



Independent Electricity Market Operator

## Notes for Remarks

Bruce Campbell

Vice-President

Independent Electricity Market Operator

Addressing the Need for Additional  
Generating Capacity

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Thank you very much. I appreciate the opportunity to be here today and discuss some of the issues facing the electricity sector in Ontario. I understand that there will be time for questions and I look forward to them following my remarks.

My initial thought for today was to look back at the August 14<sup>th</sup> blackout that left 50 million people without power and examine some of the lessons we learned from that experience. But a lot has changed since I accepted this invitation.

We have a new provincial government. The government has adopted a new pricing structure for low volume customers. We have received the report from the Electricity Conservation and Supply Task Force and the government has also appointed a blue ribbon panel to examine the future of Ontario Power Generation.

Given those recent developments, I want to expand the focus of my presentation today to address a range of factors at play: - so, I'm asking you to both look back at the blackout and the lessons learned - but more importantly look ahead to some of the challenges that we face if we are to adequately address the need for additional generating capacity.

## **The Blackout**

The blackout last summer underlined just how tight our supply situation is in Ontario. While many of the jurisdictions around us were back to normal at the start of the week following the blackout, Ontario was struggling to meet the electricity needs in the Province. And it was only through the efforts of business, industry and residents that we were able to avoid rotating load cuts during that week.

The blackout left Ontario without all but 1200 megawatts of supply. Most customers east of Wawa were without power with the exception of a few isolated pockets including the Cornwall and Niagara Falls areas.

The Beck Generating Station in Niagara Falls and the Saunders Generating plant near Cornwall were two of the few generating stations that were able to remain operational and formed the foundation from which the IMO was able to restore power to the rest of the province.

While power was restored to most of the province within 30 hours of the blackout, our challenge was by no means finished.

With the long shutdown times forecast for the four Pickering Units and the high demand we were facing because of the heat, it was clear to us that we were not going to be able to meet normal demands for electricity.

At that time of the summer, with the expected high temperatures, load would run at close to 25,000 mw. Yet our internal capability was well below 20,000 mw in the first few days following the blackout.

In the past few years, we had become increasingly reliant on imports to help meet demands in Ontario during peak conditions. In the summer of 2002, there were several occasions when we reached our import capability of 4,000 mw.

But our import capability was severely restricted following the blackout because Michigan and New York – two jurisdictions we have often relied on – were also dealing with their own supply challenges.

That left Quebec as one of the few alternatives for increased supply. Even with the emergency power purchased from Quebec, we were still going to be well short of meeting normal demands.

## **Decision Support**

We began working with the key decision makers in the government to identify the steps needed to maintain reliability of the system. Since our supply options were exhausted, the only option was to reduce demand by unprecedented levels.

And that's exactly what happened. With many businesses and industries cutting back their operations by as much as 50 per cent and consumers suffering through the heat without the use of their air conditioning, demand was cut by as much as 4500 megawatts.

Clearly those steps were of a drastic nature that could not be sustained. But what the situation did demonstrate was an awareness of the potential for demand side management participation, including conservation and load shifting. The recommendations of the Electricity Conservation and Supply Task Force – which I will turn to in a moment -- speak to that potential.

In August – electricity was front-page news for about two weeks. We need to build on that increased awareness today as more and more people become interested in the issues facing the electricity sector.

A reliable supply of affordable electricity has been something that most of Ontario has long taken for granted. Yet discussions that we have had recently with a wide range of stakeholders and individuals have demonstrated a growing concern about the issues facing Ontario's electricity system.

And that public engagement is a necessary step as we move forward. We are going to have to engage the public in the issues facing the renewal of the electricity infrastructure in a way that we have never engaged them before.

The blackout brought a public focus to our industry, but we can't simply wait for events like this to draw attention to the situation we face.

The dialogue needs to deal with many aspects of our business – the need for conservation as well as the need for new generation and transmission resources.

Too often in the past, our processes for bringing on line new resources were more difficult than they should have been. We need to make more people our partners in getting this task done.

We need to learn from our past and take advantage of the increased awareness levels arising from the blackout. An informed, involved public will be key to our success in moving forward with the renewal of Ontario's electricity infrastructure.

