
Ministry of Energy Update

CME Standing Committee on Energy

September 20, 2017

Overview

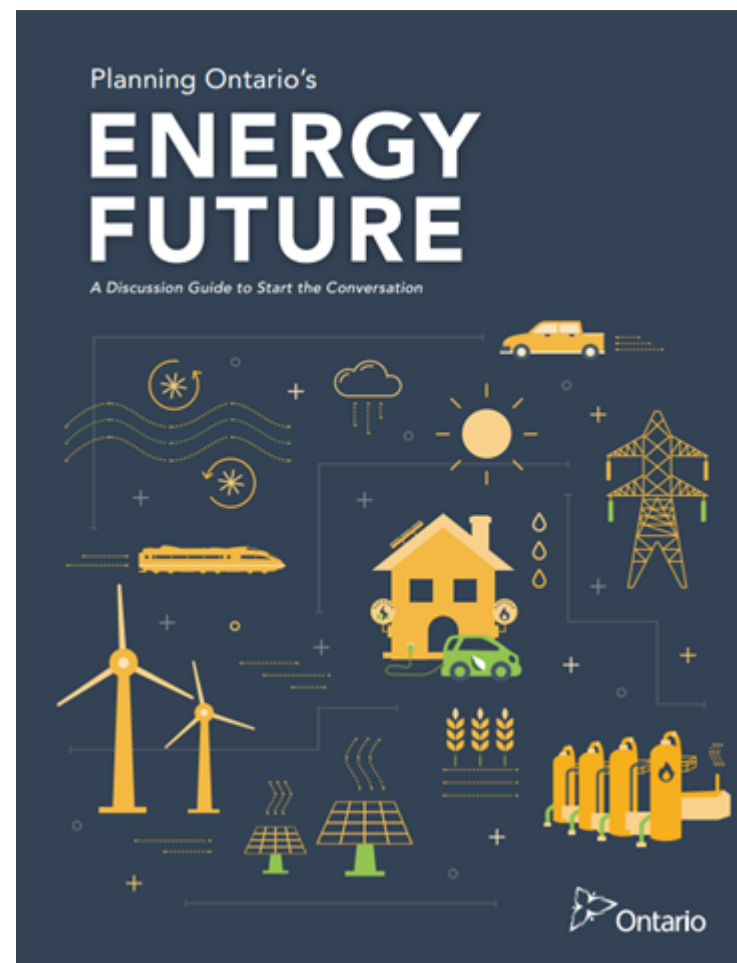
Today's presentation will cover the following items:

1. 2017 Long Term Energy Plan (LTEP)
2. Ontario's Fair Hydro Plan (OFHP)
3. Industrial Conservation Initiative (ICI)

2017 Long Term Energy Plan (LTEP)

2017 LTEP

- The next LTEP will expand the discussion of Ontario's energy future by including a comprehensive review of the province's fossil fuels sector and the supply of oil, gasoline and natural gas.
- The Ministry of Energy consulted and engaged with Ontarians, First Nation and Métis communities and energy stakeholders to get views on the choices that need to be made for Ontario's energy future.



LTEP Engagement Map

- The Ministry of Energy has held consultations and engagement sessions with Ontarians, First Nation and Métis communities and energy stakeholders across the province.



Produced by Ontario Ministry of Energy, December 2016

What We Heard – Prices

Prices

Electricity mitigation

Natural Gas mitigation

Bending the cost curve

- **Cost certainty:** Homes/businesses want predictability of costs.
- **Delivery Charge:** Customers not aware what it covers. Unfair that it varies across province.
- **Industrial Competitiveness:** Prices are putting Ontario at a competitive disadvantage in attracting investment. Need more support for all sizes of businesses.
- **LDC issues:** Customers identifying rising costs; challenge for utilities as they account for ~15% of bill.
- **Support from Tax-Base:** More funding is needed from tax base given supply mix/costs are locked in.
- **Engagement/communication:** More efforts are needed to explain the different components of bill, why they have gone up and what support programs are available for different customer groups.
- **Utilize existing assets:** Government should re-contract with existing supply as contracts expire through competitive price auctions.

What We Heard – Supply (Partial List)



LTEP Process

- 2017 LTEP will be developed through the following four stage process:



Phase 1 Technical Reports

Publication of two technical reports on the current state of Ontario's electricity and fuels sectors, each of which also contain 20-year outlooks to guide LTEP engagement and development.



