

IESO Stakeholder Advisory Committee Meeting Notes – February 21, 2018

Advisory Committee Members:

Mr. John Beaucage (representing Ontario Communities)
Mr. Steve Baker (representing Related Businesses/Services) – by teleconference
Mr. David Butters (representing Generators)
Ms. Brandy Giannetta (representing Generators) – by teleconference
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. Paul Norris (representing Generators) – by teleconference
Mr. Mark Passi (representing Consumers) – by teleconference
Mr. Mark Schembri (representing Consumers)
Mr. James Scongack (representing Generators)
Mr. John Sherin (representing Ontario Communities)
Mr. Terry Young (representing IESO)

Absent:

Mr. Brian Bentz, Chair (representing Distributors and Transmitters)
Ms. Darlene Bradley (representing Distributors and Transmitters)
Ms. Julie Girvan (representing Consumers)

IESO Board Members:

Ms. Cynthia Chaplin
Ms. Margaret Kelch
Dr. Timothy O’Neill – by teleconference
Ms. Deborah Whale

Absent:

Mr. Murray Elston
Mr. Peter Gregg
Ms. Susanna Han
Mr. Christopher Henderson
Mr. Glenn Rainbird
Ms. Ersilia Serafini
Ms. Carole Workman

Presentations:

Mr. Leonard Kula
Mr. Robert Doyle
Mr. Nik Schruder

Agenda Item No. 1: Welcome**Mr. James Scongack**

Mr. Scongack welcomed all participants to the first SAC meeting of the year. He announced that Mr. Jack Burkom has resigned from the SAC. Mr. John Sherin has also resigned from the SAC, effective March 31. A new member, Mr. Frank Kallonen, has joined the committee, representing distributors and transmitters. Mr. Kallonen is the President and CEO of Greater Sudbury Utilities and Greater Sudbury Hydro Inc.

Agenda Item No. 2: IESO Business Update**Mr. Terry Young****Conservation**

Mr. Young said the preliminary results for 2017 show that good progress was made in meeting the six-year Conservation First Framework (CFF) target of 7 terawatt-hours (TWh). By year end, 55 per cent of the target was achieved, but the number is closer to 66 per cent, considering contracts in the pipeline. The Industrial Accelerator Program (IAP) has achieved approximately 40 per cent of its target.

The IESO continues to provide support for the Green Ontario Fund. A status report is available on the delivery of the Home Assistance Program for the low-income segment. The IESO has received a directive from the Minister of Energy that is associated with transferring 0.4 TWh from the IAP to the CFF, along with an associated budget. The budget will allow for the funding of new programs, including the Home Assistance Program. There is also a directive to expand the level of conservation programming available to Indigenous communities, and a report on this will be posted soon.

2018–2020 Business Plan (verbal update)

The 2018 business plan has been filed with the minister. Pending its approval, revenue requirements will be submitted to the Ontario Energy Board (OEB).

A settlement was reached on the Smart Metering charge, and a settlement proposal was filed with the OEB at the end of January. It proposes a reduction in the Smart Metering Entity (SME) revenue requirement of \$7.5 million over five years, and with that the proposed charge will drop to 59 cents per meter per month. The current charge is 79 cents per meter per month.

Proposed Corporate Performance Measures for 2018

The proposed corporate performance measures (CPMs) for 2018 will form part of the business plan. The IESO is looking at new ways to design its approach to CPMs.

Other Updates

A Stakeholder Summit will be held on June 11. Work with stakeholders continues toward developing third-party access to the meter data management repository (MDM/R), and information about this is available online. A detailed update on the Technical Panel is also available online.

Comments

Mr. Leonard asked whether the innovation roadmap referred to within the CPMs is the same thing as the innovation strategy. Mr. Young replied that it is.

Mr. Passi said he is disappointed with the conservation framework target exchange. Mr. Young said when the IESO looked at achievability, 1.23 TWh appeared to be enough room for industrial customers to take advantage of the programs being offered. The target allocation is not intended to discourage participation. The IAP had a slow start, but time is being made up quickly.

