IESO Stakeholder Advisory Committee
Meeting Notes and Supplemental Comments
October 19, 2016
St. Andrew's Club & Conference Centre, Toronto

Advisory Committee Members:
Mr. Brian Bentz – Chair (representing Distributors and Transmitters)
Ms. Ersilia Serafini – Vice Chair (representing Ontario Communities)
Mr. John Beaucage (representing Ontario Communities)
Mr. Jack Burkom (representing Related Businesses/Services)
Mr. David Butters (representing Generators)
Mr. Jared Donald (representing Generators)
Ms. Julie Girvan (representing Consumers)
Mr. Geoff Lupton (representing Ontario Communities)
Mr. Rob Mace (representing Distributors and Transmitters)
Mr. Mark Passi (representing Consumers)
Mr. Mark Schembri (representing Consumers)
Mr. Paul Shervill (representing Related Businesses/Services)
Mr. Todd Wilcox (representing Distributors and Transmitters)
Mr. Terry Young (representing IESO)

Absent:
Mr. Steve Baker (representing Related Businesses/Services)
Ms. Darlene Bradley (representing Distributors and Transmitters)
Ms. Valerie Helbronner (representing Generators)
Mr. James Scongack (representing Generators)

IESO Presenters:
Ms. Jeannette Briggs
Mr. Chuck Farmer
Mr. Robert Doyle

IESO Board Members:
Mr. Timothy O'Neill – Chair (via teleconference)
Mr. Bruce Campbell
Ms. Susanna Han
Mr. Ronald Jamieson
Ms. Margaret Kelch
Mr. Bruce Lourie
Ms. Deborah Whale
Ms. Carole Workman

Agenda Item 1: Welcome
Mr. Brian Bentz

Mr. Bentz welcomed participants to the last public Stakeholder Advisory Committee (SAC) meeting of 2016. He thanked everyone for the helpful discussions and debates that took place this year including discussions around the development of the IESO business plan, corporate performance measures, a new IESO strategy, the Technical Panel terms of reference, the Ontario Planning Outlook, market renewal, the work of the Smart Metering Entity (SME), and regional planning.

The Committee will meet in December to plan for 2017. Attendees were encouraged to provide comment and ask discussions during the meeting either in person, on the phone or by email to iesosac18@gmail.com.

Agenda Item 2: IESO Business Update
Mr. Terry Young

Mr. Young introduced IESO colleagues in attendance: Kim Warren, Kim Marshall and Darryl Yahoda. He also provided highlights on a number of key initiatives and engagement activities and noted that the posted materials provide further details.

Conservation
The local distribution companies (LDCs) have achieved 18 per cent of the seven terawatt hours (TWh) that the Conservation First Framework program targeted to achieve by 2020. All LDCs have filed plans and all plans have been reviewed and approved. The Industrial Accelerator Program has contracted 0.571 TWh (34 per cent) of the 1.7 TWh targeted.

Previously, SAC members discussed the speed of the conservation framework mid-term review process. The IESO listened, and the process has since been slowed down. Formal engagement will begin in 2017.

Regional Planning
Regional electricity needs have now been evaluated for all 21 planning regions across the province.

2016 Revenue Requirement Submission
Agreement has been reached with interveners on all issues except the proposal for one usage fee for the IESO. Written discussion is ongoing through the Ontario Energy Board process. The IESO will respond to interveners' comments by the end of this week.

IESO Business Plan
The IESO has filed its proposed 2017–2019 business plan with the Ministry of Energy.

Engagement Initiatives

- A request was made at the last SAC meeting for more details related to each active engagement initiative, and this was provided in the meeting handout.
- Technical Panel: In addition to the memo provided, information on discussions from Technical Panel meetings can be found on the website (www.ieso.ca/tp).
- Capacity Exports: Details have been provided on the New York auction that resulted in 88 MW of capacity from Ontario.
- Smart Metering Entity Licence Order Working Group: A memo has been made available.

