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Committee:	Cabinet	
Meeting Date:	July 26, 2017	
Ministry:	Energy	
Last reviewed by: N/A		**Tracking to:**

SUBMISSION TITLE:	2017 Long Term Energy Plan

REQUEST/DECISION REQUIRED:

- Ministry of Energy (ENERGY) is seeking policy approval to finalize Ontario's next Long-Term Energy Plan (LTEP). At this time, the ministry is seeking Cabinet approval of:
  - Policy initiatives in the 2017 LTEP;
  - Policy objectives to develop an implementation directive to the Independent Electricity System Operator (IESO);
  - Policy objectives to develop an implementation directive to the Ontario Energy Board (OEB); and
  - A related amending directive to the OEB.

- ENERGY will return to Cabinet in August 2017 to seek approval of the modelling outlooks to be included in the 2017 LTEP.

- ENERGY will report to Cabinet and table the final LTEP and directives in September/October 2017.

KEY POINTS:

2017 Long-Term Energy Plan Key Policy Initiatives

- ENERGY is proposing that the 2017 LTEP highlight the work being done to deliver cost savings for Ontarians, provide enhanced customer choice, continuous improvement on reliability and emissions and burden reductions, maintaining flexibility given significant uncertainty, as well as to signal a shift towards a more outcomes focused approach to energy planning and procurement in the province.

- ENERGY is proposing that the 2017 LTEP highlight key policy initiatives and signal the Province's direction for the electricity sector. These initiatives will include both ongoing work and new programs that ENERGY is proposing to announce through the LTEP document.

- The current submission is seeking policy approval for the new initiatives proposed to be announced through the LTEP document.

- ENERGY will return to Cabinet in August 2017 to seek approval of the modelling outlooks to be included in the 2017 LTEP and again in Sept/October for approval of the final LTEP and directives to the OEB and IESO.

KEY POINTS (CONT'D)

New Initiatives

- The majority of the initiatives proposed to be contained in the LTEP are either anticipated to be funded from existing internal allocations or are already funded by the rate base, with two specific exceptions: the Smart Grid Fund and an International Energy Demonstration Fund pilot.
    - If approved, ENERGY will seek TB/MBC approval in summer 2017 for: $60 million over five years for the Smart Grid Fund and $10 million for a pilot International Energy Demonstration Fund.

- ENERGY has stated that analysis has not yet been done to quantify ratepayer impacts for each of the policy initiatives.

- ENERGY is seeking policy approvals for the following initiatives (more detail in the Appendix):

Transmission and Distribution

- East-West Tie: When NextBridge, the project proponent, files a Leave to Construct application with new higher cost estimate, respond to increased costs with a request for an updated needs assessment from IESO and retain the option of rescinding or amending the 2016 prioritization Order-in-Council at the time Leave to Construct is filed or at a future date..
- Northwest Bulk: The LTEP will outline a three phase approach for the project to ensure construction occurs when most needed and highlight possible future inter-jurisdictional collaboration with Manitoba.
- Approval to direct the IESO to establish a formal consultation process for planning the future of the integrated province-wide "bulk" system.
- Competitive Transmitter Selection: Direct IESO to develop a competitive transmission selection or procurement process and identify potential pilot projects.
- Providing details on the need for a new transmission line through the Northwest Greater Toronto Area and highlight the need to protect the corridor for the line.
- Direct IESO and OEB to take a coordinated, long-term approach when addressing the need to replace end-of-life assets.
- Modernize the utility business by enhancing regulation of local distribution companies, improved regulatory efficiency, bill redesign.
- Have the LTEP detail the government's policy objectives for utility reliability and quality of service and will direct the OEB and IESO to review reliability standards.