Mr. Schembri asked whether the conservation framework budget would fund the performance-based, province-wide program. Mr. Young replied that it would. Some customer segments that were not contemplated at the beginning of the framework are being addressed in the new budget.

Comments from the Floor

Mr. Jack Gibbons, Ontario Clean Air Alliance, asked whether the IESO has forecast how much energy will be saved within the Green Ontario Fund, and whether an evaluation will be done to assess how much is saved. Mr. Young said the IESO provides support to the Green Ontario Fund but does not manage it. The IESO has designed and introduced the website (GreenON.ca) as well as designed and delivered programs such as Direct Install and Smart Thermostat, and rebates for insulation, heat pumps, and windows.

Mr. Gibbons noted that the CFF target of 8.7 TWh is the minimum goal the government has provided to the IESO. He asked if it would be appropriate for the IESO to have a stretch target in excess of 8.7 TWh. Mr. Young replied that the IESO has a budget associated with its targets and continues to look at new ways of achieving conservation. It continues to work with local distribution companies (LDCs) and large customers to identify needs and opportunities.

Mr. Gibbons asked why the City of Toronto is not a member of the Local Advisory Committee for the regional planning process along with Hydro One, Toronto Hydro, and the IESO. In January 2018 the City of Toronto asked to be included because its concerns were not addressed in the first Central Toronto Integrated Regional Resource Plan. Mr. Chuck Farmer acknowledged the request from the City of Toronto and said a dialogue with the City has been

opened. Working groups are put together using processes laid out by the OEB. Within the Long-Term Energy Plan (LTEP) the IESO has been asked to review those processes

Agenda Item No. 3: 2019–2021 IESO Business Planning Process **Roundtable Discussion**

Mr. Young outlined the priorities for Ontario’s electricity sector provided in the handout that addresses the Market Renewal Program (MRP), implementing the LTEP directive initiatives, policy and innovation, conservation and climate change, engagement, enhancing the value of smart meter data, and cyber security.

Comments

Mr. Butters said little has changed since last year from a generator perspective. Market renewal is still of primary concern to generators who want to ensure that timeliness and checkpoints are established. It is important to move along in parallel with contract discussions and ensure that required accommodations are reflected in the contracts. Seamless integration between decision-making, market renewal rule amendments and market manual changes will be important. It will be difficult to evaluate the impact of change. With respect to governance, he asked how decisions will be made, who will make them, and how disputes will be resolved. Technical Panel changes may be required.

Predicting the impacts of distributed energy resources (DERs) will also be difficult in terms of integration, costs, and efficiency. He encouraged the IESO to keep the discussion alive.

Public policy integration and markets can sometimes be at odds. The Non-Emitting Resources Subcommittee is a good start. Mr. Butters asked that the IESO publish the modules that are attached to the Long Term Energy Plan. Market participants would like to see the data behind the plan. He said 100% transparency is required. Mr. Farmer replied that the government will post the modules, not the IESO. Mr. Scongack suggested the IESO circulate a note to the SAC as soon as the modules are posted.

Mr. Sherin said maintaining customer-focused programs should be a priority, as well as recognizing and supporting sectors that may need help. Regional planning should be used to identify areas of growth or constraint, such as putting storage in front of poles and wires, and looking at what other jurisdictions, such as Nova Scotia, are doing with respect to storage. It is important to start planning post-2020 conservation and demand management programs and redefining conservation and demand management so that momentum within the programs is not lost.

Mr. Leonard said market renewal will require a lot of resources. The focus should be on keeping new and emerging technologies in mind. He thanked the IESO for creating the Non-Emitting Resources Subcommittee. If the IESO is going to reach out to individual sectors such as generators outside of the meetings, the same requests should be made to all sectors. With

respect to the LTEP directive, it is good to see that energy storage obstacles are identified. Hopefully the scope is broad enough to review institutional behaviours and biases that can either encourage or discourage innovation. As market renewal progresses, it will be necessary to ensure that value is extracted at both LDC and grid levels. Market renewal will require a tremendous amount of work, so it will be important to ensure that the IESO has sufficient resources.