Other Initiatives

An Outage Management Redesign Project was initiated three years ago based on stakeholder input that identified opportunities to improve efficiencies in the IESO's outage planning process. Working with stakeholders, the new processing tool was designed and is being tested to meet the efficiency objectives. Implementation is scheduled for the week of October 24.

The Market Participant User Interface and the Application Interface (MPI/API) tools facilitate bids and offers. Following valuable input from stakeholders, these new interfaces went into service on August 10.

Mr. Young thanked all stakeholders who devoted their time to these initiatives.

Mr. Bruce Campbell announced that this is the last SAC meeting for IESO executive member Kim Warren, who is retiring at the end of the year. Referring to Mr. Warren's knowledge of the system as encyclopedic, Mr. Campbell said Mr. Warren will be missed within the IESO and the broader sector.

Mr. Campbell also acknowledged Colin Anderson as the new President of the Association of Major Power Consumers of Ontario (AMPCO) who was in attendance.

Comments

Mr. Wilcox advised that there has been a significant failure rate in the use of thermostats in the home assistance program and customers are looking for ways to address this since the thermostats are out of the warranty period. As well, he suggested the EDA could play a role in helping to boost LDC representation in the Mid-Term Review advisory group.

Mr. Shervill thanked the IESO for its flexibility in helping to pass the rule amendment on the ability to allow capacity swap in the demand auction.

Mr. Donald said Ontario is challenged with the cancellation of the Large Renewable Procurement program as well as with identifying targets to be renewed within the Long-Term Energy Plan (LTEP). He said the IESO can play a role in supporting the advancement of the following activities: working with industry to continue to address the process and timelines around MicroFit, recognizing the history, and help improve the turnarounds; supporting rate renewal and net metering policy in recognition of cost declines in renewable energy; and working quickly so that market sector participants will know the direction and rules.

Mr. Bentz said distributors and transmitters are involved in an Integrated Regional Resource Plan in the northern Greater Toronto Area where a lot of load growth and customer connections are projected over the next 10 to 15 years. In partnership with the IESO they are looking at aggregated, dispatchable renewables. There is a restrictive regulation regarding third-party ownership of assets behind the meter. The sector has encouraged the government to reconsider the regulation and allow the sector to own and potentially finance load control devices, solar panels, and anything that facilitates electric vehicle charging. Moving to an integrated model requires permissive regulation.

Mr. Bentz asked for an update on the elimination of HST on customers' bills, which is associated with the Industrial Conservation Initiative (ICI). The ICI reduction from 3 MW to 1 MW will affect about 1,000 customers. Mr. Young said there is no update on the penetration of the ICI program but the IESO will be working with LDCs on this implementation to ensure customers are informed and educated.

Mr. Burkom asked whether the arrival of a new energy minister has brought any major shifts in what the IESO is being asked to do, specifically with respect to market renewal. Mr. Campbell replied that the IESO and the energy minister engaged in 34 briefings over 20 business days in September and that discussions have been good.

At the August meeting the IESO undertook to refresh the Interim Market Document Change (IMDC) process. Mr. Butters asked for an update on the process criteria. Mr. Young replied that work is under way.

Mr. Butters requested an update on cap and trade and contract accommodations. Mr. Yahoda replied that contract discussions are moving along. The Ontario Energy Board framework with natural gas distributors provides clarity. The IESO has been in contact with generators with an aim to move toward substantive discussions and drafting. It will take time to iron out the final details.

Mr. Butters asked when governance, clarity, and transparency will be touched upon on the market renewal side. Participants expect to see less, rather than more, political interference going forward. Mr. Young replied that the IESO will be engaging the SAC

and the formal stakeholder engagement working group, and these issues will be factored in.

Mr. Beaucage thanked the IESO for changing "aboriginal" to "indigenous" in all of its documentation.

Mr. Schembri asked whether there is an understanding of how the impacts of cap and trade on natural gas costs will translate to electricity. Mr. Yahoda replied that the missing piece is the recycling of proceeds. The government recently announced it would remove the provincial portion of the HST for Regulated Price Plan (RPP) customers and have published impacts on the bills for that. There will be an obligation to provide mitigation for Class A and non-RPP Class B consumers through the greenhouse gas reduction account but the details of this move are unknown, as are the total impacts.

