Independent Electricity System Operator (IESO)
East Ontario Regional Electricity Forum
Meeting Minutes
November 16, 2017
Ottawa, ON

Introductory Remarks

Opening remarks were provided by Declan Doyle, Manager of Direct Customers, IESO, as the emcee for the day, Chuck Farmer, Director, Stakeholder and Public Affairs, on behalf of the IESO, and Bob Monette, Deputy Mayor, City of Ottawa, representing the host community.

Declan Doyle described the dual role that the IESO has as being an information provider, and to engage with communities to listen about the concerns and challenges in the region. Deputy Mayor Monette said local discussions provide insight into the market and assist in long-term transformation for communities. Noting that everything that generates or moves electricity takes place in communities, Chuck Farmer said that building regional relationships by bringing relevant dialogue directly to communities is critical.

The Evolving Provincial Electricity System

Ontario's Evolving Electricity Sector: Provincial Keynote Address delivered by Michael Lyle, Vice President, Legal Resources and Corporate Governance, IESO

Ontario's energy landscape has transformed as a result of the retirement of coal generated facilities and the increased participation in conservation. Since 2006, through conservation and energy efficiency, Ontario consumers have saved 68 billion kWh—the amount Hydro Ottawa customers would consume over eight years, based on 2016 figures.

Through the Conservation First Framework, the IESO works with local distribution companies (LDCs) to help consumers reduce electricity consumption. Industrial customers, with the help of the Industrial Accelerator Program, are optimizing operations. Last year, over 90% of electricity produced in Ontario was emissions-free. Much of the renewable generation is a result of the Feed-in Tariff (FIT) Program.

Ontario is experiencing decentralization and rapid expansion of distributed energy resources. Customers are taking advantage of opportunities from policy and technology changes that incentivize local solutions. The IESO is working with LDCs to maximize the benefits of these resources.

Consumers are engaging differently with energy today than they did five years ago. Customers are actively managing energy consumption and seeking greater self-sufficiency, with the assistance of policies and programs such as the Climate Change Action Plan and the Green Ontario Fund. Close to 100 First Nation communities have received IESO support to develop community energy plans. The Market Renewal project, a collaboration between the IESO and stakeholders, is preparing the electricity sector for tomorrow.

Whether it is by installing rooftop solar panels, participating in energy conservation through Save on Energy programs, attending a local advisory committee meeting, joining one of the IESO's many

engagement sessions, contributing to a community energy plan, or engaging in some other way, now is the opportunity for communities to play a part in shaping Ontario's energy future.

Planning for Today and Tomorrow: Panel Discussion

Panel Moderator: Chuck Farmer, Director, Stakeholder and Public Affairs, IESO
Panelists: David Short, Director, Power System Assessments, IESO
Bob Chow, Director, Transmission Integration, IESO
Guillaume Paradis, Director, Distribution Engineering, Hydro Ottawa
Robert Reinmuller, Director, System Planning, Hydro One Networks

Chuck Farmer introduced the panelists, and the panel discussed collaboration, planning, and community needs in the sector.

David Short said the IESO ensures system reliability and balance from an operations perspective. Ontario's system has many points of connectivity with Quebec and New York that need to be monitored as well. Ontario benefits from a robust electricity system, but large transmission lines can become big capacitors that can store electricity when part of the province is under light load conditions, making it a challenge to manage voltage.

Bob Chow said the electricity sector is very complex: the commodity itself is multifaceted, and the business is technology driven. Meeting supply and demand in real time is difficult, as is planning for it. Current infrastructure has been developed over many years, and communities might wait several years before seeing new transmission lines. Electricity planning is done in three groupings: bulk-system planning, which is done at the provincial level; regional planning, which is the interface between bulk systems and the distribution network; and distribution network planning, which is responsible for serving individual customers.

Guillaume Paradis said that Hydro Ottawa continues to consolidate electricity standards and systems. Planning for intensification in southern Ottawa is a challenge, as are high-tech industries requiring data-centre services. In addition, electric vehicles will have to be taken into account when planning. Depending on the adoption rate, that could be a responsive reaction to integrate load or building a flexible system to manage energy flows. To avoid reverting to larger capital-intensive assets, LDCs need the right tools to plan and accommodate for community needs accordingly.

Robert Reinmuller said working together gets people further, in whatever context they work. Hydro One is responsible not only for managing power to consumers, but also for maintaining and refreshing a vast infrastructure. This includes equipment replacement, load connections, and increasing capacity. Hydro One engages with the IESO and customers to talk about issues and how to be innovative in areas such as power quality and better storm preparation.

Mr. Farmer asked how panelists deal with the uncertainty inherent in the electricity system. Mr. Chow spoke about finding a balance between taking risks and investing wisely. Mr. Paradis said maintaining flexibility, acquiring timely information, finding non-traditional solutions, and using decentralized thinking is key. Mr. Reinmuller said the answer to uncertainty is flexibility, along with customer engagement and education.

