Independent Electricity System Operator (IESO)
Northwest Ontario Regional Electricity Forum
Meeting Minutes
October 18, 2017
Thunder Bay

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 Iain Angus, Councillor, City of Thunder Bay, representing the host community.

Declan Doyle provided words of welcome and outlined the agenda for the day. He outlined the dual role that the IESO has: to provide information, and to engage with communities to listen about the concerns and challenges in the region. Chuck Farmer said all parts of the electrical system exist in a community, and the IESO wants to hear from communities in Northwest Ontario. Noting the importance of electricity to economic development in communities across the region, Iain Angus said the day's discussions would be important in allowing for new economic development in Northwest Ontario.

The Evolving Provincial Electricity System

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

In the past 10 years, the energy landscape in Ontario has changed. Residential customers are modifying their behaviour to conserve energy, and industries are also involved in conservation. Ten companies in Northwest Ontario are now among those participating in the IESO's Industrial Accelerator Program, for conservation projects such as upgrading lighting and ventilation systems.

Consumers are also more interested in renewable sources of energy, and renewables now account for a significant portion of energy generated in the province. Much of the growth in renewable generation has come from the 2009 Feed-In Tariff (FIT) and microFIT programs. Of the most recent round of FIT projects, more than 80% have Indigenous community participation.

Another shift in the energy landscape is from a centralized to a decentralized system. In the past, most energy was generated and distributed from a few centralized sources; today, more energy is generated locally, near the points where it is used. This decentralized model can pose operational challenges. For example, the IESO does not have access to data from all of the smaller electricity generation projects, which makes it difficult to ensure reliable service.

Consumers and communities are becoming increasingly involved in decisions around power generation and distribution. The IESO is working to extract value from the data collected as part of the smart-metering initiative, while protecting consumers' privacy, to reduce inefficiencies and increase reliability.

Working with stakeholders and communities is a priority to the IESO, with the objective being to provide communities with opportunities. The IESO is committed to developing relationships with communities, providing sound advice to policy-makers, supporting wholesale markets, and seeking input and ideas

from consumers.

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
Teresa Sarkesian, President & CEO, Electricity Distributors Association
Robert Reinmuller, Director, System Planning, Hydro One Networks Inc.
Ahmed Maria, Senior Manager, Transmission Integration, IESO

Chuck Farmer introduced panelists, and the panel discussed how uncertainty affects the electrical system, planning strategies, and community engagement.

David Short said that from an operational point of view, his team is concerned with maintaining reliability, which requires broadly monitoring conditions and use, including that of Manitoba as well as several U.S. states. And because electricity systems are interconnected, it is important when trying to find solutions to be aware that while trying to solve a problem in one area, there is the potential to create one in another. Robert Reinmuller said that weather is a major cause for uncertainty in electricity supply; as at any given time, some part of the Hydro One system is exposed to weather conditions that could interrupt power.

Ahmed Maria spoke about the planning process at the provincial level and at the local level. In 20-year forecasts, the IESO accounts for uncertainty by following three principles: finding the lowest-cost solutions that meet reliability needs; using innovative solutions that meet cost, demand, and reliability needs; and engaging with stakeholders to learn more about communities from a needs and local preference perspective. Having discussions at the local level is an important element of the planning process to ensure that the IESO is not planning in isolation.

In response to a question, Mr. Maria explained how changes in demand also cause uncertainty in forecasts and in implementing projects. For example, in Greenstone, a new industry is considering developing its own generation project; which has resulted in temporarily suspending a project that was under way to upgrade power lines because the new generation project might make the upgrade unnecessary.

Teresa Sarkesian spoke about the role of local distribution companies (LDCs) in the electricity landscape. LDCs play a growing role as the communications bridge between customers and utility planners, which facilitates community engagement. Electricity distributors provide opportunities for innovation, and LDCs can help give customers more choice in their energy solutions.

The East-West Tie and IESO's reassessment of the project was a topic of questions that were asked from participants. Mr. Maria explained that Nextbridge's construction application included a higher-than-anticipated cost, and the IESO is updating the load forecast and assessing options. Participants expressed concern about the new review because the value of the East-West Tie was amply demonstrated in the past. Participants also asked about other changes in major energy projects and how those changes affected this review. Mr. Maria said that as part of its review, the IESO is developing solutions in two stages for low-, medium-, and high-demand scenarios.

Local Spotlight: Energy Management at Goldcorp Mines, presented by Matthew Curtis, Electrical Coordinator, Goldcorp

Matthew Curtis described the energy conservation programs being utilized at the company's mining operations. Key factors that have contributed to success are learning about the values that are important to

the company and addressing them. Although reducing costs is a welcome benefit of any program, Goldcorp was also interested in broader results, such as increasing the lifespan of the mine, improving worker safety, and making it possible for mines to continue to support their communities.