Phase 2 Engagement

The Ministry of Energy is actively seeking feedback from stakeholders and the public through in-person sessions, online tools, and the *Environmental Registry*.



Phase 3 Development

The Ministry of Energy has reviewed feedback collected through the LTEP engagement phase as well as information provided in the technical reports to develop the Long-Term Energy Plan.

We are here

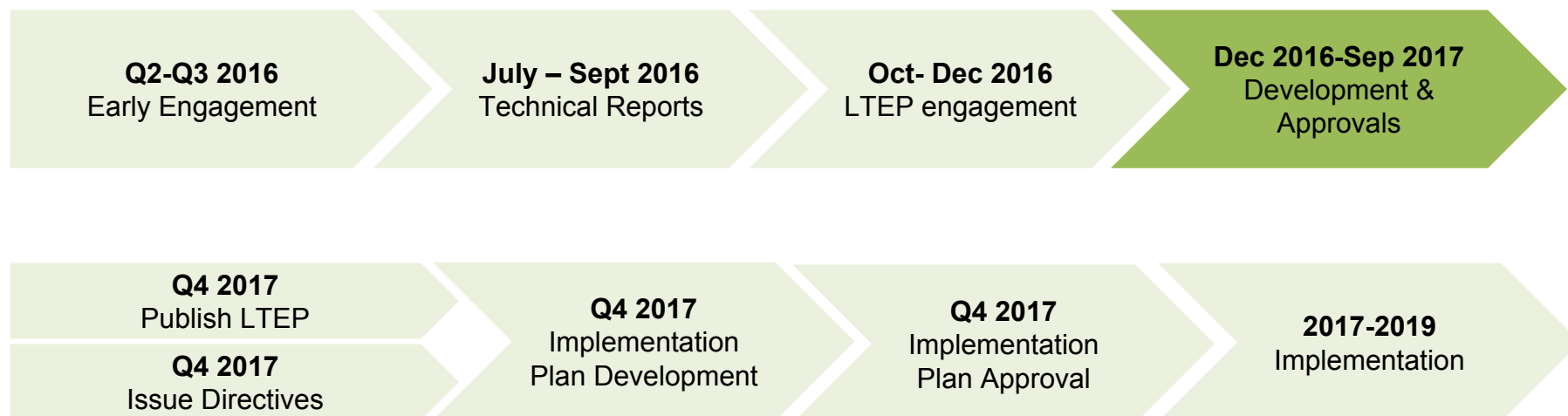


Phase 4 Implementation

The Ministry of Energy's agencies, the Independent Electricity System Operator (IESO) and Ontario Energy Board (OEB) will develop plans for implementing the Long-Term Energy Plan's objectives.

LTEP timelines

- The Ministry of Energy is developing 2017 LTEP. This process will include:



Ontario's Fair Hydro Plan (OFHP)

Ontario's Fair Hydro Plan

- Ontario's Fair Hydro Plan (OFHP) has lowered electricity bills by 25 per cent on average for residential consumers and feature initiatives to reduce costs for businesses.
- The plan includes the 8% rebate introduced in January and builds on previously announced initiatives to deliver broad-based rate relief on electricity bills.
- All consumers in the province would benefit from at least one of the initiatives under the OFHP.



Shifting Support Program Funding

- Currently, the Rural or Remote Rate Protection (RRRP) program and Ontario Electricity Support Program (OESP) are funded by ratepayers through the regulatory line on your bill.
- OFHP shifts the funding of these programs to provincial revenues.
- Shifting these cost from ratebase to the taxbase saves all consumers approximately \$3/MWh.

