Ontario

MINISTRY OF
ENERGY

Long-Term Energy Plan Update

Premier's Office Briefing
April 6, 2017

Purpose

- The Ministry of Energy is continuing to develop the next Long-Term Energy Plan (LTEP). This presentation provides an update on the following:
  1. Process overview and timeline
  2. Review of engagement feedback
  3. Key Updates
  4. Next steps

1. Process Overview and Timeline

1. LTEP Process Overview and Timeline

March-April
Policy Development

- Review of LTEP engagement feedback
- Development and assessment of LTEP initiatives

April-May
Plan development

- Ministry will prepare LTEP document and IESO/OEB directives
- Cabinet update on LTEP themes

May
Cabinet Approval

- Cabinet approves LTEP document and IESO/OEB implementation directives

May-June
Finalize and produce document

- Layout/ graphics/ translation of final document

June
Publish LTEP and implementation directives

- Final LTEP published on ENERGY website[1]
- Minister issues Cabinet-approved implementation directives to IESO & OEB

July-Sept
Implementation Plan Development

- IESO and OEB develop implementation plans based on directives

Oct 2017
Implementation Plan Approval

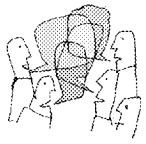
- Implementation plans submitted to Minister of Energy for approval

[1] The final release date is dependent on Cabinet approval and finalization of the production schedule.

2. Review of Engagement Feedback

2. LTEP Engagement Process

- The LTEP engagement process took place from October to January 2017. The process yielded feedback from three channels:



In-person sessions

Stakeholder sessions
Public open houses
Indigenous sessions

17 communities visited

~730 stakeholder attendees

~550 open house attendees

17 Indigenous sessions

~100 Indigenous communities & organizations represented

Written submissions

Environmental Registry
LTEP@ontario.ca
Hardcopies (mail, drop-off)

~1,500 Environmental Registry submissions

~200 letters, emails and paper submissions

Talks Tool

Online survey and comments on an online forum

2,835 online comments and submissions

2,285 users

2. Where we went: General and Indigenous Sessions

2. Who We Heard from

Public	**~500** attendees at the 17 public open houses **1,340** submissions from individuals through the environmental registry/mail
Municipalities	**57** representatives from 39 different municipalities attended a session **28** submissions through the environmental registry/mail
Indigenous Groups	**200** participants from nearly 100 Indigenous communities & organizations **11** submissions through the environmental registry/mail
Other Public Sector *NGOs; unions; environmental groups; not-for-profits; academics*	**71** representatives from 39 different organizations attended a session **110** submissions through the environmental registry/mail
Energy Supply Groups	**170** representatives from 51 different organizations attended a session **64** submissions through the environmental registry/mail
Transmission/ Distribution *LDCs; transmitters; gas utilities*	**100** representatives from 45 different organizations attended a session **12** submissions through the environmental registry/mail
Other Private Sector *Manufacturers; building; automotive; mining; chemical sectors*	**136** representatives from 88 different organizations attended a session **96** submissions through the environmental registry/mail

2. What we heard: Supply

Supply covers the fuels consumed for generating energy. Topics include solar, wind, nuclear, hydroelectric, natural gas generation, bioenergy, imports, coal and supply planning process.

Issues Raised

Supply decisions should be technology-neutral

Consider full lifecycle costs of supply options

Acquire more power from neighbouring jurisdictions

Consider economic development in supply decisions

Costs should be the first consideration in supply decisions

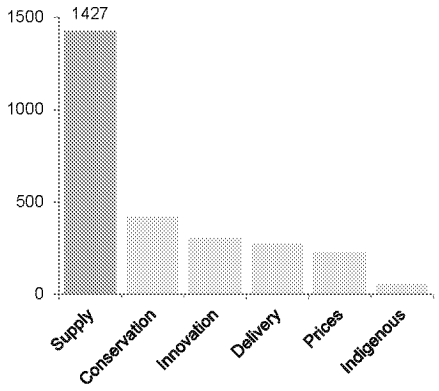
Both support and opposition to nuclear and renewables

Storage technologies can provide flexibility

Distributed generation will present opportunities & challenges

Optimise investments in existing assets

Number of submissions highlighting supply topics



2. What we heard: Prices

Prices include the costs of the energy system. Topics include electricity prices; fuel prices and price mitigation.

