

IESO Stakeholder Advisory Committee Meeting Notes – April 27, 2018

Advisory Committee Members:

Mr. Brian Bentz, Chair (representing Distributors and Transmitters)
Mr. Steve Baker (representing Related Businesses/Services)
Mr. Nicolas Bossé (representing Energy Related Businesses and Services)
Ms. Darlene Bradley (representing Distributors and Transmitters)
Mr. David Butters (representing Generators)
Ms. Judy Dezell (representing Ontario communities)
Ms. Brandy Giannetta (representing Generators)
Ms. Julie Girvan (representing Consumers)
Mr. Jim Hogan (representing Distributors and Transmitters)
Ms. Rachel Ingram (representing Energy Related Businesses and Services)
Mr. Frank Kallonen (representing Distributors and Transmitters)
Mr. Ted Leonard (representing Energy Related Businesses and Services)
Mr. Mark Passi (representing Consumers)
Mr. Mark Schembri (representing Consumers)
Mr. Hari Suthan (representing Energy Related Businesses and Services)
Mr. Terry Young (representing IESO)

Absent:

Mr. John Beaucage (representing Ontario Communities)
Mr. Paul Norris (representing Generators)
Mr. James Scongack, Vice Chair (representing Generators)

IESO Board Members:

Ms. Cynthia Chaplin
Mr. Peter Gregg
Ms. Susanna Han
Dr. Timothy O'Neill
Mr. Glenn Rainbird
Ms. Deborah Whale

Presenters:

Mr. Alex Foord
Ms. Carrie Aloussis
Ms. Alexandra Campbell

May 8, 2018

Please report any comments by email to engagement@ieso.ca

Agenda Item No. 1: Welcome

Mr. Brian Bentz

Mr. Bentz welcomed all to the meeting. He introduced three new SAC members who were appointed on April 19:

- Nicolas Bossé is Senior Vice President, Governmental and Regulatory Affairs, for Brookfield Renewable in North America. He was formerly at Hydro-Québec in functions related to wholesale markets, transmission, and generation. He has been appointed as an energy-related businesses and services representative on the SAC. Mr. Bossé told the committee that Market Renewal and its impacts, along with pricing, are what matter most to his constituency.
- Judy Dezell is Director of Local Authority Services (LAS), the business arm of the Association of Municipalities of Ontario. LAS offers group buying opportunities to municipalities and helps them build capacity in energy efficiency and conservation and demand management. For example, LAS has offered a successful light-emitting diode (LED) streetlight program, along with training for municipal staff. An urban planner, Ms. Dezell formerly worked for federal, provincial, and municipal governments. She has been appointed as an Ontario communities representative.
- Hari Suthan is Chief Strategic Growth and Policy Officer at Opus One Solutions, a software engineering company. He has been appointed as an energy-related businesses and services representative on the SAC. Mr. Suthan told the committee he is looking to provide software solutions with respect to generation, transmission, and distribution, as well as gaining advice. A lawyer, he has worked with management consulting firms, with federal and provincial governments, and with General Electric on energy storage and software.

Mr. Bentz invited participants in attendance and on the phone to email their input or questions to him at iesosac18@gmail.ca during the course of the meeting.

Agenda Item No. 2: IESO Business Update

Mr. Terry Young

Mr. Young welcomed two new members to the IESO executive team. Alex Foord is Chief Information Officer and Vice President, Information and Technology Services. Marcia Mendes-d'Abreu is Vice President, Human Resources. This is a newly created position. Also in attendance from the executive team today are Michael Lyle and Chuck Farmer, attending on behalf of Leonard Kula.

Conservation

Mr. Young said updates on the Home Assistance Program for low-income customers, the Indigenous Conservation Program, the Conservation Framework Mid-term Review, and the Achievable Potential Study have been posted on the IESO's website.

The Municipal Energy Profile Study was recently completed. Building on a 2008 report, the profile study provides a look at how municipalities use electricity. While municipalities are becoming more energy efficient, the study found that significant energy-efficiency opportunities still exist. The IESO is beginning to work with local distribution companies (LDCs) and municipalities directly to take advantage of energy efficiencies in the areas of street lighting and waste water.

