it and that we should follow the lead of other jurisdictions that are backing away from renewables.

In fact, far from never amounting to much, renewables are already playing an important role in meeting energy needs.

The North American Electric Reliability Corporation or NERC calculates that there are about 37,000 MW of wind and solar already installed across North America. That amount of capacity translates to almost 100 TWh of electricity produced each year or more than two thirds of what we consumed in Ontario in 2010. That is about eight times what our coal plants produced in Ontario last year.

Yet critics ignore this, pointing to Germany for example, which hasn't closed its coal plants, to suggest that the wind and solar generation is not actually reducing carbon emissions. What do these people think is being reduced?

Wind and solar doesn't generally displace other non-carbon sources like nuclear or hydro. It displaces carbon sources like coal and gas as evidenced by a day last month when here in Ontario wind output was more than double that of coal, or a day in November when wind was five times what coal produced.

Let's also not lose sight of the objective. It isn't critical that Germany's coal plants haven't shut down. What is critical is that coal plants are producing less energy and emitting less carbon and other pollutants than they would have without the new renewable resources.

For those critics that say coal should be eliminated now in Ontario, I would remind them of the important role our coal plants played last year in maintaining reliability. A year when hydro production was down by 20 per cent and demands were at levels that we hadn't seen in three years. I do note, however, that we are on track to stop burning coal by 2014.

Now with respect to price, many critics point out that the 80 cent per kwh rate for rooftop solar is 20 times higher than the current spot market price.

The 80 cent microfit rate applies to a very small percentage. At last count 17 MW worth of roof top and ground mounted solar contracts had been executed - 17 MW of a total installed capacity of more than 35,000 MW.

And while that may not have much impact on price, those 17 megawatts represent 2100 consumers engaged in the electricity sector, producing renewable energy.

But whether you are talking about new renewables or new nuclear, you simply can't compare future all-in supply prices with today's spot market price. Prices for any new generation source are going to be higher than the cost of running what we have now.

The increase in renewable supply is taking place around the world and the challenge for system operators worldwide is to integrate the large amounts of wind and solar reliably and efficiently.

The IESO recently released a principles paper for stakeholder comment which will help guide us in our efforts over the next few years. This paper looks at three specific areas: forecasting, visibility and dispatch. It's available on our web site. We are also finalizing a companion piece that analyzes the technical challenges of integrating a large amount of variable supply.

Moving forward on initiatives related to these principles, including developing more accurate forecasting methods and gaining the ability to dispatch all resources including renewables, will help facilitate this transformation to a cleaner energy supply mix.

This transformation is a huge job for industry, one that all of the agencies are working together to accomplish. At the IESO, reliably and efficiently integrating the significant amount of renewables is a primary focus for us, a major challenge yes, but one we will meet.

If there was one topic that dominated discussion last fall, and prompted numerous letters to the editor it was the subject of smart meters.

From my perspective, combined with time-of-use rates, smart meters can help consumers save money both individually and from a system perspective. We're not talking about a lot of money individually; but nor are we are not talking about massive lifestyle changes to make that happen.

No one is being forced to change when they use electricity; but finally for the first time they are beginning to be charged the true cost associated with when they use it.

The alternative, and this is what we have lived with for years, is to have those who consume less in the peak hours continue to subsidize those who use more. How fair is that?

Meters play a significant role in our industry. It's hard to imagine relying on one that essentially hasn't changed in almost 100 years. It's like keeping a prominent place for the telegraph in today's telecommunications industry.

Ontario is a leader in introducing smart meters and time-of-use pricing. With four and a half million meters installed and one and a half million customers on time-of-use rates, no other jurisdictions come close to matching our progress. The central database that we manage has over two million meters registered and we are working with the local distribution companies to bring on the rest.

There are other jurisdictions who are following our lead. PG&E has installed over 3.5 million meters in California and over two million have been installed in Texas. Smart meters are being installed across the globe with some estimates that as many as 300 million will be installed worldwide by 2015.

Smart meters are a key enabler for the smart grid of tomorrow and our leadership in this area will serve Ontario well in our smart grid efforts.

Smart meters and TOU pricing encourage customers to better manage their electricity use with the price signals providing an incentive for that use.

Yes, I have heard the complaints about many people paying more for electricity under time-of-use, but many customers are also benefiting from time-of-use rates.

If some customers are paying more, somebody else must be paying less because the total amount being paid by customers is the same - with or without TOU. But through TOU, the opportunity exists for all customers to be more aware of their energy use and to make smart choices.

Whether they blame wind and solar, or whether they blame smart meters, another claim being perpetuated is that Ontario energy prices are now through the roof and are the highest in North America

This claim troubles me a lot and it's one that I decided to do some personal research on.

Those of you that have heard me speak before know that I have trouble throwing out stuff and my old hydro bills have served me well in some of my previous speeches.

Only this time I wanted to not only find out how my electricity rates have changed but also how my taxes, my water charges, my cable and my telecommunications costs over the past 15 years have changed. The results may surprise you. I know they surprised me.

