

March 10, 2017

IESO Assumptions for ENERGY's 2017 ~~Long-Term~~ Long-Term Energy Plan - CONFIDENTIAL

Prepared by IESO

This memo summarizes the discussion held on March 8, 2017 on the scenario development in anticipation for the 2017 LTEP between ENERGY and IESO.

Section 1 describes the assumptions that will serve as the basis for scenario development for the reference and sensitivity cases for 2017 LTEP. Section 2 identifies the number of scenarios the IESO will be assessing.

Please confirm and provide comments to 1) all input and assumptions and 2) the cases the IESO will be assessing as soon as possible as we cannot commence our work until we have confirmation from ENERGY.

Section 1 – Assumptions

Demand

- The reference case for the 2017 LTEP will be Outlook B of the 2016 Ontario Planning Outlook (OPO) with the addition of electric vehicle (EV) demand assumptions per Outlook D (i.e., 2.4 million EVs by 2035).
- Two sensitivities will be developed around Outlook B to illustrate higher and lower ranges.
 - The lower and higher range will start from the year 2026.
 - The lower range would have similar assumptions to OPO Outlook A.
 - The higher range would have assumptions noted below:
 - Higher household growth;
 - Higher new square footage growth in various commercial buildings; and
 - × Better industrial performance.
 - Higher electrification (i.e., elements of Outlooks C & D)
- Details will be fine-tuned as the IESO develops the higher and lower ranges.

Conservation

- Conservation outlook will be consistent with the OPO, which incorporates the 2013 LTEP targets of 30 TWh by 2032. It also assumes that the near term target set in the Conservation First Framework and Industrial Accelerator Program of 8.7 TWh by 2020 will be achieved.
- Demand Response outlook will be consistent with the OPO (and 2013 LTEP 2013). Time-of-use (TOU), Industrial Conservation Initiative (ICI), and demand response (DR) auction combined will be able to meet 10% of peak demand by 2025.

Commented [CH(1)]: 2017 LTEP will likely outline a higher conservation target. IESO's conservation team (Evelyn Lundhild) has commissioned specific analysis on this.

Questions for IESO

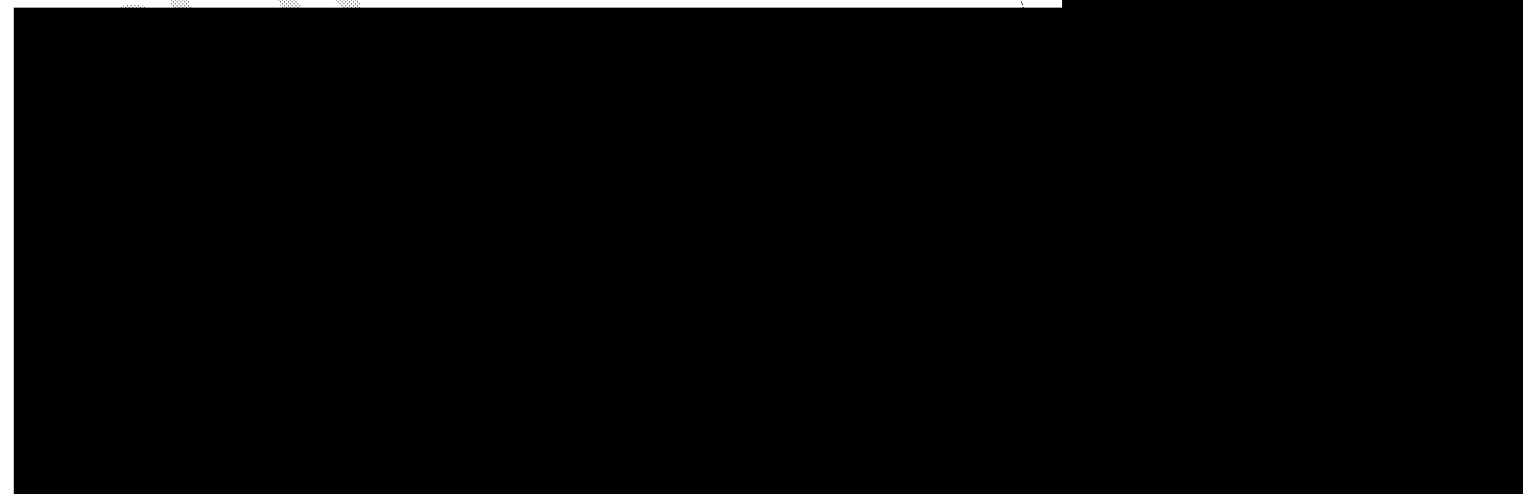
- 1) What are the modeling implications of incorporating a higher conservation target in the base case?
- 2) What would be the timelines to update the base case demand forecast and the related supply/costs forecasts to reflect a higher conservation target?

