

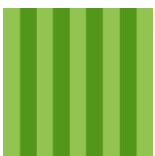
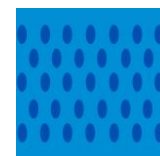


ONTARIO'S  
LONG-TERM  
ENERGY  
PLAN 2017

# ***Delivering Fairness and Choice***

Mid-Term Review Advisory Group  
Meeting

November 23, 2017



# Purpose

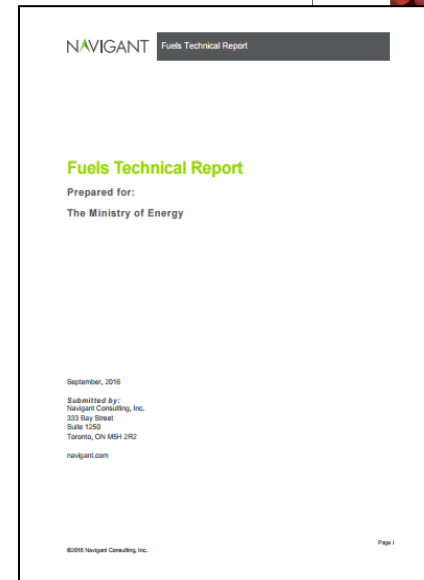
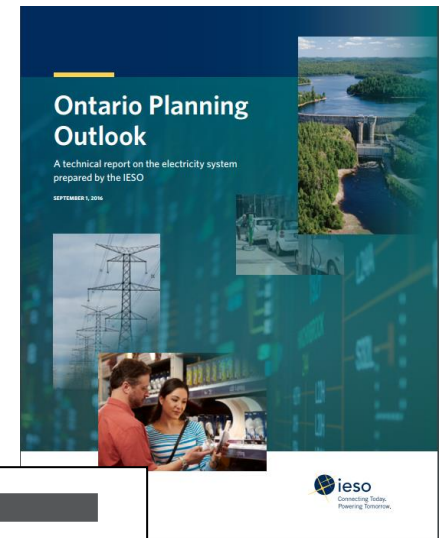
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- Ontario's 2017 Long-Term Energy Plan was issued on October 26, 2017. This presentation provides an update on the following:
  1. Overview of the LTEP Process
  2. Demand and Electricity GHG Emissions Outlook
  3. Key LTEP Themes
  4. LTEP Conservation Initiatives
    - LTEP implementation and amending directives
    - LTEP next steps
  5. Other Initiatives of Interest to MTR AG
    - Net metering
  6. Questions

