Capacity Capability Senior Task Force
Monthly Progress Report

MC Webinar
November 16, 2020

The Capacity Capability Senior Task Force (CCSTF) was founded to consider and develop the provisions necessary to establish an Effective Load Carrying Capability (ELCC) method for calculating the capability of limited duration resources and intermittent resources. These include energy storage resources,wind, solar, hydroelectric power with and without storage reservoirs, and other renewable resources.

The Key Work Activities and Scope defined in the approved Issue Charge are as follows:

1. Brief review of existing education on ELCC provided recently at the Planning Committee and the MIC Special Session on Capacity Market Capability of energy storage resources. As needed, additional education on ELCC.
2. Education on the status quo for retaining, increasing, and transferring capacity interconnection rights.
3. Education on the interaction of resource capability, the Installed Reserve Margin study, and other features of resource adequacy planning and the capacity market.
4. Consider the general provisions necessary to establish the ELCC method for determining the capability of all intermittent and limited duration resources.
5. Consider the provisions necessary to establish the ELCC method for determining the capability of wind, solar, and energy storage resources (including batteries and pumped hydro).
6. PJM to present an analysis of the impact of large-scale limited duration resource and Intermittent Resource deployment on the other aspects of resource adequacy apart from capability rules, assuming an ELCC framework. This analysis would include, among other things, the reliability requirement and forecast pool requirement, and any impacts due to shifts in the daily hours of peak risk relative to today.
7. Consider the provisions necessary to establish an ELCC method for determining the capability of all other intermittent resources and limited duration resources, including, among other things, hybrids and resources for which part of the capacity is limited duration and part is unlimited.
8. Discuss other rules or rule changes that may be necessary for participation of limited duration resources in the energy and ancillary services markets and either develop such rules in this Senior Task Force or such other group as the stakeholders may determine is appropriate at that time.

Issue Status

CCSTF is currently working on developing solution options for Phase I. At the June 22 meeting, the CCSTF will continue developing and begin to narrow solution options, as well as review draft poll questions. The CCSTF plans to release a non-binding poll some time after the June 22 meeting on a subset of design components.

Target Completion

Phase I is scheduled to wrap up on August 7 in order to go to the parent committee for endorsement in September. This is to meet the FERC deadline of a filing on ELCC by October 30.

Phase II will begin sometime after Phase I is completed and does not have a specified end time.

Progress Update

The first meeting of the CCSTF was held on April 7, 2020. The approved Issue Charge was presented along with the proposed Work Plan. Initial education was provided, covering Key Work Activities (KWA) 1 & 2.

At the April 27, 2020 meeting, education was provided to complete KWA 3. The CCSTF also began interest identification and development of design components.

At the May 20, 2020 meeting, the CCSTF developed design components and began identifying solution options.

At the June 4, 2020 meeting, the CCSTF continued developing solution options and introduced a few new design components.

At the June 22, 2020 meeting, the CCSTF continued developing solution options. Two proposals were also brought forward for stakeholder consideration: PJM's Package A and AEP Energy's Package B.

The CCSTF held a work shop on June 25, 2020, where common terminology was discussed in greater detail. PJM also walked through a numerical example of the PJM Proposal. A non-binding poll was released after the work shop, which focused on solution options for Design Components 1, 2a, & 3.

At the July 10, 2020 meeting, PJM presented the preliminary ELCC results and provided additional details on the methodology used to develop the results for limited duration and combination resources with a focus on the dispatch assumptions. Natural Resources Defense Council (NRDC) provided a presentation on the capacity value of storage resources for PJM & stakeholder consideration. During the CBIR portion of the meeting, PJM reviewed the results of the non-binding poll before soliciting additional solution options; one new solution option was identified. The meeting wrapped up with the review of a new proposal was brought forward by the IMM (Package C).

The July 16, 2020 half-day work shop was converted into a full-day meeting. Three agenda items, which were deferred from the July 10 meeting will be reviewed prior to starting CBIR. During the July 16 meeting, there was a lot of discussion around the length of time that an ClassELCC% should be guarenteed. Stakeholders requested a second poll be issued on this design component before the July 27 meeting. The poll will be issued this afternoon and close on Thursday at 5pm.

At the July 27, 2020 meeting, the PJM facilitation team presented the results to the non-binding poll on stakeholders' ability to support a fixed or different minimum guaranteed values of ClassELCC% for each term year, as well as the length of time that stakeholders would be willing to support a guaranteed fixed or minimum value. PJM SMEs presented an emerging strawman proposal based on poll results for stakeholders to consider. The intention of the strawman proposal was to come closer to stakeholder consensus.

At the August 7, 2020 meeting, PJM SMEs presented the impacts of ELCC policy on the capacity market and additional detail on the method of calculating average versus marginal ELCC. E3, an ELCC consulting company, presented on the concept of ELCCMW from portfolio to classes. Astrape, an ELCC consulting company, presented approaches to ELCC modeling. PJM SMEs presented a revised approach to simulated

dispatch of storage, as well as other miscellaneous additions and clarifications to existing solution options. The afternoon was spent reviewing updates to the exisiting solution package proposals, as well as the introduction of a Joint ELCC Stakeholder package.

The August 12, 2020 meeting was the final meeting on the CCSTF Work Plan and a majority of the meeting was spent discussing the solution packages, which stakeholders would be voting on at the close of the meeting.

Stakeholders voted on 4 solution packages, 2 of which received greater than 50% to be brought to the MRC for a first read. Below are the voting results.

- Package A: No Transition received 64% support, making it the main motion
- Package B: Fixed or Float 10 Delivery Year received 24% support, failing the 50% threshold
- Package C: IMM received 6% support, failing the 50% threshold
- Package D: Joint ELCC Stakeholder received 57% support, making it the alternate motion

At the October 8, 2020 meeting, PJM reviewed draft RAA language to reflect the package endorsed by the MRC/MC at the September meeting and solicited feedback from stakeholders. PJM took suggested revisions back for consideration.

At the October 14, 2020 meeting, PJM reviewed the second round of draft RAA language with stakeholders and received additional feedback from stakeholders, which PJM has taken into consideration.

The CCSTF will resume meeting on November 18 to discuss draft manual revisions and other documentation requirements related to PJM Effective Load Carrying Capability (ELCC) methodology that was filed with FERC on October 30.

Action Requested

None at this time.