NYSERDA High-Level Outlook Suggestions

1. **Net Imports:** The CLCPA calls for a zero-emission grid in 2040 inclusive of imports. A recent approach to modeling this requirement (Power Grid Study, CAC Integration Analysis) was to stipulate that net imports, beyond at a minimum the electricity associated with imports of hydropower, should be close to zero (up to 1% could be considered acceptable). The recently completed Outlook modeling scenario results included significant net imports from neighboring jurisdictions that would have associated greenhouse gas emissions. This is not consistent with the CLCPA and we recommend that NYISO and stakeholders develop future Outlook modeling scenarios that reasonably enforce the CLCPA generation requirements.
2. **Interchange**: Neighboring systems should be fully modeled and included in the next version of PLEXOS modeling.
3. **Supply curve**: NYISO used one set of annual capital costs for renewables in Outlook. A reexamination is advised with a focus on a "tiered approach" within each year. This would better reflect reality in that costs do rise as we advance up the supply curve of each technology**.**
4. **Tier 4 accounting**: While Tier 4 RECs represent eligible renewables under the CLCPA and count toward the 70x30 goal, the NYS PSC opted to require Tier 1 procurements at a pace designed, in combination with baseline renewables, offshore wind, and distributed solar (but not Tier 4), to achieve the 70x30 goal. From the NYS PSC Order (10/25/20): "*the Commission directs NYSERDA not to include projected Tier 4 contributions in its divergence test calculation in a manner that would reduce the expected schedule of Tier 1 procurements*". We would therefore recommend modeling 2030 in a manner that treats Tier 4 MWh as incremental to achievement of the 70x30 goal. We also note that in its Order, the PSC discussed uncertainty associated with both potential renewable resource attrition and load growth to 2030 as part of its rationale.
5. **DEFRs**: We recommend using "low capital cost/high operating cost" units as a primary DEFR model option. Scenarios with additional DEFR options are advised but these additional DEFR options should not be used in a Central case (which could be leveraged and used to guide future investment decisions). Cost assumptions for DEFRs in these scenarios should be conservative so that the model selects a resource mix that is reasonably weighted towards non-DEFR technologies.
6. **Long duration storage option**: Storage with duration greater than 4 hours will be an important part of the future grid mix as we move closer to the "100*40" policy goal. It needs to be added as a technology option in PLEXOS. We'd recommend 8-hour storage option at a minimum.
7. **ELCCs**: ELCCs likely need to be updated for the next Outlook cycle.