Stakeholder and Community Engagement

The annual Electricity Summit will take place on June 11, 2018, at the Sheraton Centre, Toronto. Details are available at ieso.ca/summit. The theme of the summit is unlocking the value of innovation to strengthen Ontario's electricity sector. The summit will address consumer behaviour, drivers for innovation, and how the electricity sector will be called upon to adapt to change. Confirmed speakers include Alectra Utilities, the Association of Major Power Consumers in Ontario, Electricity Distributors Association, IBM, New Brunswick Power, Smart Energy Consumer Collaborative, and Opus One Solutions.

Regional forums will continue to take place this year, along with two separate energy symposia for First Nations and Métis scheduled for October 2018.

Long-Term Energy Plan

The IESO has received approval to proceed with the LTEP implementation, which is well under way. The first two deliverables are now complete: the First Nation and Métis energy support programs and the First Nation and Métis conservation programs.

Technical Panel

Michael Lyle has replaced Chuck Farmer as chairperson, and Jessica Savage has replaced Barbara Ellard.

Comments

Ms. Girvan asked for clarification of the relationship between the IESO and GreenON. Mr. Young said the IESO has signed various service-level agreements with GreenON. Sixty thousand homes have had smart thermostats installed at no cost, and customers are receiving home energy audits. The IESO is administering rebates for things like insulation, windows, and heat pumps. The IESO also looks after the GreenON website and assists with its marketing activities.

Regarding regional planning and engagement, Mr. Butters said relationships are fuzzy between the Incremental Capacity Auction, regional planning, and the Non-Emitting Resources Subcommittee's (NERSC) request for information. Mr. Young advised Mr. Butters to refer the comment to Alexandra Campbell later on.

Agenda Item No. 3: Response to SAC Members' Business Priorities

Mr. Peter Gregg

Mr. Gregg welcomed the two new IESO executive team members and the three new SAC members. He took a moment to recognize the front-line workers during the April 2018 ice storm that occurred in southern Ontario, noting that such challenging situations bring out the best in people and demonstrate the role the IESO plays in ensuring the safety and comfort of Ontarians.

Mr. Gregg provided an overview of the refreshed IESO corporate strategy. Discussions with employees across the company, with the leadership team, and with the board of directors have taken place with the aim to align organizational changes made late last year. The corporate renewal strategy outlines the vision for the electricity sector and the IESO's role within it. Themes include the importance of innovation, the need for inclusive and purposeful engagement, the need for open and efficient markets that provide value for ratepayers, and leadership in cyber security and grid resiliency.

The IESO business plan for 2019–2021 will be presented at the August 22, 2018, SAC meeting and will address how the feedback to SAC members' business priorities has been incorporated. These priorities encompass six broad themes: market renewal, innovation, conservation, cyber security, general IESO business / broader sector, and stakeholder engagement.

The IESO wants the SAC to consider any potential additions to the business planning discussions as well as what areas of focus are most important to each constituency.

Comments

Ms. Girvan asked whether an updated organizational chart would be provided to SAC members. Mr. Gregg said it would be.

Mr. Young provided an overview of the SAC members' business priorities. With respect to Market Renewal, the SAC is looking for timeliness, transparency, incorporation of demand response, and where the SAC fits in. The IESO created the NERSC and continues to focus on efficiencies in Market Renewal. The IESO acknowledges that stakeholder fatigue is an issue. As the transition to High Level Design (HLD) evolves, there will be discussions on how the work is to be shared.

With respect to innovation, the SAC is looking to the IESO to maintain expert knowledge on distributed energy resources (DERs) and to look at non-wire solutions within regional plans. The SAC has identified Smart Meter data usage as a business priority, and in response the IESO has launched a third-party access initiative. The SAC has asked for the prioritization of renewable demonstration projects, electric vehicles, and data initiatives, and in response the IESO is working on various innovation initiatives within the LTEP implementation plan. An innovation roadmap is coming this year.

With respect to conservation, the SAC has raised questions as to who will deliver beyond the current framework and what it will look like. SAC members have asked for a seamless transition into the next framework. The IESO will deliver a report to the Ministry of Energy in June with recommendations on what the next framework will look like and any adjustments that should be considered.

