

Toronto

Local Advisory Committee Meeting #5

Preparing for the Next IRRP
(Integrated Regional Resource Plan)

September 26, 2017

Agenda

- Regional Planning in Toronto – Where Are We?
- Preparing for the Next IRRP:
 - Plan Objectives and Evaluation Criteria
 - Consideration of End-of-life
 - Update on Studies:
 - Resilience for critical customers
 - Local Achievable Conservation Potential
 - Broader Community Engagement
- Working Group Liaison
- Next Steps

REGIONAL PLANNING IN TORONTO: WHERE ARE WE?

Regional Planning in Toronto

Where We've Been

What We've Heard and Learned from the LAC

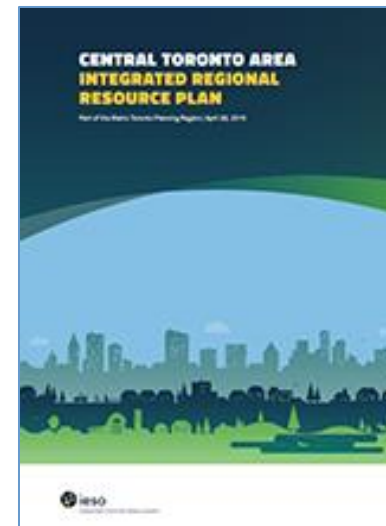
Where We Are

Where We're Going

How We're Going to Get There

Where We've Been

- The Central Toronto Integrated Regional Resource Plan (IRRP) was released in April 2015 to provide a 25-year electricity plan for the region, identifying needs and options for the near, mid and longer term
- A Toronto Local Advisory Committee (LAC) was established in January 2016 to:
 - provide advice and recommendations throughout the electricity planning process including the design of community engagement approaches
 - share information on local priorities
- The Metro Toronto Regional Infrastructure Plan (RIP) was released in January 2016 to provide a plan for the wires options identified in the IRRP
- An IRRP addendum was released in February 2017 to update the plan based on changing electricity needs related to transit plans
- On-going plan implementation, monitoring and studies; input from LAC



IRRP Implementation Update (1)

- The 2015 IRRP identified capacity needs and recommended wires and non-wires solutions which are currently being implemented
 - Copeland Station
 - New downtown station (+144 MVA capacity)
 - 90% complete; expected In Service Q2 2018
 - Runnymede Station Expansion and Line Upgrade
 - Expansion to existing station (+117 MVA capacity) + line re-conductoring
 - 20% complete; expected In Service Q4 2018

IRRP Implementation Update (2)

- 2016 Conservation Savings
 - 273,489 MWh (approximately 37MW demand relief)
- 2017 Conservation Savings (Year-end Outlook)
 - 336,638 MWh (associated demand relief to be calculated)
- Local Demand Response (DR)
 - Cecil TS DR project targeting 9MW relief
 - 2MW/8MWh battery storage project in engineering
 - Smart Thermostat pilot program launch Q4-2017
 - Voltage regulation pilot in engineering

What We've Heard from the LAC – Process Input

- Engaging early and in a meaningful way is critical
 - The LAC identifying priorities and expectations for Toronto's regional plan, including expectations on how on they will be engaged
 - Meaningful engagement throughout the process is expected, with the opportunity to shape the plan and see how feedback has been addressed
 - Engagement will be shaped by feedback from the LAC and the broader community
- LAC priorities are diverse
 - Many of the priorities are within the scope of the regional planning process, ranging from the plan development process to the final product
 - Some identified priorities are not within the scope of the regional planning process and will need to be addressed in other forums (i.e. broader policy/price considerations)
- Process and data matters; the depth of process and data matters
 - The study methodologies, modelling, data inputs are all of value, not just the resulting information

What We've Heard from the LAC – Plan Input

- The importance of resiliency
- The importance of price
- The importance of capacity concerns given the pace of growth
- The importance of environmental concerns
- The importance of alignment with City policies/goals
- The importance of building the system of the future

For a full list of priorities and feedback, please see the road map documents posted on the LAC webpage

Where We Are

- The next regional planning cycle began in late June with the initiation of a Needs Assessment by Hydro One - the first step in the regional planning process
- Following that, a Scoping Assessment will be completed to determine the scope of the next IRRP:
 - Will include the Terms of Reference for the next IRRP
 - Draft will be shared with the LAC and posted on-line for a two-week comment period
 - LAC meeting will be held to discuss the draft and collect feedback from the LAC and members of the public

