Meeting Summary		
Date:	February 15, 2017	
Location:	St. Andrew's Conference Centre, 145 King Street W., Toronto, ON	
Subject:	Toronto Local Advisory Committee (LAC) Meeting #4	
Attendees:	**Committee Members**: Peter Bettle Darren Borden Mario Chiarelli Jack Gibbons (left meeting early) David Kiguel Julia Langer Clare Schulte-Albert Jane Welsh **Regrets**: Jim Baxter Fernando Carou Keith Foster Senator Joseph Poitras John McGrath Rob McMonagle Bala Venkatesh	**Toronto Hydro**: Angelo Boschetti Thelma Hatzis Michael Marchant Chun Hung Ngai Kaleb Ruch Jack Simspon **IESO**: Luisa Da Rocha Chuck Farmer Michael Lyle (arrived mid-meeting) Ahmed Maria Steven Norrie Joe Toneguzzo **Hydro One:** Dana Gardner Denise Jamal
LAC Meeting Materials:	http://www.ieso.ca/Pages/Participate/Regional-Planning/Metro-Toronto/default.aspx	

	Discussion
1	**Welcome & Roundtable Introductions** Luisa Da Rocha, Manager, Regional and Community Engagement, IESO welcomed everyone to the meeting. Roundtable introductions were made. The meeting agenda was reviewed and it was noted that the standard agenda item of responding to questions submitted by the LAC members since the previous meeting has not been included due to the volume of questions received. Instead, members were asked to review the responses provided to them prior to the meeting. A LAC member said he submitted questions in response to material covered at the previous

	meeting but did not receive a response until today. He said it was not a satisfactory response, so he submitted four follow-up questions. He asked whether the working group would respond to those questions within the next week. Ms. Da Rocha said that the process in place since the second Toronto LAC meeting is that any questions submitted by a member after a LAC meeting are responded to at the subsequent LAC meeting. With respect to the follow-up questions, the working group would have to discuss the timing for the responses. She encouraged the LAC member to discuss this further with the working group. Recalling the discussion at the previous meeting about work being done on the calculation of avoided costs, a LAC member asked whether an update would be provided at this meeting. Ms. Da Rocha said although that was originally discussed as an item on the agenda for this meeting, the working group decided it needed to report back on the in-camera members' meeting that took place in January for this meeting. A discussion of avoided costs has been placed on the agenda for the next meeting, in June. *(Note: this item will now be part of the November agenda).* The LAC member asked the working group to create and maintain a list of action items based on what is discussed at meetings and to report on them at every meeting. Ms. Da Rocha agreed, saying such a framework check would fit in well with the road map document the working group will use to gather input about discussion items for the next six meetings. **ACTION ITEMS:** 1. Create and maintain a list of action items for each meeting to track progress
2	**Opening Remarks, Recap of November LAC Meeting and the Members' Meeting** Chuck Farmer, Director, Stakeholder and Public Affairs, IESO, welcomed participants and said he has been impressed by the active and spirited debate among Toronto LAC members and by the level of engagement from the broader public. Still in its early stage, planning for the next Integrated Regional Resource Plan (IRRP) involves a "heavy set of topics and dialogue that we have to have" in the next 12 to 18 months. In response to LAC members' concerns about the previous meetings, the working group met with members' in-camera in January to discuss the direction the meetings should take. Mr. Farmer said he hopes LAC members will see that the working group is listening to their input, adopting their suggestions, and incorporating their feedback on how to improve transparency and efficiency. This meeting will feature something that has not been tried before in LAC meetings, a breakout session with small groups discussing what should be included in the IRRP. Members of the broader community are invited to participate and provide candid advice about what information should be considered in the formation of the plan. Based on that input, the working group will return with a road map for how to proceed over the next two years. At the members' meeting, a suggestion was made to engage the services of a facilitator. The working group is following up on this idea, exploring what kind of facilitation might work best.

