



ONTARIO'S
LONG-TERM
ENERGY
PLAN 2017



Delivering Fairness and Choice



Overview/Agenda

- List of topics that will be covered in this presentation

History snapshot?

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Sector overview?

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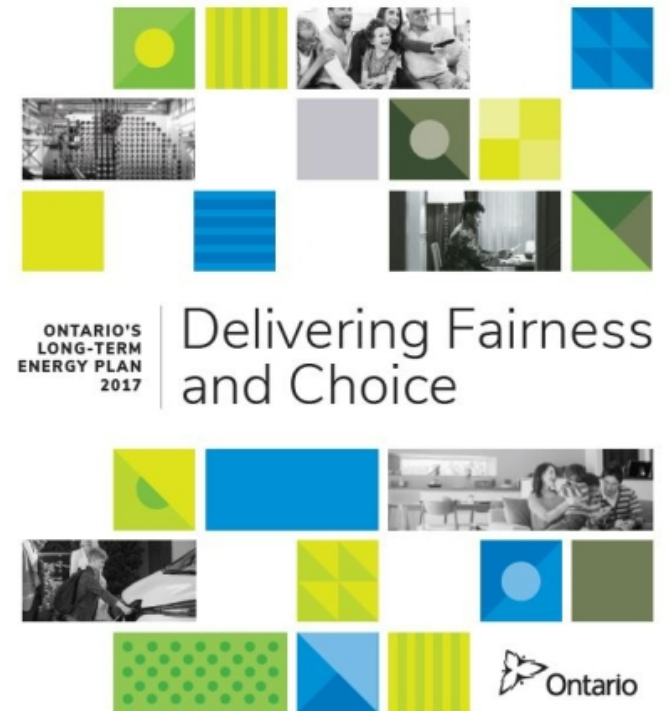


What is the LTEP?

Legislated Process, Electricity Act, 1998

The Minister shall, subject to Cabinet approval, issue a long-term energy plan setting out and balancing the Government of Ontario's goals and objectives respecting energy.

- The LTEP document will provide a narrative on Ontario's energy sector as well as a vision for the future.



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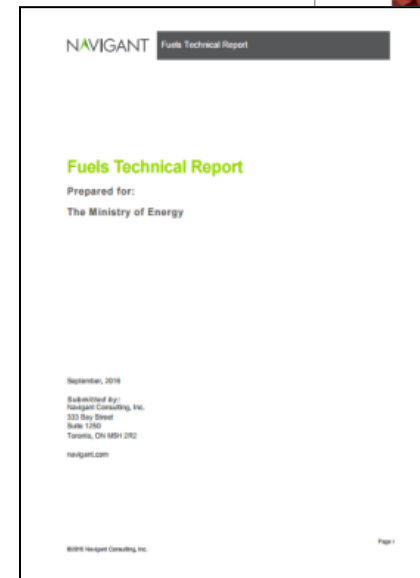
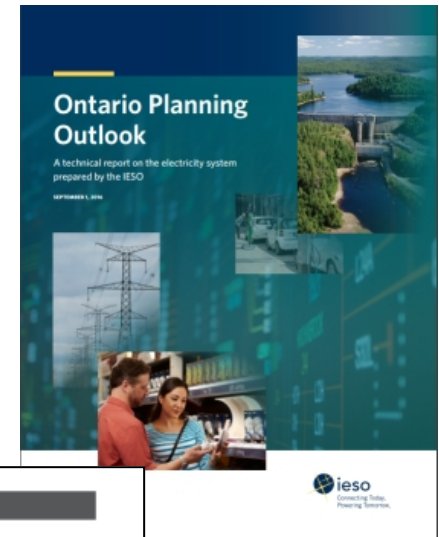
Long term planning in Ontario

- Planning process OPA
- IPSP
- 2010 2013 LTEPS
- Then legislation came into effect

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The 2017 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