Conservation and Climate Change

- Behind the Meter Generation (BMG): phase out incentives for BMG projects that use supplied fossil fuels.
- In Front of the Meter Generation (IFMC): Enable IFMC projects, and ask OEB to examine and identify steps for pursuing opportunities to encourage LDCs to pursue energy efficiency on the distribution system.
- Green Button: LTEP to reaffirm Ontario's commitment to expanding Green Button province wide and indicate government's intent to bring forward amending legislation to mandate Green Button for electricity and natural gas distributors.
- Demand Response (DR): Eliminate long-term DR target of 10 per cent of peak demand reduction by 2025 while reaffirming the commitment to evolve the DR auction into the capacity auction.
- Strengthen the ability of the energy industry to anticipate the effects of climate change and integrate the impacts into operational and infrastructure planning, by actions such as knowledge building across the sector to conduct a province-wide energy distribution climate change vulnerability assessment in the future.

KEY POINTS (CONT'D)

Future Innovation (cont'd)

- Smart Grid: $60 million from the tax-base over 5 years to renew the Smart Grid Fund (SGF) with an expanded scope and more targeted investments in innovative solutions that support grid modernization. Initiatives include:
  - Electric Vehicle (EV) data gathering deployment – project will generate critical data for EV policy.
  - Non-electricity demonstration / deployment – this would broaden the SGF scope. Initiatives could include power-to-gas and district energy solutions.
  - Turn-key grid solutions – development of complete smart grid solutions that align with utility needs and demonstrate a clear business case.
  - LDC collaboration on modernization plans – this would help change the 'innovation aversion' culture.
- Energy Storage: Update market and regulatory rules so storage can be introduced onto the grid where in makes technological and economic sense.
- Establish a $10 million pilot program funded from the tax-base to support the demonstration of Made-in-Ontario energy technologies in markets outside of Canada. This initiative is designed to help Ontario energy companies demonstrate their technologies with foreign utilities, thereby getting a foothold in a new market and creating a pipeline for further business opportunities.
- Net Metering: Expand and enhance Ontario's net metering framework, including enabling third-party ownership and develop a program in conjunction with the IESO to support the strategic development of innovative renewable distributed generation projects.
- Electric Mobility: Remove regulatory barriers and develop vehicle-grid integration road map and facilitate information sharing between government and utilities.

Indigenous Projects

- Direct IESO to produce a report, informed by engagement with Indigenous communities, on options to improve conservation programs for First Nations and Métis including communities served by Independent Power Authorities.
- Evolve support programs currently offered by IESO to better align with community needs, which could include support for energy plan implementation, small-scale renewables, conservation and other community-scale energy opportunities.
- Signal Ontario's intent to examine new financing models and support tools to help lower financing costs of First Nation or Métis-led or partnered projects.

Regional

- Explore ways to use federal and provincial infrastructure and economic development funding to support electricity transmission and distribution infrastructure that supports regional economic development.
- Direct IESO to review the regional planning process.

IESO and OEB Directives

- ENERGY is seeking Cabinet approval to develop implementation directives to the IESO and OEB. The directives are intended to be high-level, allowing the agencies to determine the specific initiatives to meet LTEP objectives and would be released simultaneously with the release of the LTEP document. The directives will be in support of the policy objectives outlined in appendix B.
  - In addition, some of the proposed policy initiatives under the LTEP require amendments to previous directives to the OEB. Details about the amending directive are also in appendix B.

- The Minister of Energy will request that the IESO and OEB submit implementation plans by December 31, 2017 for the Minister of Energy's approval, and the Ministry expects these plans to be approved by the end of December 2017.

KEY CONSIDERATIONS:

New Policy Initiatives

- ENERGY is seeking approval for 25 new policy initiatives in one submission. Analysis on ratepayer impacts have not yet been submitted or reviewed for each option. Also, the LTEP Outlooks have not yet been provided, nor any analysis of the impacts of the initiatives on the Outlooks.
  - As more time could be needed to review 25 new policy initiatives in greater detail, ENERGY could seek approval to only provide high level general policy direction in the LTEP rather than announcing the potential implementation of specific new programs. This could allow the programs to be reviewed in detail past the LTEP deadline and allow Cabinet more time to review any of the initiatives in greater detail, if necessary.
  - To the extent that some of these policy initiatives would be subject to the implantation directives to IESO and the OEB, the Cabinet Minute could require a Report Back to Cabinet with the implementation analysis and options from the IESO and OEB.
- While many initiatives in the electricity sector are not funded through the tax base, most are recovered through the electricity rate base on electricity bills.
  - As seen with the recent Fair Hydro Plan, cost pressures on the rate base can lead to an interest in moving ratepayer-funded costs to the tax base, as was done in the case of social programs in the electricity sector.