Mr. Scongack said a consistent theme is that stakeholders want broader IESO outreach and engagement to ensure that storage and other technologies are included in market renewal. Mr. Young acknowledged the point and said the IESO is not closing the door on anyone's participation. Ms. Ingram said she attended the Non-Emitting Resources Subcommittee meeting a week ago and that many storage representatives attended and expressed their views.

Mr. Hogan said distributors support DERs and may invest in them. It is important that the IESO recognize that distributors have energy resources too and can contribute to overall efficiency. On the conservation side, he said the IESO should go further than supporting the plan. It should have a new program ready for 2021, keeping climate change in mind, and work on this should begin soon. With regard to enhancing smart meter data, shared costs should be considered so that they do not all fall on electricity ratepayers.

Ms. Ingram disagreed with Mr. Hogan that the costs of smart meter data should be borne by others. Market renewal is a priority for the demand response (DR) industry, particularly the design of the Incremental Capacity Auction (ICA), the resources it will include, and the integration of the DR auction into the ICA. The promise of the ICA is that all resource types will be accommodated equally, but it is unclear whether all capacity will be procured through the ICA. For example, non-emitting resources might end up with a different mechanism. With respect to the integration of the DR auction, the preliminary ICA design is fundamentally different from what the DR auction offers. Merging the DR auction and the ICA will require much thought and discussion. DR participants have already undergone a big upheaval in dealing with the auction rules.

With respect to DERs, regulatory or rule redesign should be a priority, accompanied by the upgrade of IESO internal systems and tools. There is currently a gap. Some IESO systems do not allow dispatchable loads to be aggregated and included in the auction. With respect to the LTEP, there is interest in the Renewable Distributed Generation Demo Program, and it is hoped the learnings from it will be made publicly available.

Mr. Schembri said sector cost control should be the main focus within market renewal. Recent successes in the DR auction are positive. There is movement on the demand side in hunting for the critical peaks, and this is a successful market mechanism. Agency alignment of incentive and conservation programs is important, particularly with regard to the expansion of electric vehicles and how the expansion will impact critical peaks. The IESO should ensure that the multiple ministries and agencies that fund incentive programs are in communication so that

they understand what each other is doing. Continuity of the conservation programs will be required.

Mr. John Beaucage said he was glad to see conservation and energy support programs for First Nations within the LTEP implementation directives. He would like to hear more discussion about transmission lines going north, particularly passing through Wahta, and their associated economic drivers. The lines will feed 22 communities, gold mining interests, and possibly a chromite mine, which will spread out the cost. He is concerned about grid stabilization in the North.

With regard to big data initiatives, Mr. Kallonen said he is glad to see the awareness of the value of data. The integration of DERs requires discussion about the interfaces between the wholesale market and distributors and the technology that might be used to ensure interoperability and open standards. Also, he asked what the tipping points will be when there is concern about the level of penetration for distributed resources. A planning component and potentially an operating component will have to be considered down the road. The hodgepodge of conservation and climate change programs is confusing to customers. The solution might be to develop a virtual market where customers can get a list of programs that apply to them. It appears the province is doing well on conservation; however, the next half of the CFF will require more effort since the first half focused on easily achievable targets.

Ms. Giannetta echoed Mr. Butters' comment that market renewal is a top priority for generators. It is important to bring discussions around governance and decision-making to the SAC and not leave them within the Market Renewal Working Group (MRWG). Technology and process are both important for policy and innovation.