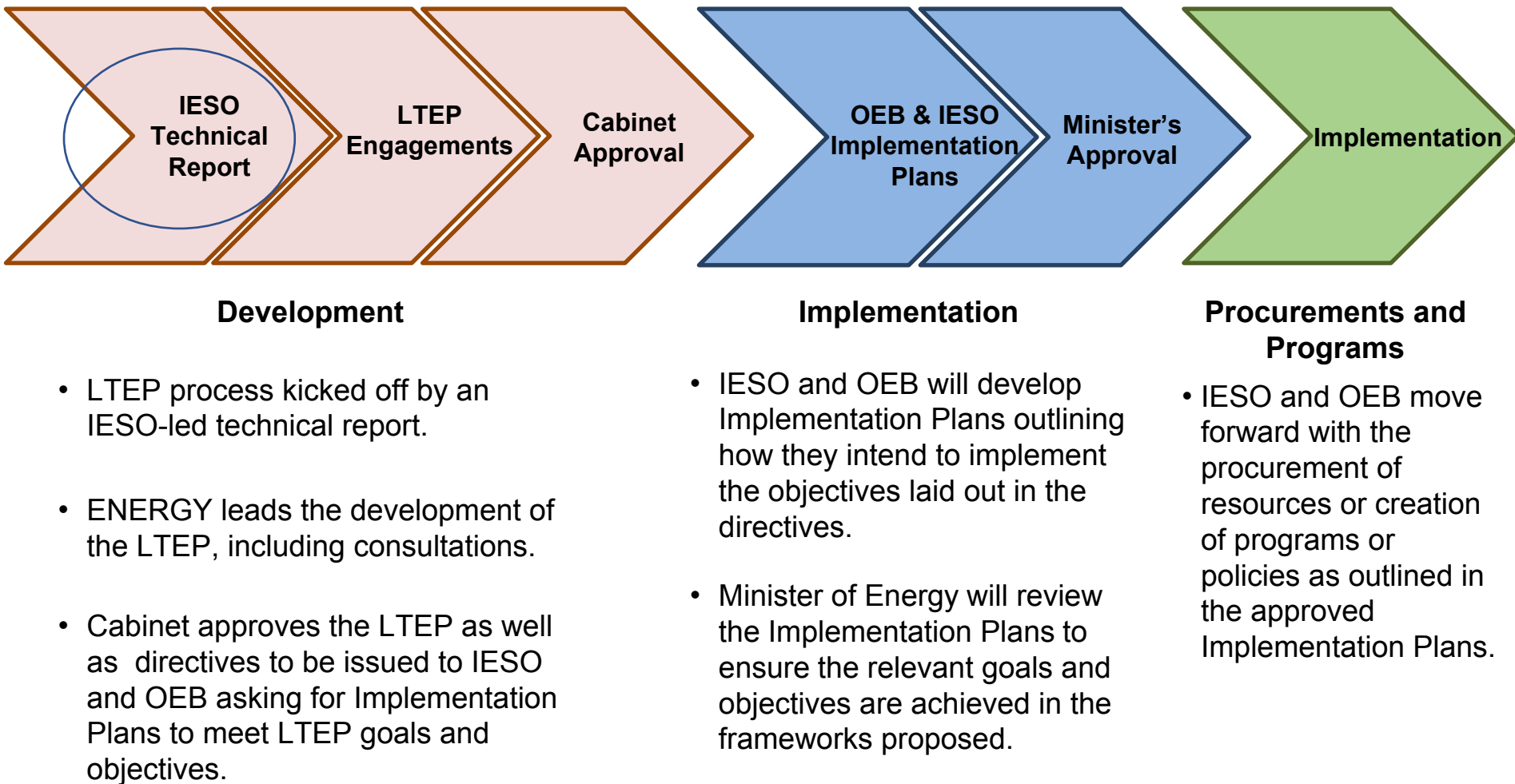


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Legislated Long-Term Energy Planning Process

- The LTEP process in legislation includes the following steps:



Ontario Planning Outlook

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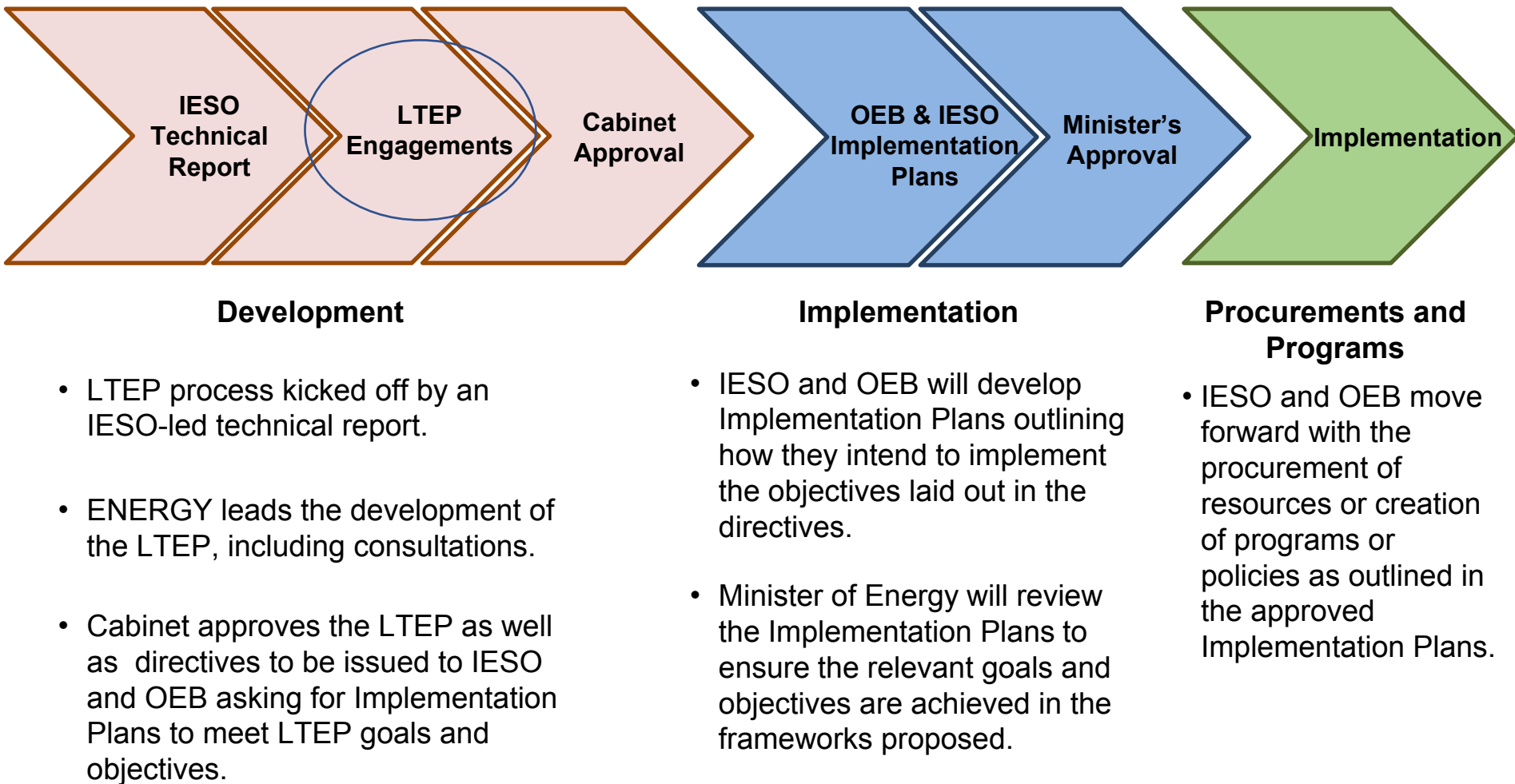
Fuels Technical Report

