

Notes for Remarks—Terry Young

DATE: June 12, 2017

TIME: 8:30 a.m.

LOCATION: Beanfield Centre | Main Ballroom | 105 Princes' Blvd | Toronto, Ontario, Canada

- Good morning, everyone.
- My name is Terry Young; I am the Vice President of Conservation and Corporate Relations at the IESO, and on behalf of the organization, it is my pleasure to welcome you to the 2017 IESO Stakeholder Summit here at the Beanfield Centre in Toronto.
- This is actually a first for the IESO as a merged entity. The predecessor IESO held similar one-day forums in 2013 and 2014, which we found to be effective vehicles to hear a range of perspectives on a variety of issues and opportunities facing Ontario's electricity system. Around the same time, the former Ontario Power Authority (OPA) hosted regional forums in northwestern Ontario to discuss regional-specific interests.
- So we are building on our collective experience in delivering today's summit, as well as the five forums that we have planned for this Fall, that will provide an opportunity facilitate dialogues on province-wide, regional and local energy issues. <Optional> In fact, we've recently put out a call to action to ask people what topics they would like to discuss at the regional forums in order to help us plan the sessions to best address their interests. If you are interested in providing your input, please do so at OntarioRegionalPlanning@ieso.ca
- Our efforts in delivering today's Summit have also been guided by our Stakeholder Advisory Committee (SAC) that provides valuable advice and recommendations on market development, conservation, and planning decisions directly to the IESO's Board of Directors and Leadership Team.
- Our SAC members represent consumers, generators, distributors, transmitters, related businesses, services and Ontario communities. James Scongnaak, one of our SAC members, will be speaking shortly.
- At our SAC planning meeting early this year, members wholly endorsed the idea of the IESO having a summit both provincially and regionally, to explore the future direction of the electricity system.
- In addition to thanking our SAC for their ongoing advice and stewardship, I would also like to thank the collection of speakers and presenters who have joined us here today, all of whom have taken time from their busy schedules to contribute to today's discussion.

- We were also very pleased to see just how many people registered for today's Summit. I was told there are about <200> of us here today. As I do a quick scan of the room today, I see a wide range of energy sector leaders from Ontario, and I also see folks who have journeyed here from outside the province to share their unique perspectives with us. To those from outside Ontario, I say 'welcome' and thank you for joining us here today.
- We are live-streaming today's proceedings in several screening rooms at our three IESO locations so staff can view portions of today's agenda that is of particular interest or impact to their respective areas of the business.

Importance of Stakeholder Engagement

- Working with our stakeholders, our communities, our customers...working with all of you in this room is a central priority for the IESO, and it is a commitment that is central to the corporate strategy that we developed with our Board of Directors last year.
- The IESO has a broad range of engagement channels and processes to ensure that our initiatives are guided by collective engagement, and reflect our evolving mandate in the sector. From the aforementioned SAC, to our technical panel, standing committees, working groups, local advisory committees, and program-focused engagements, our aim is to provide individuals and organizations with the opportunity to provide input and feedback about proposed decisions or changes that affect them.
- We are also committed to stakeholder engagement as a continuously evolving process. The IESO's Engagement Principles provide an effective framework to help guide open, transparent and meaningful opportunities for input. We are also about to launch our stakeholder satisfaction survey, to assist with continuous improvements in the way that the IESO receives and acts on input from customers, communities and stakeholders.
- We are committed to meeting the needs of that expanding stakeholder and community base and ensuring that they are integrated into the decision-making process. As our electricity system becomes more regionally focussed, our traditional stakeholder base will expand as new generators, customers, communities and Indigenous peoples become involved.

Context for today's discussion

- So I've mentioned the structural similarities to stakeholder forums that we've facilitated in the past, but there are also some important distinctions.
- In bringing together experts and energy leaders from across North America, our aim today is to generate discussion and hear perspectives on how *other* jurisdictions

throughout the continent are approaching their own shifting energy landscapes, and the opportunities emerging to address changing sector conditions.

- As a quick primer on Ontario, our province's energy landscape has been transformed in the last 10 years or so. Over six gigawatts of installed coal-fired capacity, which at one point made up a quarter of our installed capacity, was retired and replaced with renewables, natural gas-fired, and demand response resources.
- Over the last decade, Ontarians have also saved almost 10 billion kilowatt-hours through conservation and energy efficiency, which helps to lower peak demand and enable the IESO to defer or avoid the need to build new infrastructure.
- In addition to the transition away from coal-fired generation into the deployment of low-carbon resources and increased conservation measures, we also saw a transition from a centralized model of operations to an increasingly decentralized one.
- We are seeing increasing amounts of generation being embedded in the distribution system. Evolutions in technology and policy are expanding opportunities for customer engagement and participation.
- Distributed energy resources are contributing to a system more characterized by two-way flows, rather than only one-way delivery from large central stations. New resources are increasingly being located closer to loads and demand centres on the lower-voltage distribution wires, and a number of communities are now developing community energy plans and DERs are becoming a key component of those plans.
- We now have about 2,000 MW of solar embedded within LDC territories, and that number is continuing to grow. But it's how some of that solar is being incorporated that provides insight into tomorrow's power system.
- Addressing barriers to the adoption of distributed energy resources, such as cost allocation and integration issues, could help to better realize their potential benefits.
- As the system operator, the evolution of the distribution system to include more energy resources and a more active role for the consumer is also resulting in a need to understand the impact of these changes on the operation of the bulk power system.
- Increasing variable generation, the integration of DERs, and changing demand and supply patterns are creating new operating challenges in managing the bulk power system.
- We are working with stakeholders to develop cost-effective solutions to address these challenges, both in terms of scheduling resources, enhancing system flexibility and