### **Joint U.S. Canada Task Force**

The cause of the blackout was well documented in the interim report issued by the Joint U.S. – Canada Task Force. According to the Task Force the blackout originated in Ohio caused by deficiencies in specific practices, equipment and human decisions that coincided on the afternoon of August 14.

The IMO plans and manages the power system to be prepared for any events that could impact the system ... including the one that we experienced in August. We have extensive monitoring capability, backup facilities and we have well-trained operators who have the authority to take appropriate actions to address any problems that may occur.

The Final report of the Task Force – expected to be released in the next two months – will outline some of the steps that should be taken to prevent further incidents of this magnitude in the future. The IMO has provided the Task Force with recommendations aimed at preventing large scale outages and I would like to share some of them with you.

First of all, the IMO believes that reliability standards must become mandatory and enforceable across our industry. We cannot operate to different standards in different jurisdictions.

Nor can we act in isolation in dealing with the aftermath of August 14<sup>th</sup>. Planning, operations and standards cannot be developed locally in an interconnected network where we are all very much dependent on one another. We need to address these issues together with our neighbours.

We also believe that the North American Electric Reliability Council – or NERC – is in the best position to develop reliability standards for North America. However, the current standards development process based on industry consensus may not be an effective means to achieving reliability standards that are both mandatory and enforceable.

Additional authorities may be required.

The IMO has also stressed the importance and need for training. Minimum training requirements should be in place to ensure that System Operators have the competencies not only to effectively use the tools required, but to interpret the results of the tools and act independently if the tools fail. These training standards must be subject to a rigorous audit process to ensure they are meeting the requirements.

And finally, effective integration of market and power system operations is essential in those areas – like Ontario – where both are in place.

Effective markets do contribute to reliability by satisfying both adequacy and security concerns; particularly in avoiding the development of situations that threaten reliability. During the summer of 2002, Ontario relied on the Market to attract the supply needed to cope with the extreme demand and the domestic generation shortfalls.

## **Need for new supply**

And that takes me back to my topic of the day – the supply situation in this province.

Our short term situation has improved with the return to service of two nuclear units that were shut down for major refurbishment over five years ago. Pickering unit 4 is now producing a reliable supply of electricity as is Bruce Unit 4. A second unit at Bruce has restarted and is expected to be in service within the next few weeks.

But that additional generation doesn't change the longer term need for new supply. Over the next 10-15 years, approximately 40 per cent of our current generating capacity will have reached the end of its planned life. Taking coal stations out of service in the next few years will only add to the crunch.

While we have received initial inquiries from 24 potential generating facilities totalling more than 7,000 MW of new generation, only two of those are in any stages of construction.

## **Electricity Conservation and Supply Task Force**

The need for new supply was one of the main priorities for the Electricity Conservation and Supply Task Force when it was created last year. It has recently provided its report to the provincial government and I want to look at some of the recommendations and discuss the implications of the report for Ontario in general and the IMO in particular.

The Task Force recognized that even with a strong push on conservation, there is still a wide gap between expected demand and required supply. Ontario urgently needs investment in new generation and transmission capacity.

Let's look at some of the recommendations of the Task Force related to supply:

First of all, the Task Force recommended that Ontario should move toward an electricity sector increasingly based on longer term contracts among multiple buyers and sellers – with the spot market operating as the balancing market. The IMO also was urged to continue to develop a Day Ahead Market.

Increased planning was advocated for a number of organizations with the Task Force recommending the IMO develop a long term integrated system plan within the context of Government policy direction.

As a transition measure, the Task Force suggested that a central agency should be assigned contracting responsibilities to provide cost recovery certainty to potential investors in new supply. Over time Load Serving Entities could be expected to contract to meet their obligations.

And finally the Task Force recommended maintaining the coal fired stations as required until alternative supply and conservation programs are in place to offset the loss of 7,500 megawatts of current coal capacity.

### **IMO Point of View**

While we continue to believe that the market based approach adopted in May of 2002 has provided benefits to Ontario, it is clear that issues arose that had to be addressed.

