Meeting Notes of the Stakeholder Advisory Committee

Meeting date: 03/November/2021 Meeting time: 09:00 a.m.

Meeting location: Video conference

Chair: James Scongack Scribe: Smarter Shift Inc.

Meeting materials can be accessed on the SAC web page.

Invitees	Representing	Attendance Status Attended, Regrets
Nicolas Bossé	Energy Related Businesses	Regrets
	and Services	
David Butters	Generators	Attended
Brandy Giannetta	Generators	Attended
Ed Gilbert	Ontario Communities	Attended
Malini Giridhar	Energy Related Businesses	Attended
	and Services	
Paul Grod	Energy Related Businesses	Attended
	and Services	
Bala Gnanam	Consumers	Attended
Jim Hogan	Distributors and Transmitters	Attended
Bruno Jesus	Transmitters and Distributors	Attended
Frank Kallonen	Distributors and Transmitters	Attended



Invitees	Representing	Attendance Status Attended, Regrets
Amanda Klein	Distributors and Transmitters	Attended
Tonja Leach	Ontario Communities	Attended
Paul Norris	Generators	Attended
Mark Passi	Generators	Attended
James Scongack	Generators	Attended
Annette Verschuren	Energy Related Businesses and Services	Attended
Agnieszka Wloch	Consumers	Attended
IESO Presenters		
Dave Devereaux		
Barbara Ellard		
Chuck Farmer		
Michael Lyle		
Carla Nell		
Guest		
Todd Smith, Ontario Minister of Energy		

Agenda Item 1. Welcome Remarks

Jason Grbavac invited participants having technical issues with Webex to email him at engagement@ieso.ca during the meeting. As well, participants from the public were invited to email

questions at any time. Mr. Grbavac noted that Summit-Lite will be held on the morning of November 24. All are encouraged to register and information will be available in the Thursday news bulletin this week.

James Scongack welcomed everyone to the virtual meeting. He acknowledged the traditional First Nations and Métis territories occupied by all of the participants.

Agenda Item 2. Guest Speaker: Todd Smith, Minister of Energy

Todd Smith said his top priorities for Ontario's power system are reliability, affordability, sustainability, and consumer choice. A predictable policy environment is also a top concern. Communication is important, and he said his office has an open-door policy.

Potential impacts on affordability and reliability stood out in the gas phase-out impact assessment that was released by the IESO in October. He said if the phase-out is not done right, it could potentially add 60%, or \$100 per month, to the average residential bill by 2030. It could also lead to energy shortfalls and rotating blackouts, and potentially paralyse the province's decarbonization and electrification programs. He said such outcomes would be unacceptable.

Mr. Smith said he has asked the IESO to evaluate a moratorium on the procurement of new natural gas generating stations and a pathway to zero emissions.

He acknowledged that certainty and clarity required by investors in the sector have been lacking in the past. He is focused on a stable policy environment that encourages investment. In some cases, direction from his ministry could be required in working toward these opportunities, he added.

He encouraged SAC members and members of the public to share their expertise and experience.

Comments

Brandy Giannetta asked when there might be direction coming from the minister's office in terms of gaining certainty. Mr. Smith said the ministry has met with players to discuss what they need to remain relevant participants. A roadmap will come in the months and years ahead.

Mark Passi said the future of the energy sector is all about customers, families, and businesses.

Agenda Item 3. IESO Business Update

Carla Nell was previously President and CEO of the Burlington Chamber of Commerce as well as the Vice-President of Municipal and Stakeholder Relations at the Municipal Property Assessment Corporation. In her new IESO role as Vice-President of Corporate Relations, Stakeholder Engagement and Innovation, she said she is focused on energy sector collaboration and partnerships.

Significant engagement activities are under way.

On October 7, the IESO released its assessment on phasing out gas generation in Ontario by 2030. During October Engagement Days, the IESO introduced roadmap objectives for distributed energy resources (DER), long-term timelines, and next steps on the regional planning process for non-wires alternatives. The IESO is collaborating with the Ontario Energy Board to enhance stakeholder input.

The IESO and stakeholders discussed enhancements to the Capacity Auction to be presented in 2022. A draft document for the medium-term RFP was posted yesterday on the procurement section of the website. A broad spectrum of stakeholders will be assured for long-term RFP development. Enhancements to the 2022 Capacity Auction have been summarized into a design document, and stakeholder comment will remain open until November 12. The Capacity Auction design document will be discussed at the November Engagement Days, along with the annual acquisition report and procurement fees.