Issues Raised

Electricity costs for residents and businesses are too high

Desire from industry for cost-certainty

Consider funding from tax base to reduce electricity rates

Prices are impacting industrial competitiveness;

Delivery charges should be consistent across the province;

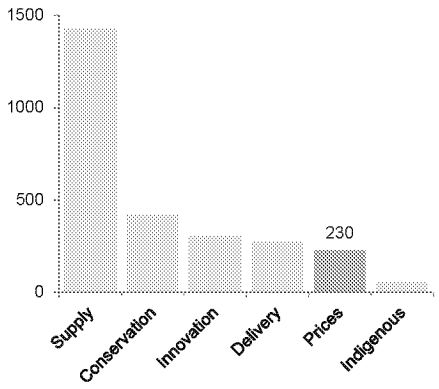
Improve consumer literacy to explain why bills are increasing

Provide different options for time-of-use prices

Promote existing price mitigation programs

LDC customers identifying rising costs as their top issue; challenge for utilities as they account for ~15% of bill.

Number of submissions highlighting price topics



2. What we heard: Conservation & Energy Efficiency

Conservation covers ways to reduce energy consumption. Topics include electricity conservation; natural gas demand-side management, energy efficiency, net-zero homes & building codes.

Issues Raised

Tailor programs to certain customers/regions

Expand conservation programs to include other fuels

Consider energy management technologies and strategies

Promote customer and system benefits of conservation

Increase building efficiency through codes and standards

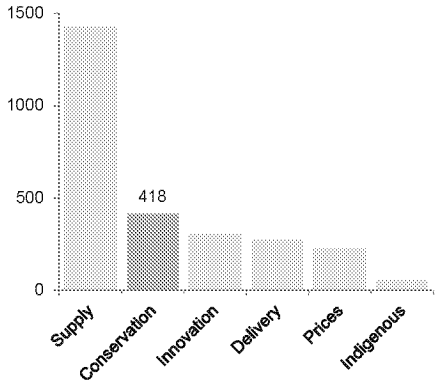
Continue and enhance existing conservation programs

Provide conservation funding to reduce line-losses

Improve communication to increase program awareness

Integrate programs with initiatives announced in CCAP

Number of submissions highlighting conservation & energy efficiency topics



2. What we heard: Innovation

Innovation include changes that will re-shape the energy sector. Topics include distributed energy, alternative fuels, electric vehicles, net metering, smart grid, storage and new business models.

Issues Raised

Changes to regulatory framework can encourage innovation;

Customer will dictate the technologies that emerge.

Continued government support needed for R&D and commercialization of energy technologies

Support the adoption of EVs and their use as batteries for home storage

Support the full range of energy storage applications

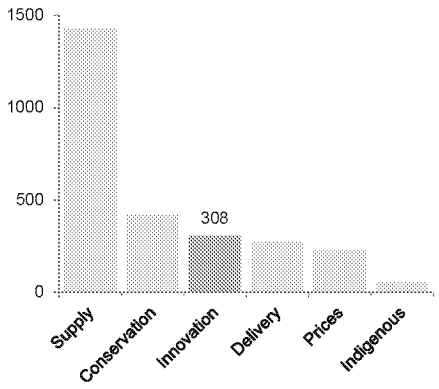
Microgrid technologies can provide benefits to communities across the province, particularly in Northern Ontario.

New business models, partnerships, and methods of knowledge sharing can drive innovation.

Prepare for the impact of distributed energy on the grid

Innovative technologies/fuels may present issues in Northern climates

Number of submissions highlighting innovation topics



2. What we heard: Delivery

Delivery covers the movement of energy. Topics include transmission, distribution, natural gas expansion, pipelines, conventional fuels, regional planning, reliability and grid modernization.