Step 1

Step 2

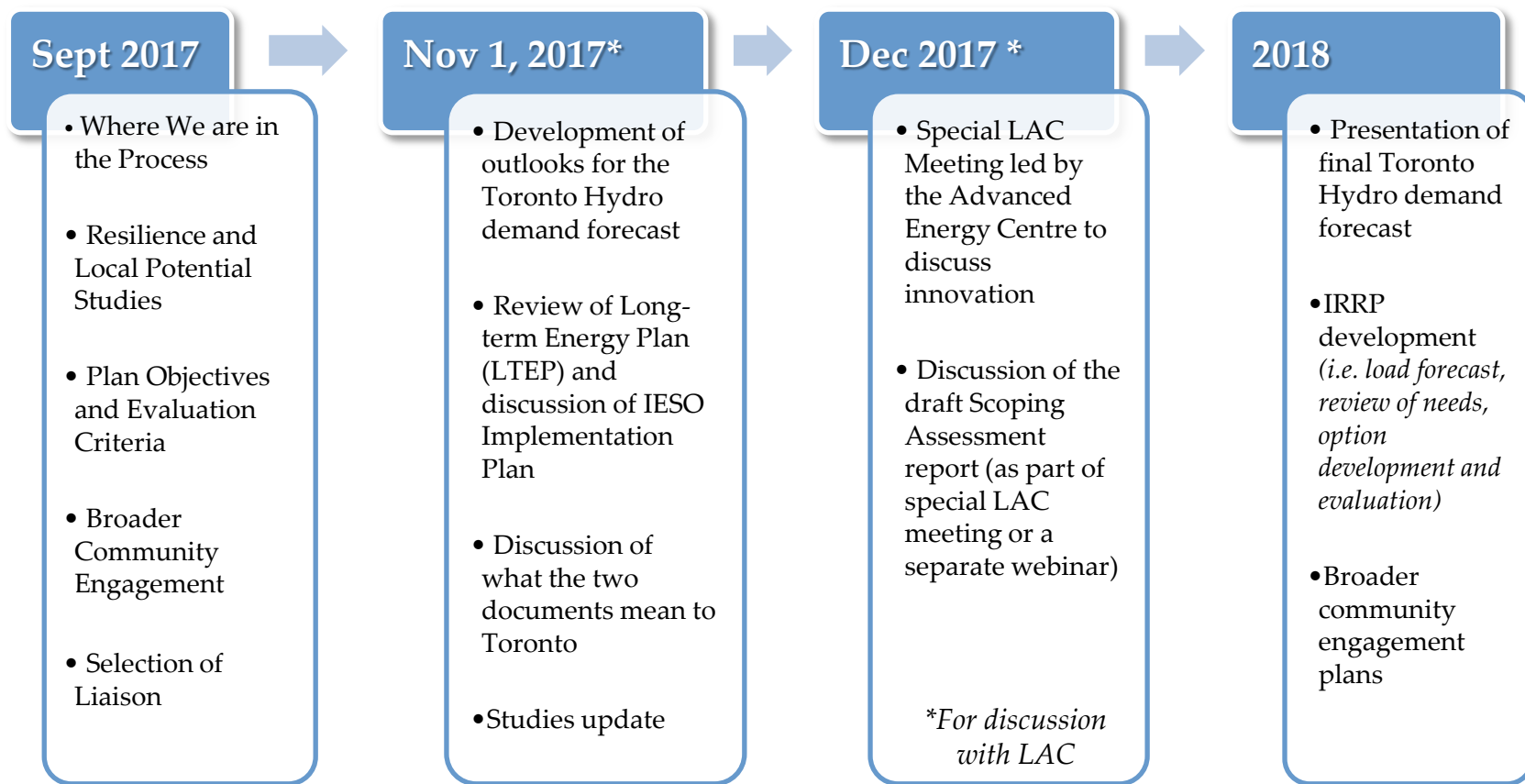
Where We're Going

- Development of the IRRP will begin in the fall of 2017 and the following will be discussed with the LAC:
 - Long-Term Energy Plan and its relevance for Toronto
 - Toronto Hydro demand forecast
 - Identification of needs under different scenarios
 - Exploration of alternatives
 - Implementation of broader community engagement
- Following the IRRP, Hydro One will complete a Regional Infrastructure Plan (RIP) to address any wires options resulting from the IRRP
 - The Toronto RIP is expected to be completed approximately six months after the posting of the IRRP