A draft program for Phase 2 of the engagement on the Industrial Energy Efficiency Program is expected in the first quarter of 2022. It will include a customer-focused program for large transmission and distribution-connected industrial consumers.

The November 24 Summit-Lite event will focus on sector changes from the perspective of consumers. The event will capture a broad range of stakeholders, including transportation, large industrial/low-volume consumers, and distributors. A list of participants will be available soon.

Michael Lyle said the small business program on energy efficiency goals within the 2021-2024 Conservation and Demand Management (CDM) Framework will launch in November and feature a selection of non-lighting measures. The IESO is continuing to engage with stakeholders on a call for proposals for significant energy projects from large industrial customers. The proposed project budget is \$80 million over two rounds. It is anticipated that the draft documents will be issued in the first quarter of 2022, with applications accepted in the second quarter.

The IESO is extending the original December 31, 2021 timeline for completion of the interim framework for Save on Energy Retrofit Program projects to July 31, 2022. The interim framework exceeded the targets set, with participants contributing 1.5 TWh of electricity savings for the province within the allocated budget of \$353 million.

More than \$4.6 million has been approved for 47 communities and organizations under the Indigenous Energy Support Programs for 2021, including six which are new to the program.

Under the Market Renewal Program (MRP), draft Market Rules and Market Manuals on market power mitigation were issued for stakeholder review in August, and are now before the Technical Panel. The IESO will advise the SAC in early 2022 on how stakeholder feedback has been integrated.

The IESO is focused on implementation activities to ensure market participants are prepared when MRP goes live in November 2023. The MRP Technical Advisory Group is comprised of volunteers from across the sector.

Market Surveillance Panel (MSP) Report 35 was issued in early September. Its eight recommendations focus on demand response performance, the Real-Time Generation Cost Guarantee (RT-GCG) Program, carbon costs, and procurements. The IESO is in agreement with most of the recommendations in the report. It differs on the recommendation that carbon cost payments not be eligible under the GCG Program. The IESO believes these to be recoverable incremental costs. The GCG Program was designed to ensure that non-quick start generators are available to meet reliability needs.

Comments

Annette Verschuren asked if the upcoming Summit-Lite event would engage with residential consumers, adding that it is important that they have input. Ms. Nell acknowledged the comment.

Paul Grod asked about next steps for stakeholders to provide feedback on the Market Surveillance Panel report. Mr. Lyle said work is under way on the demand response performance recommendations to provide better incentives and remedies in the event of non-performance. Where the IESO is unable to use competitive mechanisms to procure resources, the goal to ensure competition and transparency. The issue will be addressed within the Annual Acquisition Report, with comments provided on an ongoing basis.

Dave Butters thanked Mr. Lyle for his comments on the MSP report with respect to carbon costs. He noted that a spokesperson from the Ministry of Environment and Climate Change commented on fixing the problem in a recent *Globe and Mail* article and asked Mr. Lyle if he was aware of what they had in mind. Mr. Lyle replied that he was not, and that there may have been a misunderstanding. The IESO sees an appropriate mechanism to take carbon costs into account, ultimately paid by consumers, so that there is an appropriate price signal that people can take into account in their consumption decisions.

Ed Gilbert said work is required to ensure that Indigenous community support programs are delivered efficiently. For example, participants require three signatures to fully participate in a retrofit program. Mr. Lyle replied that the programs were revisited early in 2021. (Note: the IESO follow-up with Ed Gilbert the week after the November SAC meeting. An IESO representative from the Energy Efficiency team participated in that outreach to better understand the feedback on program design.

Agenda Item 4. Gas Phase-Out Assessment Report Next Steps

In response to more than 30 municipal resolutions, Dave Devereaux said the IESO undertook a study to assess the feasibility of phasing out natural gas generation by 2030. It set out to identify implementation challenges and find a least-cost mix that included energy efficiency, demand response, wind, solar, hydroelectricity imports from Quebec, a significant storage fleet, a single small modular reactor, and opportunities for decarbonization through vehicle electrification. The bottom line was that the 2030 timeline does not provide enough time to develop a reliable solution due to logistics and the readiness of new technologies. More time would allow for the building of new transmission and distribution, and opportunities for new hydro, nuclear, wind, solar, and emerging technologies. It would also provide an opportunity for staged retirement of gas facilities. The costs to meet the 2030 deadline would be in the range of \$27 billion, with increasing system costs of \$5.7 billion per year.