The SAC has asked the IESO to take a leadership role in cyber security. The IESO responded that Mr. Foord recently joined the company and brings the experience that will be of value when dealing key cyber security issues facing bulk and non-bulk transmitters and distributors.

With respect to engagement the SAC has asked that the IESO see beyond the traditional players and look at improving the capability of others who want to participate in decision making. In response, the IESO is looking at education and awareness building to help others get involved. At the same time, the IESO will monitor impacts on the natural gas market related to gas supply and existing generators.

With respect to broader sector, the IESO continues to hear the priority on governance and about the need to control costs. The IESO is addressing the governance issue through the Market Renewal Working group. With respect to costs, the market renewal work projects efficiencies of up to \$5.2 billion. Through the LTEP, work is also being done on planning.

Comments

Mr. Bentz said the Conservation First Framework is working. Alectra Utilities recently held an energy evolution summit in Mississauga to recognize the progress being made. More than 600 participants attended from across the service area, and they appreciated the recognition. There is good momentum. Lines of sight and predictability will ensure a soft landing into the next transition of the framework.

Mr. Bentz said he foresees a hybrid market with transactive energy being located close to loads and working with wholesale competitive markets. DERs would be connected to the grid downstream. The idea of who does what in forecasting, dispatching, settling, and procuring is a strategic issue for the IESO. Whether there will be a load-serving entity model or a distribution system platform operator model and how the IESO will integrate with that must be established. Mr. Young said it is important to bring the right people into the discussions. With the roles of the IESO, LDCs and consumers changing, all viewpoints must be represented.

Mr. Gregg said the IESO met with the Electricity Distributors Association to begin thinking about roles and responsibilities and what information is required. The Smart Grid Forum is now called the Electricity Transformation Network of Ontario. Its purpose is to frame the issues and make sure the right people are at the table. The network will produce a year-end report that will help inform policy discussions.

Mr. Baker commented that customers view their heating and electric needs in totality. He advised looking at energy as a comprehensive system, which includes gas, and taking a holistic approach with customers. Mr. Young responded that a whole home pilot study is being conducted, and results are due soon. There is much value to be captured for customers, and it needs to be coordinated.

Referring to Market Renewal, Mr. Bossé said there is an emphasis on reforming the market internally and mimicking what is happening in the United States. His constituents have said not enough consideration is being given to the benefits created from using the external ins and outs of this market. Within capacity markets there is the issue of congestion pricing at the interties. More discussion within the Market Renewal process is required. Mr. Young replied that he will pass the comment along to Mr. Leonard Kula.

Mr. Kallonen commented that the Ontario Energy Board (OEB) requires LDCs to report on their progress on cyber security. He asked whether the IESO is coordinating this. Mr. Gregg said the IESO has spent months working on this with the OEB. The OEB's role is to monitor self-accreditation for LDCs. The IESO's role is to bring broad sector expertise to the community. The IESO will continue its cyber security forums. It will share its best practice to get everyone up to a minimum standard.

Mr. Butters said discussions around governance should be seen as "must-haves" as opposed to "nice-to-haves" as Market Renewal progresses. Governance discussions might warrant a separate area of their own. Mr. Lyle replied that governance concerns have generated good internal dialogue. He said he hopes the SAC will be pleased to see the level of openness that is brought to the table in the Market Renewal Working Group (MRWG).

Comment from the Floor

Mr. Gary Michor, Screaming Power, said the energy industry must be viewed broadly with respect to cyber security. He would like to see the IESO help utilities and other entities on a real-time basis. Turning to conservation, he noted that the Save on Energy website is not mobile enabled, so it cannot be embedded into today's communications. He asked whether the IESO has plans for resolutions that are

short-term in nature. Mr. Young noted the concern and said the IESO is working on a new Save on Energy website to be completed by fall 2018.

Mr. Foord acknowledged the desire for real-time tactical value. He said the IESO is taking a four-phase approach to its cyber security leadership. The first element of the approach is to provide real-time, online updates and communication lines. The second element is collaboration within constituent groups. The third is partnering with leading information exchanges, where organizations can get information on the latest cyber threats. The fourth is a cyber defence strategy in collaboration with national government security agencies.