ONTARIO'S  
LONG-TERM  
ENERGY PLAN  
2017

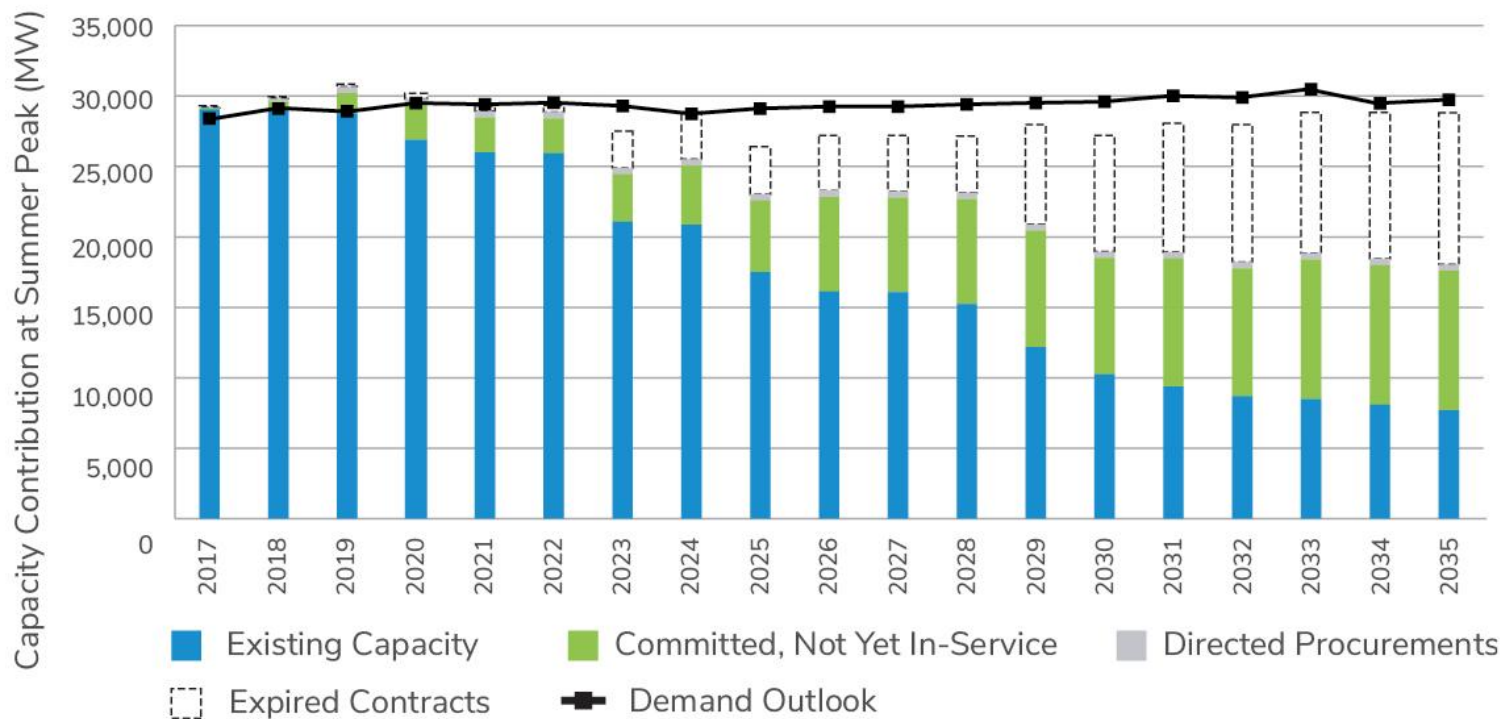
# 1. Overview of the LTEP Process

- 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



# 2. Supply and Demand Outlook

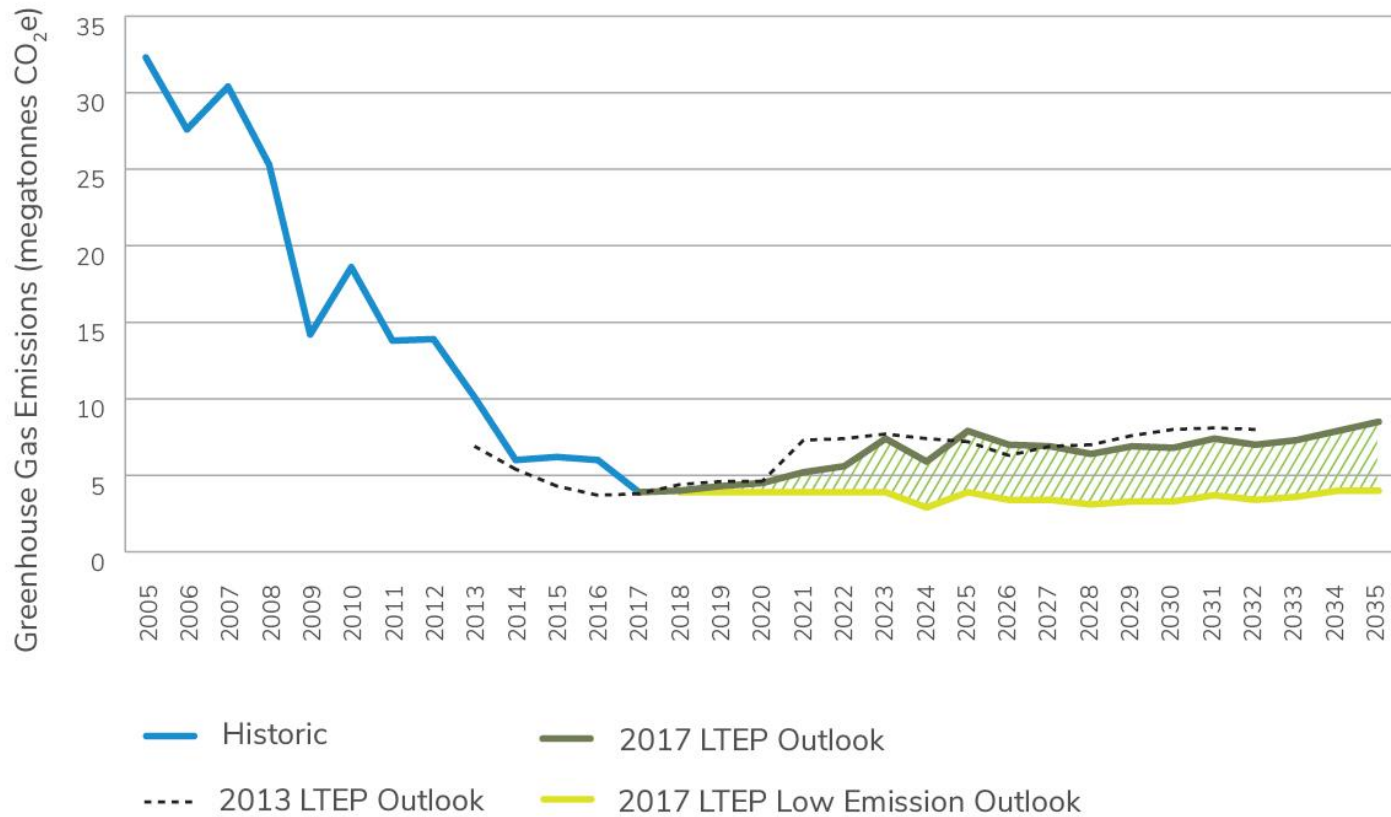
Supply and Demand Outlook (2017 - 2035)