- ENERGY should provide detailed analysis for the potential fiscal and ratepayer impacts for each proposal.

<u>Fiscal Impacts</u>

- Two of ENERGY's proposed initiatives are anticipated to be funded by the government, notably the Renewal of the Smart Grid fund, which is anticipated to cost $60 million over 5 years, and the International Energy Demonstration Fund, which would establish a $10 million pilot program to fund five to ten demonstration projects outside the country to support Made-in-Ontario technologies in markets outside of Canada. ENERGY would consult with other Ministries such as MEDG and MIT.
  - Further considerations for these initiatives should be provided by ENERGY and ENERGY should report back on the program design and TB/MBC approval, following consultations with other Ministries, such as with MIT and MEDG on the International Energy Demonstration Fund.

<u>Rate Impacts</u>

- ENERGY's submission should include estimated ratepayer impacts and impacts on LTEP Outlooks for each of the policy initiatives to enable Cabinet level decision-making.
  - The Cabinet Office draft briefing note states that, for many of these initiatives, the rate impacts are presumed to be neutral or result in a net reduction of rates; however, analysis has not yet been done to quantify the impact. The CO draft BN notes that ENERGY will continue to monitor the rate impacts of existing and new energy programs and consider such impacts in the context of commitments made under the OFHP and the requirements of the OFHPA.

- ENERGY has noted that LTEP will “signal Ontario’s intent to examine new financing models and support tools to help Indigenous communities fulfil their energy needs”.
  - FINANCE, through the Ontario Financing Authority (OFA) offers the Aboriginal Loan Guarantee Program (ALGP) for Indigenous communities interested in participating in renewable energy or transmission projects. The program provides a Provincial guarantee for a loan to an Aboriginal corporation to purchase up to 75 per cent of an Aboriginal corporation's equity in an eligible project, to a maximum of $50 million.
  - FINANCE and the OFA should be consulted on options and analysis and included in the development of this initiative.

KEY CONSIDERATIONS (CONT'D)

Policy Linkages

- ENERGY has indicated that along with new policy initiatives, existing initiatives will also be mentioned in the LTEP.

- ENERGY has stated that interest in net metering has increased given the planned wind down of the Feed-in Tariff (FIT) and microFIT programs. Energy should confirm if or when the FIT and MicroFIT program are being cancelled.
  - The current supply situation, as supported by the Ontario Planning Outlook (OPO), released by the IESO in 2016, provides for time and flexibility on how to meet future electricity system needs.
  - Decisions on whether to make major new investments, locking in future fixed system costs for ratepayers, could be deferred as further developments indicate if a falling, flat or low or higher growth scenario is more likely to occur.

<u>Ontario's Climate Change Action Plan</u>

- It is anticipated that there will be increased public interest in the 2017 LTEP over previous plans given the connection to Ontario's Climate Change Strategy and Climate Change Action Plan (CCAP).
- For example, the CCAP reiterated the 2016 Budget commitment to greenhouse gas (GHG) emissions reductions and stated that Ontario intends to invest in initiatives that both reduce GHG emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers. In addition, it noted that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the 8% rebate implemented on January 1, 2017.

Process for Approval

- Given that the modeling outlooks that will be in the finalized LTEP are an integral part of the document and are dependent on the costs associated with the proposed new policy initiatives, it may be more appropriate for the approval of the new initiatives to be considered in the context of the finalized submission and forecasts.
  - At this time ENERGY is seeking approval to prepare a final LTEP and implementation directives and will be returning to Cabinet in August to table the modeling outlooks and again in Sept/October to table the final LTEP and directives.
  - If Cabinet takes issue with the cost impact of these initiatives when ENERGY returns for Cabinet approval, it may be difficult for ENERGY to rescind or revise any programs announced before the final LTEP is released.
  - ENERGY's submission and related Minute should provide for report backs and flexibility for changes to the proposed LTEP components as part of the final Cabinet approval process.
  - ENERGY should restrict any communications about LTEP content until after final Cabinet approval.

