



ONTARIO'S
LONG-TERM
ENERGY
PLAN 2017

Delivering Fairness and Choice

Southwest Regional Forum

November 23, 2017

Purpose

- To introduce the Ministry of Energy's 2017 Long-Term Energy Plan and provide details on the following topics:
 1. The LTEP Process
 2. Supply, Demand, and Modelling Assumptions
 3. Key LTEP Themes and Initiatives

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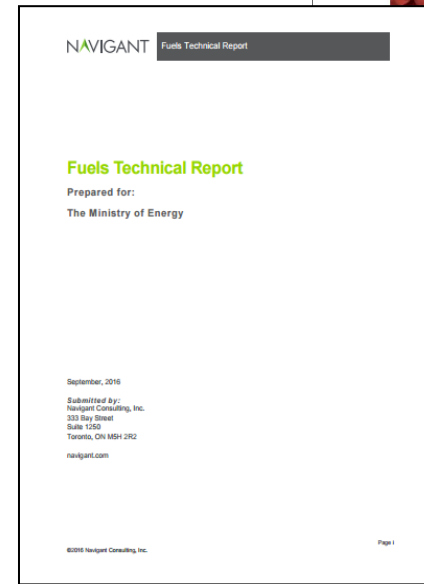
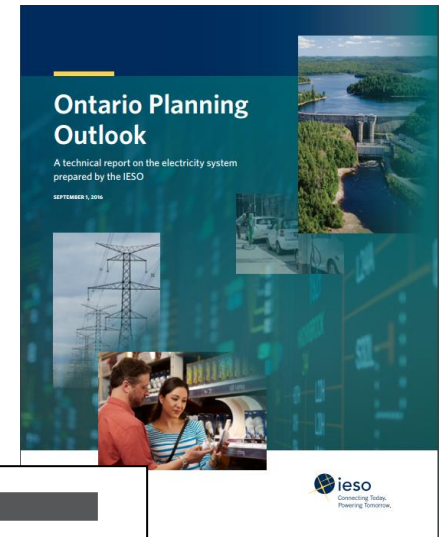


1. The LTEP Process

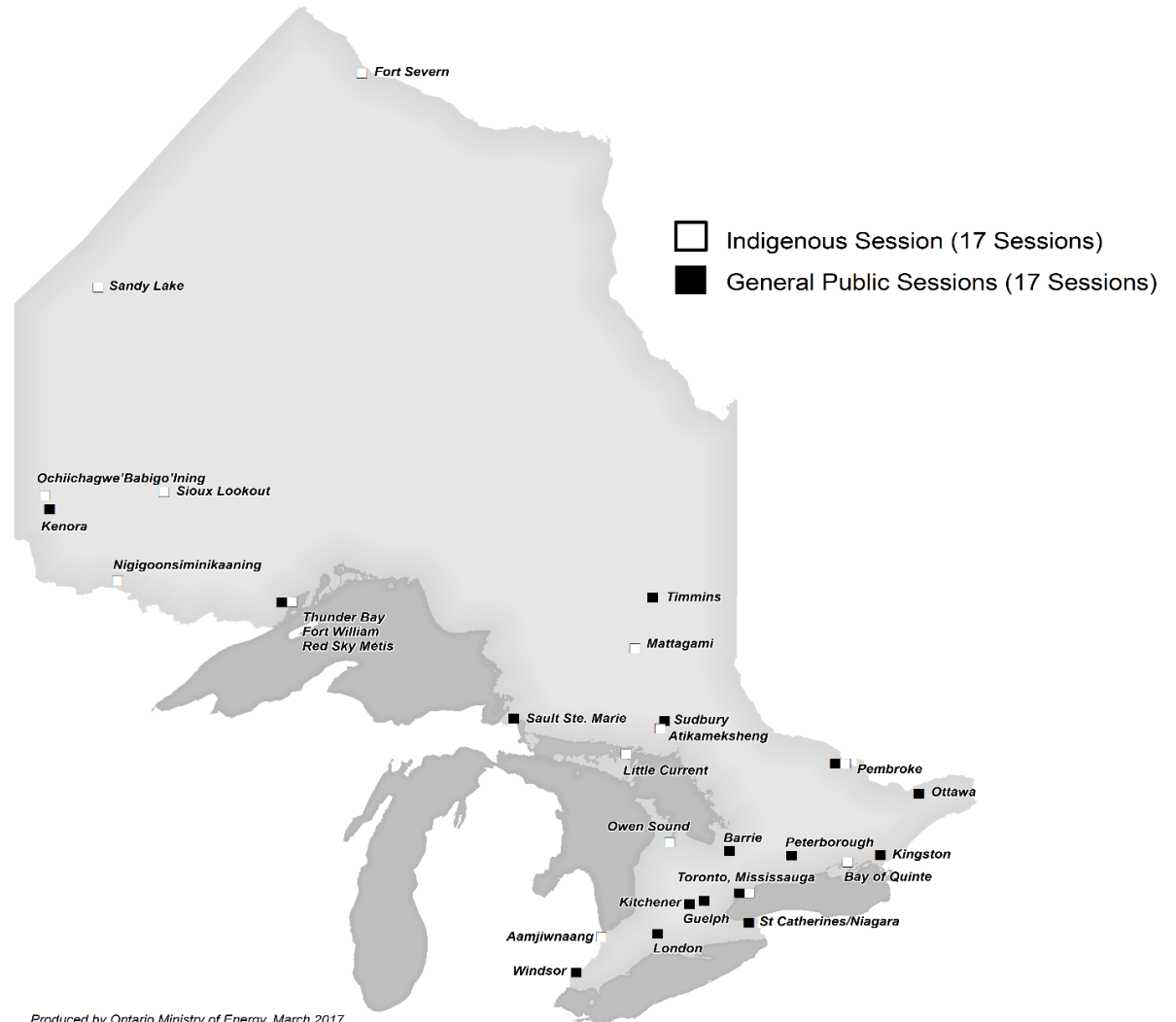
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The Long-Term Energy Planning Process