Mr. Norris supported Mr. Butters' and Ms. Giannetta's points on market renewal. The Non-Emitting Resources Subcommittee should be specifically recognized for 2018–19 in addition to the Single Schedule Market, the day-ahead market, and Enhanced Real-Time Unit Commitment. Market renewal is expected to resolve the challenge around operational flexibility. There is more in the LTEP than what is contained in the implementation directives. Mr. Norris asked who owns the material in the LTEP that does not appear in the directives. For example, First Nations communities in the remote North are ready to develop small projects and feasibility studies, but there is no support for implementation within the directives. With respect to engagement, there is a role for the IESO to go beyond leadership and be involved in strategic relationships that promote public education. He is interested to know where cyber security fits within the context of sector-specific and other interests.

Mr. Baker said it is important to consider the potential impact of market renewal on the natural gas market. With regard to non-emitting resources, there are market renewal and market mechanisms on the one hand, and incentives for new resources on the other. He cautioned against losing the intent of market renewal. Going forward, a broad energy perspective for the province will be needed. There is continued focus on greenhouse gas (GHG) reduction in the

electricity sector, which is already about 95% GHG free. Putting a lot of time and effort into the remaining 5% would not be cost-effective for consumers.

Mr. Passi said a study sponsored by the Ministry of Northern Development and Mines showed that for every job created in Ontario, an additional 4.75 jobs are created, and more than 90% of them stay in Ontario. With respect to year-end data, the IESO makes the following statement on its website: "Annual demand on the province's bulk power grid has declined over the last 10 years as a result of conservation, distributed energy resources and changes in the economy." Consumers suspect that "changes in the economy" means that something that was using power before is now gone, and that something is industry. While conservation and demand management have resulted in successes, they are not enough to account for the energy decline.

The Association of Major Power Consumers in Ontario is focused on three C's: competitiveness, capital attraction, and carbon initiatives. Ontario's energy costs are among the highest in North America and must be reduced. In terms of policy, transparency around carbon, as well as clear timelines around the benefits of market renewal, are required to monetize new resources. Market renewal should not be marketed as a universal cure-all for the electricity sector. What is driving grid defection is not dissatisfaction with reliability but the cost of electricity. Providing incentives to build additional generation at this time, when the province is already long on supply, does not make intuitive sense. The IESO must take a measured view of innovation both when the price tag is high and when it is low. It has been mentioned that DR and conservation are the cheapest forms of energy procurement. Therefore, innovation should not be focused outside of traditional electricity to get the biggest return on investment. Mr. Passi noted that innovation for the industrial sector will take time. Much has been achieved, and the sector would like to maintain its global leadership.

Mr. Young responded that he did not mean to leave the impression that the IAP has not been successful; that is not the case - the IAP has been extremely successful.

Returning to the discussion on the modules that are attached to the Long Term Energy Plan, Mr. Butters said it is representative of a governance concern that beneficial data to the market is delayed in its publication.

Mr. Scongack said it is possible for a significant operational component of the IESO to be overshadowed by incremental issues. The continued professionalism and support provided by the IESO is critical, especially with respect to cyber security in the future.

[Supplemental SAC member feedback is posted at www.ieso.ca/SAC]

Agenda Item No. 4: Market Renewal

Mr. Leonard Kula

Mr. Kula noted that in 2018 the IESO will focus on stakeholder engagement, the High Level Design (HLD), governance, contracts, non-emitting resources, and future markets. With respect

to the scope, there are three initiatives within the energy work stream and one within the capacity work stream to implement mostly known solutions. Future markets are also being discussed along with what additional services will be required. Ms. Barbara Ellard will focus on the energy work stream and future markets. Another leader will be chosen to work on the capacity work stream. Progress is being made on identifying HLD elements, and a document will be published in late 2018 for stakeholder input. All elements will be brought together to see how they link.

The MRWG discuss governance issues. In particular, the IESO is looking for a process to develop and improve market rule changes and a process for resolving disputes. Market participants need to be heard, and the IESO has to make timely and effective changes. Initial conversations have been held about contracts, and a key priority is to address the relationship between market renewal and supply contracts.