	Another idea was to invite guest speakers to address the LAC, and the working group is interested in pursuing that. "We realize it is often us feeding you information, but we know there are many people who have lots of information who can present their ideas for everyone's discussion," Mr. Farmer said, adding that LAC members are welcome to make presentations on topics they feel have been overlooked. In the interest of improving transparency, the working group will share IRRP Working Group meeting summaries with the LAC and the public. Also, a new standing agenda item for future meetings will be the addition of an update by the technical liaison to the working group. "We would love to hear from you after this meeting about what you think and how we can improve," Mr. Farmer said.
3	**Review of Toronto 2015 IRRP Implementation to Date and Regional Planning Process** Steven Norrie, Senior Planner, Transmission Integration, IESO, presented an update on the status of the implementation of the IRRP published in April 2015. An update to the IRRP has recently been published with new information regarding transit electrification and the implication for transmission supply in Toronto. Also, each of the near-term projects recommended in the IRRP is being implemented. It was noted that in response to feedback from the LAC, the IESO initiated a study of the resiliency requirements of vulnerable load customers, such as hospitals, transit, water treatment, and high-rise residential buildings. In about four months, the consultant conducting the study will present findings to the LAC. At the January members' meeting, the LAC asked for more information on how the IESO conducts its planning for the IRRP. To address this, Mr. Norrie presented a high-level overview of the different stages of the regional planning process (see slides 9-14 in the meeting presentation), noting that as planning moves through different stages, the IESO will provide more detail regarding the analysis that is undertaken and its review of needs and options. Mr. Norrie said anyone who has questions about the process, such as what tools or assumptions are used, can contact the IESO, not just at the LAC meetings. The information presented at this meeting is meant to help LAC members provide insight on local needs and priorities. An important part of developing a plan is an understanding of infrastructure end-of-life and planned sustainment activities. A large proportion of the transmission system is many decades old, and that needs to be accounted for. Making like-for-like replacements may not make sense in the face of changing needs. During planning, every option is considered in the effort to reduce demand and defer or avoid building new transmission lines. However, wire options must be considered in cases where conservation and demand management (CDM) or distributed generation (DG) targets may not be achieved. Calculating local avoided costs requires an analysis of the infrastructure alternative. Mr. Norrie emphasized that the regional planning process is an iterative one in which all resource options are considered and multiple solutions are usually required to address a given need. In the type of multi-criteria analysis that is used with avoided costs, for example, there is no perfect

solution because often the criteria are in conflict with each other and trade-offs need to be made. The IESO gathers valuable insight from the LAC about the plan's public acceptability and the feasibility of implementing the plan.

Mr. Norrie said that when it comes time to produce the plan, regional plans are tested for alignment with provincial plans, contain actionable recommendations, and involve broader engagement with the community. No matter how good the market intelligence informing these plans is, the plans should be thought of as snapshots, especially in Toronto with its rapid pace of change.

A LAC member asked whether the hierarchy of assumptions the IESO uses in its planning is spelled out anywhere. When planning meets the real world, there are always differences and exceptions, and the member asked how those are resolved and whether there are any no-go positions stated anywhere, as a matter of policy or institutional preference.

The working group said that at the outset criteria come from North America-wide planning standards and criteria, and the IESO has two top considerations—reliability and cost. The goal of conservation first is high on the list, as well as seeking guidance from the Long-Term Energy Plan (LTEP). Stakeholder conversations, as well as provincial and municipal policies, can determine whether something is a go or a no-go. An example of a no-go is the provincial moratorium on offshore wind turbines. LAC members can improve IESO's decision-making tools by contributing their knowledge of what criteria are important to Toronto. It was pointed out that an introduction to planning criteria will be on the agenda of a future LAC meeting.

The same LAC member asked how the need for risk taking gets incorporated into planning, for example, with electric vehicles (EV) and the micro grid.

The working group said this is an important point. One idea is to bring in people who have a different perspective, as this discussion might be best led by others. Members of the "innovation community" could be enlisted to develop ideas for the IRRP.

A LAC member asked whether there was any expectation that Toronto Hydro's new load forecast study could in any way alter near-term implementation of the 2015 IRRP, as happened with the electrification of the Lakeshore West rail line.

The working group said the chances of the near-term forecast changing are not high.

Another LAC member asked about the timing of the planning process, for example, how frequently it is repeated and how it aligns with the provincial planning process, since the ministry seeks the advice of IESO during its planning.