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APPENDIX A: PROPOSED CABINET MINUTE [HIGHLIGHTS INCLUDE PROPOSED EDITS)

Cabinet agreed that:

1. The Ministry of Energy (ENERGY) prepare (and report back to Cabinet) for approval a 2017 Long Term Energy Plan (LTEP) that sets out the following goals and objectives:
   A. Ensuring affordable and accessible energy;
   B. Providing a flexible energy system;
   C. Improving value and performance for consumers;
   D. Reaffirming a commitment to conservation;
   E. Preparing for the future and innovation;
   F. Responding to the climate change challenge;
   G. Supporting Indigenous capacity and leadership; and
   H. Responding to regional priorities.

2. (Subject to the Report Back in 1 above and approval of the LTEP, ENERGY implement initiatives identified in the LTEP, including:
   A. Ensuring affordable and accessible energy
      i. Enhancing consumer protection by providing the Ontario Energy Board (OEB) with increased regulatory authority over unit sub-meter providers (USMPs) to gain better insight into USMP costs, rates and contractual agreements with developers. Proclaim existing (unproclaimed) provisions under the Ontario Energy Board Act, 1998 (OEBA) that would empower the OEB to rate regulate USMPs. The OEB will define its process for establishing such a regulatory framework in its implementation plan.
   B. Providing a flexible energy system
      i. Requesting an updated needs assessment for the East-West Tie from the Independent Electricity System Operator (IESO) on East West Tie and retain the option of rescinding or amending the 2016 prioritization Order-in-Council at the time Leave to Construct is filed or at a future date.
      ii. Outlining a three-phased approach to the Northwest Bulk project.
      iii. Directing IESO to establish a formal process for planning the future of the integrated province-wide “bulk” system.
   C. Improving value and performance for consumers
      i. Detailing the need for a new transmission line through the Northwest Greater Toronto Area and highlight the need to protect the corridor for the line.
      ii. Detailing the government’s policy objectives for utility reliability and quality of service and will direct the OEB and IESO to review reliability standards.
      iii. Directing the IESO to develop a competitive transmission selection or procurement process and identify potential pilot projects.
      iv. Directing the IESO and the OEB to take a coordinated, long-term approach when addressing the need to replace end-of-life assets.
      v. Enhancing the regulation of LDCs by directing the OEB to amend regulatory framework to drive efficiency and continuous improvement including leveraging existing tools such as the LDC Performance Scorecard.
      vi. Improving regulatory efficiency by requiring a cost/benefit assessment of regulatory requirements and identifying opportunities to eliminate unnecessary regulatory costs that are putting upward pressure on LDC operating expenses.
      vii. Convening a Working Group on bill redesign and introduce regulatory amendments to simplify bill presentment in late Fall 2017/Winter 2018.

D. Reaffirming a commitment to conservation
   i. Effective July 1, 2018, the IESO will cease accepting incentive project applications for behind the meter generation (BMG) projects that use supplied fossil fuels. BMG projects using recovered and renewable waste energy will continue to be eligible.
   ii. Encouraging In Front of the Meter (IFMC) projects by allowing electricity distributors to count the electricity savings resulting from IFMC technology deployments, paid for through distribution rates, towards their electricity savings targets, under the 2015-2020 CFF. The OEB will examine and identify steps for pursuing opportunities for cost-effective modernization of the electricity system, including energy efficiency measures on the distribution system.
   iii. Bringing forward amending legislation to mandate Green Button for electricity and natural gas distributors.

