

Notes for Remarks
APPrO 2011

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The Leaders' Panel:
What is driving change, and where is the system going?

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First off I would like to take this opportunity to thank APPrO for having the IESO here today. As some of you may know this was originally scheduled to be Paul's opportunity to speak with you. He sends his regrets as he's attending the CIGRE conference down under at this time.

I'm more than happy to take his place on today's panel discussion. APPrO's annual conference is a premier event in North America and it's a privilege to be here today. I look forward to the Q&A session that follows as I do the rest of the conference.

I'd like to take the next few minutes of your time to address the theme of this panel - "what is driving change and where the system is going." In particular I'll speak to where I believe the system needs to evolve to from my perspective as the system operator.

Let's start with where we are today. Ontario is self sufficient, even under extreme conditions as witnessed this past July when we saw record breaking weather across the province. That's very comforting and certainly a wholesale change from where we were only a few short years ago. We're also in transition. Coal is being removed from service, but is still a significant contributor to our operations, even when not on line. Having that additional capacity available allows us to manage a very busy fall outage program in preparation for our next peak period. And we have a large and growing penetration of variable energy resources along with the challenges these bring to any grid operator. We've come through a busy period of Surplus Baseload Generation (SBG), though we're in a bit of a reprieve now. It will most certainly return early in the New Year.

Now let me talk briefly about SBG. It occurs when baseload supply, nuclear, hydro, wind production, etc exceeds domestic demand. SBG is not over supply from an overall adequacy perspective and I'll speak to that in a moment. SBG is typically an off-peak concern. There's often little flexibility left in the system during these times and it's a substantial challenge for us to balance the supply and demand during these events. When in SBG we're often relying on the interties to do much of our balancing, which means we can be, and have been, exposed to factors far from Ontario's borders that can affect our dispatch decisions.

So let's talk a bit about what I see as the perception of oversupply. I don't believe that's an accurate reflection of where we are at all. We're responsible to the industry to meet our provinces capacity and energy needs. We're obligated to carry appropriate system reserves. We're obligated to report to Northeast Power Coordinating Council on our supply margins over and above these reserves, and we firmly believe it's appropriate to

carry some insurance in our supply capabilities as we undertake what is almost a complete transition or transformation if you like, of our supply mix.

As for what we are seeing - we are successfully, and prudently, phasing out coal. We're replenishing our nuclear fleet with two more significant additions expected in 2012. We are (and by "we" of course I mean "you" in all of this) revitalizing our transmission system to meet the needs of the new supply. Natural gas resources have and will play a major role in Ontario as the new intermediate resource in our supply options. And of course we will continue to rely on the flexibility that hydro resources have provided this province for the past 100 years of stellar operation. We have literally thousands of megawatts of solar and wind energy coming forward and we are seeing demand response and conservation positively impact grid operations like never before.

So kudos to you all for your efforts in these activities.

Now, where are we headed?

We certainly cannot be lulled to sleep by where we are today. As an industry, we have all much to do to ensure we have a reliable, efficient power system for decades and generations to come. And the next few years will likely see a number of critical decisions made that will be the cornerstone for future grid operations, our economy and provincial well being.

In the immediate future we have several coal conversions to work through. There are significant enhancements underway to what is already a very robust and first rate transmission system. And of course the biggest decisions of all will be made around the nuclear fleet...

- When will Pickering retire, what will that timing mean to overall supply and our ability to transfer energy to our load centres?
- What will the schedule be for the coordinated nuclear refurbishment efforts for the remainder of the fleet?
- What will the decision be around nuclear new build?

Within only a few short years, SBG could be nothing but a distant memory and we could be faced with shortfall conditions again. We could also see periods of off-peak surplus and on-peak shortfalls which could prove even more challenging. We actually saw remnants of this latter sequence of events in June of this year.

So what will we need to effectively and efficiently manage this new era? In real-estate they say the three most important factors are location, location and location. In my line of business its flexibility, flexibility and flexibility.

With flexibility being of paramount importance - here is my wish list.

We need continued diversity in our resource mix and our fuel supplies. We need a robust system that can reliably handle extreme and adverse weather events like we have recently seen. For decades, industry has focussed on having adequate capacity margins as these margins were the barometer for meeting seasonal peaks. With a growing fleet of energy limited and variable resources we will be augmenting our planning and operational areas to ensure we reliably meet the provinces energy demands, day after day, as well.

We must be mindful of growing cyber threats.

New connections must be rational in nature so as to not adversely affect reliability or efficient grid dispatch. And we need new technologies and an engaged demand side to compliment grid activities. They are the untapped resource and right at our doorstep. This will be a challenge for us, but they can also provide us with opportunities in ways we are only now becoming aware of. And lastly, we need to treat wind and solar just like every other mainline resource in this province.

In addition to these, and like we are doing during this period of coal retirements, we'll need insurance in our supply during the upcoming period of nuclear refurbishments. Regardless of the country, state or province there are teething pains with all major work programs and all new resources. I don't expect what's on the horizon here to be any different.

As for final thoughts I'd like to leave you with the following...

- This industry has spoken of change for some time but we really are on the cutting edge of tremendous change.
- In order for us to be successful we must maximize the flexibility in every asset we have, not just the physical assets but the way we interact as players as well.
- We need a more engaged consumer, many of them want that now and we have to find a way to allow that to happen.

- And lastly, there is a lot at stake here for Ontario and plenty of opportunity here for all. I've no doubt we can find win-win relationships that will benefit this province and you for years to come.

Thanks again for having me here today and I look forward to your questions.