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Legislated Long-Term Energy Planning Process

- The LTEP process in legislation includes the following steps:



LTEP engagement

- [public open houses](#)
- [stakeholder sessions](#)
- [Indigenous engagement sessions](#)
- [Environmental Registry submissions](#)
- [online consultation](#)

Incorporating Public Input: LTEP 2017



Open Houses and Sessions:

17 communities visited

- ~730 stakeholders
- ~500 members of the public

17 Indigenous Sessions

- ~200 participants
- ~100 Indigenous communities & organizations represented

Written and Online Input

- ~1,500 EBR Submissions
- ~200 letters, email & paper submissions
- ~2,800 online 'talks tool' comments

Produced by Ontario Ministry of Energy, March 2017

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- **Ministry required by legislation to consider engagement feedback as it develops the LTEP**



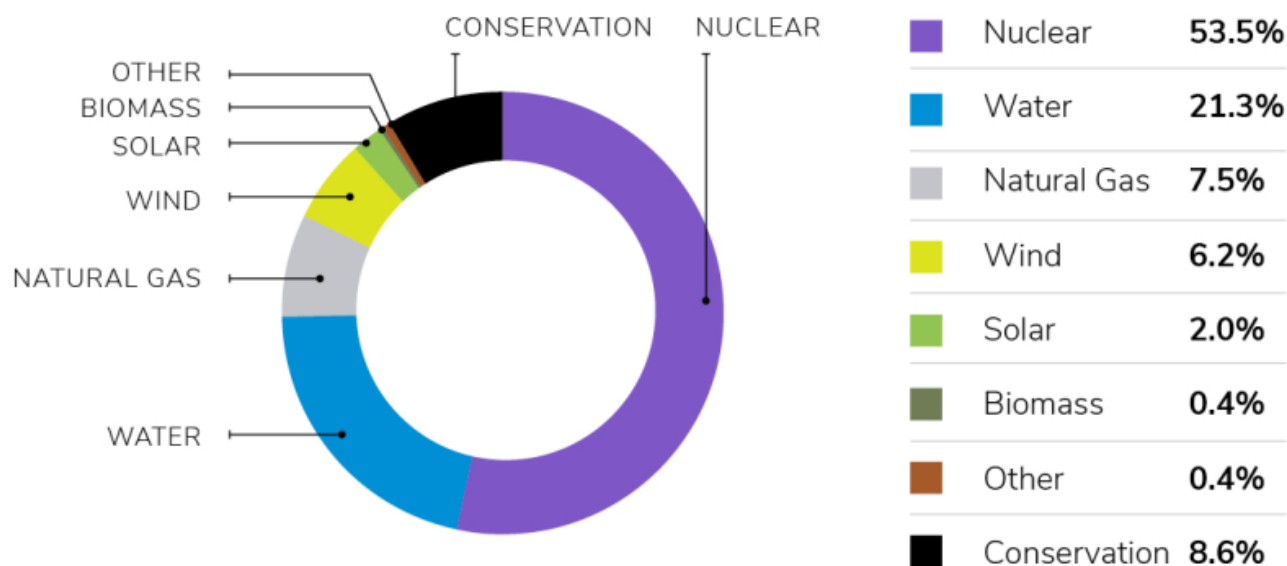
2017 LTEP:

Supply, Demand and Modeling Assumptions

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Ontario's Supply Mix

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



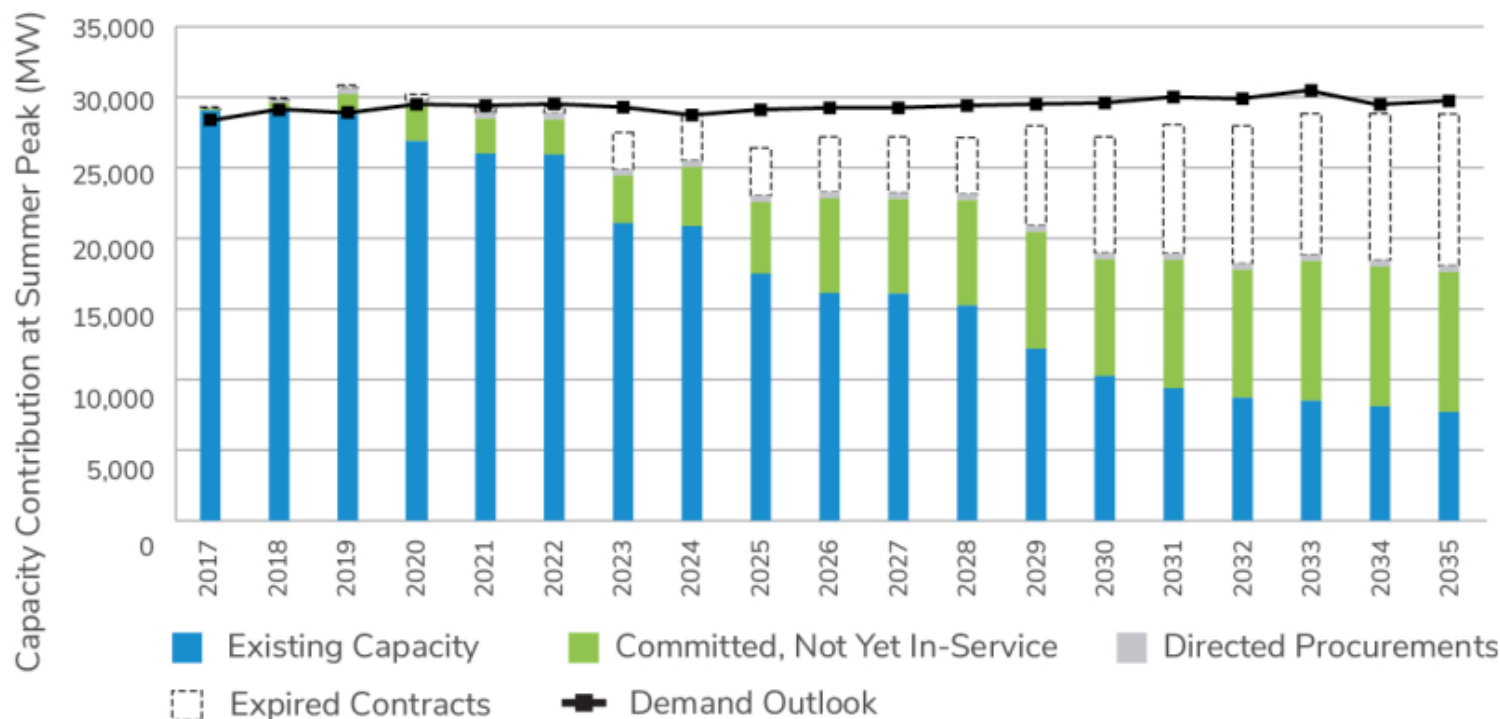
Source: Ministry of Energy

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

Supply and Demand Outlook

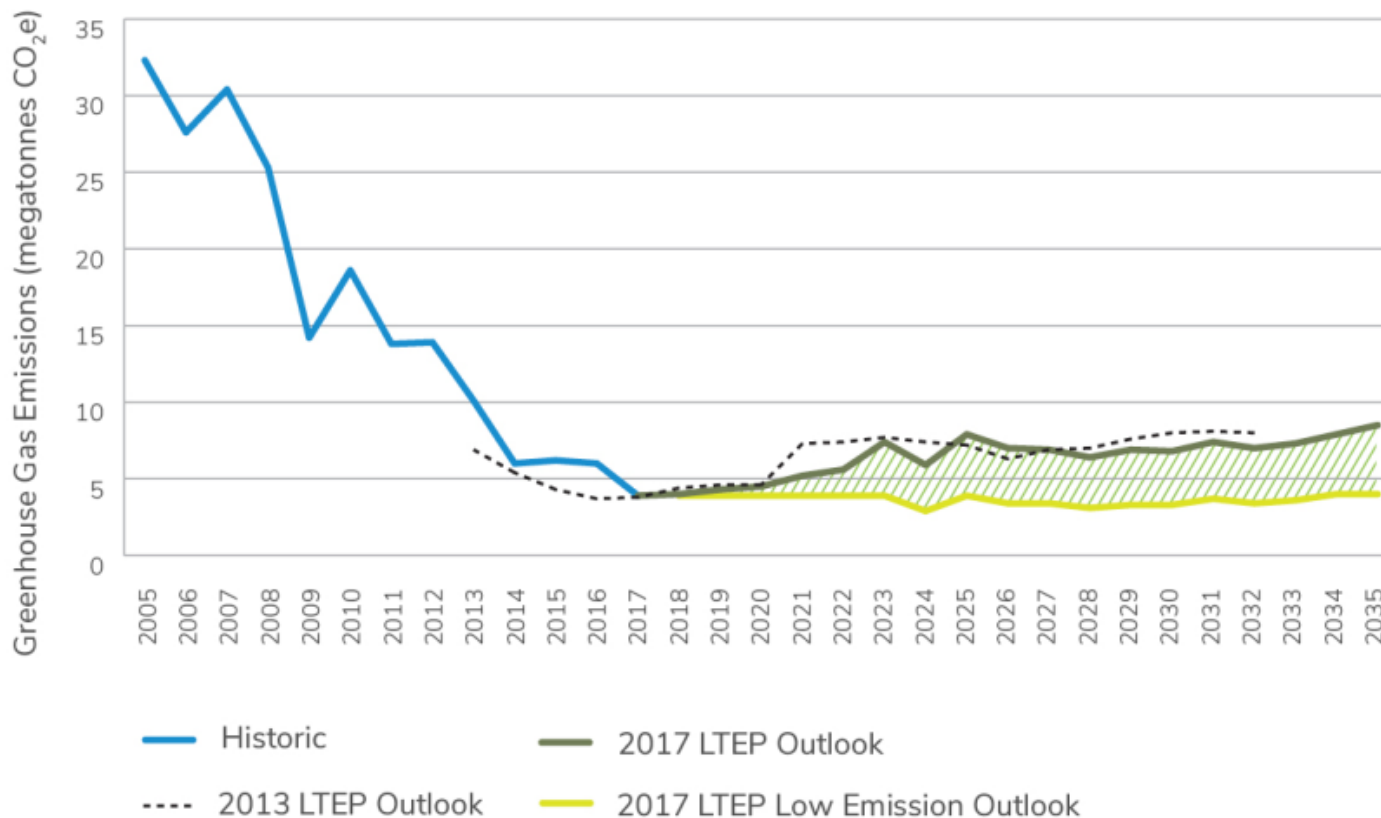
Supply and Demand Outlook (2017 - 2035)