E. Preparing for the future and innovation
   i. Providing direction to the OEB to address regulatory and cultural barriers to grid modernization in order to encourage innovation, optimal utility investment, and customer choice.
   ii. (Subject to TB/MBC approval,) Renewing the Smart Grid Fund (SGF) with an expanded scope and more targeted investments in innovative solutions that support grid modernization. Seeking $60 million from the tax-base over 5 years for SGF.
   iii. Updating market and regulatory rules so energy storage can be introduced onto the grid where it makes technological and economic sense.
   iv. Removing barriers to investing in cost-effective electric vehicle (EV) charging, develop an EV integration roadmap, and work with partners to share EV information and data.
   v. Developing an International Energy Demonstration Fund (IEDF) that would support Ontario energy companies by way of demonstration projects located in international jurisdictions. Note that Energy (and MEDG and MIT) would submit to TB/MBC proposed program design details and considerations, seeking $10 million from the tax-base.
   vi. Expanding and enhance Ontario's net metering framework, including enabling third-party ownership and related consumer protection measures, and allowing for virtual net metering demonstration projects. Work with the IESO to support the deployment of near-term virtual net metering demonstration projects.
   vii. Working with the IESO to develop a funding program to support the strategic deployment of innovative renewable distributed generation projects

F. Responding to the climate change challenge
   i. ENERGY and agencies will meet with utilities and other stakeholders to share best practices to build capacity. ENERGY will support development of a climate change vulnerability assessment of the distribution sector. The OEB will provide guidance to utilities on approaches for integrating cost-effective opportunities for adaptation into their operations and planning processes. The IESO will consider adaptation in its bulk and regional planning processes.

G. Supporting Indigenous capacity and leadership
   i. The IESO will prepare a report on options to improve conservation programs for First Nations and Métis, based on an assessment of programs offered under the Conservation First Framework and Demand Side Management Framework, as well as energy support programs.
   ii. The IESO will review and propose options to improve Indigenous energy support programs, including options for supporting energy plan implementation, which could include small-scale renewables, conservation and other community-scale energy opportunities.

iii. Increasing outreach to Indigenous communities and organizations to better align policy development with local and regional needs. This includes outreach to Indigenous communities between LTEPs to update on progress and to seek ongoing feedback.

H. Responding to regional priorities

i. Exploring ways to use federal and provincial infrastructure and economic development funding to support electricity transmission and distribution infrastructure that supports regional economic development.

ii. Directing the IESO to review the regional planning process and report back with options and recommendations to address the challenges and opportunities that have emerged, including addressing barriers to cost-effective non-wires solutions, such as demand response and distribution energy resources; integrating bulk, regional, distribution system and community energy planning; streamlining the regional planning process; and integrating the regional planning process with the need to right-size assets reaching end of life.

3. ENERGY to prepare the following directives:
   i. Implementation directive to the IESO requiring the IESO to submit an implementation plan for approval by the Minister of Energy no later than December 31, 2017.
   ii. Implementation directive to the OEB requiring the OEB to submit an implementation plan for approval by the Minister of Energy no later than December 31, 2017.
   iii. Amending directive to the OEB amending previous directives to the OEB. The directive will support enhancements to conservation demand management.

4. ENERGY to report back to Cabinet for:
   i. Approval of the final 2017 LTEP document.
   ii. Approval of the final implementation directives to the OEB and IESO, and the amending directive to the OEB.

5. ENERGY report to Treasury Board / Management Board of Cabinet with proposed program design details and considerations for approval for:
   i. Up to $60M from the tax-base for the SGF.
   ii. Up to $10M from the tax-base for the IEDF.

6. ENERGY to report to Legislation and Regulations Committee to:
   i. Proclaim legislation that will empower the OEB to increase consumer protection for USMPs.
   ii. Seek approval of legislative amendments to the Green Energy Act, 2009 and Ontario Energy Board Act, 1998 to implement Green Button province-wide.
   iii. Amend regulations to ensure there is removal of barriers for energy storage in participating in the energy sector.
   iv. Seek approval of legislative and regulatory amendments to expand and enhance Ontario's net metering framework.
   Introduce regulatory amendments to simplify bill presentment.

7. ENERGY has fulfilled its requirement to report back to Cabinet on a number of CCAP initiatives: approach for establishing GHG reduction standards for drinking water and wastewater treatment plants (Minute item #75), approach for province-wide implementation of Green Button (Minute item #76), and a single portal for energy-related social benchmarking programs (Minute item #77).