Issues Raised

Optimise investments in existing assets

Improve reliability

Consider economic development in transmission planning

Change rate design to allow for new smart grid projects

Clarify what the delivery charge pays for

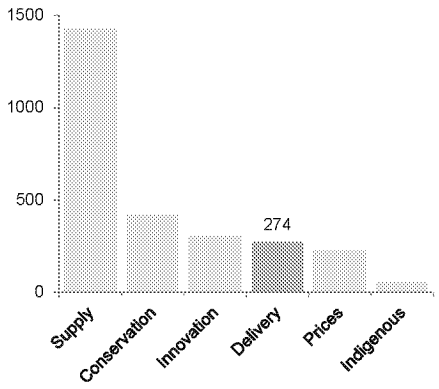
Expand access to natural gas

Provide new opportunities for utilities to raise capital

Consider impact of electrification on grid and fuels systems

Improve regional planning, integrate with community planning

Number of submissions highlighting delivery topics



2. What we heard: Indigenous Sessions

DELIVERY:

Transmission: Need grid investment, for reliability, combat the impacts of climate change and to promote projects to connect remote communities and enable economic development

Local Distribution Companies: Poor customer service, disconnections, trespassing on reserve, lack of equality of LDC-delivered programming.

Reliability: Community economic development hampered by lack of line capacity. Single phase power limiting economic growth and upgrades too expensive.

Pipelines: Continue advocating for the six Ontario pipeline principles in federally-regulated projects and ensure early consultations are undertaken for infrastructure under provincial jurisdiction.

SUPPLY AND INNOVATION:

Local Energy: Net metering, microgrids, local generation and infrastructure ownership to enhance local benefits, control, autonomy and resilience.
Supply: Balance costs, sustainability, employment and economic development opportunities. Overall preference for renewables over nuclear. Concern re: nuclear waste disposal and safety.

Innovation: Support needed for innovative technologies and home grown solutions.

Natural Gas: enable consumer choice and to help reduce home energy costs including electricity.

2. What we heard: Indigenous Sessions Cont'd

PRICES:

Delivery Charge: Eliminate the delivery charge due to unique challenges of people living on reserve and to recognize First Nation contributions.

Electricity Costs: Energy costs are too high; simplify billing and eligibility for payment relief.

CONSERVATION AND ENERGY EFFICIENCY:

Conservation: Conservation programs should continue; better showcase conservation success stories. Some communities were not successful in achieving benefits of conservation due to climate, poor housing, etc.

Housing: Homes often require significant retrofits/renovations to realize conservation benefits and/or readiness for distributed generation opportunities. Holistic solutions needed.

Northern Realities: Better consider the realities of life in the North when developing policies and programs; e.g. instead of electric vehicles, consider efficiency measures for trucks and snow machines.

Climate Change: Interest in environmentally-focused solutions aligning with CCAP, reduction of diesel dependence in northern climates; concern that climate change costs and initiatives will affect way of life on the land (e.g. costs of operating ATV to access trap lines)

2. What we heard: Indigenous Sessions Cont'd

PROGRAMMING:

Capacity Support: Need for continued support for developing local capacity, participation and financing. Need for program continuity.

Energy Planning: Support to implement community energy plans, including capital funds/financing for projects; implementation of conservation and energy efficiency measures, training.

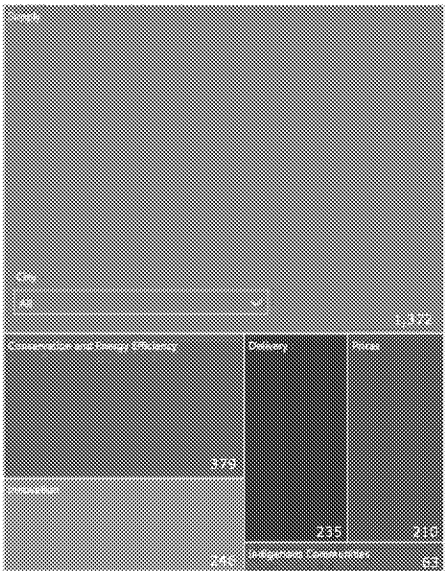
Understanding Energy: Programs to provide better explanation of bill components & energy cost increases.