- In 2016, the Ministry of Energy enshrined in the *Electricity Act, 1998* an enhanced process for developing Long-Term Energy Plans.
- The process includes the following steps:
 - Release of technical reports
 - Engagement Process
 - Development of LTEP and Implementation Directives
 - Implementation Plans



Engagement With Ontarians



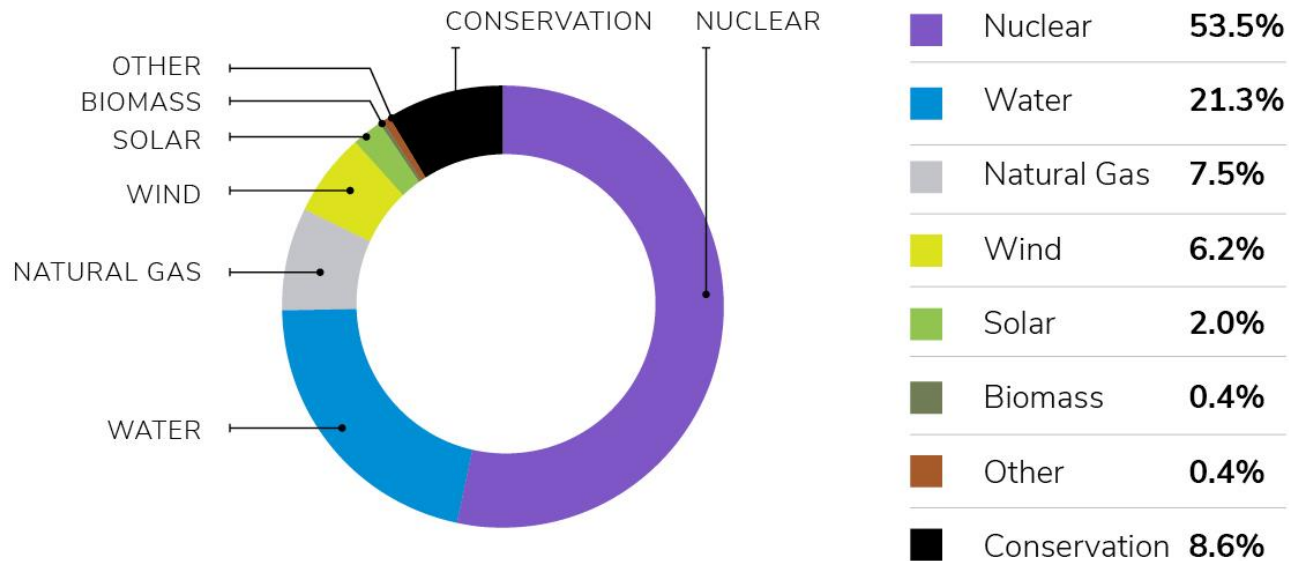


2. Supply, Demand and Modeling Assumptions

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Ontario's Supply Mix

Ontario's Electricity Generation and Conservation, 2016 (TWh)