8. ENERGY work with the Premier's Office and Cabinet Office on an integrated communications strategy.

APPENDIX B: IESO AND OEB DIRECTIVES

The IESO and OEB Directives will be in support of the following policy objectives

IESO Directive:

- Support Indigenous Capacity and Leadership
  - Report on options to improve conservation programs for First Nations and Métis.
  - Evolve support programs offered to Indigenous communities and organizations to better align with community needs and interests.

- Encourage an Innovative Sector
  - Assess system impacts of increased net metering and identify opportunities to enhance local and system value of distributed energy resources under net metering framework.
  - Develop a program that supports the strategic deployment of renewable distributed generation projects.
  - Work with OEB to identify barriers to entry for storage facilities and identify appropriate mitigation strategies.

- Deliver a Flexible and Efficient System
  - Develop a formal bulk system planning process. Process will consider a coordinated approach to replacing transmission assets at end of life.
  - Develop a competitive transmitter selection or procurement process. Identify specific pilot projects to be used to develop the competitive transmitter process.
  - Review the regional electricity planning process and report back with options to address challenges and opportunities.
  - Review the technical criteria used to assess customer reliability for the purposes of identifying and evaluating the need for and effectiveness of local area enhancements.

OEB Directive:

- Delivering Efficiency and Value
  - OEB to examine opportunities to strengthen utility accountability and reporting related to service issues, including reliability
  - Examine cost effectiveness of modernizing and removing barriers in Ontario's electricity sector, including in front of the meter conservation and non-wires solutions (e.g. conservation and demand response, distributed generation).
  - On receipt of recommendations from the IESO, identify steps to implement changes to improve utility regional planning processes
  - Identify steps for encouraging a coordinated approach to replacing transmission and distribution assets at end of life.

- Ensuring Affordable and Accessible Energy
  - OEB to examine tools to mitigate costs for ratepayers
  - Protect consumers in the natural gas sector
  - Reduce costs and find efficiencies in the distribution sector
  - Strengthen consumer protection related to unit sub-meter providers

- Enhancing Commitment to Energy Conservation and Efficiency
  - OEB to move forward with regulated price plan roadmap and consider pricing structures that give consumers control and the ability to respond to pricing signals

- Enhance energy literacy

- Responding to Climate Change Challenge
  - OEB to provide guidance to utilities on approaches for integrating cost effective opportunities for climate change adaptation

- Encouraging an Innovative Sector
  - OEB to work with utilities to encourage a culture of innovation in the distribution sector and provide opportunities for utilities to raise the profile of their modernization and innovation plans

Amending Directive:

- Prior to the release of the 2017 LTEP, the Minister of Energy will issue an amending directive to the OEB to support enhancements to Conservation Demand Management (CDM):
  - The OEB will annually review and publish Distributor CDM programs and measures used by a Distributor to maximize the efficiency of its new or existing distribution system infrastructure where the resulting electricity reductions are counted towards the target allocated to the Distributor.
  - CDM shall be considered to exclude behind the meter customer generation that uses fossil fuels purchased from or otherwise supplied by a third party as a primary fuel source.
  - CDM shall continue to be inclusive of behind the meter generation, where the generation of electricity is primarily from renewable energy sources or primarily from heat or fuel that is a waste by-product of a facility.

APPENDIX C: KEY INITIATIVES

ENERGY is proposing the various new initiatives as content for the LTEP. The following selected information is based on material in the draft CO note on this submission.

Ensuring Flexible Energy System

East West Tie

- The East West Tie (EWT) is an approximately 400 km, 230 kV proposed transmission line paralleling an existing line between Wawa and Thunder Bay. The proponent, Nextbridge, was selected through a competitive process run by the OEB. Ontario declared the construction of the EWT a priority project in 2016. In May 2017, NextBridge informed the ministry that the estimated capital costs for the EWT had increased from its initial 2011 estimate of $400 million to $740 million. The Ministry is proposing to request an updated needs assessment from the IESO for this project following NextBridge making the cost public through their Leave to Construct Application before the Ontario Energy Board. The ministry also proposes to emphasize Ontario's focus on making the electricity system more cost-effective in the LTEP document.