In the past 15 years, my property taxes have gone up by 240 per cent, my costs for cable TV have increased by 200 per cent and my water rate has gone up 90 per cent.

While my cost for my landline has decreased over the past 15 years, when I add in cell phone costs for me and my family, it is a 380 per cent increase.

Over the same 15 year period, my hydro rate has gone up by an unremarkable 30 per cent.

I recognize I can pay my electricity bill as can all of us in this room but that is not the case for everyone.

There is no question that we will see greater increases in our electricity bills as we undertake investments in new infrastructure, cleaner energy supply, and a modernized electricity system.

These investments are needed and they need to be paid for, not years from now as we learned from Ontario Hydro but as they are being made.

As for having the highest prices in North America, a recent Hydro Québec survey placed Ontario residential rates in the middle of the pack. Not unexpected, given our lack of low-cost hydro power compared to places like Québec or Manitoba.

One final thought on price - the reality is that electricity costs will rise in Ontario and across North America as newer, more expensive and cleaner generation is brought into service. But here in Ontario, we do have a 20-year projection of what those increases are likely to be. I am not aware of any other jurisdiction where that is the case.

A long term energy plan has been laid out for Ontario and that long term plan includes a forecast of price, which should help customers make appropriate choices that affect their use of energy.

My fourth and final topic is about the market and in particular refuting some of the claims you hear from industry insiders who I think would know better that is that there is no electricity market in Ontario or if there is, there is no need for one.

Ontario has a hybrid market structure, combining a competitive wholesale energy market with significant amounts of contracted or regulated supply.

On balance, this structure has worked.

Long term contracts and regulation guarantee capital cost recovery and ensure future resource adequacy. The spot market enables efficient dispatch of generators and provides short term price signals.

As an aside, it is worth noting that today's spot market price is particularly low because our market is in a surplus condition given the lower demands and increase in generating capacity. The markets around us are in the same boat. When in surplus, the price is always set by a relatively low-cost marginal source, at least until carbon pricing works into the system. Hence, generators can't earn enough money in the spot market to recover their investment in generation capacity and they either have payments through a capacity market or they have a contract.

My point here is that the spot market price is doing what it should and in times of shortage, the spot market price will be much higher and contract payments will be correspondingly lower.

And while this is an example of why I believe the market structure we have is generally working, I am also aware of the need for changes particularly around price signals that can incent generator and consumer behaviour

We have begun to see price signals at the residential level with time-of-use pricing.

Recent changes in the way that global adjustment is allocated to large customers will also drive needed response in that customer class. Through that change, we expect to see a decrease in demand during system peak hours and an increase in demand during off-peak and shoulder periods, when we can best accommodate that increased demand.

This new treatment will reward consumers who reduce demand when the grid is heavily loaded, which over the long run will help avoid the need for additional capacity to meet system peak demand.

By shifting demand to off peak hours, it will also help minimize the impact of surplus baseload conditions, conditions that we expect to see more of with the increase in renewable generation, at least until the nuclear refurbishments start.

There is no doubt that the market and the context in which it operates has changed since we opened it nine years ago. In many ways, the market has been completely reversed. We started with a one sided market of competition among suppliers; customers were largely not capable or had no incentive to be responsive.

Today, suppliers are almost completely contracted or regulated. That doesn't mean these generators don't care about the market and operate however they want. Rather good contracts preserve the incentives for generators to operate efficiently within the

market. The OPA has done a good job with many of their contracts to make sure these facilities choose to run when it's most cost effective.

On the demand side, for the first time ever, customers are getting the ability through smart meters and the incentive through rates to respond to price.

Investment decisions for generators are driven primarily by contracts but for customers, price and their ability to manage their costs can be key drivers as they invest in future home energy improvements, smart appliances or home energy management systems.

Clearly it is important to review the market given the current context and where we think we are heading. This is an initiative that our stakeholders want us to move forward on and we intend to lead that examination.

In closing, let me reiterate that I think it is very important to understand the facts behind the matters that challenge the industry. There are critical initiatives and issues for this sector to address if we are to continue to provide a reliable, efficient supply of electricity. There is important work to do, and lots of it to do in a short period of time. We can't afford to let the rhetoric side track us.

Displacing carbon with renewable energy is happening and it will continue to increase, here and across North America. As such, our electricity customers will be best served if we focus our attention on how to effectively implement these new resources.

Smart meters and time-of-use pricing are already an important part of today's electricity system and they are critical to our smart grid future.

Yes prices are going to go up, but they will need to if we are to make the necessary investments in our infrastructure.

And yes the market can be an effective mechanism to support both reliability and efficiency.

Getting the facts right will be extremely important, whether we are talking to customers, stakeholders, interests groups or politicians of all stripes.

But it is incumbent on all of us in this room to make sure that commentators and consumers alike have the correct information in front of them to help them and us through the transformation of our electricity system that is already underway.

Thanks very much for your attention.