The purpose of the request for information (RFI) is to examine the characteristics of non-emitting resources and identify barriers to their participation in a variety of markets. The RFI will inform the Non-Emitting Resources Subcommittee, which in turn will inform the HLD. The intent is not to procure non-emitting resources outside of the ICA.

Referring to Mr. Norris's earlier point, Mr. Kula said non-emitting resources do not create an additional stream of market renewal beyond its three energy work streams and its capacity work stream.

Referring to Mr. Butters' earlier point concerning the modules within the LTEP, the ICA team will be charged with developing the processes to support the ICA. This will include demand forecasting, transparent processes to identify the level of reserve required, and determining the effective capacity each resource would provide. The ICA will provide data to enable good decisions.

Comments

Mr. Leonard asked for clarification of a statement on slide 10 of the handout that the IESO is not targeting value extraction from the contracts. Mr. Kula said when contracts are revised to reflect a different market construct, the IESO will take a balanced and neutral approach. Mr. Leonard said flexibility is important. Mr. Kula said interim mechanisms are in place, and the IESO will maintain its focus with respect to short- and long-term future market discussions.

Ms. Giannetta said she is concerned about communicating how the RFI (in reference to the role of non-emitting resources within Market Renewal), in both its phases, will influence the timelines of the HLD. Mr. Kula said the dates expected for the HLD correspond to publishing draft designs for stakeholder comment. An integration period will follow to look at how things relate to each other. The timelines line up. Ms. Giannetta said part of the rationale for creating the Non-Emitting Resources Subcommittee was that it was unclear how non-emitting resources were participating in the capacity auction. Understanding the barriers is not the same as

removing them. Mr. Kula said he looks forward to receiving information from the RFI and learning what barriers might exist.

Mr. Norris said he would like to understand if the market is the mechanism for procurement in the future. The National Energy Research Scientific Computing Center terms of reference refer to participation in the market or other related structures, whatever they happen to be. Mr. Kula said the IESO is focused on using the ICA as the primary mechanism to attract new resources. There is tremendous value to ratepayers in using such a competitive mechanism. Other tools will be used where appropriate.

Mr. Schembri asked for clarification of the IESO statement that it will not target value extraction from the contracts. Mr. Kula said it means taking a revenue-neutral approach. Those who hold contracts in which the mechanisms change will get revenue neutrality in a new market context.

Comments from the Floor

Mr. Gibbons asked whether the report by the Non-Emitting Resources Subcommittee would explore barriers to non-emitting generators and storage providers located in Quebec and Manitoba. Mr. Kula said he expects it would.

Agenda Item No. 5: Long-Term Energy Plan: Update on the IESO Implementation Plan Mr. Robert Doyle

Mr. Doyle said the IESO's proposed LTEP implementation plan was approved by the Minister of Energy on February 20. The plan is posted on the IESO website. He shared the feedback received during the engagement period that helped to clarify the scope as well as the expectations of stakeholders and the IESO.

The IESO heard that more clarification was required to ensure that renewable distribution generation demonstration projects should be aligned with virtual net metering. The IESO was asked to shrink the timeline for work around energy storage obstacles, and this has been done. With respect to regional planning, the IESO was asked to ensure that a cross-sector advisory group is created to include LDCs and communities. The IESO was asked to look at various studies and pilot projects. Linkages of the plan to market renewal, non-emitting resources, Ontario's Climate Change Action Plan, and GreenON have been considered in the timeline. There are currently two open engagements for directive initiatives, and anyone who wants to participate in an upcoming webinar on First Nations and Metis energy support programs should send an email to engagement@ieso.ca. In response to feedback, the timeline of activities has been changed to add to the original three categories: information gathering, engagement opportunities, and communicating outcomes. The IESO heard that implementation plan initiatives do not all fit the same mold, and that different approaches will be required for different initiatives.