Source: IESO

Electricity GHG Emissions Profile

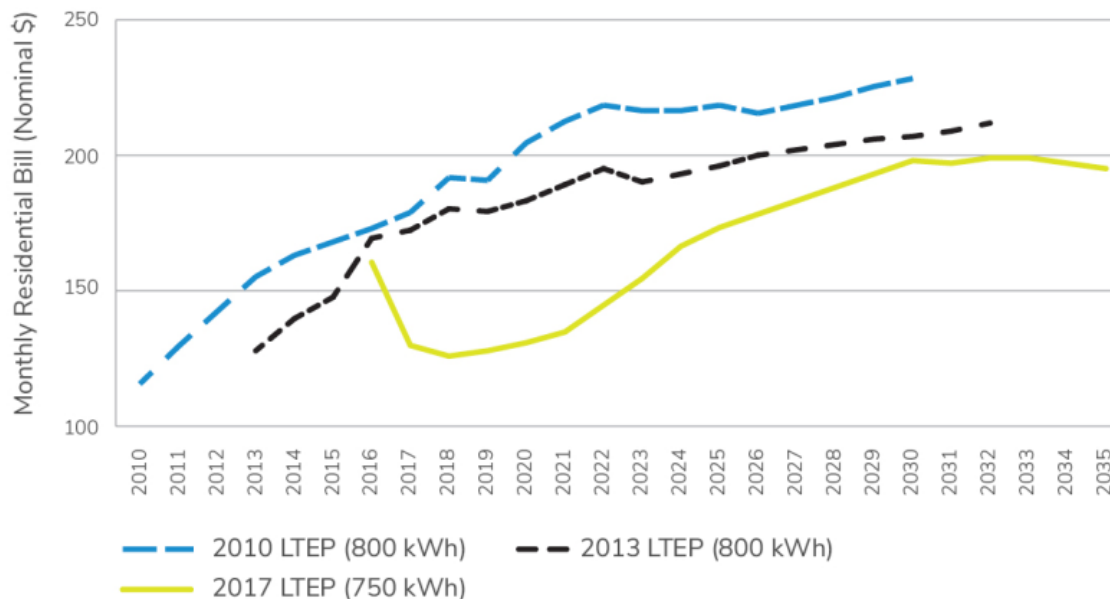
Electricity Sector GHG Emissions Outlook



Source: IESO, Environment Canada and Climate Change

Progress on Residential Electricity Prices

Electricity Price Outlook – Residential Consumers

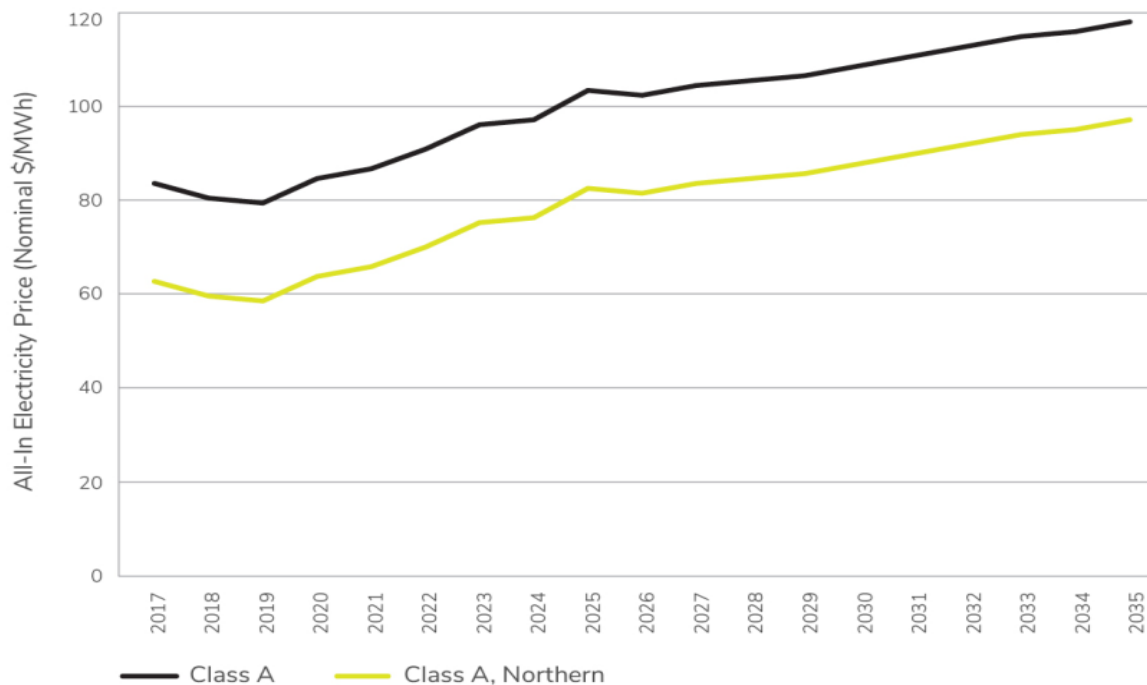


Source: IESO, Ministry of Energy

Note: Forecasts used in *Delivering Fairness and Choice* reflect prevailing patterns of consumption. Between late-2009 and mid-2016, the OEB defined the typical residential customer as a household that consumed 800 kWh of electricity per month. As of May 2016, the OEB changed their typical residential consumption to 750 kWh per month, due to declining household consumption.

