CONFIDENTIAL April 6, 2017

MINISTRY OF ENERGY'S 2017 LONG-TERM ENERGY PLAN MODELLING ASSUMPTIONS

This document summarizes the modelling assumptions for the reference outlook to inform the Ministry of Energy's 2017 Long-Term Energy Plan ("2017 LTEP").

The document reflects the IESO's understanding of the assumptions to be assumed for the 2017 LTEP based on IESO/ENERGY discussions between February and April 2017 and comments received from ENERGY staff on April 1, 2017.

In order to proceed with analytics, the IESO is seeking Ministry sign off on this document no later than Friday April 7, 2017

Section 1 – Assumptions

Outlook Timeframe

- The IESO will model the LTEP for the period 2017 to 2035 to align with the timeframe presented in the 2016 Ontario Planning Outlook (OPO).

Demand

- It is the IESO's understanding that ENERGY's preference is to consider a single demand outlook as the reference forecast. The reference demand forecast for the 2017 LTEP will be OPO Outlook B with the addition of electric vehicle (EV) demand assumptions per Outlook D (i.e., 2.4 million EVs by 2035).

- It is the IESO's understanding that ENERGY's preference is to consider a range of sensitivities around the reference demand forecast, with the range of sensitivity starting in 2026. Therefore, two sensitivities will be developed around the reference demand forecast to illustrate higher and lower ranges beginning in 2026:
  - The lower range will have similar assumptions to OPO Outlook A.
  - The higher range will assume higher household growth, higher new square footage growth in various commercial buildings, and greater growth in the industrial sector.

- Detailed energy/costing analysis will not be performed for the low and high demand sensitivities. Instead, their implications may be described qualitatively.

Conservation and Demand Response

- The 2013 LTEP targets 30 TWh of energy efficiency by 2032 and assumes that the near term target set in the Conservation First Framework and Industrial Accelerator Program of 8.7 TWh will be achieved by 2020.

- The IESO understands that ENERGY is seeking analysis on modeling a higher than 2013 LTEP conservation target within the OPO Outlook B. Based on discussions with the ADM and Michael Lyle, the IESO will perform analysis assuming 1) the 2013 LTEP conservation targets and 2) a higher conservation target.

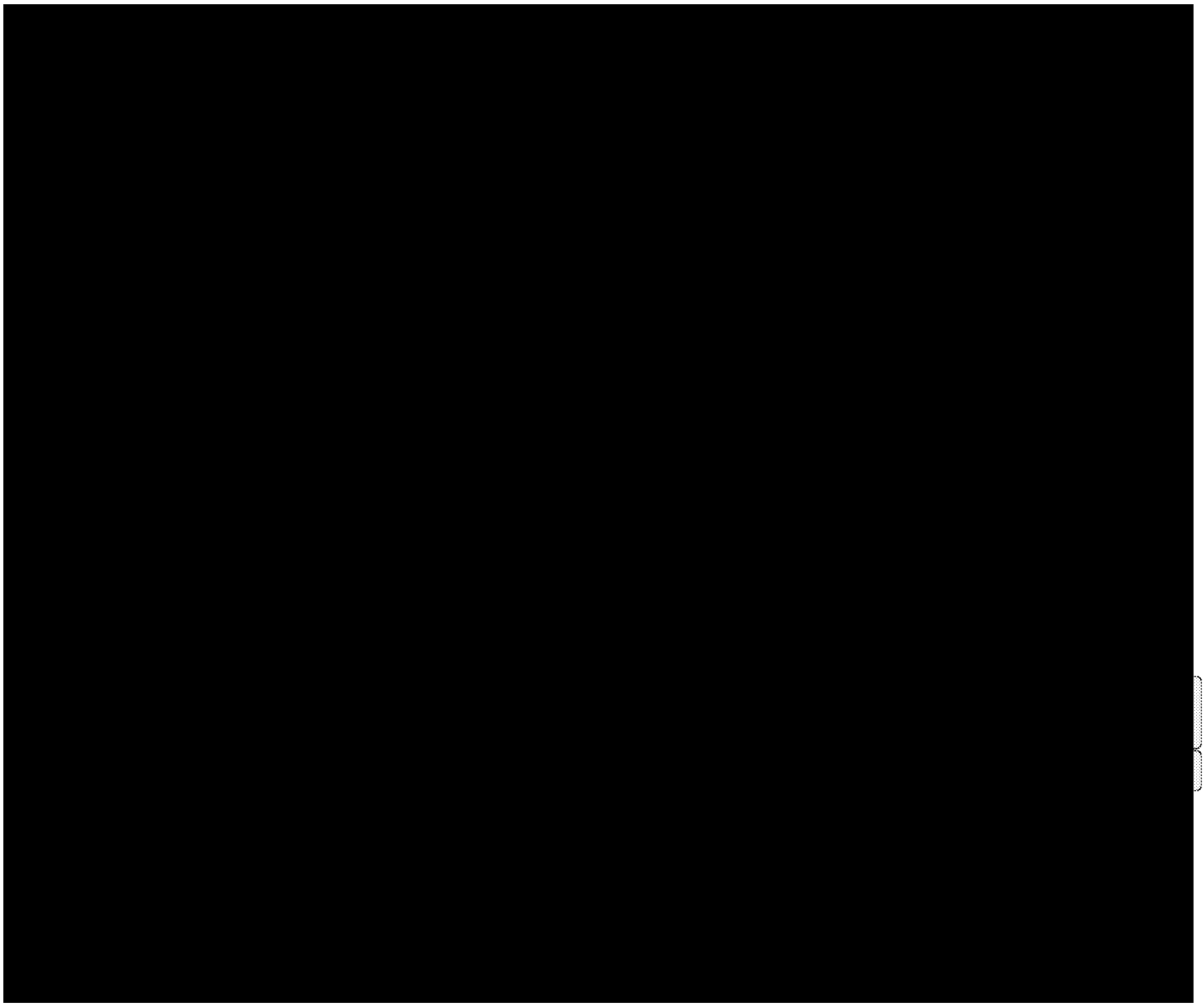
- The 2013 LTEP included a Demand Response target which includes Time-of-Use (TOU), Industrial Conservation Initiative (ICI) and demand response (DR) auction combined to meet 10% of peak demand by 2025. It is the IESO's understanding that ENERGY requests to eliminate the demand response target that was established in 2013 LTEP for the 2017 LTEP base case. The IESO will assume for the 2017 LTEP base case that TOU and ICI will continue to persist throughout the planning horizon and any DR currently procured through the DR auction would continue to be available in future auctions. Should there be capacity needs moving forward, additional demand response could be procured through the capacity auction.

Supply

[redacted]

Costs

[redacted]



Industrial Rates and Residential Bills

- The industrial rates and residential bill impacts will not reflect recycling of proceeds from the Cap and Trade program.
- The residential bills will be the base bills, prior to the application of the Ontario's Fair Hydro Plan.
- Application of the Ontario's Fair Hydro Plan to the residential bills will require specific guidance and direction from ENERGY.