While it looks at a moratorium on new gas and a pathway to zero emissions, the IESO is looking for SAC input on how to develop the right mix, including assumptions on emerging technologies like carbon capture, green fuels, and small modular reactors and how to factor in their costs and timelines. The assessment must also consider the role of the electricity sector in supporting broader decarbonization in the economy, raising the question of zero emissions versus net-zero. Thoughts on the IESO's approach to outreach and engagement from a broader range of stakeholders will be welcome, along with ideas on how these engagements may affect future resource acquisition.

Comments

Ms. Giannetta said the role of the energy sector is to maintain affordability while incrementally increasing supply. When considering decarbonization and deep electrification, the question will be how to maintain affordability. The optimization of existing technologies is key, particularly within the renewable energy fleet and standalone or hybrid energy storage units. She said it was good to hear that the energy minister is prioritizing sustainability and consumer choice. The roles of municipalities and communities must also be factored into the outreach process. Early engagement should start with the IESO planning, policy, regulatory, and procurement processes.

Mr. Devereaux agreed that storage is an interesting development in the fleet. The challenge will be how to size it. Chuck Farmer said the IESO would look at scenarios for shifts in demand as decarbonization takes hold. These scenarios will be reflected in the next Annual Planning Outlook. He noted that it is not enough to understand what will electrify; the timing is very important. Getting too far ahead with infrastructure and investment can have rate implications and create affordability issues that could hinder the decarbonization effort. Thus, accurate forecasting is the key, and the optimization of the existing fleet is always a priority.

Ms. Verschuren said alignment with the Ontario Energy Board would require rules and regulations to support growth. For investors to participate at various levels of the supply chain, they will require a clear view of where the system is going. The challenge will be to neither get too far ahead or lag too far behind, making best use of existing assets while hearing the demands of third parties like auto manufacturers for options to decarbonize production. Given the often slow pace of innovation, it is time to move testing into commercialization and configure the grid to accommodate the movement of surplus energy in multiple directions.

Ms. Nell said outreach to municipalities and communities should be targeted and strategic. The IESO is hearing that there is a lot going on and it can be difficult keep up. At the same time, stakeholder reach is broadening. There is a need to educate municipalities about the role of the IESO in building capacity. Active and purposeful engagement is a priority for next year, and a municipal toolkit is under development.

Mr. Butters said there is as yet no understanding of the government's long-term energy plan. It is important for the IESO to bring together significant stakeholders that currently participate in the electricity market and those that are interested in providing new technologies, and to move from a general description of what will be done to how it can come about. Mr. Farmer agreed that such engagements are critical, and the IESO is taking care to ensure it has the right resources and capabilities in place to reach out.

Mr. Norris said Indigenous communities must be included in engagements and partnerships, particularly when conversations and policies touch on access to Crown lands. At present, there is no procurement pathway for stakeholders to put forward assets to be in service by 2026 on the provincial and federal lands that make up 87% of the province.

Ms. Leach said municipalities have asked what the options are for the IESO to hold the line on emission reductions in the near term, and what will happen as refurbishments go forward. They have asked when the grid will reach net-zero emissions, and whether the IESO will try to align with the federal government's 2035 net-zero electricity target. Municipalities are under a lot of pressure for energy retrofits, and it would be helpful during IESO engagements to discuss what is achievable and

how it plays into the larger forecast. It would also be helpful to look at leveraging assets like dual fuels, non-wires alternatives, and virtual net metering, and scaling these into various jurisdictions.

Mr. Farmer said the planning process considers policies at all three levels of government and the IESO will align with those policies as they become law. The future may be driven more by customers than by policy, he noted.

Amanda Klein said there is an opportunity to move past zero-sum discussions on grid versus behind-the-meter resources, and on poles and wires versus non-wires alternatives, and move toward zero emissions, whether absolute or net. Significant grid investment is required and must occur before the load materializes, producing costs to customers which must be confronted. In the past, this topic has been deeply politicized and polarizing. The IESO must decide who should be at the table for a consensus-building stakeholder process, as opposed to a process where feedback is received and a position is taken. Different approaches breed different results.

Agnieszka Wloch said consumers are not just payers. They are also investors. Consumers who buy new homes and make decisions to renovate want to know when they can store energy and give back to the grid. They also want to do their part on decarbonization.

