Potential Plan for Response to FERC Deficiency Notice on ELCC Filing

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Market Implementation Committee
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ELCC Filing and Deficiency Notice

- On October 30, 2020, PJM filed an Effective Load Carrying Capability (ELCC) proposal for calculating the amount of UCAP that wind, solar, storage, hydro, landfill gas, and hybrid units can offer into the Capacity Market.
- The proposal was filed under Section 205 of the Federal Power Act.
- PJM requested an order by January 1, 2021, and a June 1, 2021 effective date for the associated Reliability Assurance Agreement and Tariff revisions, proposing that ELCC take effect with the 2023/24 Delivery Year.
- On December 22, 2020, FERC issued a deficiency notice with a January 21, 2021 response deadline.

Request Extension Until March 1?

PJM is considering requesting an extension to March 1, 2021

- **Why**: to give stakeholders an opportunity to provide feedback and discussion of replies
- **How long**: March 1 should give enough time for 3 full CCSTF meetings
  - Recall: PJM proposed putting ELCC in place by June 1, 2021 in time for 23/24 BRA (targeted for Dec 1, 2021). This requires ELCC ratings to be posted well before 150 days prior (July 4, 2021).

- Questions or comments? Please email ELCC@pjm.com

Potential Plan to Answer Questions in Deficiency Response

Q	Description	Plan
1	E3 Delta method vs. simple method	Work w/ stakeholders to clarify
2	Floor handling if class is redefined	Work w/ stakeholders to clarify
3	Floor details: arithmetic behind supporting floors; how are groupings determined; what if the entire ELCC Portfolio cannot support floors.	Work w/ stakeholders to clarify
4	CIRs: interaction of status quo with ELCC policy	Narrative answer
5	Why not implement ELCC framework for a DY after its BRA	Narrative answer
6	Preliminary results	Numerical answer
7	Can hybrids participate as two resources?	Work w/ stakeholders to clarify

Contact

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Potential Plan for Response to FERC Deficiency Notice on ELCC Filing

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APPENDIX: QUESTIONS AND POTENTIAL CONCEPTUAL APPROACH TO RESPONSES

Question 1: Work with Stakeholders to Clarify

a. *Please describe the methodology PJM will use to allocate the ELCC Portfolio UCAP amongst ELCC Classes to establish the ELCC Class UCAP values and ELCC Class Ratings, including how the results of the First-In and Last-In runs for each ELCC Class will be used. Please include a detailed explanation of any relevant formulas or procedures.*
   - **Present proposal(s) for clarification to stakeholders, get feedback, provide answer to FERC in deficiency response.**

b. *We also note that your filing references a stakeholder presentation by Energy+Environmental Economics (E3). Is the method discussed in this presentation the same as the method referenced in Question 1(a)? Please confirm if PJM will employ this method as part of the procedures it implements under its proposal?*
   - **The method in the E3 presentation is called the "E3 Delta Method".**

c. *If PJM were to revise the method described in response to (a) and (b) at some point in the future, please explain how this would affect any ELCC Class Rating floors previously calculated for annual cohorts of resources.*
   - **No effect.**

Question 2: Work with Stakeholders to Clarify

a. *In your filing, you note that both tracking and fixed-tilt solar resources might share an ELCC Class. If PJM were to initially include these resources in the same ELCC Class, and then treat them as belonging to two different classes at some point in the future, please explain how this would affect the calculation of ELCC Class UCAP, ELCC Class Rating, and ELCC Class Rating floor values. How would the transition mechanism apply to resources that may be moved into a different ELCC Class than the one that was used to establish the ELCC Class Rating floors for their annual cohort?*

   – **Present proposal(s) for clarification to stakeholders, get feedback and potentially iterate, provide answer to FERC in deficiency response.**

Question 3: Work with Stakeholders to Clarify

a. *Please explain in detail how PJM will allocate ELCC Class Rating reductions across ELCC Class groups if the ELCC Class Rating floor binds for one or more ELCC Classes within the group.*
   - **Present proposal(s) for clarification to stakeholders, get feedback and potentially iterate, provide answer to FERC in deficiency response.**

b. *Please provide examples of classes of resources that PJM considers as having similar relevant physical characteristics, in addition to the example of 4-hour and 6-hour storage resources provided in your filing. Specifically, please explain how PJM and stakeholders will identify the characteristics used to establish similar classes for wind resources, solar resources, various classes of Combination Resources, and other common ELCC Resources.*
   - **Present proposal(s) for clarification to stakeholders, get feedback and potentially iterate, provide answer to FERC in deficiency response.**

c. *Recognizing that resources will have their Accredited UCAP reduced if PJM determines that they have similar relevant physical characteristics to an ELCC Class for which the floor bound, please explain how PJM will resolve any disputes regarding which ELCC Classes share relevant physical characteristics for the purposes of offsetting adjustments to ELCC Class Rating.*
   - **Class groupings would be documented in Manual 21a. Any stakeholders who have concerns with such grouping can propose a change via the stakeholder process, which is subject to an endorsement process and approval by PJM.**

d. *Is it possible for ELCC Class Rating floors to bind to such an extent that PJM would be unable to identify sufficient offsetting reductions in ELCC Class Ratings across the ELCC portfolio to preserve the ELCC Portfolio UCAP? If so, how would PJM ensure that ELCC Resources are not assigned an aggregate UCAP greater than the ELCC Portfolio UCAP?*
   - **Yes this is possible, albeit exceedingly unlikely, especially in light of very high expected new entry of ELCC Resources over the coming decade.**
   - **Present proposal(s) for clarification to stakeholders, get feedback and potentially iterate, provide answer to FERC in deficiency response.**