correcting variations in power system frequency.

- With this rapidly evolving sector, we have also seen the rise, adoption and entry of new technologies and innovations related to embedded generation, storage, conservation, and renewables, as well as a policy landscape that is evolving just as quickly.
- The provincial government has also signaled a sharp and renewed focus on cost containment and rate mitigation and greenhouse gas reductions.
- This is a strategic juncture to have this type of discussion and take a look out to the future of the sector. At current levels, Ontario's electricity system is well-positioned to meet provincial needs into the 2020s, while continuing to adapt to significant change across the sector and the evolution of policy decisions.
- For example, as we look out over the longer-term, we could see higher levels of demand driven by different levels of electrification associated with policy choices on climate change.
- Looking forward, the IESO will be developing an implementation plan to support the upcoming Long-Term Energy Plan and completing a mid-term review of the Conservation First Framework. This work is aimed at better preparing the IESO and the sector generally, for the future challenges and opportunities ahead.
- Also in the years ahead, some of the IESO's efforts will fundamentally reshape the way that our electricity system functions.
- Through the market renewal program, the IESO will redesign Ontario's wholesale electricity markets to provide greater transparency, promote competition and deliver more efficient outcomes.
- Market Renewal is a collaborative effort between the IESO and our stakeholders to pursue enhancements to Ontario's electricity market that will address inefficiencies and lay a foundation that will prepare us for the electricity sector of tomorrow.
- The project will result in more efficient scheduling of generators to meet demand, the introduction of annual capacity auctions to procure resources more competitively and flexibly, and changes to help meet emerging operability needs, such as more frequent scheduling of energy imports and exports.
- The Market Renewal benefits case shows potential for about \$3.4 billion in cost savings that will be realized by both consumers and generators. Cost savings are achieved through the better utilization of existing assets, greater competition among resources, a

reduced or deferred need to build new resources, and a more flexible procurement process that will better reflect system needs.

- So, in a relatively short period, Ontario's supply mix has undergone a major shift, which has changed the dynamics of our electricity system.
- That's just a brief snapshot of the trends and developments that are occurring in Ontario. However, all across North America, system operators and policy makers are addressing new challenges as their supply mixes evolve.
- Given the complex interdependencies of a changing North American energy sector, the role of collaboration and shared learning is critically important.
- We hope today's session will provide a broader perspective on North America's energy sector and offer in-depth analysis on a range of emerging energy trends that are shaping the next generation of electricity systems.
- Today's agenda offers an entry point into these discussions and includes an exploration of distributed energy networks and decarbonisation from the perspective of real-time system operations, emerging electricity markets, as well as long-term system planning.
- I look forward to frank and focused discussions on these topics and more.
- Lastly, before I hand it over to our MC, I'd just like to thank the staff of the Beanfield Centre for having us here today. The building we're in today has a fascinating and storied history, which dates back to the 1920s. Principally, as many people know, it has been used throughout the years to provide fair-goers a look at some of the latest and greatest developments in transportation technology. However, in 1939, the Royal Canadian Navy converted this structure, the Automotive Building, into the HMCS York, and Canadian Army took over the Horse Palace for military administration purposes.
- I thought that was an interesting piece of history, particularly in the lead up to the sesquicentennial (150th) anniversary of Canadian Confederation.
- Today, this facility and the wider Exhibition Place grounds has implemented a variety of sustainable technologies, including the TREC wind turbine, the installation of energy efficient ballasts, lamps and LED lighting, a 100 kw solar PV project, waste water recovery systems, green roof installations, geothermal and trigeneration projects.
- So I think it's a fitting an appropriate backdrop for our discussion here today.
- I know we have a packed schedule – so I'll close by again thanking you all for being here today, for being a part of today's dialogue, and for the continued work of all of our

stakeholders in Ontario, as well as our industry colleagues and counterparts across North America. Together we are playing a critical role in the future of energy – how we power our homes, our businesses, and our industries.

- I'm looking forward to hearing what others have to say about what our future could look like.
- I'll now hand it over to today's MC, the IESO's Rob Doyle.
- Thank you