A participant asked about the roles of regulators as enablers or limiters. Mr. Chow replied that regulators like the Ontario Energy Board (OEB) are important in the sector because they manage areas that influence planning. Mr. Short said every regulator has a different driver.

Another participant highlighted the need for increased collaboration between electricity and transportation systems, noting fleets and the electrification potential for trains. A participant asked where virtual net metering sat as a priority, wondering whether the IESO could be proactive or whether the push had to come from regulators and politicians. The participant said that net metering is driven by customers, making it difficult to predict demand. Mr. Short replied that engineers are happy with change, be it solar, wind, or embedded gas, provided there is visibility and forecasting capability.

One participant gave a customer perspective on growth constraints, noting his company needs a 4 MW peak instead of their current 2 MW. While Hydro One can provide power, it comes with a multi-million-dollar bill to pay. Mr. Reinmuller said this story is not unique because the system is exhausting capacity.

The Power to Connect: Advancing Customer-Driven Solutions, delivered by Brian Wilkie, Vice Chair, Electricity Distributors Association (EDA), and President & CEO, Niagara Peninsula Energy

Brian Wilkie spoke about LDC innovation, and provided highlights from the EDA's recent report, *The Power to Connect*. The way forward requires careful coordination with government, the IESO, the OEB, and stakeholders to overcome challenges. Mr. Wilkie said that the Ministry of Energy's Long-Term Energy Plan (LTEP) places customers at the centre of decision making and will drive the pace of change.

A participant expressed his disappointment that the LTEP stalled at demonstrations on virtual net metering; other jurisdictions, such as New York, are well past demonstrations. Mr. Wilkie said a tremendous amount of customer-service work is required to implement small-scale renewables. Producers receive monthly payments from LDCs, for example, resulting in increasing cross-subsidization and raising the questions of whether all customers should pay and whether there should be user fees.

Ontario's Long-Term Energy Plan and the IESO's Implementation Plan, presented by Sunita Chander, Director, Distribution and Agency Policy Branch, Ministry of Energy, and Chuck Farmer, Director, Stakeholder and Public Affairs, IESO

Sunita Chander, provided an overview of Ontario's new LTEP which creates a policy framework for the next 20 years. She noted it does not discuss big investments but takes an incremental approach, focusing on distribution. The LTEP was preceded by an electricity report and a fuels report to ensure people had a baseline understanding.

The LTEP is available on the Ministry of Energy's website; and key themes include:

- Consumer focus
- First Nations and Métis leadership and capacity support
- Innovation
- Conservation and energy efficiency
- Challenge of climate change

Chuck Farmer said the IESO must deliver an implementation plan with key milestones and outcomes by January 31, 2018 to the Minister of Energy. Once it has been approved, the IESO will move into the next phase of engagement for next steps on how it will implement the initiatives outlined in the LTEP. To help inform the plan, the IESO is engaging stakeholders and communities to prioritize factors and gather views in nine areas:

- Options for energy support programs to First Nations and Métis
- Options to improve conservation programs, and access, for First Nations and Métis
- Renewable distributed generation projects

- Ways to mitigate barriers for energy storage
- Options for pilot projects to evaluate the use of electricity to create hydrogen
- Develop a formal transparent bulk system planning process
- Develop a competitive transmission procurement process
- Review of regional planning process
- Review technical criteria to assess customer reliability

Meetings with stakeholders are being held in November with feedback accepted until December 13, 2017 on the first phase of the implementation plan. Mr. Farmer encouraged participants to subscribe to the IESO's Bulletin and visit the website, as further information is available on the IESO's LTEP Engagement webpage.

A participant asked about why Ontario and other jurisdictions use the term "renewable natural gas" and whether it would be possible to return to pure emissions measurements. Ms. Chander said the Ministry of Energy is working with the IESO to possibly recommit old generation renewables and procure more competitively. Mr. Farmer said much debate is happening on the right balance to reduce overall emissions. In answer to a question about the rationale for the LTEPs' three-year cycle, Ms. Chander said this window allows the Ministry to reflect on the evolution of the distribution system and the changing markers of innovation.

One participant said government agencies talk about greenhouse gas reduction with the switch from coal to gas, but this formula does not account for the release of underground gases. Mr. Farmer said this question is a policy issue where ministries must coordinate.

A participant questioned the rationale behind the Nation Rise Wind Farm. While wind power is renewable, she said it is not green because the production process for turbines creates toxic by-products. The participant said that residents feel their property has essentially been expropriated without compensation. Ms. Chander replied that she would relay this concern to her colleagues at the Ministry of the Environment and Climate Change, who are responsible for approvals.

The Local Perspective

The Local Evolving Electricity System: Local Keynote Address, delivered by Jim Keech, President & CEO, Utilities Kingston

Jim Keech spoke about local impacts of provincial policy, the customer perspective, and innovation. The LTEP looks for efficiencies, as do LDCs. Decision makers looking at policy and regulations must understand that one model does not fit everyone; for example, Utilities Kingston has achieved efficiencies through scope, not scale.