Industrial Prices In-Line with Inflation

Electricity Price Outlook – Large Industrial Consumers

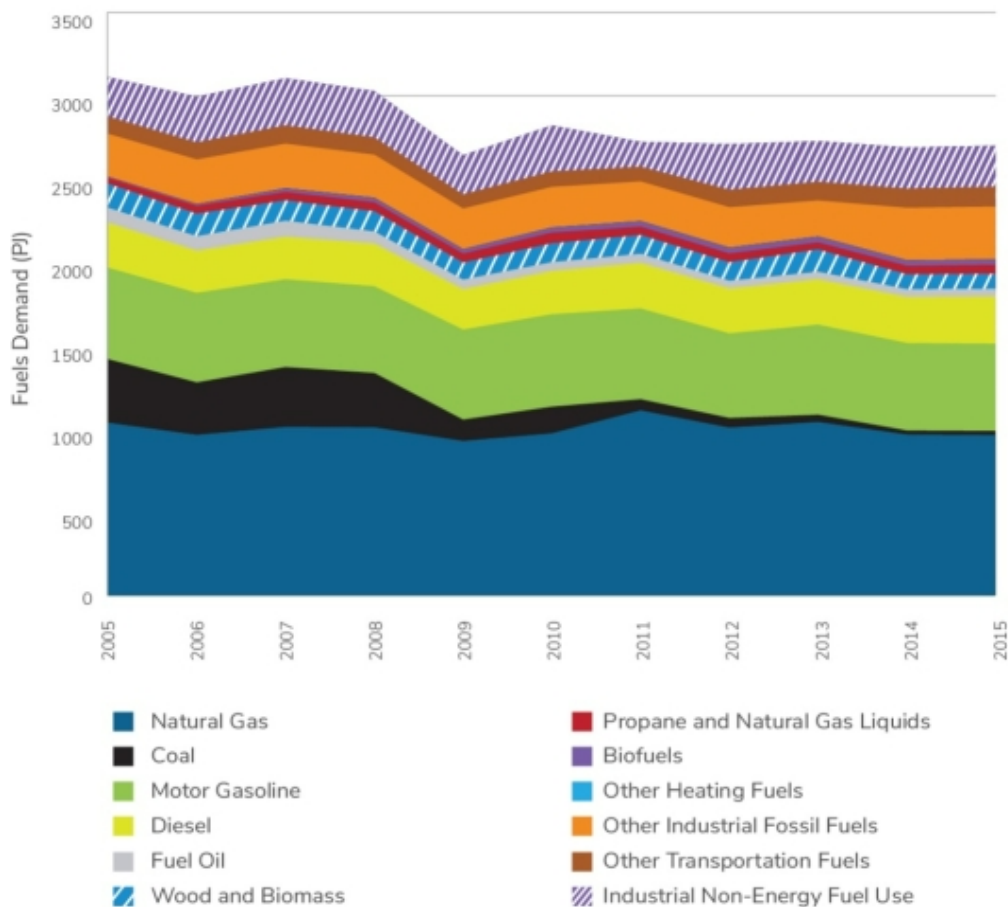


Source: IESO, Ministry of Energy

Note: Commodity price based on forecast Hourly Ontario Energy Price (HOEP) and GA averaged across Class A. Actual prices for Class A are dependent on each consumer's participation under ICI. Class A above reflects a transmission-connected facility. Participants in the NIER Program, which is funded through provincial revenues, receive a \$20/MWh reduction.

Fuels Use in Ontario

Historical Fuels Energy Use



Source: Fuels Technical Report, 2016

LTEP Pg. 41, Fig. 10

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Key 2017 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

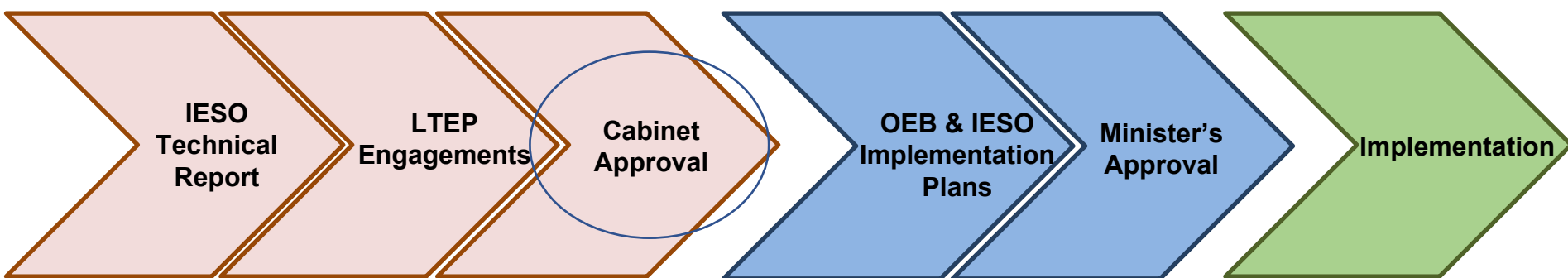
- Strengthening Commitment to Conservation and Energy Efficiency:
 - Encouraging **energy efficiency** on the distribution system (LTEP Page 102).
 - Enabling **demand response** to compete with other resources (LTEP Page 94).
 - Expanding **Green Button** (LTEP Page 98).

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).

Legislated Long-Term Energy Planning Process

- The LTEP process in legislation includes the following steps:



Development

- LTEP process kicked off by an IESO-led technical report.
- ENERGY leads the development of the LTEP, including consultations.
- Cabinet approves the LTEP as well as directives to be issued to IESO and OEB asking for Implementation Plans to meet LTEP goals and objectives.

Implementation

- IESO and OEB will develop Implementation Plans outlining how they intend to implement the objectives laid out in the directives.
- Minister of Energy will review the Implementation Plans to ensure the relevant goals and objectives are achieved in the frameworks proposed.

Procurements and Programs

- IESO and OEB move forward with the procurement of resources or creation of programs or policies as outlined in the approved Implementation Plans.

