

**ESA PROPOSAL // Framework for Energy Storage Capacity Qualification in PJM  
January 23, 2020**

1. Capacity qualification of energy storage of varying durations should be derived using an effective load carrying capacity (ELCC) analysis.
  - a. The ELCC should be based on methods that reflect the use of storage for resource adequacy (i.e., an “effective firm capacity” approach that compares storage to additional generation; an assumption of realistic dispatch decisions, as opposed to block-loading; etc.). The methods and findings of the Astrapé Consulting 2019 study, *Capacity Value of Energy Storage in PJM*, are an recommended starting point.
  - b. The ELCC study should establish a base case using the most present year’s system conditions (i.e., supply mix, energy, and load) as its assumptions.
  - c. To capture uncertainty about changes in future years, the ELCC should use a limited set of scenarios of changes in system conditions, based on planned retirements and outcomes from the interconnection queue (e.g., changes to supply mix, including incremental storage additions). Results from ELCC study scenarios should inform thresholds for updating capacity qualification over time (see 2c).
  - d. Capacity qualifications should be established for multiple classes of storage durations, with the upper limit corresponding to the duration at which ELCC does not change over the study window.
2. Capacity qualification of storage of varying durations should be updated over time on a clear and predictable basis.
  - a. Capacity qualification of storage of varying durations should be updated with a quadrennial ELCC restudy (e.g., as part of the RPM Performance Assessment study), which should apply to subsequent base residual auctions until the next restudy.
  - b. The capacity qualification of a storage unit that clears a given base residual auction should not be changed before its delivery year.
  - c. Qualification levels should only be changed for subsequent auctions if system conditions (e.g., changes to supply mix, including incremental storage additions) exceed those of ELCC study scenarios (see 1c). The change in values should be specified in advance and be based on values derived from ELCC study scenarios.

DESIRED PROCESS: Resolution & affirmation in the present FERC 206 proceeding (Docket No. EL 19-100).

DESIRED TIMELINE: Resolution at FERC by end of Q2, implementation by end of Q3.