The working group said the IRRP planning process runs on a five-year cycle, or sooner if necessary. The Ontario Energy Board (OEB) sets that timeline and allows 18 months for the IRRP process to be completed, which leaves two to three years between active planning cycles. The province's LTEP cycle is three to four years. The next LTEP is due to be released in spring 2017, which lines up well with the next IRRP.

The member asked whether there is any coordination between the LTEP and the Toronto IRRP.

The working group replied that elements in the LTEP will influence Toronto's regional plan as well as provincial policies regarding load, electrification, and conservation. The LTEP will be informed by what happens at the regional level. The province follows with interest the status of these plans, and the government decides what elements of the regional plans it will incorporate into the LTEP. Usually some items in the LTEP indicate where to go with the IRRP. A working group member said, "We have informed policy, and now policy is about to come out and inform us."

Mapping of LAC Priorities

Ms. Da Rocha said two foundational themes emerged from the in-camera members' meeting in January: defining the scope of topics to be discussed, and laying out the priorities for the LAC. In response, this meeting will begin a process of jointly creating a road map document to guide the course of meetings over the next two years. While other LACs already have a similar document in place, this is the first time such a road map will be designed in an interactive fashion. The goal is to have a document that includes priorities identified by the LAC and lets everyone know what topics will be discussed and when.

To develop the road map, the meeting would break into small groups to share ideas about what the focus of the Toronto LAC should be, and then each group would report back to the plenary. After this meeting, all the ideas generated from this discussion will be consolidated and sent to LAC members along with the meeting summary, with further comments welcomed. The road map will be used as a working document, consulted at each meeting to decide which topics have been covered sufficiently and which still need to be addressed.

<u>Reports from the Small Discussion Groups</u>

Below are the summaries provided by a participant from each of the small groups. For the full list of feedback from the small group discussions please see the Appendix.

Group 1 (LAC members):

- Include in the scope disruptive technologies, such as EVs, and their impact on the grid
- Innovative solutions and the scope of distributed energy resources (DER)
- End-of-life replacement issues
- Take investment into account in the planning process
- Include costs and liability
- Working group priorities identified as LTEP, outcomes, creating a credible plan, improved transparency around community engagement, and how the IRRP is produced
- A LAC member noted that the current meeting schedule was acceptable

Group 2 (LAC Members):

- Focus on outcomes: DER should be viewed as a tool to achieve outcomes

- Address the question of whether Toronto can support more economic growth and whether the electricity system is reliable enough to support industry or an expansion of transportation
- Discuss resilience and renewing infrastructure at a more granular level, because customer groups have different concerns (residential versus business or industry); for example, industry can move if the system is not reliable enough
- Explore how to leverage investments in the distribution system to enhance resilience
- Provide more information about the state of infrastructure and end-of-life planning
- Give greater consideration to small, distributed options in light of the growth in Toronto's applications pipeline; be realistic about what can supply that additional demand

Group 3 (LAC Members):

- Have less constraint planning
- Move beyond planning according to provincial policies; change or drive policy in regional planning
- Rethink how the IRRP decision-making process addresses the future
- Examine how to account for uncertainty, especially regarding DER, which could change the cost
- Make the scenarios and the decision-making process work together to ensure all information is on the table
- Pay attention to TransformTO, with its many initiatives regarding electrification, electric heating, the degree of penetration, and related timing
- Anticipate constraints in implementation and determine whether implementation will be rate-based or not, whether the OEB will be a barrier, and how to get around that
- Toronto will shoulder a disproportionate share of the impacts of the electrification of transportation
- Planning must consider how rates may change how electricity is used and the shape of the peak in the future, as well as using fixed-cost versus energy-charge pricing
- The scoping of scenarios should be scheduled for the November meeting, and scenarios should be discussed in February

Group 4 (Members of the Public):

- Focus on inputs and outcomes
- Explain the elements of planning—for example, the requirements for Toronto related to resilience, how that differs from other jurisdictions, and the impact of high-density population on resilience standards
- Consider the impact of policy, such as the Climate Change Action Plan and the LTEP, on the IRRP and how policy limits or expands what is possible
- The IESO, Hydro One and Toronto Hydro could improve transparency by releasing the results of their studies and pilots on an ongoing basis, before they are finalized
- Explain the different types of distributed energy and how they might function differently; get more specific instead of saying distributed energy is the solution
- Show where distributed energy solutions might have the most value in Toronto
- Incorporate City of Toronto energy targets in the IRRP

