

Notes for Remarks  
To the Ontario Energy Network Luncheon

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Thank you very much Gord for that kind introduction.

Good afternoon ladies and gentlemen. I am pleased to be here today on the coldest day of the season so far.

I note that with Jim Hankinson's speech late last year, and the planned remarks from Rita Burak next month, senior representatives from three Ontario Hydro successor companies will have a chance to speak to this forum. I think all three of us will tell you that the sector has undergone significant improvement since the break-up of the Mother Ship almost eight years ago.

I am going to touch on some of those improvements in my remarks today and look ahead to some of the challenges that we as an industry face ... from both a market and a system perspective.

In preparing for this luncheon address, I had a chance to look back to the remarks made one year ago by my predecessor Dave Goulding. His appearance at an Ontario Energy Network luncheon came shortly after he announced his intention to retire. In fact, I think Gord McBrien may have actually announced Dave's retirement.

I had to laugh when I read Dave's closing comments.

He said it was time to let someone else have all the fun.

Now after three months on the job, if this is Dave's idea of "fun", then he has a rather cruel sense of humour.

Actually – I have been enjoying the challenge. In those three months, I have received a lot of support from people both outside and inside the IESO. To that end, I would like to recognize some of the IESO Board members who are here today and who have been very helpful: Our Chair Glenna Carr and Board members Rudy Riedl, John Wiersma and Howard Shearer.

Since Dave spoke to you a year ago, there has been significant progress in meeting a number of the reliability challenges that we had identified.

### **18-Month Outlook**

From a short term system needs perspective ... and at the risk of evoking Murphy's Law ... the 18-month Outlook that we released late last month is one of the more positive outlooks that we have produced.

More than 1,000 megawatts (MW) of additional generating capacity is expected to be installed in Ontario during the next year and a half. This includes Phase One of the Goreway project this summer and Phase One of the Portlands Energy Centre by the summer of 2008. Both of these projects address critical reliability concerns in the West GTA and in downtown Toronto that were identified in previous Reliability Outlooks.

About one fifth of that new supply is expected to come from new wind projects.

Wind has certainly arrived at Ontario's doorstep. In 12 short months, wind has gone from a few small generators to more than 400 MW of installed capacity in Ontario's system. And there is more to come. A study the IESO co-sponsored last year recognized the potential for wind in meeting the province's demand.

That's not to say there won't be challenges associated with bringing large amounts of wind into Ontario's power system and wind power does have its critics. But we have created a working group with a number of wind generators to try to deal with these challenges as wind takes on a bigger role.

There are also a number of transmission enhancements that have been put in place .... with more on the horizon. All circuits on the Ontario-Michigan interconnection are now available thanks to Hydro One's efforts to restore an interconnection line with Michigan that had been out of service for quite some time.

You will also recall that Hydro One recently signed an agreement with TransEnergie to build a 1250 MW interconnection between Ontario and Quebec increasing our total inter-tie capacity by about 25 per cent.

The 18-Month Outlook indicates that reserve requirements are adequate for most of the weeks in the Outlook period. This doesn't mean we won't have our challenges particularly if we have extreme weather or equipment breakdowns. But it is a far cry from some of our recent history including the situation we experienced in the summer of 2005.

The improved supply conditions were evident last summer. We were able to meet Ontario's electricity needs on August 1st without incident despite setting a new peak record of 27,005 MW.

## **2006 Results**

In fact, during that peak week in the summer, we were actually able to offer help to our neighbours who were also experiencing high demands. It has been a very long time since we were in that position.

While it is common for Ontario to export in the off peak hours and import during on peak, in 2006 we were a net exporter for the first time since the year 2000. Last year, Ontario imported just over six TWh of energy from our neighbours while exporting almost double that amount.

The improved supply conditions also affected the market price. The average annual price last year was under \$49 per MWh ... the lowest we have seen since the market opened in 2002 and a sharp reduction from 2005. Ontario's hourly price was on average, the lowest price among our neighbouring markets of New York, PJM, the Midwest and New England.

Demand was lower last year while nuclear production was up, accounting for 54 per cent of the energy produced in Ontario.

The improved nuclear performance and the lower demands in 2006 resulted in five TWh less coal fired generation with a corresponding reduction in emissions.