Mr. Farmer said everyone agrees there are big questions to answer that will require all parts of the sector to address. At this stage, planners are focused on understanding the questions asked by the energy minister.

Mr. Scongack said the common theme in the discussion is the role of the IESO in providing factual information while keeping politics aside. People are entitled to their own opinions, not to their own facts.

Mr. Passi said the pace of change is key, and that some things are not achievable within certain time frames. He encouraged optimization of existing infrastructure on the generation side as well as the demand side. Industrials have contributed a significant amount, for example 1300 MW from the Industrial Conservation Initiative and demand response. But the load side and municipal consumers need to participate more actively, he said, and greater outreach is the way forward.

Mr. Farmer said the IESO exists to serve load. Planners do not see optimization of efficiency without it being incremental, and the next study will consider increased load participation, as well. Adoption of distributed energy will be top of mind, especially efficient electrification as customers add electricity load.

Mr. Scongack outlined some of the challenges ahead.

- A large share of base load will continue to be supplied by nuclear and hydroelectric assets.
- The base of renewable generation assets will continue to grow.
- There will be pressure to reduce emissions and debate about when to reduce them, but net zero is here to stay.
- The system will demand flexibility.
- Ontario will need large, bold storage projects, and their lead time will be as important as building a new nuclear or hydroelectric facility.

Mr. Scongack said it may be time to start moving on early activities to keep lots of options open, given the longer lead times required for larger projects, and Ms. Verschuren agreed. Mr. Farmer commented that different scenarios on the demand and supply sides would begin to align around

significant investments that will become the focus of activity. Much of this will be around base load, storage, and thinking about generation differently.

Mr. Scongack said investing in options is a good thing, and many options will be needed. He commended the IESO for managing the challenges well as an independent, fact-based market operator.

Mr. Butters commented on a recent Royal Bank of Canada report stating that \$2 trillion will be needed to reach the 2050 target of a net-zero economy. Ontario's electricity sector will contribute just 11 million of the 730 million tonnes of emission reductions required across Canada.

Comments from Observers

Alexandra Marks asked if the least-cost model includes a carbon cost to the environment. Mr. Devereaux replied that it does, bearing in mind that the current gas fleet is subject to emission performance standards, so not all of its production is subject to carbon tax.

Alex Cameron asked if there is an opportunity to buy affordable hydro from Quebec for storage. Mr. Devereaux said the scenario included 3300 MW of non-emitting supply. Quebec mainly sells to Ontario in summer and buys in winter, with a total of 3300 MW supplied year round. It is unknown what transmission would be available on the Quebec side to get the electricity to Ontario. One low-cost solution would be to place storage close to consumers, likely in the Toronto area, thus reducing transmission investment and overall costs.

Alex Cameron asked whether the direction given to the IESO for the report included decarbonization as a priority, and whether decarbonization was placed on a par with cost and reliability. Mr. Farmer replied that the IESO did not receive a direction, but rather was asked to evaluate and develop a pathway for a procurement moratorium and phase-out for natural gas as advice to the Minister. The minister asked that priority be placed on reliability, cost to ratepayers, and the impacts of electrification on the broader economy.

Agenda Item 5. Future Resource Acquisition Plans and System Needs

Mr. Farmer said the IESO is working to align its planning products and identify needs with respect to reliability. The Resource Adequacy Framework is the toolkit to acquire resources, including conservation. The Annual Planning Outlook will roll out in late November or early December with core themes not significantly different from previous years. Nuclear refurbishments are ongoing, and the expected retirement of the Pickering station in 2025 will create a loss of 3000 MW. Demand has been flat for the past 15 years. Electrification in transit and steel production has begun. Agricultural growth in southwestern Ontario continues, the mining sector is doing well, and economic recovery is happening in Ontario.

The high demand scenario in the upcoming Annual Planning Outlook incorporates a higher pace of electrification. This will set up debate over the gas moratorium and phase-out study. The need to develop resources will continue beyond 2026.

Barbara Ellard provided an overview of the landscape as policies shift, technologies change, the operational profile of the fleet changes, and uncertainties emerge around demand and supply. The IESO seeks to create a balance to adapt to these changes while providing certainty for investors.

The three key components of resource adequacy are: the Resource Adequacy Framework, the ability for resources to bridge between procurement processes, and medium-term RFP processes. In order for resources to come onstream, a long-term RFP process is needed. Auctions will continue to be enhanced to ensure the best reliability possible.