Mr. Bentz invited comments on two discussion questions the IESO has posed for the SAC:

1. Are there additional considerations that should be included as part of the IESO's 2019–2021 business planning discussion?
2. What areas of focus are most important to your constituency?

Comments

Speaking about governance, Mr. Butters said there will be problems if changes in the energy stream have impacts that cannot be mitigated in contracts. This will be a critical success measurement to look at in 2019–2021. From a generator perspective, he asked that the IESO provide more opportunity for collective decision making. Contract amendments must be arrived at before going live on the energy stream portions.

Mr. Bossé asked why the IESO has used the market manual process instead of full-blown stakeholder engagement to implement Market Renewal changes. Mr. Young said the market manual process is appropriate, but how the process is conducted can be challenging. The market manual process must be transparent.

Mr. Butters said the challenge on the market manual side is that, unlike a market rule amendment, there is no recourse. The other challenge is that the significant operation implications are embedded in the manual, not in the rules. The rules are high level and they empower the market manual.

Agenda Item No. 4: Third-Party Access to the Meter Data Management/ Repository (MDM/R) Update

Mr. Alex Foord

Mr. Foord said the third-party access roadmap has been completed in consultation with the Information and Privacy Commissioner of Ontario, and 15 key milestones have been identified. Pilots have been completed with five representative organizations to gain a better understanding of data de-identification strategies, legal requirements, extraction and consumption processes, and the data value proposition. A privacy analysis for each usage case has been completed. New detailed de-identification rules have been developed. A draft data-sharing agreement has been created, though the IESO recognizes that different agreements may be required for different constituents. A need has been identified for standard data product offerings that are easy to consume. A need has also been identified to raise market awareness around how privacy is being managed. The work completed by Sorana Ionescu and her team has been recognized as a gold standard for collaboration with the Information and Privacy Commissioner.

With respect to MDM/R costing and valuation, four interested groups have been identified with potential use of the data:

- Government
- Research and education
- Utilities and municipalities
- Private industry

Also, four potential MDM/R data products have been identified:

- Aggregated reports (de-identified for unrestricted or public use)
- Predetermined reports/analytics product, not for public use
- Data snapshots of the MDM/R
- Ongoing data feed of raw, de-identified data in the MDM/R

The IESO retained the accounting and advisory firm MNP to report on key considerations on data monetization, such as data-sharing approaches, benchmarks, standards, and best practices. It was learned that all government organizations follow a monetization methodology. The most common for MDM/R is a combination of both a level-of-effort charge and an annual subscription fee. The IESO has a mandate to submit a costing and implementation approach to the OEB for approval.

The IESO's development efforts will be guided by the principles of privacy, security, and ethical uses of MDM/R data; ensuring value creation for both ratepayers and the data beneficiaries; and striking the right balance between public good and private good.

Comments

Mr. Schembri asked how third-party access aligns with the Ministry of Energy's utility reporting requirements. Mr. Foord replied that there is a potential opportunity to utilize Smart Meter data. Mr. Schembri asked whether the third-party access would lower costs for customers. Mr. Foord said it will, by looking at consumption trends and time of use and by affecting policy conversations. Mr. Schembri asked whether customers will be allowed to opt out, stressing that it is important to fully understand the benefits to customers before taking the business model to the OEB.

Ms. Girvan asked for examples of how banks or telecom entities would use the MDM/R data. While MDM/R data repository mechanisms do not currently contain commercial meter data, Mr. Foord said the data could hypothetically show bank branch utilizations, as well as identify high-use versus low-use-per-square-foot cases. Ms. Girvan asked whether a bank would be using residential customer data. Mr. Foord replied that a bank would not be able to look at individual consumer data; however, energy consumption data within geographic regions would be accessible.

Mr. Bentz asked whether someone could slice aggregated MDM/R data such as load profiles within a demographic to do research or to provide new energy products. Mr. Foord said this would be possible.

Mr. Butters asked whether more information is available on the pilots that have been completed with the five representative organizations. Mr. Foord replied that the information could be taken offline and shared. Mr. Young added that information is available on the website.

Mr. Baker asked how privacy of data could be balanced with something that market participants are willing to pay for. He asked whether work has been done to determine what people are willing to pay for. Mr. Foord replied that work is being done to determine where the value propositions lie. The parties involved believe that a good balance has been struck.