Mr. Wilcox asked what the rationale is for a 20-year term for the SME renewal. Mr. Young said he was unsure and would follow up.

Speaking about the SME working group, an observer said the Coalition of Large Distributors has had discussions with the IESO, the Privacy Commissioner, and consultants retained by the IESO, and there are still concerns around risk re-identification due to the request for six-digit postal codes.

Agenda Item 3: Real-Time Generation Cost Guarantee
Cost Recovery Framework
Ms. Jeannette Briggs

Ms. Briggs presented the proposed changes to the Cost Recovery Framework for the Real-Time Generation Cost Guarantee Program.

Within the fleet of generators in the market, some take time to get to a safe operating point. At least an hour is required to get there, and depending on whether the generators have been dispatched recently it can take up to five hours to prepare to inject power safely. It also needs to operate at that safe operating point for a period of time. Early on in the Market, it was observed that the real-time dispatch might not incent this type of generator to offer.. While a facility might have been in pre-dispatch and therefore start up their equipment, by the time they were ready to inject, they were no longer economic in the dispatch schedule for their minimum loading point and minimum run time. Without real-time dispatch schedules, they incurred costs which were not going to be recovered. This was problematic for if it happened repeatedly, these types of generators would stop offering. This issue was identified early on in the IESO administered market.

In 2003 the IESO introduced a real-time guarantee program (RT-GCG) to allow these generators to invoke a guarantee that would ensure if they are to inject power and their market revenue was insufficient to cover operating costs, there would be consideration for reimbursement. In 2006 the day-ahead guarantee program was introduced. In 2009, market rule amendments were made around the RT-GCG program in conjunction with enhancing the day-ahead commitment program. More stringent eligibility rules were introduced and defined the recovery period for submitting costs, but additional cost recovery were also introduced. As of 2009 the RT-GCG program permitted the inclusion of operating and maintenance costs previously included in the day-ahead program.

Over time, the Market Surveillance Panel opined on costs and benefits of guarantees to the market. The IESO continues to assert that a real-time commitment program is required and that these generating facilities are useful to the overall solution. Currently 14 participants are registered in the RT-GCG program (17 facilities), and two more will soon come on board.

In 2010 the IESO decided to start audits of after-the-fact costs. This provision had been in place since the inception of the RT-GCG program in 2003, but the decision to exercise it was made in 2010. The audits began in 2011 and are ongoing. It was found that some costs committed for recovery were not eligible, so the IESO wanted to ensure that these facilities were in the plan, both for day ahead and real time with the commitment that the IESO will secure the value of the program for the ratepayer of Ontario.

To clear up misunderstanding, the IESO needed to add clarity and transparency while securing value for the Ontario ratepayer. In early 2015 discussions began with participants registered in the RT-GCG program, and in October 2015 stakeholder engagement began in an effort to provide clarity of the program for participants and to reduce the scope and frequency of the audits. The framework has since evolved but is not yet finished. In April 2016 the IESO began introducing, via the Technical Panel, rules to enable changes to the GCG program.

The Association of Power Producers of Ontario (APPrO) voiced concerns around process. The rules were taken to a vote on September 13 and did not pass. One issue was that some participants had not yet seen the market manual. The IESO posted the market manual two weeks ago in advance of its market manual process. Stakeholders involved in the engagement have been asked to comment on the long and detailed market manual.

Some stakeholders who are engaged in the program want to understand and be treated fairly and have their cost covered, but others question the need for the program, and the IESO is managing both perspectives. The IESO believes it needs a unit commitment program and the less quick starting generators in real time.

The IESO believes it has been clear and transparent. Stakeholders have helped to evolve the process, and good conversations continue. Participants would prefer three part offer and multi-hour optimization in real time, and the IESO agrees this would be the ultimate solution. Until then, the need is to get the program working better, and the IESO believes it is close to achieving this goal. There are still issues around planned maintenance. The IESO does not want to get into the generators' business and change the way people operate. If market revenue is not covering a generator's costs, and it is therefore not going to offer into the market, a solution is required that is tempered with reasonableness for the Ontario ratepayer.