The draft medium-term RFP was posted yesterday for stakeholder comment. It ensures resources have an opportunity to continue to participate in the sector and provide capacity, through contracts that provide the right incentives and structure for resources to integrate and compete. The medium-term RFP has a three-year commitment period, and successful proponents will have the opportunity to commit for up to five years. Efforts continue to create certainty by allowing continuity of participation from one process to another. Engagement will involve a request for qualification, followed by the RFP process. The important role of communities in procurement design will be addressed in the coming months.

Mr. Butters asked if there is a Plan B in case not enough capacity is secured. Ms. Ellard said the registration phase built into the medium- and long-term RFPs will allow ample time to see the signals and adapt. Stakeholder engagement will provide a second signal.

Ms. Giannetta said the evolution from medium- to long-term RFPs requires clarity on how generators and developers make investment decisions on existing infrastructure or options for upgrades that may be eligible under either process. Accounting for unsolicited proposals and the impacts of decisions is difficult, but seeing how they are accounted for is helpful. Ms. Ellard said the IESO is aiming for a stepped process, with the first medium-term RFP as a good foundation.

Mr. Norris said a forward period that is shorter than the development timeline for certain resources would necessarily eliminate options. This will be the reality for the first long-term RFP. Similarly, a commitment period that is significantly shorter than the financing for an asset will limit options.

Mr. Grod said it would help to set out a trajectory for increasing capacity in the province so that providers can start to build sustainably. At present, the sector is stuck in a market versus RFP situation. If the Capacity Auction is to be the bridging mechanism, a lot of instability and volatility will result. From a pricing perspective, there may be 1000 MW in one season and no megawatts in another, creating uncertainty and imbalance in procurements. He said allowing some providers to participate in the Capacity Auction, but not in the RFPs, will be problematic, adding that it is important to remain technology-agnostic.

Ms. Ellard agreed with the need for a growth trajectory to create confidence. The Annual Acquisition Report outlines the growth of the Capacity Auction and subsequent reports will continue to do the same. She added that anybody who can provide reliable products should be eligible to participate in the long-term RFP. With respect to the Capacity Auction and bridging, it will be important to provide clarity on the linkage with markets. The IESO will be looking for more stakeholder input on this topic.

Mr. Gilbert said many First Nations saw contracts cancelled in the last round of procurements, with large investments lost. There is a need to mitigate this in future. Ms. Ellard said the IESO would build on lessons learned.

Mr. Butters said investor representatives are cautioning that a three-year undertaking is not enough for the medium-term RFP, and a five-year option is preferable. Investors do not appear to be confident, and this should be taken as a warning signal. Ms. Leach said the risk tolerance of various stakeholders and potential new market entrants must be considered. As the system becomes more distributed it will be inviting in non-traditional players, such as Indigenous communities, and this must weigh into resource adequacy thinking. Ms. Ellard said this would be considered across a broad range of stakeholder discussions.

Comments from Observers

Alexandra Marks said a shift from existing resources to opportunities for home operators and small generators could be factored into long-term eligibility. Ms. Ellard said the IESO is seeing a shift in the way electricity is produced and consumed and will adjust to the changes through multiple initiatives. When technologies and resources are able to meet reliability needs, they will be eligible for procurement.

Charles Conrad asked whether an existing resource would still be eligible to compete in the long-term RFP if it terminated a medium-term contract, and if so, whether that would increase the prospect of getting new assets built. Ms. Ellard said the long-term RFP is meant to attract incremental new megawatts. There might be assets participating in the medium-term RFP and converting to hybrid resources. So a resource that is successful in the medium-term RFP will be eligible for the long-term if it provides incremental megawatts. A seamless transition to the long term would then be anticipated.

Kate Daley, Region of Waterloo, thanked everyone for the valuable discussion.

Agenda Item 6. Other Business

There was no other business.

Agenda Item 7: In-Camera Discussion (SAC members only)

Agenda Item 8: Adjourn

Mr. Scongack invited SAC members and observers to send additional questions or comments to engagement@ieso.ca.

To Mr. Gilbert's point about Indigenous communities and municipalities losing their investments through cancelled contracts, Mr. Scongack said the sector must remain mindful of not raising hopes when there is a low probability of success. This will damage relationships.

Mr. Scongack thanked members of the IESO board and management for their attendance and adjourned the meeting.