Comments

Mr. Sherin asked for more information about the in-front-of-the-meter conservation project, and specifically whether it includes virtual net metering projects. Mr. Doyle said he would take this back for an answer. [This portion of the amending directive refers primarily to voltage control initiatives.]

Agenda Item No. 6: Mid-Term Review: 2015–2020 Conservation Framework

Mr. Nik Schruder

Mr. Schruder provided the third and likely final update to the SAC on the CFF mid-term review process before final recommendations are submitted to the Ministry of Energy. The following feedback was gathered throughout the mid-term review process:

- Customer perspectives: Customers are looking for simplicity and for flexibility in the programs being offered, as well as equitable access across the province. They want to see continuity in the CFF in order to maintain momentum into the next framework. Customers want to participate in the design of new programs so that they can provide feedback into the process.
- LDC perspectives: LDCs value their position in the market of being the prime delivery agent, and they want to manage any target exchange between the LDCs. They also seek transparent and consistent decision making on items related to the framework.
- Third-party perspectives: Third parties echoed the need for continuity within the frameworks and consistency in program delivery across the province.
- IESO perspectives: The IESO wants a more formal stakeholder engagement process for all stakeholders as the framework continues to be enhanced. It seeks increased visibility into the performance of LDCs and partners. It suggests redistribution of allocated funding to address budget constraints within the CFF.

Navigant Consulting Ltd. has grouped together short-term opportunity modules from both CFF and IAP perspectives. In general, the CFF is doing well and is likely to exceed its 7 TWh target. The IAP is trending lower than what was targeted, prompting the need for a target exchange with CFF. There are opportunities to improve flexibility and process in relation to how programs are designed and to increase stakeholder engagement. There is a desire to promote additional collaboration during the second half of the CFF. There was a request for better alignment on some of the stated policy objectives, particularly to ensure adequate customer coverage across the province, fair attribution of costs and savings, and processes for target exchange between LDCs.

Navigant has also identified opportunities for post-2020. Principles have been developed to integrate into the next framework design. These include prioritizing customer continuity,

reviewing roles and responsibilities of key players, providing a better customer experience, and simplifying the application process. Considerations when designing the next framework include the degree of framework integration with other entities (e.g. gas utilities, Green Ontario Fund), how innovation will be supported and funded, getting greater system benefit on the establishment of CDM targets, and recognizing that one size does not fit all.

Comments

Mr. Kallonen encouraged the IESO to tune the machine as opposed to fixing it. He cautioned against doing anything dramatic or drastic. Target exchange is an inherent form of tuning, as no Achievable Potential Study will be absolutely accurate.

Mr. Young said guidelines have been posted for the target exchange, and a discussion is ongoing. Cost is a big part of what the IESO is looking at. Customer segments must be appropriately addressed.

Mr. Schembri said he struggles with how a group of LDCs can effectively manage a target exchange, and he advised the IESO to stay involved and ensure targets are met. He said he is pleased with the results of the Energy Performance Program. The majority of his stores have integrated meters, and electricity costs are being tracked on a weekly basis. When there are anomalies in the electricity trending, there is an ability to get into five- or 15-minute data on the store. The program is bringing awareness to energy conservation. A program like this can lead to incentive programs focused on critical peak and on-peak/off-peak and can generate incentives for activities at different levels.

Mr. Hogan said adjusting the conservation budgets is a good idea because it will bring about efficient use of dollars. An understanding of the costs and budgets within the centralized programs and their efficiencies will be helpful.

Mr. Scongack said questions and comments on any of today's agenda items should be sent to engagement@ieso.ca.

Agenda Item No. 7: Other Business

There was no new business.

Agenda Item No. 8: Adjourn

Mr. Scongack thanked everyone for participating. The next meeting will be held on May 16. The IESO is hosting a Stakeholder Summit on June 11 in Toronto. Details will be forthcoming.

Please send any comments of feedback on the meeting notes to engagement@ieso.ca