ENERGY staff edits to IESO's draft 2017 LTEP Modules

Module 1: Demand

- 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
- "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

- Achievable Potential tab
  - It's unclear what the difference between market achievable and unconstrained achievable is. Suggest including a reference to the APS study and addendum in the footnotes so the reader can access further details if needed
- 2006-2015 CDM Savings Tab
  - Could "Energy Efficiency Programs" be retitled to "Energy Efficiency Programs (2006-2015)". This edit is consistent with the 2016 OPO modules.
  - Could "Codes and Standards" be retitled to "Codes and Standards (implemented by 2015)". This edit is consistent with the 2016 OPO modules.
- Demand Response Tab
  - Could the following clarification footnotes be added
    - *Demand response programs introduced prior to 2015 included DR2 and DR3 for business customers*
    - *Beginning in 2015, the DR2 and DR3 programs were transitioned to the Capacity-Based Demand Response (CBDR) program.*
- CDM Cost Effectiveness Tab
  - Could IESO staff please reconfirm the stats for 2016. These are significantly different from those reported in previous years! (LUEC in 2016 is reported at 1.8 cents per kWh, whereas in previous years it has been consistently over 3.5 cents per kWh))

Module 3: Supply

- 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
- 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.
- On tabs 3 (installed MW by fuel), 8 (MW at summer by commitment), and 9 (MW at summer by fuel) add a line for "planned flexibility/identified needs" that indicates the gap between identified supply sources and anticipated demand. Indicate the MW expected procurement in the future (e.g. through an ICA).

Module 4: Transmission

- 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?
  The Hawthorne to Merivale project requires 3 years of lead-time before putting into service. The timing in the H1 Transmission Rate Application assumed the approval process for this project was initiative by 2017. Given that the process has not yet been initiated at this time and the required lead time for this project, it is reasonable to assume that the project can be put in-service as early as 2021.

Module 5: Cost

- 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?
- 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)?
- "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.

- On tabs 1 (cost of electricity service) and 8 (debt retirement charge), why is the DRC expected to be $600M in both 2017 and 2018 despite the charge being removed from bills as of March 31, 2018?
- Don't use "pre-FHP" amounts in tab 9 (global adjustment costs) and tab 10 (residential bill forecast). Fair hydro plan is legislated government policy and should be included in the cost forecasts.
- Include the 2017 price curve, broken down by line item.