Source: IESO

# Electricity GHG Emissions Outlook

## Electricity Sector GHG Emissions Outlook



Source: IESO, Environment Canada and Climate Change

## 3. Key LTEP Themes

- The Ministry of Energy identified a number of policy priorities based on the issues raised during LTEP engagement and Ministry policy analysis.

1. Affordable and accessible energy
2. A flexible energy system
3. Encouraging and enabling innovation
4. Improving value and performance of existing assets
5. **Strengthening commitment to energy conservation and efficiency**
6. Responding to the challenge of climate change
7. Supporting First Nation and Métis capacity and leadership
8. Supporting regional solutions and infrastructure

## 4. LTEP Conservation Initiatives

# LTEP Conservation Initiatives

What we heard:

- Reaffirm and enhance Conservation First commitment.
  - While conservation programs help customers manage energy costs, affordability and electricity cost mitigation are a priority.
  - Encourage in front of the meter conservation, and expand conservation to other fuels.
  - Support community based energy planning; improve availability of programs for Indigenous communities.
- Align conservation efforts with the Climate Change Action Plan.
- Continue and enhance existing conservation programs to meet customer needs.

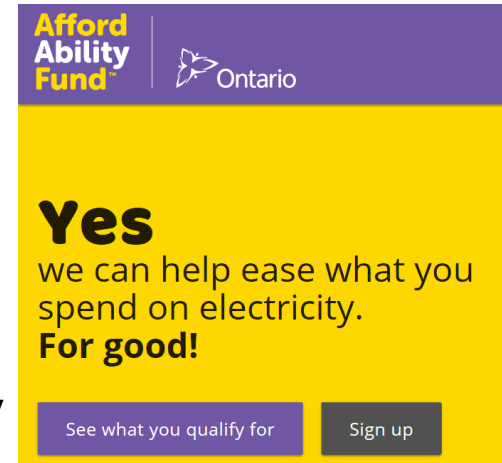
## Strengthening Commitment to Energy Conservation and Efficiency

- Affordability and choice for people and communities
- Getting more without increased costs for ratepayers
- Integrating conservation and climate change programs



# Affordability Fund

- Established in March 2017 as part of Ontario Fair Hydro Plan.
- An additional tool for utilities to assist customers in need of support.
- Funded by Ontario Government - \$100 million from tax base, and governed by an independent trust – social service and utility sectors.
- Launched October 24, 2017
- Eligible customers will benefit from energy efficiency upgrades to home to reduce their electricity bills over the long-term.
- Designed to support households who **do not** qualify for the Home Assistance Program (HAP).
- Measures to align with HAP and dependent on level of burden a customer experiences and whether home is electrically-heated.