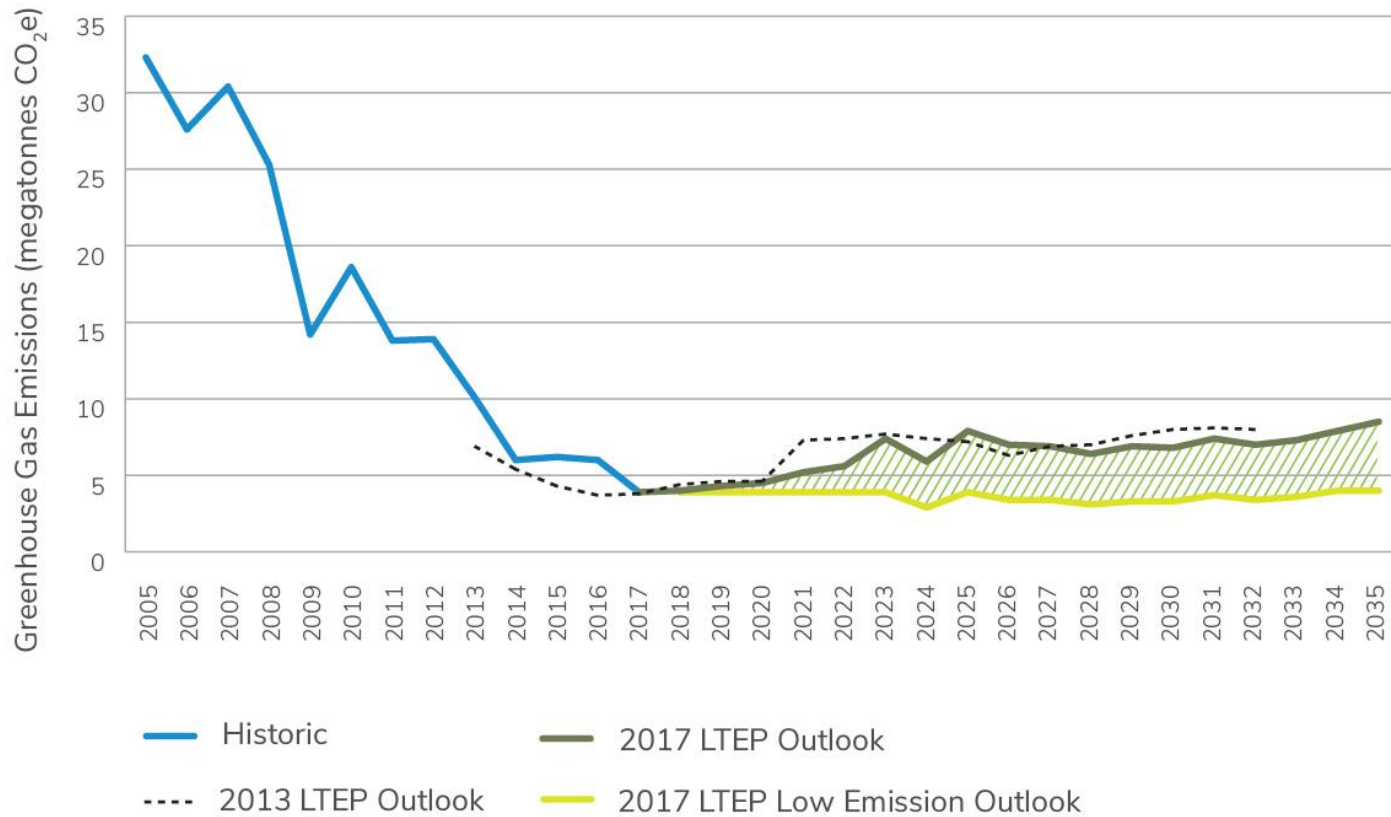
Source: Ministry of Energy

Note: Generation reflects the sum of transmission and distribution connected sources. Conservation value represents persistent savings in 2016 from programs and codes and standards since 2006.

