

June 2<sup>nd</sup> - NHA Markets committee meeting – resource accreditation

Milos Basanac – CAISO - Milos described the CPUC's recent methodology for qualifying capacity for hydro. In June 2020, the Commission adopted two options for counting hydro:

- **OPTION 1**- Historical data - Using 10 years of historical bid data, the qualifying capacity amount is calculated on a monthly basis for the 50 percent and 10 percent exceedance values. The 50% value is weighed at 80% and the 10% value is weighed at 20 percent. This is the default, voluntary methodology. This approach is intended to provide flexibility to hydro owners and account for the various constraints of hydro facilities.
- **OPTION 2** - Nameplate capacity with penalties - Alternatively, dispatchable hydro generators can set their qualifying capacity to the nameplate capacity and would have must offer obligations in the day-ahead market. But in selecting this option they would be subject penalties for non-performance during shortage events.
- How CAISO treats RA imports (two types):
  - Resource specific (pseudo-tied, dynamically scheduled) and Non-resource specific
    - In an effort to eliminate “speculative supply or double counting” CAISO requires non-resource specific RA imports to self-schedule or bid economically no higher than \$0/MWh. At CPUC, CAISO proposed rule changes to require source, attestation and transmission requirements. In May 2021, CPUC deferred changes to further evaluate the impact of the June 2020 RA import rule changes.

NWPP - Gregg Carrington (NWPP) and Ryan Roy (Sapere Consulting) Gregg and Ryan provided an overview of the new RA framework being developed by the NWPP (Northwest Power Pool). Essentially, the NWPP is developing a voluntary capacity procurement market and a lot of effort has focused on how hydro is counted toward resource adequacy.

- The NWPP is designing two types of qualifying capacity methods for hydro. The first is for hydro with at least 1 hour of storage capability (this is the hydro QCC methodology) and the other is for all other hydro (run of river).
  - **Hydro QCC methodology** – this method is based on actual historical output *plus* added parameters to determine what a facility *could do* (these include water in storage, reservoir levels etc.). The QCC method seeks to maximize the generation of hydro during the top 3% of critical hours on the grid.
  - **Run of River** – NWPP is utilizing an Effective Load Carrying Capability (ELCC) method for run of river hydro (all hydro with less than 1 hour of storage). The model uses 3 years of historical data to determine monthly averages.

PJM - Andrew Levitt (PJM) - Andrew described PJM's ELCC proposal that is currently pending at FERC. The model has three different classes for hydro counting:

- **Run of river hydropower** – Uses 10 years of historical output during coincident peaks and a performance adjustment.
- **Pumped hydro (treated like energy storage)** – The ELCC model treats pumped hydro similar to energy storage using MW and MWh parameters.
- **Dispatchable hydro** – These units receive a unit specific ELCC as the model dispatches the plant (inputting plant parameters) and takes into account upstream storage from another hydro facility.