Mr. Kallonen said Toronto has had success with hackathons that access traffic data. Mr. Foord replied that hackathons have been discussed with respect to publicly identified data being provided to a group of interested thought leaders to see if there might be an extended value proposition.

Ms. Girvan asked for more examples of how data will be used. Mr. Foord said he did not have this information at hand, being only four weeks into his job at the IESO, but that IESO will be publishing the various use scenarios as part of the work already in progress. Ms. Girvan asked what has been considered in terms of integration with regional plans. Mr. Foord said the discussion is on the radar.

Ms. Dezell commented that small municipalities lack the capacity to manage big data. Mr. Foord replied that consumers of varying sophistication would be able to utilize the MDM/R data.

Comment from the Floor

Mr. Michor asked whether there has been any talk about merging data standards such as Green Button, MDM/R, and hub infrastructure. Mr. Foord replied that whether the data elements exist to satisfy the broader need for different standards must be established.

Mr. Suthan commented that it is often not possible to know what can be done with data until the data are released. Mr. Foord agreed.

Agenda Item No. 5: IESO Engagement Strategy

Ms. Carrie Aloussis

Ms. Aloussis said the IESO would like to hear from the SAC as to whether the identified stakeholder groups are the right ones to focus on, whether the IESO is taking the right approach, and whether the IESO's proposed efforts will address the feedback being heard.

The 2017 annual stakeholder satisfaction survey was followed up in 2018 with engagement review focus groups to dig deeper into the issues. The focus groups revealed a need to reduce stakeholder fatigue, to increase the transparency of decision making, to increase the breadth of participation (low-volume consumers were identified as a key group to seek participation from), to have greater commitment to the engagement process, and to set clearer expectations and opportunities for feedback.

The IESO plans to broaden its engagements with First Nation and Métis communities, municipal officials and broader community representatives, new market participants, and low-volume consumers.

More than half of the First Nations in Ontario are owners or partners of renewable energy or transmission projects, and many opportunities exist for them. During 2017 the IESO met with representatives from more than 100 of the 133 First Nation communities and nearly all of the Métis councils and heard about their interests in capacity building, innovation, energy efficiency, and the implementation of their community energy plans.

To continue to build capacity, a website portal will be launched with educational resources, including energy efficiency and renewable projects for communities for use by youth, elders, and teachers. The portal will also feature a platform for communities to share their knowledge and experience. Separate First Nation and Métis symposia will take place this fall to focus on the implementation of their community energy plans.

There are 444 municipalities in the province, and the IESO wants to enhance relationships with them through dialogue on key electricity topics, inviting early and frequent input into decision making. The IESO wants to build knowledge by examining the effectiveness of the Local Advisory Committees. Through the LTEP initiatives, the regional planning process will be examined to broaden engagement, and the establishment of new community-based engagement forums will be considered.

New market participants require education on what is happening in the energy sector, training to help them to participate in the market, and access to engagement. Requests from new participants have included market information and impact assessments that are beyond the scope of what the IESO normally provides, so the IESO will seek ways to address such requests.

The IESO will enhance the tool box of techniques for engagement to reach more people. Training the IESO engagement team will continue, using International Association for Public Participation certification. The IESO will continue to build capacity with stakeholders and communities to increase their preparedness and their satisfaction with IESO engagements.

The IESO will standardize the format and timing for its responses to stakeholders and communities. All responses will include the rationale, and summary reports will be created for all engagements.

The IESO is committed to evaluation and continuous improvement and will continue its annual stakeholder survey and ensure that corporate performance metrics are met. Evaluation reports will be publicly available to ensure transparency. Finally, the tool box will be modified as required, based on feedback and innovation.

Comments

Mr. Bentz said intentional and deliberate dialogue will yield better-quality advice from stakeholders. He asked with all the multiple channels of engagement how the SAC will know that broad-perspective engagements are being carried out effectively and efficiently. Mr. Young said the IESO will bring that back and look to see how they are all connecting and ensure we inform you as to what we've heard.