While on the subject of coal-fired generation, it is worth recognizing the government's decision last year on the planned coal shutdowns. The Minister of Energy demonstrated his commitment to maintaining reliability even though he clearly took some political heat over the announcement. It was a tough decision but it was the right one for reliability. The continued availability of the Lambton units in part explains the improved short term reliability picture.

A reduction in emissions from fossil plants is essential for our environment, and as the coal generation numbers indicate, we are moving in the right direction. And while the Ontario Power Authority (OPA) is addressing the use of coal plants as part of the Integrated Power System Plan process, the issue of carbon emissions will not go away. I believe that as more and more people become aware of and concerned about climate change, the actions taken and the impacts on our industry will become increasingly profound.

Last week, the European Commission issued a sweeping set of recommendations aimed at dealing with climate change, increasing their competitive markets and energy security.

### **Supply Concerns**

Looking further ahead, from a supply perspective, I think we are in better shape than we have been in for some time. There are several thousand megawatts of generation projects even beyond 18 months that are underway or committed and a lot of activity on conservation and demand management.

That doesn't mean there aren't issues that need to be addressed. One of these is the increase we keep seeing in peak demand.

Peak demand has jumped 2,600 MW since 2002. The increasing impact of the hot summer weather conditions on electricity demand continues to drive up the peak. What is just as significant is the relatively short amount of time Ontario actually experiences high demands. For example, peak demand reached 27,000 MW last year. But it exceeded 25,000 MW for only 32 of the 8,760 hours in 2006.

So in preparing to meet a demand of 27,000 MW or more, the question we have to answer is: What is the best way to meet demands that occur in so few hours over the year?

Traditionally we have built generation to meet demand. But does it make sense to build 2,000 MW of generating plant that may run only 32 hours of the year?

Granted 2006 might have been an exceptional year. But as we gain more experience with demand response, we may be able to more effectively address peaks through DR programs ... particularly programs targeted at air conditioning. Toronto Hydro and other LDCs are already moving in this direction and I'm delighted the OPA is taking the Peaksaver program province wide.

Another issue I have concerns about is the flexibility of generation that will be installed.

Over half of Ontario's installed capacity is baseload or non-maneuvrable, e.g. nuclear, run of river hydro, and wind. That number is expected to grow over the next few years with the addition of 1500 MW of Bruce A generation and significant amounts of new wind generation.

This type of generation has to be used when it is available. It does not have the flexibility to be dispatched up or down to meet the demand. This becomes a problem when this type of generation exceeds the demand. This can happen in the overnight periods during spring or fall. We have to always keep the supply in balance with the demand and when the supply is too great, something has to be shut down.

At best, this means wasting wind or water. At the worst, and in the case of nuclear units where the unit could be shut down for an extended period, it could impact reliability if demand rises quickly.

This is a problem for the IESO in terms of managing the system, but also for generators who can't run their facilities. The OPA is well aware of this concern as they plan the future power system. They know that we must be able to continue to operate reliably, all of the time.

What I don't expect to have is too much transmission. Meeting our transmission requirements is another concern that needs to be addressed. The transmission requirements outlined in the OPA's integration discussion paper are enormous. Ensuring new transmission is delivered on time will continue to be a real challenge.

We have raised this concern before and I will repeat it again today. We need to have in place a streamlined, efficient approvals process so that transmission projects are not held up by unnecessary delays in approval. Historically, gaining transmission approvals has never been easy.

While there has been some progress in addressing this issue, there are significant transmission requirements ahead of us. Until these processes are demonstrated to be effective, there will continue to be a risk that transmission won't be available when it is required.

### **Smart Meters**

Let me switch gears for a moment and talk about a subject that is getting more attention ... not just in Ontario but around the world ... and that is the subject of smart meters.

The IESO has taken on a new role as Program Coordinator of the Smart Meter Initiative. Working with stakeholders, we will manage and coordinate implementation activities related to this program. This includes establishing the centralized data infrastructure for the provincial smart meter system.

The Meter Data Management Repository or MDM/R is at the centre of the smart meter system. It is a database that will receive metering data from every smart meter in Ontario, process this data and transmit billing information to LDCs and retailers.

We have selected IBM as our partner to develop and operate the MDM/R for the first four years. The IESO will work with IBM and stakeholders to finalize a design and implement a turnkey solution.

As the Program Coordinator, we are supporting efforts of important working groups who have been meeting regularly to discuss various aspects of the MDM/R design. Many of you, especially those in the LDC community, have been actively involved in discussing fundamental issues such as how smart meters are going to relate to existing and new business processes. The working groups will play a key role in addressing any issues that are identified.

