ENERGY staff edits to IESO's draft 2017 LTEP Modules:

October 31 2017

Module 1: Demand

ESP:

- By End-Use – Res tab
  - Cell A2 should just read "Residential Net Energy Demand by End-Use" no (TWh) needed at the end because it is duplicative.
- By End-Use – Comm tab
  - Spell out Cooling DX

CRED:

- "Energy Demand" tab and "Peak demand" tab: Suggest a note be added to clarify that the demand presented is at the generator level.
- We suggest the level of detail included be similar to what was included in the 2013 LTEP modules and the OPO. Currently, Module 1 is missing the following
  - Residential intensity (kWh per household, see slide 12 OPO Demand Module), commercial intensity (kWh per sq ft, see slide 21 of OPO Demand Module) and industrial intensity (kWh/GDP, see slide 32 of OPO Demand Module)
  - Housing stock and new housing stats (see slide 15 of OPO Demand Module)
  - Residential demand by building type (see slide 13 of 2013 LTEP Module 1), Commercial demand by sub sector (see slides 27, 28 of OPO Demand Module) and Industrial demand by sub sector (see slide 35 of OPO Demand Module)
  - Transportation demand forecast split, between EVs and transit (see slide 39 of OPO Demand Module)
  - Contribution to peak from different end-uses (see slide 47 of OPO Demand Module)

Module 2: Conservation

ESP:

- Demand Response tab
  - Spell out what CBDR is – Capacity-Based Demand Response
- Achievable Potential tab
  - It's unclear what the difference between market achievable and unconstrained achievable is. What are the constraints? This could use a terminology tab similar to supply

CRED:

- General Comment: We will need to ensure that data presented in the modules is consistent with the 2017 LTEP. There are currently some discrepancies between what is presented in the conservation chapter of the 2017 LTEP and Module 2.

- “2006-2016 CDM Savings” tab
    - 2017 LTEP states “Between 2006 and 2015, Ontario conserved 13.5 terawatt-hours (TWh) of electricity”. Module 1 currently shows that 13.9 TWh of electricity was saved in 2015. We understand that the 13.9 TWh estimate reflects recent updates, but for consistency with the main document, please stick with 13.5 TWh and include the 2015 IESO conservation report as the source.
    - The updated 13.9 TWh stat can be included in the IESO’s 2016 conservation report.
    - Given the change above, its best to move the 2016 stats to the next tab (retitled “2016-2035” CDM savings).
    - The tab states that “verified savings by the end of 2016”. Please add that “Codes and Standards are estimates only”
- “2017-2035 CDM Savings” tab
    - As noted above, this tab should include 2016 results and the tab should be retitled accordingly
    - The level of detail provided here should be consistent with that on slide 6 of the OPO Module 3. Please split the forecasted savings across the following categories
    - Codes and standards (implemented by 2015)
    - Codes and standards (implemented 2016 and beyond)
    - Historical program persistence (2006-2015)
    - Forecasted savings from planned programs (2016 and beyond)
- “Conservation First Framework” tab and “Industrial Accelerator Program” tab
    - We understand the data presented here is based on latest info from LDC CDM plans and results. However, this new data was not part of the 2017 LTEP modelling and it conflicts with data in the “2017-2035 CDM savings” tab.
        - For example, data in the “2017-2035 CDM Savings” tab suggests that programs are forecasted to achieve 1 TWh of savings in 2019, while the CFF and IAP tabs indicate that 1.4 to 1.5 TWh of savings are forecasted in 2019.
        - For the purpose of consistency, please delete the CFF and IAP tabs. This level of information can be published in the 2016 conservation report. The 2013 LTEP conservation module also did not provide this level of detail.
- “Demand Response” tab:
    - Could additional columns for 2013 to 2015 be added. This will show the rate of growth for DR. Moreover, the conservation chapter makes reference to 2015 DR stats.
- “Achievable Potential Savings” tab

- The tab includes results from the APS study and the APS Addendum. As agreed between ENERGY staff and IESO Conservation staff, IESO will publish the Addendum with companion with the additional analysis (including ratepayer impact) undertaken through the 2017 LTEP process, based on the Updated Outlook.
    - What is the IESO's plan for releasing the Addendum – will it be released as part of the modules? Regardless, ENERGY recommends that all mentions of the Addendum – both in the modules and in the report, include a summary of the 2017 LTEP companion analysis.
- "CDM Cost Effectiveness" tab:
    - Similar comment as for the DR tab. Please update the tables to reflect 2013, 2014 and 2016 cost effectiveness results.

Module 3: Supply

ESP:

- Total Capacity Reqt – Consider noting that the total is the same as the "Demand Outlook" shown in Figure 8 of the LTEP document which reflects the net demand capacity requirement.
- Energy Imports and Exports tab
    - Consider adding a net line?
- General – Why is this file 8 MB? There may be some legacy data embedded. It needs to be smaller for easy download

CRED:

- There are a number of references to Demand Response in this module. Please add a footnote to the first Demand Response reference explaining what is included in this (DR auction, DR pilots). We understand this does not include ICI and TOU.
- In footnotes, please explain the difference between the DR resources listed under the "Installed MW of Existing" tab and the "Installed MW of Directed" tab. For the "installed MW of Directed" tab please clarify through a footnote that the government has not directed a future amount for DR, but rather these are capacity assumptions for the purpose of modelling.

Module 4: Transmission

SNAP:

- For the Hawthorne to Merivale line the module includes an in-service date of 2021 but the recent H1 Transmission Rate Application used early 2020. Is there a rationale for using a different date?

Module 5: Cost

SNAP:

- For the Transmission Delivery Costs, can you provide the underlying assumptions for both the base and incremental costs?
- For the wholesale market service cost, what is the assumption for the RRRP rate going forward? Did IESO assume some portion of the remote connection project costs will be included in this charge?

ESP:

- DRC – DRC is expected to end before April 1, 2018. Why is DRC about the same amount in 2018 ($0.61B) when compared to 2017 ($0.62B)?

Commented [TD1]: This section to be removed when sending to the IESO.

ESP has confirmed they will embed ministry updates into the final version sent by the IESO.

CRED

- "Conservation Cost" tab: Through a footnote could the IESO clarify which row includes Conservation Fund costs
- In an appropriate tab, please also include costs related to Demand Response.