Mr. Baker asked what success looks like and what is achievable. Mr. Young said not everyone has the same needs. The IESO will strive to be clear about what it is looking for from various stakeholders.

Ms. Dezell said 270 of Ontario's 444 municipalities have fewer than 10,000 people. She cautioned against trying to build capacity in these communities. She asked whether the IESO is partnering or collaborating with municipalities. Mr. Young said the IESO is forging partnerships because it cannot go it alone.

Mr. Kallonen commented that only small numbers of people attend community events. Some communities have people who are paid to engage, and some do not.

Mr. Leonard said new market participants do not know what they are facing or what questions to ask. He recommended taking a new approach to outreach that would best engage them.

Agenda Item No 6: Market Renewal Program

Ms. Alexandra Campbell

Ms. Campbell said much progress has been made but there is a long way to go. Participants want to know how the different streams of the Market Renewal program come together and how it will impact them.

The Market Renewal timeline shows when the first drafts of the High Level Designs (HLD) will be published. There are three in the energy stream: Single Schedule Market (SSM), day-ahead market (DAM), and Enhanced Real-Time Unit Commitment (ERUC). The SSM will be published in October 2018, followed by DAM and ERUC, and the Incremental Capacity Market in March 2019.

Load pricing is the energy stream's most impactful design decision. Ontario uses a uniform price for all loads. The IESO has proposed nodal pricing for dispatchable loads and zonal pricing (with a nodal option) for non-dispatchable loads (transmission-connected customers), and a uniform price for all distribution-connected customers.

The Incremental Capacity Auction is a new market in Ontario with 19 major design elements that have been introduced and discussed with stakeholders since last fall. There is a long way to go on this.

The IESO has pulled together the elements with the biggest impacts on participants' risk and investment opportunity for discussion this fall.

A technical conference was held to complete the initial phase of NERSC work. The findings will be integrated into the final NERSC report, which is on track for delivery by the end of 2018. A request for information has been sent out, and responses are due May 4.

The HLD for Market Renewal streams will ensure that the projects are manageable. Transmission rights and enhanced flexibility of the interties continue to be important conversations, and the IESO welcomes feedback on these. The market roadmap is ongoing.

Comments

Mr. Leonard said that when it comes to future market integration, there are many flexible products beyond intertie flexibility. He asked how stakeholders would engage on flexibility when there is no formal engagement. Ms. Campbell replied that Market Renewal meetings might not be the right place, and it will be important to ensure that the discussions happen in the right places.

Mr. Butters said Market Renewal is just the beginning of a series of processes in the evolution of the market. The idea of an enduring market committee is a good one because it allows interested parties to bring their ideas forward. Ms. Campbell replied that the MRWG is a useful forum. Mr. Butters noted that the MRWG is not open to everyone. An enduring market committee might be more effective. Mr. Young said there is a role for an enduring market committee.

Mr. Schembri asked what would happen with the Global Adjustment (GA) in the future and how it factors into load pricing and Market Renewal. Ms. Campbell replied that the SSM will not directly impact the

GA. The IESO proposal on load pricing is around the energy price. Mr. Schembri asked whether Market Renewal is looking at the GA. Ms. Campbell replied that it is not specifically looking at it.

Mr. Bentz said there is wholesale pricing and there is GA. How the price comes out at the retail level is a whole different conversation.

Ms. Giannetta said she supports Mr. Butters' and Mr. Leonard's comments on Market Renewal and engagement. The roadmap initiated last year has not materialized. She asked what confidence people have in its materializing and how the SAC can help to scope it. The SAC needs to know where governance and flexibility fit into the roadmap, and who should participate in an enduring market committee.

Comments from the Floor

Colin Anderson, Association of Major Power Consumers in Ontario, said load pricing is the single-biggest issue for his members. It will take many iterations. The IESO has done well, but there is a long way to go.

Mr. Michor said discussions on technology appear to be missing within the stakeholder groups, for example, the idea of third parties gaining access to thermostat information and how it will be used. Technology is evolving quickly, and the IESO has to catch up. Engagement is needed to share information.

Agenda Item No. 7: Other Business

There is no other business.

Agenda Item No. 8: Adjourn

Mr. Bentz thanked everyone for participating. The next meeting will be held August 22, 2018.