LTEP Pg. 34, Fig. 7

Electricity GHG Emissions Profile

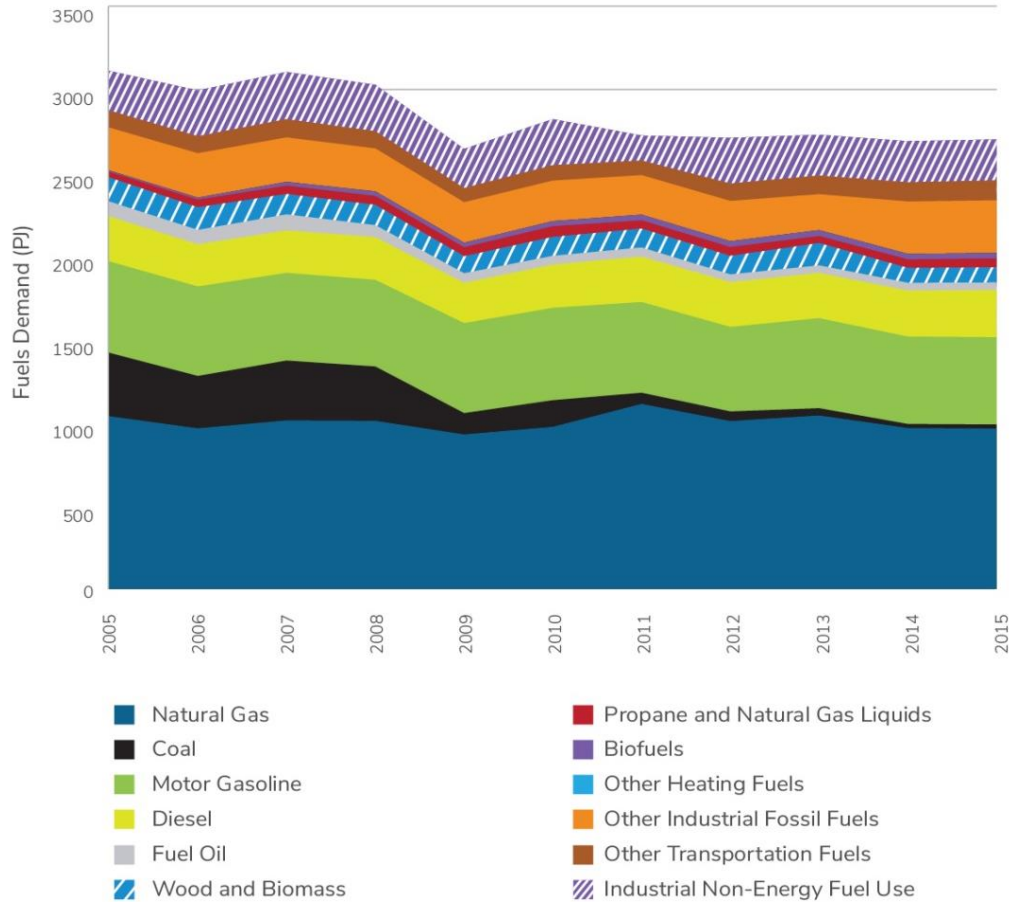
Electricity Sector GHG Emissions Outlook



Source: IESO, Environment Canada and Climate Change

Fuels Use in Ontario

Historical Fuels Energy Use



Source: Fuels Technical Report, 2016

LTEP Pg. 41, Fig. 10



3. Key LTEP Themes and Initiatives

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Consumer Focus

- The government will enhance consumer protection by giving the Ontario Energy Board (OEB) increased regulatory authority over unit sub-meter providers (LTEP Page 30.)
- Ontario will work the OEB and LDCs to redesign electricity bills so they provide more of the information consumers say they want. (LTEP Page 83.)
- Reviewing the standards for reliability and quality of service for transmitters and distributors (LTEP Page 80.)
- Reviewing the regional planning process to address challenges and opportunities that have emerged, and be more responsive to community needs. (LTEP Page 138.)

Support First Nation and Métis Leadership and Capacity

- Addressing electricity affordability (LTEP Page 126.)
- Connecting off-grid First Nation communities (LTEP Page 127.)
- Improving availability of conservation programs (LTEP Page 130.)
- Implementing community energy plans (LTEP Page 132.)
- Addressing barriers to financing for Indigenous led or partnered projects (LTEP Page 133.)