Cabinet approval

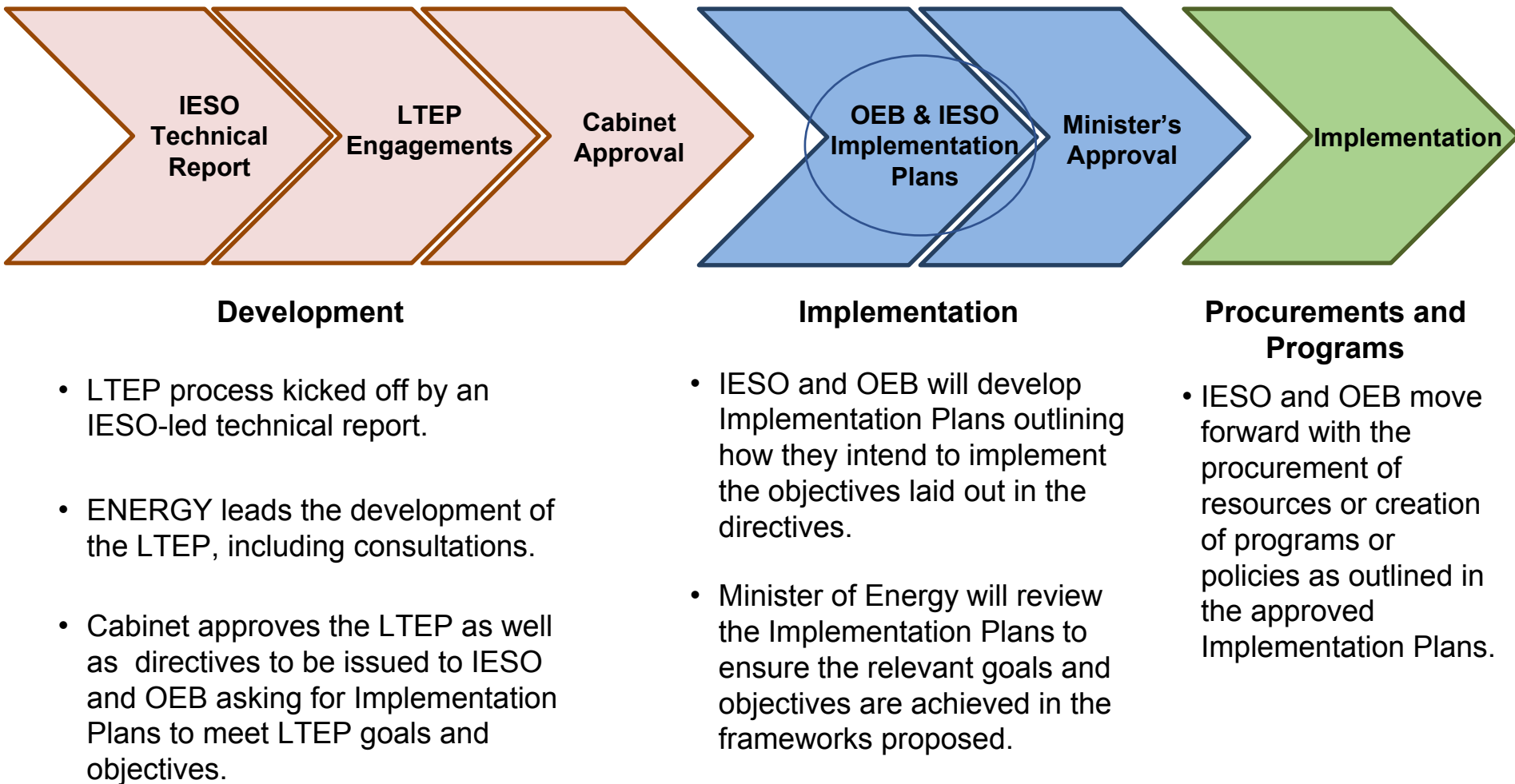


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IESO Implementation Plan



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OEB Implementation Plan

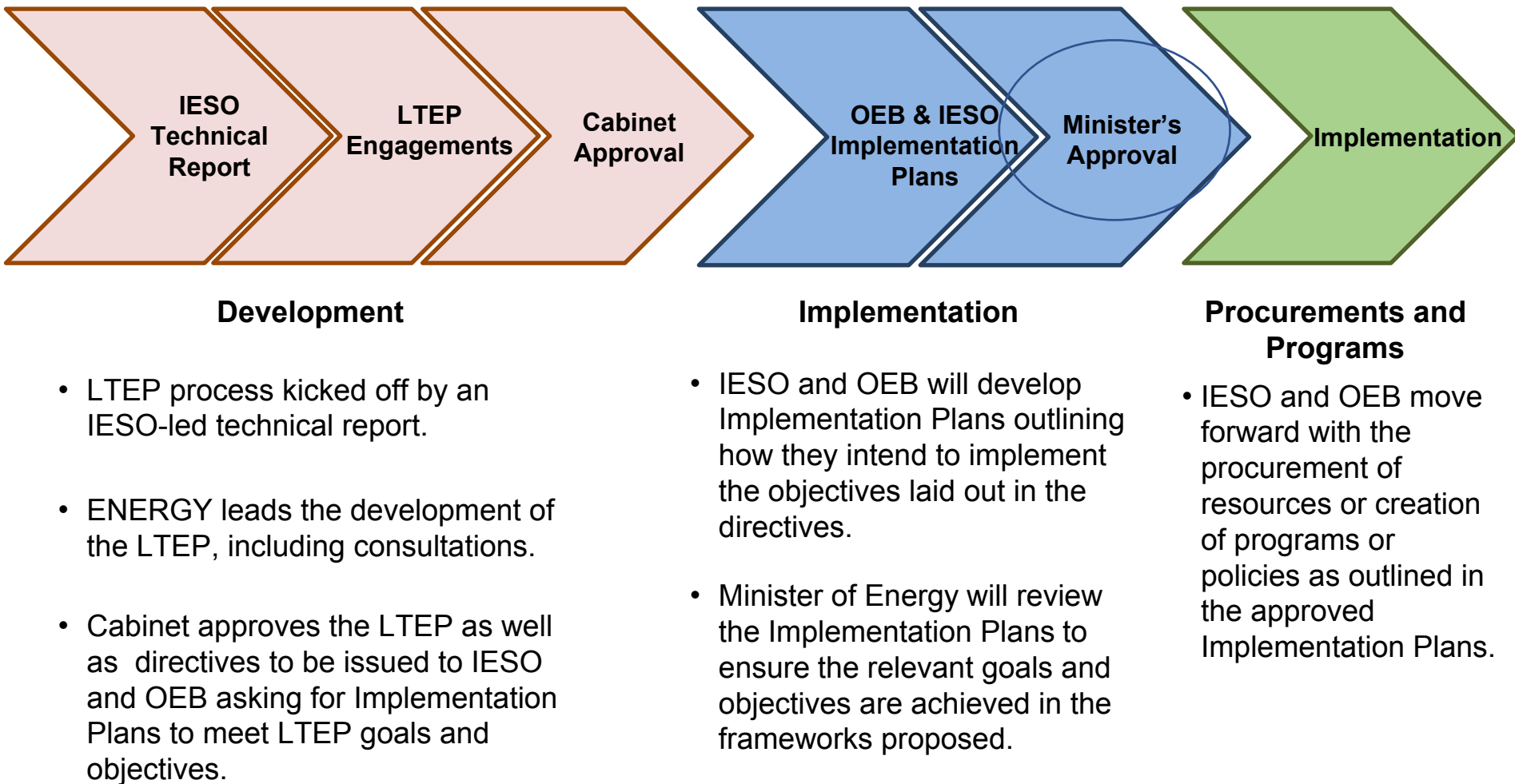


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Legislated Long-Term Energy Planning Process