One of the major issues has been the lack of investment in Ontario's electricity sector. Due to continued uncertainties – not the least of which was the previous government's abrupt policy shifts -- the market did not provide adequate new investment in the province's electricity sector. Price signals alone were not able to address the resource

adequacy requirements – other mechanisms were needed to provide participants with assurances and incentives needed for investment.

One of the problems experienced in the first six months of the market was the high level of exposure to the spot market price. High temperatures and the resulting high demand combined with the shortage of supply produced dramatic price swings that customers were unprepared to deal with.

While 25 per cent of retail customers had protected themselves from the spot market by signing with a retailer, more than three million customers were exposed to the volatility of the spot market price passed through by LDCs.

Smaller customers need protection from the level of price volatility that can be expected in the spot market. Those customers should no longer be subjected to pass-through spot market prices. Every default customer should be represented by a buyer for his or her energy use, with appropriate regulatory oversight by the OEB.

That's why the Task Force recommendation for the assignment of contracting responsibilities to a central agency is such an important step. The Task Force suggests that with the appropriate governance and other safeguards to protect against conflict of interest, the IMO could be that agency.

However, the IMO also agrees with the Task Force that over time the bulk of that responsibility should transfer to newly-developed Load Serving Entities.

As the missing buyer in Ontario's electricity market, the assignment of load serving obligations could stimulate investment in generation. By ensuring that all Ontario default consumers are represented, LSEs would need to contract for supply for their customers. Those contracts will drive investment – they are an important mechanism by which suppliers and investors can manage the risk of investment in future facilities.

Selection of an LSE could be a competitive process and LSEs could co-exist with retail marketers. Many other successful electricity markets operate a competitive market that co-exists with a form of LSE to address default supply.

The benefits of Load Serving Entities are threefold -- stable predictable prices for customers, reduced financial risk and incentives for long-term investment in supply.

### **Day Ahead Market**

As some of you may know, the IMO has been working with market participants and other stakeholders to develop a Day Ahead Market.

Experience in other markets has shown that a Day Ahead Market lowers volatility, provides greater price certainty for all loads and allows for improved demand response. Suppliers would be provided greater certainty in scheduling the operation of their generation.

We are encouraged by the Task Force's recommendation to proceed with the work on development of the Day ahead market.

### **New factors to be considered**

The types of measures that the Task force has recommended will allow the market based system to operate more effectively. However, it will also mean that some organizations, such as the IMO, will have to work closely with market participants to get a better understanding of their future plans.

Take for example the integrated planning role that may be assigned to the IMO. The Task Force has suggested that the IMO should develop a long-term integrated system plan within the policy direction set out by the government. This planning mechanism would

guide the development of the supply and demand resources required to meet Ontario's power needs.

But in order to do that effectively, the IMO will need to work with generators and transmitters to understand the long term plans for their resources, what their refurbishment costs are, and what the specific projected retirement dates are.

We are encouraged by the provincial government's response to the Task Force report. Energy Minister Dwight Duncan has indicated he will use the report as a foundation for developing a responsible and sustainable policy for Ontario's electricity sector.

As you know, the provincial government has announced an RFP process dealing with the need for up to 2,500 megawatts (MW) of new electrical generation capacity and/or demand-side management initiatives to be in place as early as 2005, but no later than 2007.

The IMO will be playing a strong role to ensure that system requirements are reflected in the RFP, and we look forward to working with the government in this and other aspects of implementing the Task Force Report.

## **Conclusion**

In closing, let me say that I am encouraged at where we are today.

We have emerged from the blackout last summer with an awareness of what needs to be done to strengthen our system. And the industry is taking a cooperative approach in arriving at those solutions.

The Electricity Conservation and Supply Task Force has delivered a first rate report that outlines a path forward to a sustainable electricity market that enjoys an adequate, reliable and affordable supply of electricity.

The Provincial government has indicated that it will use the report as a foundation for the development of a responsible and sustainable electricity policy for the province.

And we all have the opportunity to engage the public with us in renewing Ontario's electricity infrastructure.

Clearly there is still a lot of hard work ahead of us. But I am confident we are on the right track.

I look forward to your questions.