Step 3

Step 4

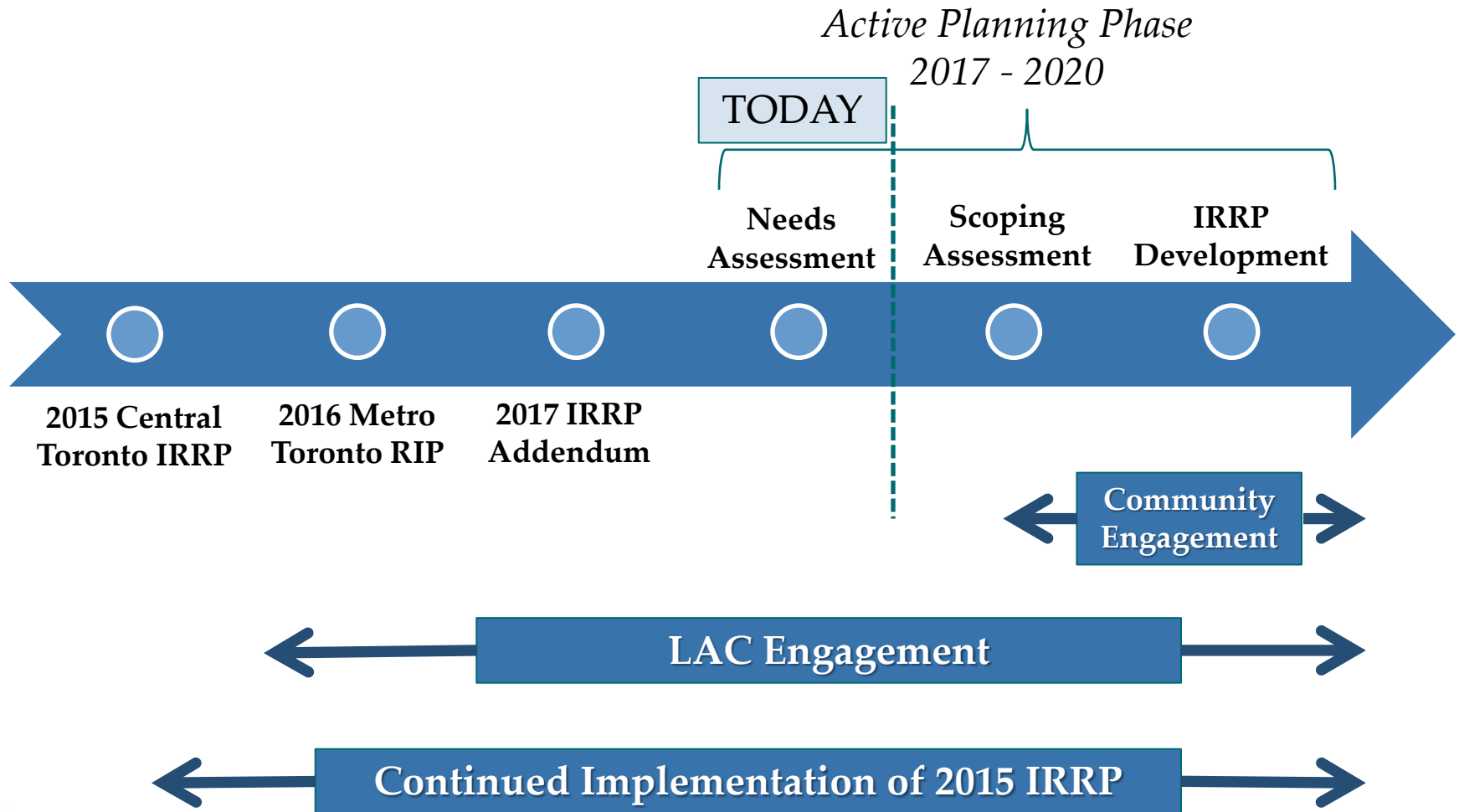
How We're Going to Get There



Updates will be provided to the LAC members via email between LAC meetings

Continued Implementation of 2015 IRRP

Toronto Regional Planning Timeline



PREPARING FOR THE NEXT INTEGRATED REGIONAL RESOURCE PLAN (IRRP)

Today's Focus

- Plan objectives and evaluation criteria
- Assets reaching end of life – building the “system of the future”
- Update on two studies that are currently underway, which will inform the next plan

Why Discuss Objectives and Criteria Now?