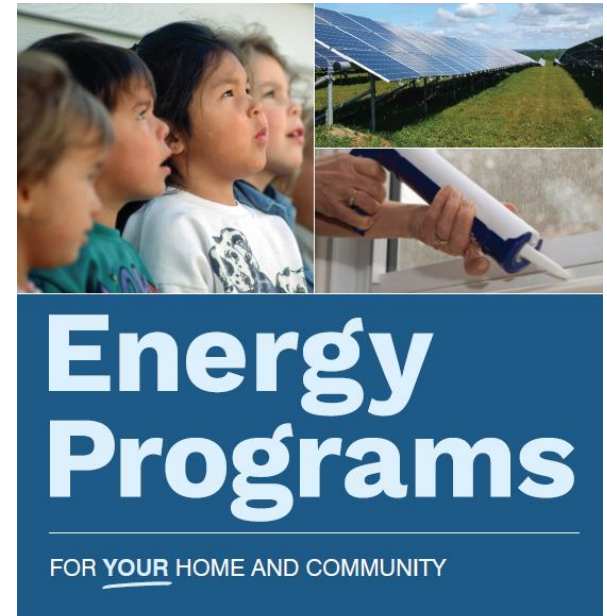


The screenshot shows the top section of the Affordability Fund website. It features a purple header with the 'Afford Ability Fund' logo and the Ontario logo. Below the header is a yellow background with the text 'Yes we can help ease what you spend on electricity. For good!' in black. At the bottom of the yellow section are two buttons: 'See what you qualify for' and 'Sign up'.

[Affordabilityfund.org](http://Affordabilityfund.org)  
or 1-855-494-FUND

# Indigenous Conservation Programs

- A central theme of the 2017 LTEP is supporting First Nation and Métis capacity and leadership.
- While conservation programs are working well in some Indigenous communities, LTEP engagement sessions revealed that the programs need to be more flexible and widely available.
- The Minister's LTEP directive to the IESO includes:
  - Improving availability of conservation programs (LTEP Page 130).
  - Implementing community energy plans (LTEP Page 132).
- Aligning with the Indigenous Energy Symposium (October 24-25, 2017), the Ministry of Energy disseminated to Indigenous stakeholders across Ontario a booklet on *Energy Programs for Your Home and Community*.



# Strengthening Commitment to Conservation

- Reaffirming commitment to the long-term electricity conservation target and continuing to assess achievable conservation (LTEP Page 94).
- Enabling demand response to compete with other resources (LTEP Page 94).
- Ensuring a customer-centred approach (LTEP Page 95).
- Providing choice through information, tools and access to data
  - Requiring energy and water benchmarking for large private sector buildings (LTEP Page 100).
- Advancing energy efficiency standards:
  - Regulating water efficiency of products that consume both energy and water (LTEP Page 101).
  - Setting or updating energy efficiency standards for key electrical equipment in drinking water and wastewater treatment plants (LTEP Page 101).
- Expanding the scope of conservation (LTEP Page 102).

# New Conservation Initiatives

- i. In Front of the Meter Conservation**
- ii. Green Button**
- iii. Investor Confidence Project**

# In Front of the Meter Conservation

Encouraging energy efficiency on the distribution system (LTEP Page 102)

## Overview

- In Front of the Meter Conservation (IFMC) technologies reduce line losses and optimize voltage levels on the distribution system.
- Several pilots across North America have demonstrated the benefits of deploying IFMC technologies, and the Smart Grid Fund and the Conservation Fund have supported pilots in Ontario.
- ENERGY procured a study to explore IFMC barriers, opportunities, costs and benefits in Ontario.\* The study found that the most barriers in Ontario are financial and regulatory, and that IFMC can be cost-effectively deployed on approximately 30% of Ontario's distribution systems.
- 2017 LTEP announced a policy to address the key barriers, where LDCs can count electricity savings from distribution-rate funded IFMC projects towards their CDM targets under the 2015-2020 Conservation First Framework.

## Next Steps

- The IESO will work with the OEB to implement this policy and provide further guidance to LDCs.

\*The IFMC report conducted by Navigant can be found here:

<https://www.ontarioenergyreport.ca/data-catalogue.php#LTEP-supporting-reports>

# Green Button

— Providing choice through information (LTEP Page 98)



## Overview

- Green Button is a data standard that can empower customers to access and share their utility data in an electronic, standardized and secure way.
  - Download My Data (or, DMD) allows the utility customer to manually download their own data from their utility's website directly to their own computer in a standard format. And if they choose, they can manually upload that data to a third party solution provider (i.e. software/app).
  - Connect My Data (or, CMD) allows utility customers to authorize the automatic, secure transfer of their own data from their utility to apps and energy management tools of their choice.

## Benefits

- The expected benefits of adopting Green Button province-wide as the common standard for energy data include:
  - Behavioural changes and increased retrofits that can help customers save on their energy bills and avoid system costs.
  - Reduce the effort and cost of accessing energy data, including to support energy reporting and benchmarking.
  - Foster the development of innovative and interactive energy management software tools and apps, and be part of a growing North American market for these solutions.