Northwest Bulk

- The Northwest Bulk (NWB) Project, a reinforcement of the 230 kV system from Thunder Bay to Dryden, was named as a priority project in the 2013 LTEP and Hydro One was designated as the transmitter. ENERGY is proposing to outline a phased development approach, including the possibility of a phase from Dryden to the Manitoba border. The language in the LTEP would serve as a signal that Ontario is interested in inter-jurisdictional energy trade if future forecasts indicate the final phase is needed.

Bulk Planning

- To address the need for increased transparency and better integrated planning of the bulk system (i.e., 230kV or 500kV transmission line infrastructure), of ENERGY is proposing to direct the IESO to establish a new formal planning process that would include consultation with stakeholders and communities.

Improving Value and Performance for Consumers

Right-Sizing Assets

- When transmitters and distributors replace aging equipment, they can increase efficiency by "right-sizing" the replacements (i.e., ensuring the new investments match current demand and requirements). This could mean upgrading pieces of equipment in communities with growing demand, or downgrading or removing the equipment if demand has dropped. ENERGY is proposing to provide a policy statement through LTEP supporting "right-sizing" transmission and distribution assets at end of life and to have the Minister direct IESO and the OEB to take a coordinated, long-term approach when addressing the need to replace these assets. To enhance coordination and value for money, there is a need to integrate considerations of asset end of life and right-sizing into electricity planning initiatives such as regional planning and the proposed integrated bulk system planning.

Modernizing the Utility Business

- ENERGY is proposing to undertake a process to review the regulatory framework for electricity bills and redesign and realign the requirements to increase transparency, reduce burden on LDCs, and prepare for a transition to digital billing. ENERGY would convene a working group of

LDCs and relevant stakeholders to advise on the redesign process and report back to LRC and Cabinet in fall/winter 2017/18 with proposed regulatory amendments.

- ENERGY is also proposing to direct the OEB to strengthen utility accountability and find ways to mitigate costs for consumers. This is intended to create a regulatory environment which better replicates the pressures and incentives of a competitive market, whereby utilities are motivated to be more proactive, innovative, cost effective and less risk averse in the delivery of electricity service which responds to their customers' needs and expectations.

<u>Strengthening our Commitment to Energy Conservation & Efficiency</u>

Behind the Meter Generation

- According to current conservation and demand management (CDM) program rules, Behind the Meter Generation (BMG) projects include Combined Heat and Power (CHP) and Waste Energy Recovery (WER) and are eligible to receive incentives through the Conservation First Framework (CFF) and the Industrial Accelerator Program (IAP). Many of these projects use natural gas as an energy source and therefore, while reducing demand on the grid, result in a net increase in GHG emissions. ENERGY is proposing to change the program rules to make ineligible any new project proposal that results in a net increase of GHG emissions. To give time for LDCs and stakeholders to adjust, it is proposed that the regulations would come into effect July 1, 2018 which has the effect of allowing the majority of existing project applications to proceed.

In Front of the Meter Conservation

- In-Front of the Meter Conservation technologies (IFMC) are deployed on the distribution system and provide electricity savings and peak reductions to customers behind the meter. Examples include technologies that reduce line losses and optimize voltage levels. ENERGY is proposing to encourage greater efficiency by allowing efficiency savings from IFMC technologies to count towards electricity savings targets under the Conservation First Framework, and by directing the OEB to explore ways to further encourage energy efficiency on the distribution system.

