

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.)))	Docket No. ER23-1067-000
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**MOTION FOR LEAVE TO ANSWER AND ANSWER OF
PJM INTERCONNECTION, L.L.C.**

Pursuant to Rules 212 and 213 of the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) Rules of Practice and Procedure,¹ PJM Interconnection, L.L.C. (“PJM”) respectfully submits this Motion for Leave to Answer and Answer (the “Answer”) to two protests² submitted in response to PJM’s February 8, 2023 Federal Power Act (“FPA”) section 205 filing in the above-captioned proceeding.³

I. MOTION FOR LEAVE TO ANSWER

While an answer to an answer or protest is not a matter of right under the Commission’s regulations,⁴ the Commission routinely permits such answers when the answer provides useful and relevant information that will assist the Commission in its decision-making process,⁵ corrects

¹ 18 C.F.R. §§ 385.212, 385.213.

² *PJM Interconnection, L.L.C.*, Protest of the Natural Resource Defense Council, Docket No. ER23-1067-000 (Mar. 1, 2023) (the “NRDC Protest”); *PJM Interconnection, L.L.C.*, Limited Protest of the American Clean Power Association, the Solar Energy Industries Association, and Advanced Energy United, Docket No. ER23-1067-000 (Mar. 1, 2023) (the “Clean Energy Associations Protest”) (collectively, “Protests” or “Protesters”).

³ *PJM Interconnection, L.L.C.*, Tariff Filing of PJM Interconnection, L.L.C., Docket No. ER23-1067-000 (Feb. 8, 2023) (hereafter, the “February 8, 2023 205 Filing”).

⁴ 18 C.F.R. § 385.213(a)(2).

⁵ See, e.g., *Pioneer Transmission, LLC v. N. Ind. Pub. Serv. Co. and Midwest Indep. Transmission Sys. Operator, Inc.*, 140 FERC ¶ 61,057, at P 93 (2012); *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,285 (2010); *Sw. Power Pool, Inc.*, 131 FERC ¶ 61,252, at P 19 (2010), *reh’g denied*, 137 FERC ¶ 61,075 (2011) (accepting answers that “provided information that assisted us in our decision-making process”); *Duke Energy Ky., Inc.*, 122 FERC ¶ 61,182, at P 25 (2008) (accepting answers in proceeding that “provided information that assisted us in our decision-making process”); *Tallgrass Transmission, LLC*, 125 FERC ¶ 61,248, at P 26 (2008); *PJM Interconnection, L.L.C.*, 120 FERC ¶ 61,083, at P 23 (2007) (answer to protests permitted when it provides information to assist the Commission in its decision-making process).

factual inaccuracies and clarifies the issues,⁶ assures a complete record in the proceeding,⁷ provides information helpful to the disposition of an issue,⁸ or permits the issues to be narrowed.⁹

This Answer satisfies these criteria, and accordingly PJM respectfully requests that the Commission grant leave and accept this Answer.

II. ANSWER

PJM respectfully disagrees with the points made in the Protests for the following reasons, which are described below in seriatim in subsections II.A-E.

A. Requiring ELCC Resources, Rather than Load or Non-ELCC Resources, to Pay for the Transmission Upgrades Necessary to Support the Accreditation of ELCC Resources is Not Unduly Discriminatory.

Both Protests, although supporting the overall permanent solution proposed by PJM, allege that PJM's transition proposal is discriminatory, because ELCC Resources are required to re-enter the Interconnection Queue to seek additional Capacity Interconnection Rights ("CIRs"), and by doing so, pay for any upgrades to the transmission system that are necessary to support their accreditation.¹⁰ To be clear, *any* resolution of the historical discrepancy between ELCC Resources and non-ELCC Resources with respect to upstream capacity accreditation and CIRs will require upgrades to the transmission system. The side that ultimately pays for those upgrades may invariably argue that they are being discriminated against. Yet this is not a statutorily-cognizable basis for rejection. The Commission has explained that "section 205 does not prohibit

⁶ See, e.g., *Entergy Servs. Inc.*, 126 FERC ¶ 61,227 (2009).