	• The IRRP should include action items, such as community energy plans and municipal plans, and should not focus solely on monitoring • Include riskier actions that will allow new technologies to come to the fore • Integrate plans with other utilities, such as gas and water • Incentivize people to change their behaviour • Explain cost allocation, what things cost, who should pay, and how that gets enabled *Group 5 (Members of the Public):* • How can community engagement fit into the plan's criteria • Which customers are going to have priority and will that manifest itself in the IRRP • Climate change adaptation should be included in the scope of work • The IRRP should have a degree of flexibility to adapt as new circumstances arise • Due to the number of substantial items to be discussed, more frequent meetings would be worthwhile Ms. Da Rocha thanked all participants for contributing their ideas in this forum. The working group will look for more opportunities to involve members of the public in discussions. Documents from each group will be collected and included in the meeting summary. Additional information can be shared with the IESO via email. **ACTION ITEMS:** 2. Include small group discussion feedback in the meeting summary 3. IESO to follow-up with OEB on cost allocations (re: plan implementation)
5	**Input into the Development of Toronto Hydro's Demand Outlook** Angelo Boschetti, Supervisor, Engineering, Generation and Capacity Planning, Toronto Hydro, said Toronto Hydro is seeking input from the Toronto LAC as they begin the process of crafting a long-range demand outlook spanning the next 25 years (see slides 24 – 33 in the presentation). Conducted every five years, a demand outlook is meant to show how peak demand may change over a period of time and a given area using a range of assumptions and forecast data. To arrive at that outcome, Toronto Hydro looks at historical data to build a model of the factors influencing changes in peak demand. The primary drivers in Toronto are population, employment levels, and weather patterns. In addition, there are factors for which there is no historical data, such as CDM, DER, and EVs. To arrive at an accurate outlook, these must be accounted for, so different assumptions are used to assess the range of potential impacts on the gross peak demand, which is adjusted up or down accordingly. Just as important as anticipating the shape and duration of peak demand is having an idea of how that load will be carried throughout the system. The peak demand is assigned to specific facilities as a way to assess each facility's ability to handle its projected load. Mr. Boschetti said Toronto Hydro was seeking advice from the LAC about inputs and appropriate sources of information to use in its planning. Five years ago, its analysis found a tight relationship

between peak demand and Toronto's population and employment across commercial and industrial sectors. The question now is whether LAC members think that may have changed. He asked LAC members for their ideas about what might be key drivers in the years ahead.

Looking at U.S. data, a LAC member said the underlying reality is that nothing dramatic is happening to peak demand at the moment. Growth is very flat, but there are huge unknowns that will have an impact sooner rather than later. The widespread adoption of photovoltaic solar will depress demand, while EV and rail electrification will drive it up. The question is how to make accurate forecasts in the midst of vast uncertainty. In the United States, which has a similar regulatory environment and similar distribution and transmission systems, the load forecasts in many markets are showing no growth in demand. Also, population growth seems to be a key driver in the United States as well. However, in Florida, a state with consistently strong population growth, the data show a flattening out of demand in the last 10 years or so. In California, 25% of peak demand is being met by solar power, which forecasting done 25 years ago would probably not have anticipated.

Mr. Boschetti said this relates to the spatial dimension of demand forecasting. Some areas of the city have experienced no load growth at all, while others have had decreased or increased load. The danger in merging these data sets is that it may appear that load growth will be marginal, but that will overlook the need for increased supply to specific areas where there is growth. The increasing influence of CDM and local generation must be taken into account, but these changes are hard to quantify because they are "hidden behind customers' meters."