Question 4: Describe Status Quo, Explain Decision to Split CIR Rules from ELCC, Status Update on Potential CIR Discussions

a. *Please explain the process used to determine the quantity of CIRs a Variable Resource, Limited Duration Resource, or Combination Resource secures upon interconnection, including any relevant tariff or Manual citations. How does the quantity of CIRs these resources secure compare to their nameplate capacity, existing UCAP valuation, and Accredited UCAP under the instant proposal? Please provide one or two illustrative examples.*

   – **PJM will provide a statement on the status quo for CIR request and retention. In general, the CIR request/retention value is different from nameplate, UCAP, and Accredited UCAP.**

b. *Please explain whether the instant filing will affect the quantity of CIRs that ELCC Resources secure upon interconnection.*

   – **It will not.**

c. *If the application of the ELCC analysis proposed in the instant filing results in an Accredited UCAP greater than a resource's existing CIRs, please explain whether the resource will be able to secure additional CIRs sufficiently in advance to offer its full Accredited UCAP into the capacity market.*

   – **They will not. PJM intends to initiate a stakeholder process to change the rules for CIRs to address this potential discrepancy .**

d. *If a resource's Accredited UCAP is less than its existing CIRs, what will happen to the resource's unused CIRs in excess of its Accredited UCAP? Will the resource have any opportunity to shed or transfer unused CIRs?*

   – **The resource will not lose CIRs due to that circumstance—the resource may well need that level of firm deliverability in order to support their variable output (which is often higher that Accredited UCAP during key hours). Resources can transfer CIRs under the status quo.**

e. *If a Variable Resource or Combination Resource has CIRs equal to its Accredited UCAP, would this level of CIRs demonstrate sufficient deliverability to meet the Loss of Load Expectation standard on which the ELCC analysis and the resource's Accredited UCAP are calibrated?*

   – **This is not true in general, but it could be true in some very limited cases (for example, a resource that can run 24x7 and has no forced outages).**

Question 5: Narrative Response Only

a. *Please explain in more detail the undesirable effects to which PJM refers in the statement above [*associated with implementing ELCC in an IA but not the BRAs].
   - **PJM will include a statement to address this item.**

b. *How do these effects compare to adjustments in ELCC Resources' Accredited UCAP and/or Unlimited Resources' Equivalent Demand Forced Outage Rate (EFORd) between the Base Residual Auction and Third Incremental Auction to which you refer in your filing?*
   - **PJM views a change in policy framework between auctions for the same Delivery Year as more significant than the changes in parameters between auctions for the same Delivery Year which are contemplated as part of the market design. PJM will include a more detailed statement.**

Question 6: Include Preliminary Results In Deficiency Response

a. *Please provide any preliminary estimates of the ELCC Class Ratings for various classes of resources and the resource mixes PJM considered in developing those estimates.*
   - **PJM will include preliminary estimates of ELCC Class Ratings for various classes of resources in its deficiency notice response to FERC, together with other inputs that provide a measure of the output of the various components of the resource mix.**

b. *How do the preliminary ELCC Class Rating values for various classes of resources compare to the current deration factors PJM applies to those resources under its current rules, including the "capacity factors" used for wind and solar resources, the 10-hour rule used for Capacity Storage Resources, and any other relevant existing rules?*
   - **PJM will provide this in its response to FERC.**

Question 7: ELCC Is Designed for Hybrids as a Single Resource: Develop Manual Language to Formalize This as a Requirement

a. *Under PJM's proposal, would a Combination Resource offer into the capacity market as a single resource or two separate resources? Please provide any relevant tariff or manual citations.*
   - **PJM's proposed ELCC approach is designed for Combination Resources to offer as a single resource. It does not include provisions for a Combination Resource that exhibits significant interaction between its components, but that would be offered into the Capacity market as separate resources.**
   - **Work with stakeholders to formalize this.**

b. *If a Combination Resource would be eligible to offer into the capacity market as two separate resources, could it offer just one of its component resources into the PJM capacity market, even though its Accredited UCAP would be based on both of its component resources? Please provide any relevant tariff or manual citations.*
   - **PJM's proposed ELCC approach is designed for Combination Resources to offer as a single resource. It does not include provisions for a Combination Resource that exhibits significant interaction between its components, but that would be offered into the Capacity market as separate resources.**

c. *How would a Combination Resource participate in the PJM energy and ancillary services markets under PJM's current market rules? Would it participate as a single resource or as multiple resources? Please provide any relevant tariff or manual citations.*
   - **PJM is currently working with stakeholders on this topic in the DER & Inverter-based Resources Subcommittee.**