What We Heard: the Environmental Registry

ENERGY received ~1,500 comments through the Environmental Registry from October 13 to December 16 2016.

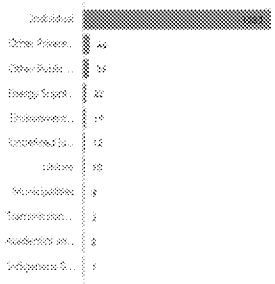
Incoming LTEP comments posted through the Environmental Registry (#012-8840)

Common Topics Mentioned

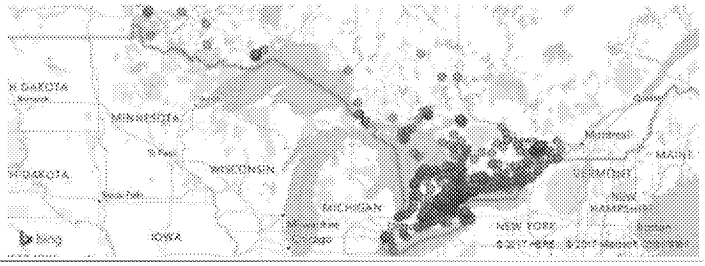


Comment Word Cloud

Comment Volume by Sender



Map of EBR Comments



Note: Comment topics were not mutually exclusive.

3. Key Updates

Context

- The energy sector has witnessed several regulatory, market and technical developments over the past year.
- Accordingly, the twenty-year outlooks described in the two technical reports as well as ongoing policy proposals considered for LTEP will need to be updated to reflect these developments.
- The following slides describe the updates below:

[redacted]

3. Ontario's Fair Hydro Plan (OFHP);

[redacted]

3. Ontario's Fair Hydro Plan (cont'd)

Description

- Ontario's Fair Hydro Plan (OFHP) would reduce electricity costs for all RPP-eligible customers, including residential consumers, small businesses and farm.

Considerations

- Measures announced in the OFHP will impact 2017 LTEP outlooks for customer bills, leading to a immediate reductions and medium to long-term increase in comparison the previous outlooks. It should be noted that there is uncertainty around the long-term cost of OFHP.

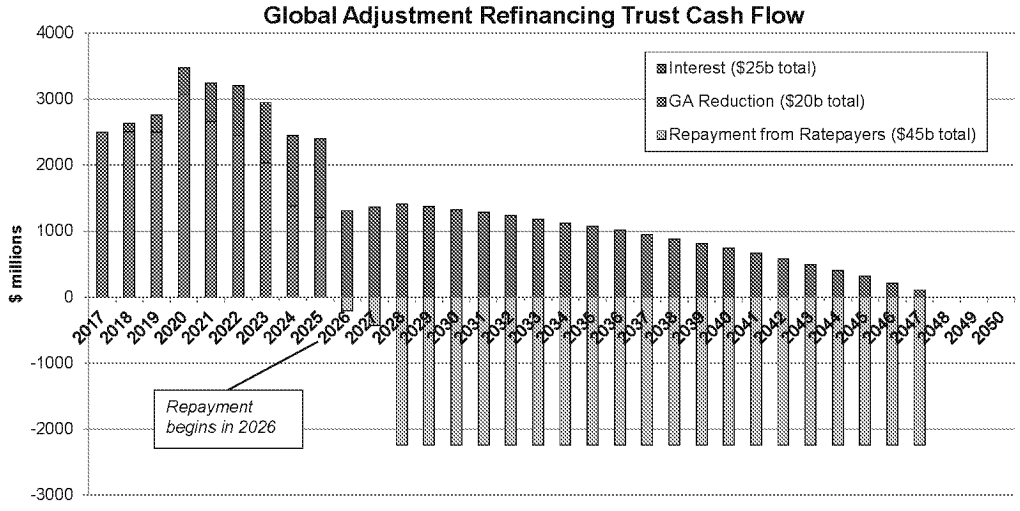
- 2017 LTEP modelling will also need to make an assumption regarding the permanence of the funding of electricity support programs from provincial revenues.

