

Meeting Summary				
Date:	January 28, 2016			
Location:	Holiday Inn, 30 Carlton Street			
Subject:	Toronto Local Advisory Committee Inaugural Meeting			
Attendees:	<table style="width: 100%; border: none;"> <tr> <td style="vertical-align: top; width: 33%;"> <p><u>Committee Members</u> Clare Schulte-Albert Darren Borden David Kiguel Fernando Carou Jack Gibbons Jane Welsh Jim Baxter John McGrath Joseph Poitras Julia Langer Keith Foster Mario Chiarelli Peter Bettie Rob McMonagle</p> <p><u>Regrets</u> Andrew Patricio Bala Venkatesh</p> </td> <td style="vertical-align: top; width: 33%;"> <p><u>Toronto Hydro</u> Andrea Corkum Andrew Sasso Angelo Boschetti Chun Hung Ngai Jack Simpson Michael Marchant Mike Walker</p> <p><u>IESO</u> Alexandra Barrett Jennifer Link Joe Toneguzzo Julia McNally Luisa Da Rocha Michael Lyle Steven Norrie</p> </td> <td style="vertical-align: top; width: 33%;"> <p><u>Hydro One</u> Ajay Garg Carrie-Lynn Ognibene Farooq Qureshy</p> </td> </tr> </table>	<p><u>Committee Members</u> Clare Schulte-Albert Darren Borden David Kiguel Fernando Carou Jack Gibbons Jane Welsh Jim Baxter John McGrath Joseph Poitras Julia Langer Keith Foster Mario Chiarelli Peter Bettie Rob McMonagle</p> <p><u>Regrets</u> Andrew Patricio Bala Venkatesh</p>	<p><u>Toronto Hydro</u> Andrea Corkum Andrew Sasso Angelo Boschetti Chun Hung Ngai Jack Simpson Michael Marchant Mike Walker</p> <p><u>IESO</u> Alexandra Barrett Jennifer Link Joe Toneguzzo Julia McNally Luisa Da Rocha Michael Lyle Steven Norrie</p>	<p><u>Hydro One</u> Ajay Garg Carrie-Lynn Ognibene Farooq Qureshy</p>
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	Key Topics	Follow up Actions
1	<p>Opening Remarks and Roundtable Introductions</p> <ul style="list-style-type: none"> • Michael Lyle, VP, Planning, Law and Aboriginal Relations, IESO and Mike Walker, General Manager, Engineering & Investment Planning, Toronto Hydro, welcomed everyone and noted the importance of the process and committee for informing regional planning. • Roundtable introductions 	
2	<p>Role of the Local Advisory Committee (LAC)</p> <ul style="list-style-type: none"> • Jennifer Link, Senior Advisor, Regional and Community Engagement, IESO, provided an overview of the LAC's role and the nature of issues and topics that the LAC will be discussing. • Reasons provided by LAC members for participating: <ul style="list-style-type: none"> ○ Contribute to development of planning and long term strategy ○ Reliability and concerns about cost and affordability ○ Align electricity plans with city growth needs; connecting with broader city development plans and implementation ○ Concerns with resiliency and climate change impact ○ Understanding linkage to environmental goals, including low carbon planning 	<ul style="list-style-type: none"> <input type="checkbox"/> Survey LAC members to gather individual objectives for future meetings and discussion <input type="checkbox"/> Distribute LAC contact information to the group <input type="checkbox"/> IESO to review parameters for use of chair vs. secretariat approach used for other LACs

	<ul style="list-style-type: none"> ○ Reliability costs for industrial uses ○ Direct and embedded generation opportunities ○ General interest in energy policy <p>Review of LAC Manual</p> <ul style="list-style-type: none"> ● Overview of the LAC manual ● Materials available online on the IESO website ● The manual can be formatted to fit the needs of each particular region <p>LAC Discussion</p> <ul style="list-style-type: none"> ● Question was raised whether the LAC should elect a chair for the committee <ul style="list-style-type: none"> ○ <i>Note: the LAC Terms of Reference indicate that the Chair function is part of the Secretariat role</i> ● A member requested further discussion about objectives and timelines for the LAC 	
3	<p>Presentation of Toronto IRRP and Discussion of Local Needs/Next Steps</p> <p>Presentations by Joe Toneguzzo, Director, Transmission Integration, IESO; Steve Norrie, Senior Planner, Transmission Integration, IESO; and Jack Simpson, Director, Generation & Capacity Planning, Toronto Hydro</p> <ul style="list-style-type: none"> ● Background on the IRRP development ● Overview of the electricity system and key participants ● Description of the regional planning process and focus ● Summary of findings from Central Toronto IRRP ● Forecast of electricity demand in the area and factors which could contribute to an increase or decrease in demand ● Overview of Toronto Hydro’s distribution system and projects/programs, including conservation and demand management (CDM), distributed generation (DG) projects in place and being planned ● Description of needs arising in the long-term ● Review of options to meet long-term needs, including Conservation and Demand Management, Distributed Generation, additional transmission supply and large-scale generation, and how to address these long-term needs <p>LAC Discussion</p> <ul style="list-style-type: none"> ● Discussion about power system planning criteria in urban areas and whether the criticality of loads is considered in dense urban areas ● Question about guidelines for “least cost planning” and what this means ● Question about customer interruption cost assumptions and how these values have been derived ● Discussion about the stage in which the regional planning process is currently and relation to the regulatory process <ul style="list-style-type: none"> ○ Response: The Central Toronto IRRP has been published and used to support utility rates applications; the focus now is obtaining input and feedback for medium and long term planning; LAC input to be considered in addressing long term needs ● Questions about how growth, carbon pricing, conservation, self-generation, and electric transit development is accounted for in the IRRP and how it reconciles with the City’s Official Plan. A LAC member expressed concern that that we may need more electricity than assumed in the forecast ● Discussion about replacement lives of assets and repair and maintenance needs and how these are impacted by major events (e.g. ice storm and flood in 2013) ● Discussion of the scope of the regional plan and the LAC; question on how the load forecast was developed for the Central Toronto plan 	<ul style="list-style-type: none"> <input type="checkbox"/> Use plain language instead of industry terminology in future presentations <input type="checkbox"/> Consider the following discussion topics in future agendas: <ul style="list-style-type: none"> ○ City of Toronto’s objectives and targets ○ Off-shore wind research ○ Voltage issues ○ Customer interruption costs <input type="checkbox"/> Provide breakdown of DG in central and metro Toronto <input type="checkbox"/> Consider providing information on offshore wind resource potential <input type="checkbox"/> Email link to the IRRP appendices to LAC members <input type="checkbox"/> Provide background information on customer interruption cost assumption (e.g., \$30/kwh)