There is a market rule amendment before the Technical Panel, and stakeholders involved in the engagement have been asked to look at the rules, make necessary changes, and comment on the market manual. Conversations around planned maintenance continue. Everyone involved has adhered to the IESO engagement principles.

Comments

Mr. Butters said APPrO and the generators have been clear regarding incremental eligible costs, and this has been productive. The generators will provide their comments. He acknowledged that an interim solution is being sought with a need to balance ratepayer costs and incremental eligible costs. He commended Ms. Briggs on her exemplary work.

Mr. Burkom said he is strongly supportive of issues related to process that have been raised by APPrO, specifically with respect to market rule versus manual amendment. A case in point was made recently through the curtailed wheel-through transactions that favoured nuclear facilities along with limited opportunities to dispute the governance model. There is cause for concern around transparency. The update of the IMDC process review ties into this.

Mr. Butters said generators have raised the need for truly independent, third-party advice in the past. This goes to a trust issue. Participants need to work with consultants independently, and the IESO should consider this.

Mr. Schembri asked what percentage of costs was audited and what the audit results were. Ms. Briggs said approximately 25% of $600M deemed ineligible costs were recovered, totaling approximately $150 million. Mr. Butters said the operational costs for generators are significant, which is why the subject is controversial. Mr. Bentz asked over what period the audit took place. Ms. Briggs replied it took place from 2006 to June 2014.

An observer asked why the IESO does not want to be biased toward cost-efficiency. Balancing market reliability and efficiency should be the objective. Ms. Briggs replied

that until after-the-fact costs are put into a model that optimizes a least-cost economic solution, there is no better solution than the current one.

Agenda Item 4: Ontario Planning Outlook – Overview
Mr. Chuck Farmer

Mr. Farmer presented an overview of the Ontario Planning Outlook. The report was released in early September and is part of a set of pieces that will inform the Long Term Energy Plan (LTEP) process. Other pieces, accessible on the Ministry of Energy website, include a fuel sector report. There is significant alignment between assumptions and approaches between the fuel sector report and the Ontario Planning Outlook, providing a comprehensive view that broadens the conversation beyond electricity. The LTEP consultations began this week and will continue through November and December, with an aim to get the sectors' inputs on what is important.

The Ontario Planning Report responds to the Minister's request. It looks back 10 years and forward 20 years. It focuses on being a technical report and is meant to set the context for a policy discussion. It provides facts and figures to help people enter the discussion. A series of seven modules is available on the IESO website outlining all the assumptions and the inputs that went into their development.

The crux of the Ontario Planning Report is the outlook for demand. The demand outlook is uncertain. There is a potential for lower demand as the industrial sector continues to restructure and the service sector continues to rise. There is also the potential for demand to grow when considering the potential impacts of a climate change action plan that could drive electrification.

The conservation outlook assumes that the government target of 30 TWh by 2032 will be met. Almost half of the conservation will be achieved through programs that have yet to be designed.

The installed supply capacity outlook shows enough generation to meet demand during the next 10 years; beyond that it depends on how demand develops and how generation with expiring contracts is considered.

To help meet objectives, transmission investments have been made in the past 10 years to integrate renewable energy, accommodate nuclear refurbishment, and address local needs. No large investment will be required during the next 10 to 15 years under a flat demand scenario.

In conclusion, Ontario is in good shape but is looking at a period of significant change in the future.

Comments

Mr. Passi noted that power quality is not what it was 10 years ago. He asked what issues have been resolved in the past 10 years and what is coming in the next 10 years within the context of quality. Mr. Farmer replied that most of the discussion is at a provincial level, and while numerous investments have been made, there are local issues that are addressed within regional planning processes. Looking forward, there are increases in distributed energy, and the IESO is redefining its role as a grid operator as more services are provided. He said he was unable to comment on power quality. Mr. Robert Doyle said he could follow up on specific issues about quality.