Industrial Conservation Initiative

Industrial Conservation Initiative Expansion

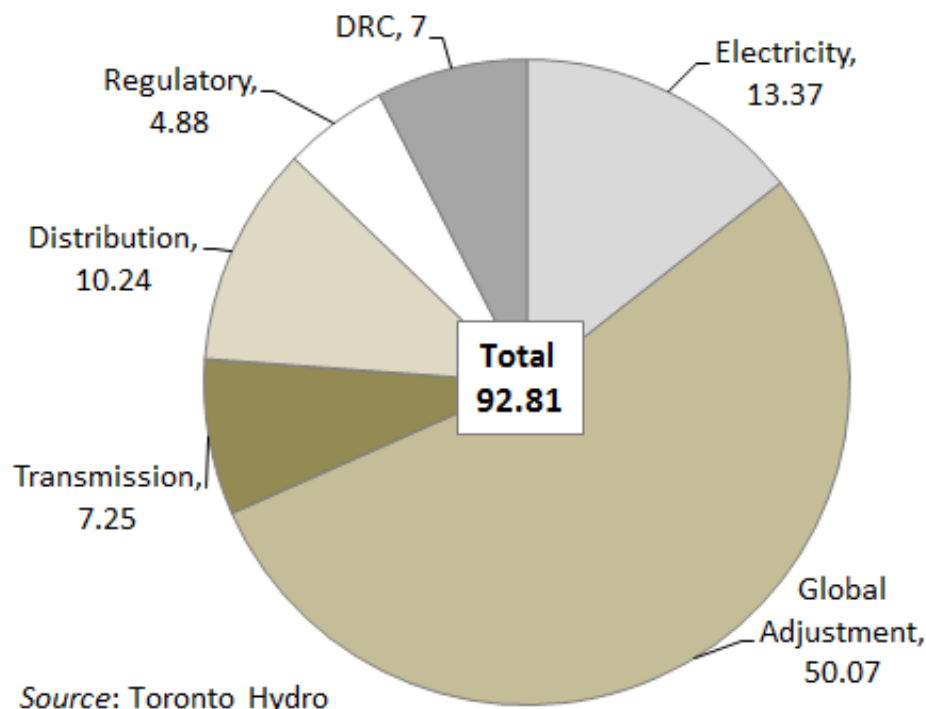
- Electricity consumers that participate in the Industrial Conservation Initiative (ICI) are charged GA based on their contribution to the “top five peak” demand hours in Ontario each year. Participants in ICI are able to reduce their GA costs based on their ability to reduce demand during these five peaks.
- By reducing Ontario’s peak demand for electricity, ICI reduces the need for peaking generation facilities over the long term.
- Effective January 1, 2017, ICI program was expanded to all consumers with an average monthly peak demand of 1 megawatt or greater.
- As part of the OFHP, effective April 13, 2017, consumers with more than 500 kilowatts and less than 1 MW of monthly average peak demand in the manufacturing and greenhouse sectors are eligible for the program.
 - Consumers in this size class with North American Industry Classification System (NAICS) codes 31-33 and 1114 are eligible.
- Consumers that opted-in saw the impact on their July 2017 bill.

Electricity Bill Components for a Manufacturing Consumer

- The chart below shows the electricity price for a typical Ontario manufacturer in year-to-date July 2017 (figures in \$/MWh).

All-In Electricity Price

2 MW Manufacturer



Electricity Prices – ICI participants

- The table below shows prices for a hypothetical two megawatt consumer in 2016, as an ICI participant and a non-ICI participant.
- The GA rates for the ICI participant column below reflect the average rate paid by participants. Actual rates paid by participants varies based on responsiveness of consumption levels to system peaks.

	ICI Participant	Non-ICI Participant
Electricity	13.37	13.37
Global Adjustment	50.07	99.38
Transmission	7.25	7.25
Distribution	10.24	10.24
Regulatory	4.88	4.88
DRC	7.00	7.00
Total	92.81	142.12

Source: IESO, OEB

Note: Prices reflect a two megawatt consumer located in Toronto with an 85% load factor. Distribution rates exclude rate riders. Global Adjustment for the ICI participant reflects average Class A.

Peak Demand Factor

- Eligible customers are assessed on their percentage contribution to the top five hours of peak demand in the province over a base period.
- The percentage contribution is also referred to as a customer's coincident peaks.
- The sum of a customer's coincident peaks is divided by the sum of the adjusted system peaks to determine the customer's peak demand factor (PDF):

Peak	Day	Hour Ending	Customer's Consumption (MW)	Peak System Consumption (MW)*
Peak 1	July 28, 2015	17	3.1	23,023.710
Peak 2	July 29, 2015	17	4.4	22,835.441
Peak 3	August 17, 2015	17	3.9	22,892.239
Peak 4	July 27, 2015	18	4.1	22,323.277
Peak 5	September 3, 2015	14	4.3	22,860.233
			Total = 19.8 MW ÷ Total = 113,934.900 MW = 0.00017378	