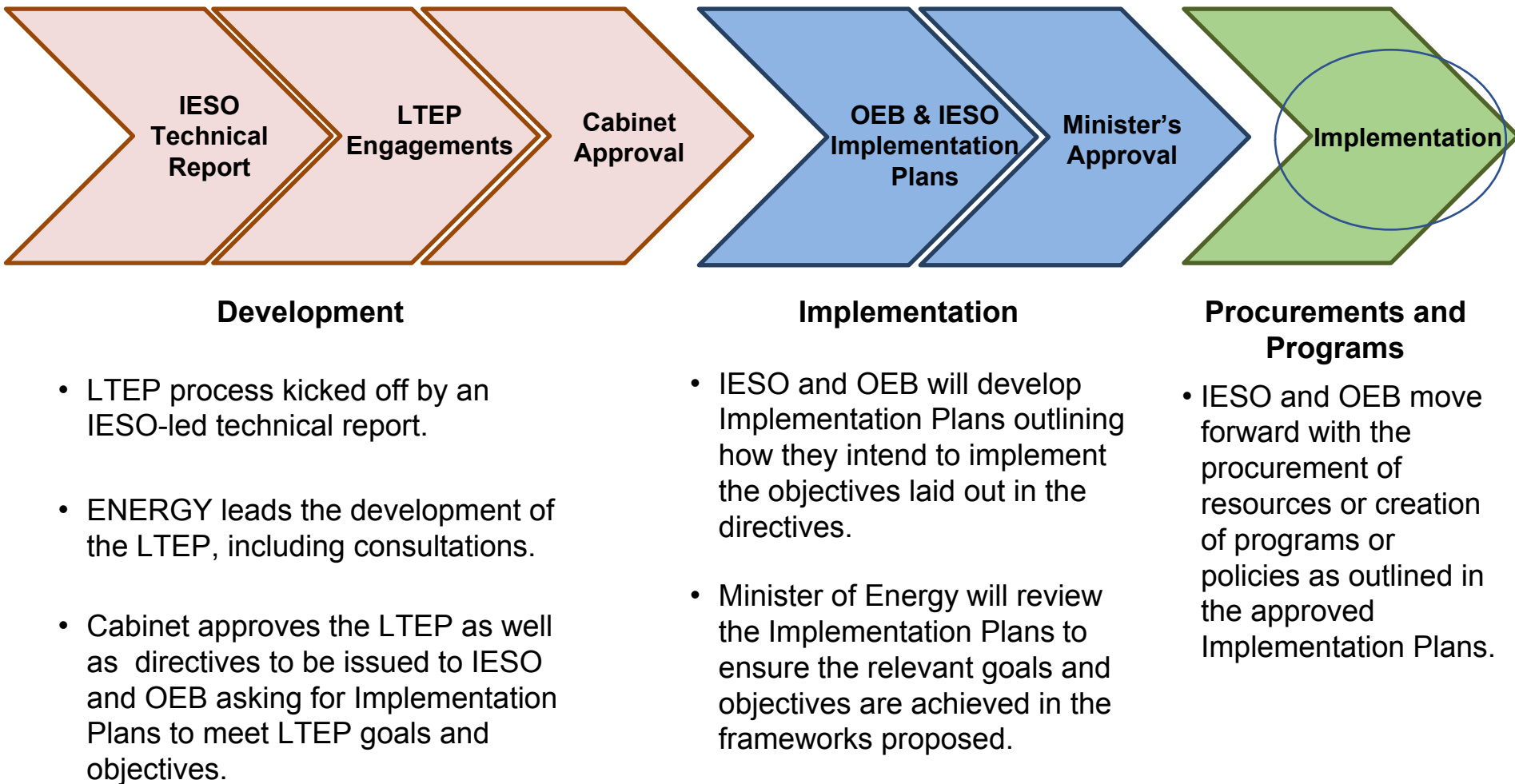
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Minister's approval

Legislated Long-Term Energy Planning Process

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IESO and OEB Implementation



Questions?

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