Funding is provided through the Industrial Accelerator Program for energy managers, such as Mr. Curtis, to recommend energy conservation options. Although expensive capital projects can play a role in saving energy, Mr. Curtis said behavioural change is equally effective. Establishing and supporting a culture in which conservation is valued—for example, fixing small underground leaks, which reduces the need for ventilation systems—was critical to the projects' successes.

Other strategies that helped the conservation programs succeed included engaging with front-line workers to reward and model behavioural and culture changes, and consistently reporting success stories to management.

Local Spotlight: Gitchi Animki Hydro Project, presented by Norm Jaehrling, CEO, Pic Mobert First Nation

Norm Jaehrling discussed the ongoing community benefits of the hydroelectric project at Netamisakomik (Pic Mobert). This project ignited an interest in business in the community, with far-reaching results. An additional positive outcome is that members of the community who are involved in the project have developed strong business acumen.

The community chose a hydroelectric project because it would provide long-term revenue and would never require decontamination or decommissioning. After 25 years of effort, they are now beginning to sell energy. It has taken tenacity, cultural self-examination, and new partners, including new provincial programs such as FIT, for the project to reach this stage. The first cheque ceremony will be in December 2017.

The community is leveraging its experience to pursue other projects. For example, they are partnering in the East-West Tie project, acquiring an interest in a biomass plant in Hornepayne, and moving into solar generation.

The cultural change in the community came through serious internal reflection and discussion among the community's Elders. Any development disrupts the natural landscape, but the community saw the hydroelectric project as an investment in future generations.

The View from Here: The Common Voice Northwest Energy Task Force (CVNW), presented by Iain Angus, Co-Chair, CVNW

Iain Angus said that the task force monitors energy projects in Northwest Ontario to provide guidance to local municipal leaders. The task force is currently analyzing several transmission and generation projects, including the East-West Tie, a new line north of Dryden, and lines to Greenstone.

The task force's planning process differs from the IESO's. It assumes a worst-case scenario when creating demand forecasts; building in a drought every four or five years, and does not include solar or wind generation because a minimum power level is necessary at times when solar and wind are not available. For these reasons, the task force forecasts that not only is the East-West Tie necessary, but at least an additional 300 MW is also needed in Northwest Ontario, based on mining development alone.

The task force also monitors cost issues. Historically, the first user of a power line was not solely responsible for the cost of the line. Transmission lines in Ontario were developed with all customers

sharing those costs, and the task force wants to ensure that that type of model continues. In addition, the task force advocates regional pricing because regions that generate the most cost-effective power should see those savings reflected in their electrical bills.

The Local Perspective

The Local Evolving Electricity System: Local Keynote Address, delivered by Rob Mace, President & CEO, Thunder Bay Hydro

Rob Mace described changes in the local electricity landscape in the past 10 years. Thunder Bay Hydro, the LDC for the Thunder Bay metropolitan area, leverages its flexibility and connection to customers, both residential and commercial, to evaluate programs for the north. Customers value Thunder Bay Hydro's conservation efforts; with 5,600 homes participating in conservation programs. Thunder Bay Hydro is continuing to monitor the Green Ontario Fund to determine how their initiatives will fit into existing efforts.

Communication with customers has also changed dramatically. Now, through platforms such as Twitter and Facebook, communication about power outages and restoration can be two-way. The media amplifies this direct communication instead of serving as the communications channel.

Distributed generation is also changing the utility. Because of customer interest in renewable projects, Thunder Bay Hydro has 240-plus distributed generators, from smaller residential microFIT projects to large solar parks, and has partnered to develop other projects with industries. The city's systems were not designed to accept electricity from multiple points, so the utility is redesigning systems, and piloting a battery-switching solution with the Thunder Bay Airport Authority.

In the future, Thunder Bay Hydro will continue to evaluate programs for Thunder Bay and the region. For example, Alectra Utilities' POWER.HOUSE program, piloted near Vaughan, would look different in Thunder Bay. Implementation of the program locally will not be driven by developers' demands to power new 500- or 1,000-house neighbourhoods. Instead, demand will come from customer interest.

Discussing the Local Perspective: Panel Discussion

Panel Moderator: Michael Lyle, Vice President, Legal Resources and Corporate Governance, IESO
Panelists: Deanne Kulchyski, President and CEO, Sioux Lookout Hydro
Joe Toneguzzo, Director, Transmission Integration, IESO
Mayor Renald Beaulieu, Municipality of Greenstone

Michael Lyle introduced panelists, and the panel discussed key issues and opportunities as they see them in today's electricity sector and that of the future; most particularly in the northwest.