Anticipating Peaks

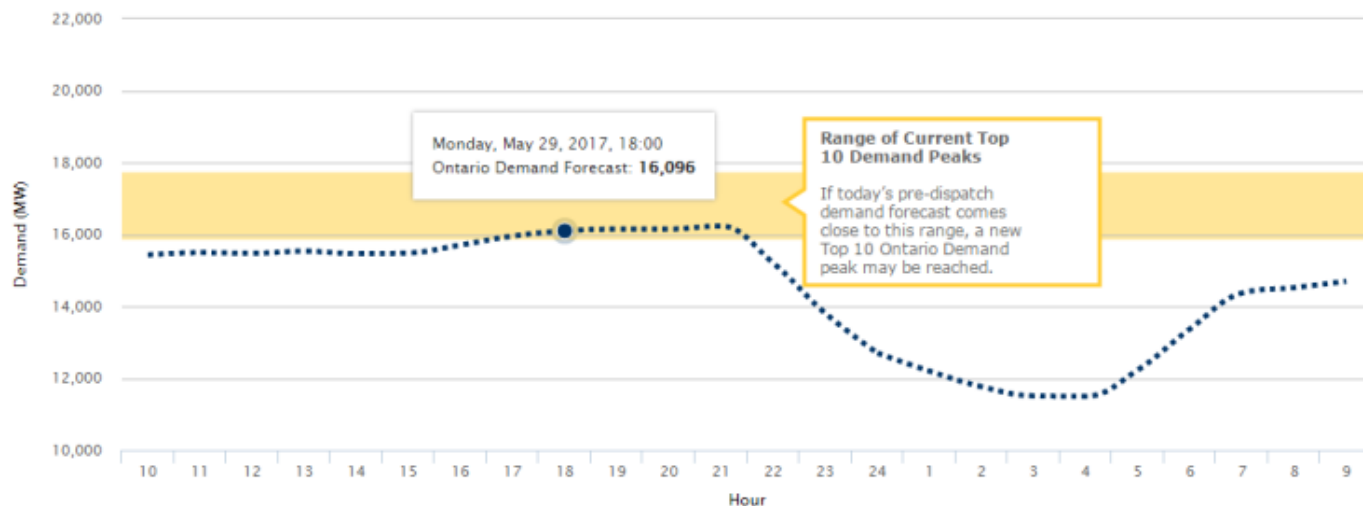
- The better that a Class A customer can predict the top five hours of peak demand and shift their demand accordingly, the more they will be able to take advantage of this initiative.
 1. **Time of year:** Electricity demand is largely driven by the weather. Peaks tend to occur during a sustained heat wave in the summer or cold snap in the winter.
 2. **Time of day and days of the week:** Demand peaks always occur on weekdays when businesses are in operation. The highest times of demand in a day also vary between seasons.
 - For example, winter peaks tend to be in the early evening when electricity consumers across the province are turning their lights on and making dinner. In the summer, demand tends to be higher in the afternoon when air conditioners are turned up during the hottest time of the day.

Anticipating Peaks (Cont'd)

- Class A-specific tools on the IESO's website:** On the Class A GA page, customers will find the current day and week-ahead demand forecasts and the Peak Tracker tool, which shows the top 10 peaks for the current base period updated in real time.

Today's Demand Forecast

as of 9:47 AM EST May 29, 2017



- Adequacy Reports:** These reports provide an hourly forecast of system conditions including Ontario demand for the next day and up to a few weeks ahead. They are updated throughout the day as required.

Timing

- Each cycle of ICI starts with a base period. At the end of this period, customers are assessed for eligibility.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016					BASE PERIOD →							
2017					OPT IN/ OUT		ADJUSTMENT PERIOD					
2018	→											

- Customers who qualify as a Class A will be notified of their peak demand factor by their distributor if they are distribution-connected, or the IESO if they are transmission-connected, by May 31.
- Customers with a peak demand >500 kW and ≤ 5 MW must opt-in to the initiative by notifying their distributor or the IESO by June 15 if they would like to be charged as a Class A customer for the following adjustment period.
- Customers with a peak demand above 5 MW are automatically considered Class A and must opt-out by June 15 if they choose not to participate in the initiative.

Next Steps

- Release of 2017 LTEP – October 2017
- 2017 LTEP implementation – 2017-2019
- ICI opt-in (for eligible consumers < 5MW) – Before June 15, 2018