A LAC member said recent changes in the Industrial Conservation Initiative (ICI) for Class A customers—allowing those with demand greater than one megawatt during peak to qualify for a reduction in global adjustment by reducing their peak demand —means that more consumers will game the system. Calculating peak under these conditions is complex and "a disaster waiting to happen." In his experience, no other jurisdiction has dropped the qualifying bar to as low as Ontario. The United States has structured its price triggers very differently than Canada. The ICI was set up to keep industry in Ontario by giving them preferential electricity rates, but now a high-rise apartment building qualifies. Such customers could easily set up a generator or run batteries, which would effectively send the peak elsewhere, or they could turn one peak into two or three. Since there is no price trigger to encourage recharging batteries at night, customers will do it later in the day, when the load is beginning to drop. "In terms of modelling, I hope you are factoring that in," the LAC member said. Another member agreed, adding that perhaps the IESO should enlist help from those in the creativity and innovation sectors who can apply concepts such as game theory to arrive at an estimate of how many people will take advantage of the rules for a global adjustment.

Another LAC member said this ties into the broader topic of assumptions about price structure in the commercial, industrial, and residential sectors. Fixed rates versus variable energy costs have an impact on households, and, depending on how high the ratio is, it could affect commercial enterprises as well. Assumptions have to be made about how much energy will cost and, more importantly, about how rate structures will affect levels of energy use and conservation. This might fall under population drivers rather than nuances in price.

The working group replied that it is very difficult to factor policy into planning. “We know what time-of-use rates look like now, what ICI looks like now, and what conservation policy looks like now, and that goes into the long-term forecast.” By the time the plan is completed, however, details of those programs will most likely have changed; there is just no way of knowing how successful a given policy will be. This is all the more reason to use scenarios and ranges in planning, instead of trying to form a definitive picture of the future. Also, the provincial market might not align with Toronto’s signals. An option for balancing uncertainty is through the consideration of scenarios. “What we understand, we calibrate properly” and then use scenarios for other, less certain policies.

A LAC member asked what Toronto Hydro does in an instance where distribution infrastructure does not exist for a plant or building for two megawatts of electricity, since it would not be worth it to build out distribution for just two megawatts.

Toronto Hydro will always serve the load. The spatial aspect is crucial for distribution, since there is not that much room on the system for new loads.

The same member asked to see how well Toronto Hydro has done in its forecasting of the load’s spatial aspect. He said he would be interested to see what triggered the demand being lower than predicted, and guessed that it had to do with the under-utilization of brownfield sites.

The working group said an assertive new load growth policy in Quebec provides a special rate for data centres, so much of the projected brownfield growth in Ontario may not materialize. When creating demand outlooks, it is very important to avoid finding a solution to a particular problem. Done properly, a forecast can help find new solutions to given restraints. For example, seeing that peak demand exists only for a few hours in a year, there may be a non-wire solution to addressing an under-served area. This requires understanding what the patterns are in the peak demand. This approach allows a local distribution company (LDC), such as Toronto Hydro, to choose from the widest possible set of solutions. The working group said LDCs have to look at the upstream effects of distribution as well. All the distributed two-megawatt sites ultimately contribute to a transformer station that handles 200 megawatts. Those two-megawatt loads are behaving in different ways now, and LDCs have to understand that, because these changes may defer the need for the next transformer station.
Regarding conservation, a LAC member asked what initiatives Toronto Hydro considers ready and where the gaps may be. There is a whole field in theory and practice regarding behaviour change that can inform an understanding of what might engage greater demand management. The member asked what conservation programs are included in the demand forecast.

In the past, Mr. Boschetti said, the data Toronto Hydro used came from the targets put in place via provincially funded conservation programs, which assumed their continuing operation. Toronto Hydro generally accepted the IESO’s view of what the future of conservation looked like. Mr. Boschetti asked for the member’s ideas about how Toronto Hydro should make conservation assumptions.

The same LAC member recognized Toronto Hydro for its engagement with TransformTO, a collaborative project looking for a pathway to an 80% reduction in greenhouse gas (GHG)

emissions. Using data-driven, bottom-up modelling, it determined that 36 measures, many conservation-related, are needed to hit the target. The study used an objectives-driven set of assumptions about conservation, the building sector and industry requirements, EV, and electrification. This could be a robust and quantitative input to Toronto Hydro's demand outlook.