# Green Button (cont'd)

## Next steps

- On November 14, 2017, [Bill 177](#), *Stronger, Fairer Ontario Act (Budget Measures)*, 2017 was introduced, which includes legislative amendments to the *Green Energy Act, 2009* and *Ontario Energy Board Act, 1998* to enable Ontario to establish a regulatory framework for the province-wide implementation of Green Button (Schedule 18).
- ENERGY is planning to post its regulatory proposal on the Environmental and Regulatory Registries for public comment shortly.
- To support utilities in consistently implementing Green Button across the province, ENERGY will establish Technical Working Groups with the province's electricity, natural gas and water utilities to update existing guidance documents for electricity utilities and create new guidance documents for natural gas and water utilities.

# Investor Confidence Project

Increasing access to energy efficiency financing (LTEP Page 100)

## Overview

- The Investor Confidence Project (ICP) standardizes how energy efficiency retrofits are developed, documented and measured. Individual projects can then be aggregated and traded by institutional investors.
- ICP was established by the Environmental Defence Fund in 2013, and is now owned and operated by Green Business Certification Inc. (GBCI).
- The Province is partnering with MaRS to pilot the ICP Protocols in Ontario and identify how the Protocols can be adapted for the Canadian market.

## Next steps

- Early 2018: MaRS to hold an Open House on ICP for interested stakeholders.
- Early 2018: MaRS to continue stakeholder outreach and identify potential pilot participants and projects.
- Mid-2018: MaRS to initiate the ICP pilot in Ontario.



# Responding to the Challenge of Climate Change

- To align conservation efforts with climate change goals:
  - As of July 1, 2018, phasing out Combined Heat and Power using supplied fossil fuels (LTEP Page 103).
  - Increased use of low carbon / renewable energy technologies for heating and cooling homes and businesses (LTEP Page 115).
  - Continue to support near and net zero carbon buildings to create a pathway to net zero (LTEP Page 117).
  - Coordinate existing conservation programs with new low carbon GreenON programs (LTEP Page 103).

# LTEP Implementation and Amending Direction/Directive

## Legislated Process, Electricity Act, 1998

*The Minister of Energy may issue Cabinet-approved directives to the IESO and/or OEB setting out the government's requirements for LTEP implementation and the date by which the IESO and/or OEB must submit an implementation plan to the Minister.*

### LTEP Directive to IESO:

- Report on options to improve conservation programs and access for Indigenous people (align with the MTR).

### LTEP Directive to OEB:

- Examine opportunities to modernize the electricity sector, including energy efficiency measures on the distribution system.
- Move forward with implementation of RPP Roadmap, including new pricing structures and energy literacy.

Other areas: regional planning, virtual net metering, and EV charging.

### Amendments to 2014 CFF and IAP Directions to IESO and Directive to the OEB:

- Phase-out incentives for behind the meter generation (BMG) that uses supplied fossil fuels.
- Allow LDCs to count electricity savings from in-front-of-the-meter conservation projects toward CDM targets.

## LTEP Next Steps

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- The IESO and OEB will deliver their Implementation Plans to the Minister of Energy by January 31, 2018.
  - The IESO has launched a new engagement initiative on the development of its plan.
- ENERGY will review the implementation plans to ensure the relevant goals and objectives are achieved in the proposed frameworks.
- The implementation plans will expand on the programs and policies described in the Long-Term Energy Plan and outline any resources required.
- Any subsequent amendments to the directives will require Cabinet approval.

## 5. Other Initiatives of Interest to the MTR AG

# Net Metering

## Overview:

- LTEP committed to legislative and regulatory amendments to Ontario's net metering regulatory framework to:
  - Enable third party ownership and operate of net-metered systems; and
  - Enable virtual net metering (VNM) demonstration projects.

## Next Steps:

- Proposed legislative amendments to the *Ontario Energy Board Act, 1998* were tabled on November 14, 2017 through Bill 177, *Stronger, Fairer Ontario Act (Budget Measures), 2017*.
- ENERGY intends to post regulatory proposals to the Environmental Registry and the Regulatory Registry for public input.
- ENERGY will continue to work with the IESO on the development and implementation of an innovative renewable distributed generation program that will include support for VNM demonstration projects.

## 6. Thank You + Questions

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