As the power system operator, we are well aware of the system reliability and market benefits that smart meters can offer. From a reliability perspective, smart meters provide customers with a necessary tool to help them curb energy use during peak periods. This in turn, reduces strain on the electricity system.

But the greatest benefit of Ontario's smart metering initiative is that it empowers electricity consumers by providing them with the knowledge and opportunity to manage their costs.

This is an important element of an efficient market. In Ontario's electricity market today, generators have all the necessary information and incentive to respond to price signals but the majority of customers do not.

Smart meters can change that.

The challenge is to make sure that this information is available to customers in a timely and accessible fashion, and that customers are aware of the potential to manage their costs. To that end, the IESO is working with the Ministry of Energy and LDCs to ensure that the appropriate customer education efforts are undertaken.

We also know that even small reductions in demand can produce large overall savings. Not only will consumers save money by shifting energy use to lower priced periods, but Ontario will benefit if we can avoid the need to build new generators as a result of reducing the peak demand. Not having to build a generating plant that would have been otherwise needed, can save Ontario customers a lot of money.

### **Market Evolution**

Smart meters will help improve the efficiency of Ontario's electricity market. Evolving this market continues to be an objective of the IESO and an objective of many of our market participants and stakeholders. But we must take a measured approach in doing so.

We all have a lot on our plates right now, and while we need to continue to move forward, we must do so at a pace that can be accommodated by stakeholders.

The plan for the development of a Day Ahead Market reflects the step-by-step approach that we are taking.

A Day Ahead Market can provide benefits to both customers and to generators.

Our stakeholder engagement plan asks stakeholders to identify their needs around a DAM. Once those needs are identified, we will develop the Business Case for the DAM, and continue to work with stakeholders to develop a final proposal for submission to our Board in the fall.

## **Focus on the Customer**

I've received a lot of advice before and since taking on my new responsibilities. One piece of good advice that I received was to focus on the customer. At his breakfast speech several months ago, the former Deputy Minister of Energy suggested that the market had to keep the customer's interest front and centre.

I argue that the market has done just that. Customers are looking for a reliable supply of electricity at a competitive price. As you have heard me say earlier, that's what they have received.

When Ontario set a record for peak electricity demand in August, those demands were met. New supply is on track to continue to meet those demands and a number of demand response programs are also being introduced to help customers better manage their electricity costs.

Electricity prices are the lowest they have been since the Market opened. Jake Brooks, in his editorial in last month's IPPSO Facto, argues that for a number of consumers, real prices are no different than they were 14 years ago in 1993 when prices were frozen by the former Ontario Hydro.

In his editorial, Jake makes the point that electricity prices ought to reflect the true cost or value of production and that competition is an effective means of setting appropriate prices. It's a good editorial. If you haven't read it yet, I would encourage you to do so.

## Conclusion

Before I end today let me go back to the beginning of my remarks. As I said earlier, we have seen significant improvement since the break-up of Ontario Hydro almost eight years ago. We have more supply, more variety of supply, increased transmission capability, more effective demand response programs for customers, more transparency and a competitive price.

I am extremely proud of what my organization and indeed the entire sector has accomplished over the last several years. I can't claim to be totally unbiased on this but as I have outlined, I believe we have moved the yardsticks over the past few years. We are on a more solid footing now and as such are better able to deal with the challenges we have on our plates now and the challenges ahead of us.

We must not lose sight of the magnitude of the changes ahead. I have said it before and will say it again; we are in the early stages of the biggest infrastructure change in Ontario's history. If you need evidence of this, just look at the OPA's integration discussion paper. Focus on the challenge at hand is important.

But we are no longer constantly putting out fires. We are now in a position where we can move forward together.

As the Minister has said recently, all of us need to work together to meet the challenges we face.

Each of us has our own job to do, but we can and must support each other, coordinate where we need to in order to ensure that customers continue to receive a reliable supply of electricity at a competitive price.

The IESO is committed to doing its part, and doing it well. But we can't do this alone, nor do we need to. Just looking around this room, I see a tremendous number of smart, capable individuals in this industry that can and do contribute.

To slightly modify Dave Goulding's comment from a year ago ....

There is more than enough fun for all of us.

Thank you very much. I look forward to your questions.