Green Button Standard

- Green Button is a data standard that provides households and businesses with access to data on their energy and water consumption to help drive behaviour change and conserve energy and water. Ontario is a leader in the implementation of Green Button and was the first jurisdiction in Canada to announce its adoption in 2012. Since that time, 11 electricity distributors have implemented Green Button, representing over 60% of smart meter customers in the province. The 2016 Climate Change Action Plan committed to expanding the Green Button program province-wide. The ministry is proposing to proceed with the development of the legislative and regulatory framework in fall 2017/winter 2018 to mandate the Green Button program for electricity and natural gas distributors, and enable voluntary implementation for water distributor utilities. A voluntary framework for water utilities is recommended due to reduced cost effectiveness of the program for this sector. Energy intends to work with MOECC to monitor and assess uptake among water utilities, and will look to leverage existing reporting processes to encourage adoption. Ratepayer impact for this initiative is estimated to be 1.4 cents/month for a typical residential customer consuming 750 kWh per month.

Demand Response (DR)

- 2013 LTEP stated that Ontario will aim to use demand response (DR) to meet 10% of peak demand by 2025 (equivalent to ~2,400 MW under 2013 LTEP forecast conditions). This target includes peak reductions from a variety of initiatives, including the Industrial Conservation

Initiative (ICI), Time-of-Use (TOU) rates, DR auction and DR pilots. While significant progress towards this target has been made, ENERGY is proposing to eliminate the 10% target so as to align DR with system needs and prepare for it to be rolled into a general capacity auction. The IESO is planning to implement a general capacity auction through which DR resources will compete with traditional generation resources and would be procured if cost-competitive with other offers.

Innovating to Meet the Future

Grid Modernization

- Ontario has made important investments in grid modernization such as smart meters. Under the proposal the 2017 LTEP articulate the government's vision for distribution grid modernization: the creation of an environment that enables a modern, digital grid for Ontarians. ENERGY proposes to direct the OEB to address regulatory and cultural barriers in order to encourage innovation, optimal utility investment, and customer choice. For example, options include:
    - Ensuring that LDCs are able to earn a rate-on-return on all assets that bring value to ratepayers, not just poles and wires; and
    - Ensuring utilities create plans that articulate how they intend to cost-effectively modernize their grids and promote innovation within their operations.

Renew Smart Grid Fund

- ENERGY is proposing to renew the Smart Grid Fund (SGF) with an additional investment of $60M over 5 years. The SGF has helped many innovators become successful international companies (e.g. FleetCarma, Energate, Varentec). However there are still barriers to domestic integration of these solutions, and the ministry recommends that a renewed SGF is an important tool for overcoming barriers to modernization. Under the proposal, the 2017 LTEP would highlight a renewed SGF with an expanded scope and more targeted investments in innovative solutions that support grid modernization. The ministry will report to TB/MBC in summer 2017 for necessary approvals in advance of the announcement of the renewed SGF.

International Demonstration Fund

- ENERGY is proposing a pilot International Energy Demonstration Fund which would support Ontario energy companies (e.g., renewables, smart grid etc.) undertaking demonstration projects located in international jurisdictions. The proposal includes funding of $10M in 2017/18 and is expected to fund between five and ten high value demonstration projects.

- Program rules would be developed to give priority to Ontario-based project costs to maximize provincial benefit. Stakeholders have indicated a gap in provincial and federal energy innovation programming as they do not typically consider international projects to be in scope. The program would be designed in collaboration with the Ministry of International Trade (MIT), the Ministry of Economic Development and Growth (MEDG) and the Ministry of Research Innovation and Science (MRIS) to leverage their expertise in program development and utilize Ontario's representatives in foreign markets. The ministry will report to TB/MBC in summer 2017 for necessary approvals

Supporting Indigenous Capacity and Leadership

- Indigenous participants in engagement sessions emphasized the need for enhanced affordability supports and a desire for greater participation in the energy sector. Many First Nations also highlighted the need for program dollars to support the implementation of plans developed under the province's Aboriginal Community Energy Plan (ACEP) program.

Evolve Indigenous Conservation and Support Programs

- ENERGY proposes to direct the IESO to, in alignment with the Mid-Term Review of the CFF and IAP, and informed by engagement with Indigenous communities, prepare a report on options to improve conservation programs for First Nations and Métis. The ministry also proposed to re-profile an existing $10M/year rate based funding envelope to focus on Indigenous energy programming including the development of program options for the implementation of community energy plans under ACEP.