Mr. Butters asked for clarification on how the Ontario Planning Outlook works together with regional planning. Also, the plan relies heavily on the continuing operations of existing facilities, which may or may not occur, and this presents uncertainty, not flexibility. Mr. Farmer replied that he sees policy flexibility. As objectives are met, the system will be reshaped. The system is in good shape for 10 years, but it is time to start thinking about what will come after that. He said regional and provincial planning processes inform each other.

Mr. Mace asked how the IESO arrives at its numbers, and to what degree of confidence. After 2020 there is uncertainty related to planned conservation savings and to existing resources with expired contracts. Mr. Farmer agreed there is uncertainty regarding both the programs yet to be designed and policy change. Conservation studies look at current cost-effective technologies and ask whether there is enough to achieve targets. Mr. Farmer added that he is confident because the studies confirm the targets are feasible and the sector continues to meet targets.

Referring to the graph on slide #10, Mr. Bentz asked where the 7 TWh is in the 2020 bar for LDCs. For a utility trying to plan for the future, with conservation an integral part and with the IESO as the counterparty to conservation contracts, foreseeability from a planning strategy is very important. Mr. Farmer replied that the codes and standards in the lower part of the graph have a high level of certainty. The 7 TWh in the middle of the graph includes the Industrial Accelerator Program. The top bars show the amounts needed to meet the target, informed by the potential study.

Mr. Wilcox asked how the trend toward net metering and distributed energy production are factored into the system. Mr. Farmer replied that the Ministry intends to make this an item for discussion.

Mr. Burkom commented that while conservation has been discussed in terms of being delivered by programs, existing resources and those coming up for contract will have to live or die in the marketplace. This represents a significant flaw in the report and in the language with which LTEP is discussed with the government. Increasingly, demand can compete with generation, but the competition must be on sound footing. An example is

seen in recent demand response auctions where the IESO procured capacity at around $11 per kilowatt-month while being told that the Lake Superior Power generating facility in Sault Ste. Marie was worth zero. It was shut down and there were layoffs. If there will be massive volumes of programs for demand response through 2030, then clearly generation will not be able to compete in the market. The IESO must help the government understand that demand will compete with generation.

Mr. Burkom also suggested it would be interesting to look at average energy gigawatt-hours, because there is too much energy at times. As well, gas plants can provide flexibility but do not because they are not dispatched in the day ahead. So, there are things to be learned beyond the aggregate peak contained in the report. Mr. Farmer said the IESO plans the system every hour of every day. Investments may need to be made to manage regional needs. There is a real opportunity to look at Mr. Burkom's concerns within the market renewal process and within the LTEP process.

An observer said one of the options in the report involves power imports from Quebec, and one way to get more power would be to build a new high-voltage direct-current transmission line that would connect with the Ontario system via the Lennox Generating Station. He asked for a detailed description. Mr. Farmer replied that he could not provide this. Mr. Young said that the information was in the Interconnection Report completed in 2014.

Speaking about market renewal, Mr. Butters said if the IESO is looking for additional products or resources, the conversation should include generators rather than the ongoing Ontario-Quebec political conversation on capacity sharing. There is a fundamental inconsistency that must be resolved. It is frustrating to look at the Ontario Planning Outlook and the LTEP while realizing that other political conversations have a big impact on market uncertainty. Mr. Shervill added that many market participants are aligned in their assertion that the more government meddling there is, the less participation and confidence there is within the market.

An observer said his group did a recent study in Massachusetts that found conservation to be very effective in flattening total terawatt-hours while peak continues to grow at 1.5% per year. He asked what the impact of conservation is on peak versus terawatt-hours. Also, he asked about the role of energy storage, which may be better than conservation. Mr. Farmer said the IESO continues to learn more from storage pilots. With respect to conservation, energy efficiency programs have reduced demand since 2005 by about 13 TWh and 5–5,500 MW of peak demand. This is where the programs are focused. Adjustments can be built into forecasts on an hourly basis.