Encouraging and Enabling Innovation

- Ontario will create the right environment for utilities to modernize their business and their systems to improve efficiency, reduce costs, and give customers more choice. (LTEP Page 79.)
- The Smart Grid Fund will be renewed to support innovative companies and help to increase understanding of how smart grid can benefit the system and customers (LTEP Page 66).
- The government will enable third party ownership of net metering systems (LTEP Page 58).
- A program will be developed that will support innovative renewable distributed generation projects, including virtual net metering demonstration projects. (LTEP Page 59)

Conservation and Energy Efficiency

- Strengthening Commitment to Conservation and Energy Efficiency:
 - Encouraging energy efficiency on the distribution system (LTEP Page 102).
 - Enabling demand response to compete with other resources (LTEP Page 94).
 - Expanding Green Button (LTEP Page 98).

Responding to the Challenge of Climate Change

- Align conservation efforts with climate change goals:
 - Phase out Combined Heat and Power using supplied fossil fuels (LTEP Page 103);
 - Coordinate existing conservation programs with new low carbon GreenON programs (LTEP Page 103).
- Transition to a low-emission economy:
 - Use our clean electricity system to decarbonize the transportation sector and other sectors (LTEP Page 37); and
 - Shift to renewable natural gas, power-to-gas, lower-carbon gasoline and diesel (LTEP Pages 75, and 113).



Questions?

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IESO's Implementation Plan

Chuck Farmer,
Director, Stakeholder Affairs

November 23, 2017

Context

- On October 26, the Ministry of Energy released the Long-Term Energy Plan along with the [IESO's Implementation Direction](#)
- As part of the direction, the IESO will submit an Implementation Plan to the Minister for approval by January 31, 2018
- The Implementation Plan will outline key implementation milestones, provide detail on process and timing and articulate targeted outcomes for each of the nine (9) directed initiatives
- The IESO has begun engagement to help inform the scope and timelines that will be included in the final Implementation Plan
- The IESO will provide opportunities for community and stakeholder engagement over the coming weeks and throughout the implementation of the directed initiatives

Summary of IESO's Implementation Direction

1.1	Review and propose options to improve energy support programs to First Nations and Métis, with the objective of better aligning programs with community needs and interests
1.2	Prepare a report on options to improve conservation programs, and access to programs, for First Nations and Métis. The report timing shall be aligned with the Mid-Term Review of the Conservation First Framework
2.1	Develop a program, administered by the IESO, to support a select number of innovative renewable distributed generation demonstration projects, strategically located and paired with other distributed energy resources and smart grid technologies, as well as virtual net-metering demonstration projects.
2.2	In coordination with the OEB, review market rules, industry codes, and regulations, in order to identify potential obstacles to fair competition for energy storage with other technologies in the delivery of services, and where appropriate, propose mitigation strategies
2.3	Identify options for pilot projects that evaluate the electricity system benefits, costs and GHG emission reductions of using electricity to create hydrogen.
3.1	Develop a formal integrated bulk system planning process that ensures solutions are identified transparently as needs materialize. The process shall also include a coordinated, cost-effective, long-term approach to replacing transmission assets at end-of-life
3.2	Develop a competitive transmitter selection or transmission procurement process that is transparent, efficient and able to respond to changing policy, market and system needs.
3.3	Review and report on the regional planning process, taking into account lessons learned, and provide options and recommendations.
3.4	Review and report on technical criteria used to assess customer reliability in order to identify and evaluate options for local area enhancements

Engagement Approach

- The IESO is engaging on the development of its Implementation Plan; feedback is being accepted until December 13, 2017
 - Webinar with communities and stakeholders (took place November 22)
 - Stakeholder Advisory Committee public meeting (November 29)
 - Targeted meetings with associations, key stakeholders and/or community representatives
- The IESO is looking for feedback in the following areas:
 - Is an adequate and efficient scope of activities proposed to meet the implementation directive?
 - Are there other factors (e.g. additional external initiatives) that should be considered in the design of the timeline of activities?
 - Is the relative priority of the engagement schedule achievable?
- Feedback on specific activities is out-of-scope at this time; engagements specific to each initiative will launch once the Implementation Plan has been approved by the Minister

Post Implementation Plan

- Detailed engagement plans will be developed for each directive initiative once the Implementation Plan is approved by the Minister
 - Plans will include specific activities, timelines, forums, methods, etc.
 - Detailed engagement plans will be available, consistent with the timelines established in the Implementation Plan, with the consideration of stakeholder and community feedback
- All engagement activities will be communicated through the IESO [Weekly Bulletin](#) and [IESO website](#)
- The response to each initiative will include an open engagement component in adherence with [IESO Engagement Principles](#)