The working group said IESO has completed potential CDM studies across the province. In the past, it has drawn from that to inform a long-term view. The city's goal to achieve 80% GHG reduction might include assumptions that are more aggressive or targeted than would be included in the IESO's studies. There is an opportunity to learn from that work and to find new potential reductions. CDM is a good candidate for using scenarios to anticipate different levels of performance. TransformTO's exercise looked at how to get to a desired outcome. By contrast, a study on potential CDM starts with the premise of what is economic, and then options are charted out based on the cost of investing in CDM versus transmission.

As per the LAC terms of reference, Mr. Boschetti said Toronto Hydro is seeking advice on municipal or community energy plans, priorities such as local energy self-sufficiency, and growth plans and plan implementation. He asked where Toronto Hydro should look for this information.

A LAC member pointed to Toronto Hydro's involvement with the TOcore study of downtown Toronto, which projects dramatic growth in demand for the next 25 years. Documents relating to this study are available online.

A LAC member who works for a heating and cooling facility said his organization would be "more than happy to work with Toronto Hydro and IESO" on what they see as opportunities to reduce demand. His organization has ideas for encouraging self-supply of energy for new developments in the downtown core, which would help reduce the load on the distribution and transmission systems. He referred to talk about the city holding a procurement exercise in this area. He said he believes many energy corporations would be interested in helping Toronto Hydro.

A LAC member said that in addition to calculating peak demand, Toronto Hydro and the IESO have to decide how many total hours of peak will be achieved per year; otherwise, it will not load match correctly and could end up overloading the system during heated periods.

Mr. Boschetti agreed, saying demand outlooks must consider the duration, frequency, and timing of the peak periods, all of which heighten the level of complexity. The working group said non-wire options have to be found that can last for the appropriate duration.

A LAC member said a low-carbon scenario could assume a high penetration of EV with storage potential, and this is a low-carbon scenario she would like to see included in the demand outlook. She also said she finds the use of scenarios very helpful.

Mr. Boschetti asked whether Toronto Hydro should use the same four scenarios the IESO uses in its Ontario Planning Outlook or develop scenarios specific to Toronto.

A LAC member said TransformTO will have more specific criteria because they are working from actual data—for instance, about how many EV there are, who is driving them, and where they

	are located. Another member said he charges his EV at home off peak, and when he gets to work he charges it on peak since he is not paying the cost and does not care what it is. There is no price trigger; if anything, the lack of cost encourages the dirtiest behaviour. Mr. Boschetti thanked members for their comments and invited them to contact him with any further input.
6	**Public Questions** A member of the public asked whether it would be possible to see the variables in the load modelling equations and the correlations of those variables. He also asked whether there is a duck curve in Toronto. The working group said it would, at a minimum, consider sharing what assumptions go into its calculations. Toronto does not have a duck curve, but, one does seem to be emerging in the shoulder seasons. A duck curve refers to a steep ramp-up in demand when solar power diminishes and other resources have to come online to compensate. In response to a question about the provincial government's plans regarding the global adjustment, the working group said, "We have to wait and see just like everyone else." A member of the public asked Toronto Hydro about its deadline for input from the public and acceptable forms for submitting a response. Mr. Boschetti said a cut-off date will be published in June, but the sooner information is sent in the better. More work is needed on calculating the gross demand outlook, which means looking at history and other factors. At a later stage, other factors, such as DER, are considered, so there is more time to gather input on those. Regarding global warming, a member of the public asked whether the IESO maintains any links to the insurance industry, which closely tracks weather events and trends. The working group said the IESO, through its involvement with city resilience initiatives and the Canadian Electricity Association, has an ongoing link with insurance company industry representatives. Climate data are starting to inform the IESO's infrastructure plans. Also, the IESO sits in on resiliency working groups at which the insurance industry is well represented. There is no shortage of data and interest from the insurance industry on this topic. A member of the public asked whether the IESO factors in the possibility that CDM programs might be so successful at reducing energy consumption that the government will not be able to cover the costs of operating the system. The working group said CDM programs have contributed to keeping demand flat in Toronto, but