An observer asked whether the IESO will make a written submission on the LTEP or whether its role is around support and implementation. Second, he asked whether IESO staff will be in the room during stakeholder consultations on the LTEP. Third, he asked

whether the IESO will encourage stakeholders to weigh in on IESO-related issues in the context of the LTEP. Mr. Farmer replied that he hopes the IESO presence does not limit anyone's input. The IESO will do an overview presentation to kick off the sessions. The Ministry will do a similar presentation. The IESO will have representatives from conservation and planning to address specific questions. The role of the IESO in the LTEP formation is to provide analytical support. No decision has been made regarding the need for the IESO to do a written submission.

Another observer asked whether there is a possibility that the IESO will commit to supporting technological development for the developers and early adapters, given changes in the supply that will be coming from new and innovative technologies. Although much of the demand is during peak periods, he said he has heard of no strategy to address the challenge. The observer asked whether, with added hydrofluorocarbon restrictions, the market should be proactively looking for and pushing new technologies. Mr. Farmer replied that it is up to the air conditioning sector to address the challenge of hydrofluorocarbon restrictions. The IESO has funds available to support innovation. Policy direction is required from the government. The observer said there are ways to address energy and climate change goals that should be explored.

Agenda Item 5: Results of Stakeholder Satisfaction Survey
Mr. Robert Doyle

Mr. Doyle reported on the results of the stakeholder satisfaction survey. Northstar Research Partners was contracted to conduct the survey to test three specific areas: satisfaction with the IESO, satisfaction with the engagement process, and how the IESO is doing in delivering public value. Survey respondents were from recent engagement initiatives. Based on respondents' interactions with the IESO, and recognizing their differences, the survey aimed to test the various attributes for the sectors.

The survey found consistency between electricity generators, distributors/transmitters, importers/exporters, large consumers, and other interested stakeholders in overall satisfaction with the engagement process and satisfaction with the IESO.

Three quarters of respondents believed that the engagement process is very important for the IESO to achieve their mandate, but only half said they were highly satisfied with the process. Based on this feedback the IESO will look at potential reasons for that difference.

Thirty-one per cent of respondents reported high satisfaction with the IESO, high satisfaction with the engagement process, and a high rating on the IESO devoting the right amount of resources to objectives. The IESO finds this encouraging.

Regarding IESO communication channels such as the website, webinars or the IESO Bulletin, the effectiveness scores are driven by stakeholder awareness of the channel (e.g. higher awareness means a higher score for effectiveness).

Specific attributes were looked at within three categories: what the IESO sends out to its stakeholders ("push"), what the IESO takes in from its stakeholders ("pull"), and how the IESO positions itself to its stakeholders within the electricity sector more broadly ("policy").

Regarding push, the word "timely" can mean different things to different people depending on their day-to-day interactions with the IESO. Regarding pull, how the IESO acts on input from the stakeholders was viewed in terms of clarity of scope of initiatives as well as how the IESO responds physically. Regarding policy, the IESO wants to ensure predictability in its engagement offerings.

It is important to seek opportunities to continually improve.

Agenda Item 6: Other Business

There was no other business.

Agenda Item 7: Adjourn

Mr. Bentz thanked everyone for participating.

Addendum
Supplemental Comments

Attendees are invited to provide comments/questions related to items discussed at each SAC meeting by email to iesosac18@gmail.com. Best efforts are made to address each email along with their intended agenda item during the meeting.

This Addendum represents the comments received by email that were not mentioned during the meeting.

Comments from Ian Nokes, Ontario Federation of Agriculture

During the LTEP presentation, there were a few comments about uncertainty. There is a difference between uncertainty (slide 9) and variability (versus 11 and 12).

Unforeseen weather brings uncertain changes in demand, just like economic activity changes can drive uncertain.

Variability - decisions on expired contracts have the bonus that they can be directly addressed by energy policy, giving LTEP some robustness. This variability can also be optimized advantageously through the market.

Finally, even having this conversation on large procurement contract expiry (along with MoE cancelation of LRP) kind of validates looking at what a future potential LRP needs to look like.

Maybe we have an opportunity to incorporate in LTEP, some consideration on what large procurements must look like down, if and when they are ever reintroduced into Ontario plans on large procurements.