Objectives

Reflect what matters



Alternatives

The range of possible solutions



Consequences

How the alternatives compare with respect to the objectives

Objectives inform the scope of *Alternatives*, and help frame the *Consequences* that are relevant

Criteria are the basis on which *Alternatives* are measured – on how well they satisfy the *Objectives*

Feedback from the LAC – There is a need to talk about objectives

- Identify the end goals, focus on outcomes (i.e., identify objectives)
- Develop scenarios (e.g., low carbon “Transform TO”)
- Look at all possible options (e.g., storage, DERS)
- Align with City targets, Community Energy Plans
- Evolve plan assumptions as Toronto grows and technologies change (i.e., revise plans more quickly and frequently as technologies change and Toronto evolves)
- Be transparent about how planning decisions are made

Technical Planning Objectives

1. Satisfies established requirements in the reliability standards*
2. Can be implemented in time to meet the identified needs

** Standards are established by the North American Reliability Corporation (NERC), Northeast Power Coordinating Council Inc. (NPCC), and the IESO through the Ontario Resource and Transmission Assessment Criteria (ORTAC)*

Examples of Community Specific Planning Objectives

1. Considers local policies/objectives and community preferences (discuss how to measure)
2. Low cost
3. Reduces environmental/GHG emissions (i.e. tonnes, hectares, etc.)
4. Achieves reliability beyond standards (i.e. higher resilience)
5. Others?

Small Group Discussion

Planning for Facility End-of-life

- A facility reaching end of life could be an opportunity to reshape the electricity system for the future.
 - However in some cases a like for like replacement may be the only feasible option
- Will consider the following when deciding how to address a facility reaching end of life:
 - Forecasted needs in an area, i.e., present/future loading, expected increase/decrease, etc.
 - Possibility of load transfers to adjacent facilities
 - Loading of upstream equipment
 - Feasibility of alternatives to direct replacement
 - e.g., availability of alternative, non-wires approaches
 - Availability of land and space within stations
 - Cost

Resilience Study Update

- The study is underway
- Target customers being engaged by the IESO's consultant
- Customer perspectives on vulnerability, needs, and options for enhancing their reliability are being assessed

In addition to this study, the City of Toronto has established a Resilient City Working Group, which we will seek input from as part of developing the IRRP

Conservation – Local Achievable Potential Study

- Assesses the potential for using additional demand-side conservation options in specific parts of Toronto Hydro's service area to defer system investment needs
- Several stations are targeted for the initial study
 - It is expected that the approach will be applied repeatable to address additional areas in the future
- The study will consider various demand-side conservation options and make preliminary recommendations on approaches that could be used to reduce load, deferring the need for infrastructure investment in the study areas
- The study will begin in late Fall 2017

PREPARING FOR THE NEXT IRRP:

**BROADER COMMUNITY
ENGAGEMENT**

IRRP Engagement Principles

Community engagement is an important aspect of the regional planning process

Principles:

- Creating Transparency
- Engaging Early and Often
- Bringing Communities to the Table

Looking Back: Engagement on the 2015 IRRP

- Creating Transparency:
 - Dedicated webpage established on website with self-subscription email service
- Engaging Early and Often:
 - Three meetings with the City of Toronto; city representatives invited to workshops
 - Information provided to First Nation communities and Metis Nation of Ontario
- Bringing Communities to the Table:
 - Discussion workbook developed and posted on-line; promoted via newspaper ads
 - Workshops, surveys, webinars, open houses, subscriber lists, bill inserts
 - Traditional and social media channels
 - Four sessions with General Service/Residential customers (7-12 participants each)
 - 300+ key stakeholders invited to three workshop sessions (6-12 participants each)
 - 720+ General Service and Residential customers surveyed by phone
 - Webinars and two open houses for the public

To view the 2015 Central Toronto IRRP engagement materials:

<http://www.ieso.ca/en/get-involved/regional-planning/gta-and-central-ontario/central-toronto-engagement>

Which Engagement Mechanisms Should be Used for the Next IRRP?

- Meetings with the City
- Indigenous outreach
- Discussion workbook
- Stakeholder workshops
- Webinars
- Open houses
- Bill inserts
- Traditional media channels
- Social media channels

Engaging on the Next Toronto IRRP (cont'd)

- Which *new* outreach mechanisms should be used?
 - On-line engagement? (Options for a pilot project currently being explored)
 - Enhanced social media?
 - Utilizing LAC member contacts?
 - Other?
- What should the outreach priorities be?
- When should broader engagement begin?

Group Discussion & Worksheet

What broader community engagement activities should take place for the next Toronto IRRP?

WORKING GROUP LIAISON

Selection Working Group Liaison

- At the November 23, 2016 LAC meeting, LAC member David Kiguel was selected as the Interim Liaison until a formal selection process was undertaken
- To formally select the liaison:
 1. Interested LAC members are asked to complete a simple, one-page application form and send it to the IESO by October 12th
 2. All applications will be sent to the LAC members for review with the draft meeting summary, three weeks following the LAC meeting
 3. LAC members can vote on their preference for liaison

PUBLIC QUESTION PERIOD