	there is a difference between peak and overall energy usage. New customers still need to be connected. Energy providers have to be good at rate design and responsive to policy direction at the same time. A member of the public raised questions concerning how rates reflect capital investment needs. The working Group clarified that existing rates reflect planned investments for a specific rate period in a manner consistent with OEB guidelines. With regards to end-of-life assets, the working Group said every effort is made to extend asset life where it is economical and prudent to do so. Those life extension capital expenditures do make it into the rate base. **ACTION ITEMS:** 4. Working Group to consider sharing the assumptions used in calculations
7	**Next Steps & Adjournment** Michael Lyle, Vice-President, Planning, Legal, Indigenous Relations and Regulatory Affairs, IESO, thanked members of the LAC and the public for a "very fruitful discussion." He said this was a great discussion about Toronto Hydro's demand outlook, and the breakout groups provided helpful feedback about the road map. "We're on a journey together over the next couple years, and based on tonight's discussion, I think it will be a very positive journey," he said. The next meeting of the Toronto LAC is scheduled for June 8, 2017.

Summary of Meeting Action Items
1. Create and maintain a list of action items for each meeting to track progress 2. Include small group discussion feedback in the meeting summary 3. IESO to follow-up with OEB on cost allocations (re: plan implementation) 4. Working Group to consider sharing the assumptions used in calculations

Appendix:
Summary of Small Group Discussions on Mapping LAC Priorities

Following is the feedback received during the small group discussions on mapping the LAC priorities. Where appropriate, feedback was added to the sections of the LAC road map on scope of topics to be discussed and desired outcomes.

Feedback from the LAC members is noted in black font and feedback from members of the public is noted in blue font.

Scope of Topics to be Discussed

- Local avoided costs
- Innovative solutions and scope of DER
- Disruptive technologies
- End-of-life replacements (like for like, upsizing or downsizing)
- How to better leverage investments in the distribution system
- Objectives the plan is trying to achieve
- Identify the potential of various resource types
- Address cost allocation

Desired Outcomes

- A credible, enduring, cost- responsive and transparent plan

Foundations of the Plan

- Focus more on outcomes; Identify end goals
- Define the problem
- Avoid being prescriptive with solutions
- Have actions beyond monitoring – by whom? by when?
- Add policy and pricing to plan; move beyond planning according to provincial policies
- Take investment into account in the planning process

Planning Process

- Broaden the planning process
- Utilize scenario planning in conjunction with decision-making process
- Are there constraints in the planning process?
- Re-think how IRRP process addresses uncertainty
- Share decision-making/evaluation process, especially for innovative technologies
- Publish needs upfront and seek out innovation
- Include riskier recommendations to allow for new technologies

Planning Considerations

- How does Toronto compare to other cities?
- Role of codes and standards?
- Role of district energy; where?
- Balance reliability and cost
- Consider solutions in the distribution system to address reliability
- Consider small, distributed options in light of growth in Toronto's application pipeline
- Consider grid resilience, climate change action plan
- Incorporate City's targets and work of TransformTO
- Integrate with other municipal services and plans
- Tangibly show the opportunities
- Plans should be tied to Community Energy Plans
- How does the Toronto Plan work with other regional plans?
- Incentive people to change behaviour
- Planning needs to be consistent with investment decisions
- Identify local barriers

Addressing Growth

- Highlight growth areas in the plan
- The plan should ensure the system can support more economic growth, the needs of industry and transportation expansion
- Record level of growth needs to be considered

Addressing Different Customer Classes

- Resiliency is different to different customers - recognize the different classes in discussing resilience and renewing infrastructure
- Minimum service standard for specific customers (i.e. hospitals, high-rises)

Impact on Rates

- What are the rate impacts; identify costs for consumers and liabilities
- Identify partners, rate-based and non-rate based implementation options
- What are the effects of rate design?
- What are the plan implementation challenges – where does the money come from?
- Who bears the cost of different resiliency requirements?
- What is the role of the Ontario Energy Board?

Engagement

- LAC should drive decision-making process
- Make engagement fun and interesting
- Have more frequent meetings

Information Sharing

- Provide information in an accessible format
- Share studies as they are produced
- Explain the elements of planning and cost allocation
- Publish forecasts for behind-the-meter generation
- Share information on avoided costs
- Share information on the state of infrastructure and end-of-life planning
- Ensure transparency of data/business case
- Communicate more in infographics
- Share information requiring input with the public