For additional details on incremental conservation potential, suggest IESO's power system planning team connect with the conservation team.

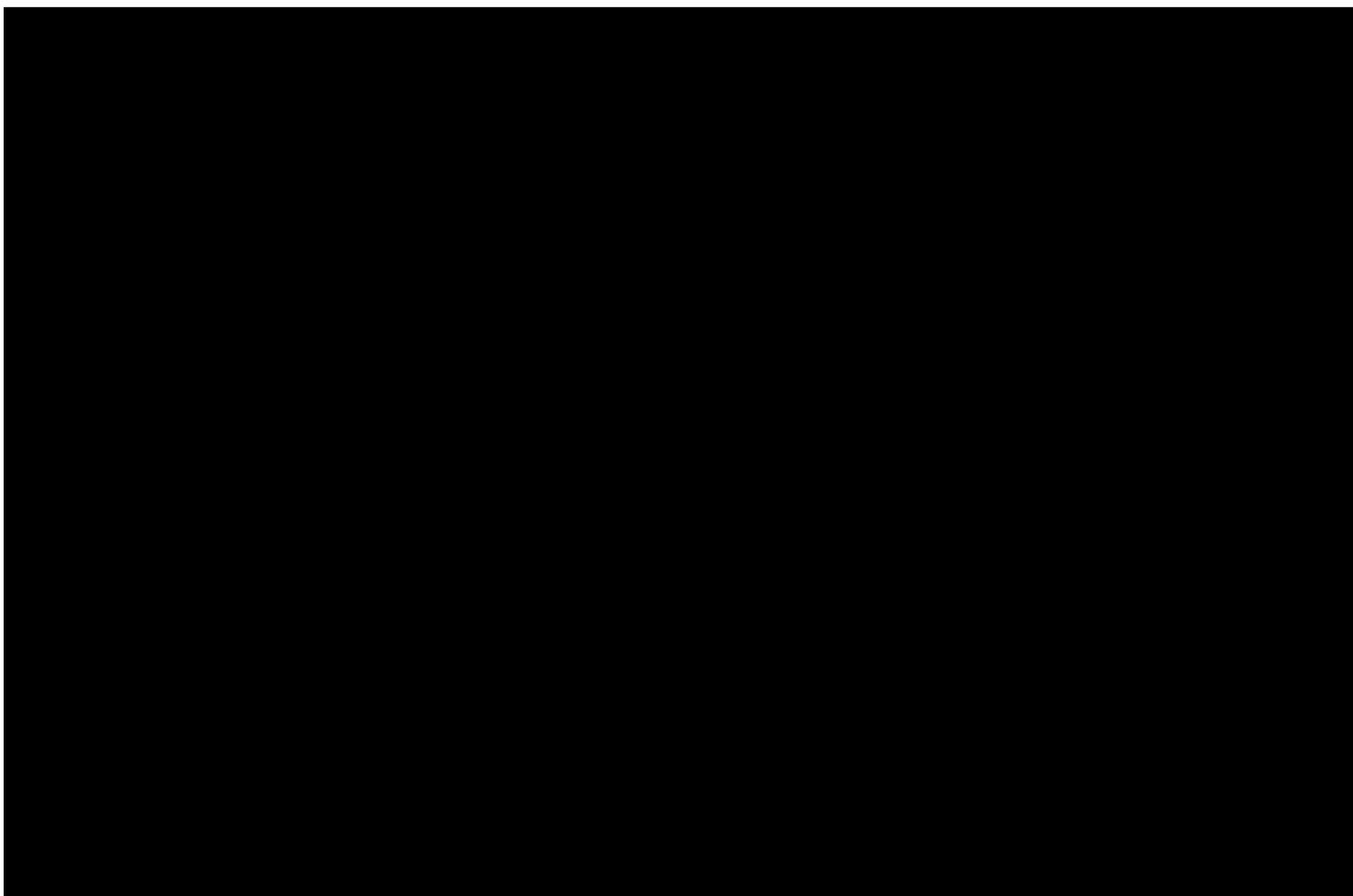
Commented [CH(2)]: There are currently no plans to establish a new DR target through the 2017 LTEP. Remove 2025 DR target. Report back on how much DR we would assume should there be no targets going forward.

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Supply



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Industrial Rates and Residential Bills

- Will include Ontario's Fair Hydro Plan and not include proceeds recycling.