	<ul style="list-style-type: none"> ○ Response: The regional plan was developed for the Central Toronto area only and the forecast is based on an analysis of growth areas, not an average to the entire City. The LAC covers all of the City of Toronto. • Question about the City’s role in prescribing a higher standard of efficiency. <ul style="list-style-type: none"> ○ Representatives from the City of Toronto noted that all new buildings are required to be 15% over the Ontario Building Code and incented to be 25% over code. The Code is heat focused, not electricity focused • Comment made on the use of Special Protection Systems (SPSs). SPSs used on the bulk system are typically interim facilities to be used when there is not time to implement permanent solutions <ul style="list-style-type: none"> ○ Response: SPSs as proposed in the Toronto plan are for local, not bulk, purposes. The SPS is not an interim measure in this application. It provides local supply security for rare failure events • Concerns that the forecast is based on historical extreme weather, and does not adjust for future potentially worsening conditions <ul style="list-style-type: none"> ○ Response: Weather sensitivity has been considered in the planning and forecasting. Longer term considerations due to climate change will be monitored and related forecasts and criteria will be adjusted as needed in future plans. • Broader discussion ensued regarding the reliability needs of industry including addressing voltage sags, which do not figure into reported metrics for outages • Request to consider customer voltage issues in the scope of regional planning <ul style="list-style-type: none"> ○ Response: Clarification provided that IESO power system reliability testing through operational voltage reductions is out of scope for a regional plan • Discussion about what constitutes high service levels and relationship with outages <ul style="list-style-type: none"> ○ Response: System criteria define how much load can be lost under certain contingencies; outages are tracked in terms of frequency and duration • Question about the new stations proposed – will new equipment mean higher capacity and will this help to supply new loads? <ul style="list-style-type: none"> ○ Response: It will help with reliability but primarily capacity. • Discussion about dedicated feeders for larger loads, e.g. data centres, for redundancy protection • Interest about behind the meter distributed generation, including incorporation into load forecasting and existing capacity to satisfy additional DG connections • Request to consider scenarios around alternative sources of supply, including offshore wind • Discussion about the City’s long-term goal to reduce carbon emissions, including a 25% renewables mandate and City Council goal of 80% emission reduction by 2050 • Discussion about possible stricter building codes in Toronto as part of a possible solution 	
4	<p>Open Discussion (Public Questions/Comments)</p> <ul style="list-style-type: none"> • A question about the dispatch of natural gas at times of low demand when wind is available. <ul style="list-style-type: none"> ○ Response: Under these conditions in some cases gas is dispatched as backup because the wind resource can drop off quickly • Discussion about increasing electrification of transit, particularly Metrolinx, and the role of redundant/back-up supply • Concern expressed regarding how Metrolinx will run their gas based backup generator for the Eglinton Cross town 	<ul style="list-style-type: none"> <input type="checkbox"/> Investigate availability of information on the smart meter data systems

	<ul style="list-style-type: none"> • Comment that the smart grid community is under-represented by the LAC <ul style="list-style-type: none"> ○ Response: There is a LAC member involved in smart grid research. This member was unable to attend the first meeting. • Discussion about the accessibility of smart meter data and the activities of groups focused on making that data accessible and using it. • Question about electricity storage and whether the IESO has a storage program to complement renewables <ul style="list-style-type: none"> ○ Response: Pilots have been undertaken and future opportunities will be assessed • Question about the costs of connecting rooftop solar generation led to discussion about how utilities are obliged to recover costs through the Distribution System Code <ul style="list-style-type: none"> ○ Response: Utilities are obliged to recover costs through the Distribution System Code, although system upgrades are already being covered 	
5	<p>Closing Remarks</p> <p>Ms. Link closed the meeting with a review of the next steps.</p>	
6	<p>Meeting closed at 8:30 pm</p> <p>Next meeting will be scheduled based on feedback from the LAC members</p>	