Proposed approach

- 2017 LTEP cost outlooks to include all modelling assumptions announced in the OFHP including permanent funding of electricity support programs from provincial revenues. 2017 LTEP outlooks should note there is uncertainty around the long-term cost of OFHP.

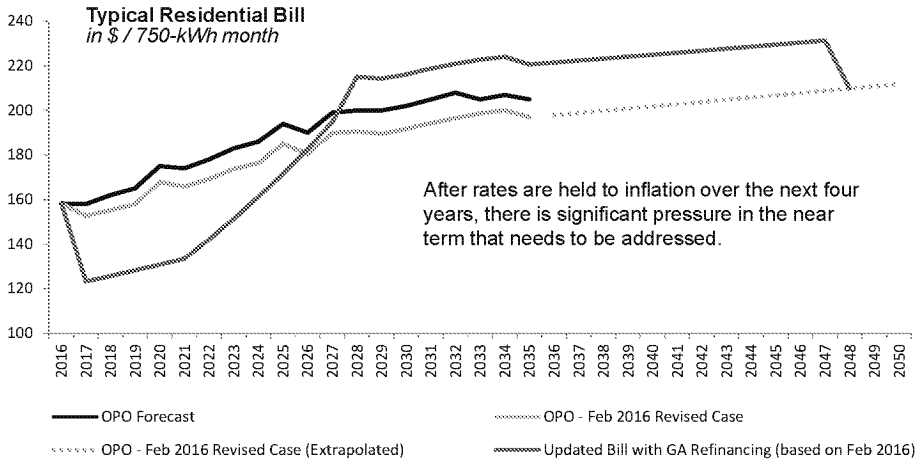
3. Ontario's Fair Hydro Plan

- Under the OFHP, money is borrowed (blue bars) to reduce residential ratepayer Global Adjustment (GA) charges and hence lower residential electricity bills.
- The borrowed money incurs interest (red bars).
- Debt repayment begins in 2026 (green bars), increasing residential ratepayer GA charges until the total debt is paid off in 2047.



3. Ontario's Fair Hydro Plan – Significant Rate Pressure after the Fourth Year (cont'd)

- There is a need to identify measures to bend the cost curve in the near term until Market Renewal savings are realized in the longer term. Shifting conservation funding from the ratebase to GreenON could provide significant savings.
  - **Note:** Total conservation funding from the ratebase is estimated to be approximately $2.5 billion over the four-year period between 2017 and 2020 (i.e., about $3.60/month for a typical residential electricity consumer).



Notes: OPO forecast refers to IESO's November 2016 forecast. GA financing as based on the IESO's revised February 2017 forecast. Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

5. Next Steps

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Engagement

- The Ministry is exploring options to publically report-back with a summary of the LTEP engagement process through a web-based mapping application.
- Engagement with Indigenous communities continues. The Ministry of Energy plans to report back to Indigenous communities and organizations on what was heard during the LTEP engagements and to discuss potential policy and program initiatives moving forward.
- As the content for LTEP is developed, the Ministry of Energy will work closely with other ministries both where policy areas overlap, and also to ensure alignment with other government initiatives (e.g. the Climate Change Action Plan, 2017 Budget, etc.)
  - An LTEP ADMs' Forum has been established and will continue to provide ongoing input into the LTEP process.

Development and Approvals

- The Ministry continues to identify and assess policy initiatives to be included in the LTEP. The Ministry will work with the IESO to assess how initiatives impact different outlooks (demand, supply, costs).
- The Ministry plans to report in to Cabinet in April 2017 for early feedback on proposed LTEP initiatives. The Ministry will seek Cabinet approval of the LTEP and implementation directives to IESO and OEB in May 2017.

Appendix: Engagement 'What we Heard'