ELCC – Capacity Market Design

MMUAC December 4, 2020 John Hyatt



PJM 205 Filing (ER21-278-000)

- PJM filed (October 30, 2020) new rules that rely on the Effective Load Carrying Capability (ELCC) method for determining the capacity value for intermittent generators, storage resources and combination resources.
- Market Monitor filed comments on November 20, 2020
 - PJM's ELCC approach is flawed
 - Process was rushed without adequate review
 - PJM should include current rules in the RAA
 - Additional evaluation is necessary to determine if ELCC would be an improvement over current rules

ELCC Issues

- Three basic issues with PJM ELCC approach
 - PJM's ELCC approach must assume an ex ante resource mix that is not a function of capacity market clearing.
 - PJM's ELCC approach is not adequately grounded on actual data and does not capture the interdependence of different resource types.
 - PJM rules include floors for each class of ELCC resource. Floors will be in place for 13 years and floor calculations will rely on 10 year forecasts of the capacity resource mix.

An Efficient ELCC Approach

- An efficient ELCC approach requires that capacity values are determined simultaneously with the clearing of the RPM auction.
- This approach requires the construction of a multivariable ELCC function or ELCC surface that is used as an input into the capacity market
 - ELCC surface will give the ELCC corresponding to different resource capacity mixes
- The capacity market clearing will reflect a marginal ELCC approach

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