Conservation is key at Utilities Kingston. Using a one-window approach, Kingston looks at a customer as a utility customer, not solely as an electricity customer. Reliable service and customer experience are important in the LTEP and to the model used in Kingston. The LTEP references work going on in other ministries, such as transportation, which has been a positive development resulting in a wider focus that shows leadership in breaking down barriers.

In answer to a question about the potential for increased electrification to create competition among business units within Utilities Kingston, Mr. Keech said the organization takes the approach of looking at what is best for the consumer.

Spotlight on Local Innovation: Ottawa River Power Corporation, presented by Jane Donnelly, President & CEO, and Mary Hellingman, Conservation Manager, Ottawa River Power Corporation (ORPC)

Jane Donnelly spoke of her organization's culture of customer engagement. ORPC provides information, advice, resources, conservation ideas, and helps to implement projects in the community. The company has an open-door policy and engages in purposeful, ongoing communication with KI Canada; a local industry leader in Pembroke and ORPC's largest industrial customer.

Mary Hellingman outlined the retrofit projects that KI has undertaken over the years and the significant savings that have resulted from KI's culture of conservation. Over the past 10 years, KI has accessed $135,000 in incentives and invested $675,000. This investment has resulted in an average 35% reduction in energy use.

Engagement at the Local Level: Panel Discussion

Panel Moderator: Carrie Aloussis, Senior Manager, Customer, Stakeholder and Community Engagement, IESO

Panelists: Mike Fletcher, Project Manager, Building Engineering and Energy Management, City of Ottawa
Wes Johnston, Vice President, Canadian Solar Industries (CanSIA)
Sally McIntyre, Founder, McIntyre Solutions

Carrie Aloussis introduced the panel, and panelists discussed engagement, empowerment, and the power of local connections.

Mike Fletcher said constructive engagement works when citizens can disagree but continue to work together. The IESO must keep people engaged during long periods of little change. The key is to give people a standard set of information and keep updating it. Based on some people's interests, he encouraged the IESO to provide raw data when able to, and not just focus on final products.

Wes Johnston talked about empowering consumers, using the example of the growth from two television channels to endless entertainment options where the Internet allows consumers to use, generate, and sell information to others. This type of transformation is taking hold in the energy sector, where people want to produce and purchase their own energy. When consumers make choices, conversations happen, just as when people buy a new home.

Mr. Johnston said that the province and the IESO must provide more options to turn *con*sumers into *pro*sumers. People turning on a light must understand where that energy comes from, just as they know where their food comes from. The LTEP recognizes this transformation, but more can be done to ensure consumers have access to the grid, that the province moves to virtual net metering and that time of use is applied to virtual net metering.

Sally McIntyre explained that engagement is at the right of the scale, and providing a one-way flow of information is at the left. Consulting, such as conversations that the IESO has with local advisory committees (LACs), is in the middle: two-way communication with no decision making. Engagement is not a two-way conversation—it has more substance, trust, and commitment to action. You have to allow

the conversation to change the direction that you are going. Accordingly to Ms. McIntyre, the size and structure of organizations affect their willingness and ability to engage, with smaller organizations being nimbler.

Carrie Aloussis asked panelists how much information is too much when it comes to effective engagement. Focusing on audiences, panelists said users may have low energy literacy, so simplifying the information is key. Transparency and accessibility remain important because communities need the right information to make informed decisions. People disengage if their communication needs are not met. Panelists offered recommendations: Seize the lull between planning stages and don't let the conversation subside. Don't make a decision and leave a vacuum because the public is left in the dark. Find conduits of communication; a consistent community touch point.

Ms. McIntyre advised against asking people to visit an open house or a website; she suggested connecting directly with them instead. Engagement principles should be applied and adhered to, but some approaches are costly and time-consuming, so a balance must be found between budget and the importance of connecting. The service-delivery framework is evolving, and Ms. McIntyre said that it is in a company's best interest to be a valuable service to their community. Panelists said the IESO's webinar and post-webinar information is useful and easily accessible.

A participant said the LAC process is about information being given and advice being requested, but it is unclear how this advice is used. Local-area solutions challenge the traditional siloed approach and support a shift to a more continuous conversation.

Forum Wrap-Up, delivered by Cynthia Chaplin, Director, IESO Board of Directors

During the final wrap up of the day, Cynthia Chaplin outline three themes that she heard emerge from the discussion; the first being the need for flexibility, as a complex system means opportunity amidst uncertainty as data and technology flourish. The second being integration: the IESO must consider many areas, including the economy, provincial goals, community preferences. The third being collaboration: stakeholders share sustainability goals, although tough, honest decisions and trade-offs must be made to address challenges in a transparent manner.

Engagement is iterative; to be effective stewards of innovation, stakeholders must continue working together.