Joe Toneguzzo described the implementation of a consistent province-wide planning framework for the regional planning process, as regulated by the Ontario Energy Board. The regional plans, which have now been implemented province-wide, include forecasts indicating if local growth is expected and identify what areas of the system has needs in order to support that growth. Plans are developed with input from the community, and outline recommended options to address those needs, and to ensure a reliable supply of electricity.

Deanne Kulchyski described Sioux Lookout Hydro's customer base as 80% residential. Unplanned outages have a disproportionate impact because most customers rely on electrical heat. Challenges

include keeping costs low and meeting customer needs with few staff members. With just six employees, it is difficult to address sector regulations and participate in new programs.

Mayor Beaulieu described similar constraints in the Municipality of Greenstone. When his municipality tries to participate in provincial programs, after investing in an initial application and proposal, they are often deemed ineligible. Greenstone, extending 230 kilometres end-to-end, has long faced inadequate power capacity and quality, which inhibits economic development. Currently, an industry considering locating in Greenstone would be required to generate its own power—which would solve that industry's need but not help to enhance service to the residential customers.

In his comments on the regional planning process, Mr. Toneguzzo said concerns are similar in rural areas across the province. Mr. Beaulieu disagreed with this assessment, saying communities in Northwest Ontario face different challenges. He pointed to his community's decades-long history of problems receiving reliable power; high electricity costs and reliability problems contributing to industries leaving the area. He said governments invest in highways, natural gas and broadband, and infrastructure investments should also include reliable power.

In relation to the planning process in the region, Ms. Kulchyski said planning meetings were postponed or cancelled because of weather difficulties, which resulted in low participation. Other participants described Local Advisory Committee (LAC) meetings, saying industrial customers were scarce at planning meetings, geographic areas covered were too large to make the sessions useful to participants, and the sessions were primarily presentations with little opportunity for participants to provide relevant input.

Engagement at the Local Level: Panel Discussion

Panel Moderator: Carrie Aloussis, Senior Manager, Customer, Stakeholder and Community Engagement, IESO
Panelists: Margaret Kenequanash, CEO, Wataynikaneyap Power
Iain Angus, Councillor, City of Thunder Bay and Co-Chair of the Common Voice Northwest Energy Task Force
T. Douglas Murray, CEO, Thunder Bay Community Economic Development Commission

Carrie Aloussis introduced panelists, and the panel explored engaging communities and businesses in the electricity dialogue at the local level.

Iain Angus said the CVNW Energy Task Force was established to allow economic development officers in the region to collaborate instead of compete, for resources. A core component of CVNW's position on energy is that infrastructure expansion costs should be borne by all Ontario ratepayers.

From the economic development perspective, T. Douglas Murray said electricity costs are a determining factor for industries looking to relocate in Northwest Ontario. He consistently fields questions about the bulk price of electricity, especially for manufacturers. Northwest Ontario produces low-cost energy, but the prices paid by customers outside the city of Thunder Bay do not reflect that.

Margaret Kenequanash talked about the importance of culturally relevant information in creating successful electricity projects. The ownership of Wataynikaneyap Power is split between Fortis (49%) and 22 First Nations (51%). The project to connect the remote communities in the Northwest as part of the line to Pickle Lake is now in the environmental assessment phase. Each stream of reports and analyses require translation into Indigenous languages and culturally equivalent concepts.

Panel moderator, Carrie Aloussis, asked panelists to define "engagement." Panelists emphasized the

importance of developing long-term relationships, as well as understanding and addressing cultural differences. Engagement meetings are often held in an urban centre such as Thunder Bay, Ms. Kenequanash pointed out, without a mechanism for input from smaller communities or efforts to build relationships in those communities. Also, some efforts to engage are not successful because they don't provide a tangible benefit to a community—groups seeking "engagement" might visit to gather information from a community, but then disappear.

Mr. Murray added that industrial representatives also represent a different, sometimes unaddressed culture—one that expects changes to occur from their input and involvement. Reports that are not acted on do not invite engagement from industrial representatives.

Mr. Angus said that this area of the province feels like outsiders; outnumbered by the rest of the province. When all communities in the region are engaged, vital regional projects are successful; for example, the Northwest Ontario School of Medicine was established when the Nishnawbe Aski Nation supported it.

Forum Wrap-Up, delivered by Chuck Farmer, Director, Stakeholder and Public Affairs, IESO

During the final wrap up of the day, Mr. Farmer reiterated that regional planning is a transparent process, and the IESO shares forecasting and methodology that help to inform recommendations and conclusions made in regional plans. Engagement is an important tool to the IESO to help inform that process.