⁷ See, e.g., *Pac. Interstate Transmission Co.*, 85 FERC ¶ 61,378, at P 62,443 (1998), *reh'g denied*, 89 FERC ¶ 61,246 (1999); *Morgan Stanley Capital Group, Inc. v. N.Y. Indep. Sys. Operator, Inc.*, 93 FERC ¶ 61,017, at 61,036 (2000) (accepting an answer that was "helpful in the development of the record . . .").

⁸ See, e.g., *CNG Transmission Corp.*, 89 FERC ¶ 61,100, at 61,287, n.11 (1999).

⁹ See, e.g., *PJM Interconnection, L.L.C.*, 84 FERC ¶ 61,224, at 62,078 (1998); *New Energy Ventures, Inc. v. S. Cal. Edison Co.*, 82 FERC ¶ 61,335, at 62,323, n.1 (1998).

¹⁰ See NRDC Protest at 8-18; Clean Energy Associations Protest at 4-7.

discrimination *per se* . . . [o]nly undue discrimination is prohibited.”¹¹ The Commission’s “long-established legal standard governing claims of undue discrimination” is that “undue discrimination can only occur when two similarly situated customers are treated differently, and there is no justification for the differing treatment.”¹² Requiring ELCC Resources to re-enter the Interconnection Queue and pay for transmission upgrades necessary for their own accreditation does *not* meet the Commission’s legal standard for undue discrimination. The alternative would be to shift costs to load or non-ELCC Resources to support the CIRs of ELCC Resources. Both of those alternatives would be unreasonable in this context.

As to the argument that the PJM transition proposal is unduly discriminatory to ELCC Resources, it should be noted at the outset that ELCC Resources are, by definition, not “similarly situated” to load (i.e. non-suppliers) in the context of upstream capacity accreditation, and they are also not “similarly situated” to non-ELCC Resources in the context of upstream accreditation. As PJM explained at length in the February 8, 2023 205 Filing, “[b]eginning in 2004, PJM established a specific accreditation process for wind and solar resources, which was needed to account for the variable and intermittent features of these technologies.”¹³ This process has *always been* separate and distinct from the accreditation method for non-ELCC Resources, which have historically been required to have CIRs up to their installed capacity (ICAP), or rated summer capability, which is then used as an input into determining their accredited capacity value (UCAP). For almost twenty years, the technological differences between ELCC Resources and non-ELCC Resources have necessitated the application of two separate upstream accreditation regimes. Additionally, in

¹¹ *PacifiCorp Elec. Operations*, 54 FERC ¶ 61,296, at 61,855 (1991) (“*PacifiCorp Electric*”) (emphasis in original).

¹² *TranSource, LLC v. PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,119, at P 240 (2019) (citing *PacifiCorp Electric* at 61,855).

¹³ February 8, 2023 205 Filing at 5.

approving PJM’s ELCC construct in 2021, the Commission expressly *declined* to require that PJM extend the ELCC accreditation methodology to non-ELCC Resources as a pre-condition to its approval, stating “we decline SEIA/AEE’s request that we impose further directives on PJM or require further briefing in the paper hearing regarding the potential application of ELCC to Unlimited Resources.”¹⁴

Second, even assuming *arguendo* that ELCC Resources *were* similarly situated to load or non-ELCC Resources, PJM’s proposal to require ELCC Resources to pay for the transmission upgrades necessary to support their own accreditation is reasonable, because it directly aligns with the Commission’s cost causation principle. The Commission has explained that “[t]he basic principle of cost causation mandates that customers pay only those costs that are attributable to them.”¹⁵ It is reasonable that ELCC Resources pay the costs of transmission upgrades necessary to support *their own accreditation*, because these upgrades will ensure deliverability of *their* capacity and corresponding revenues, as more ELCC Resources come online. It is *not* reasonable for load (which does not offer supply into the capacity market), or non-ELCC Resources (which are not subject to the ELCC construct) to pay these costs, since these costs are not “attributable to them.”

Third, while ELCC Resources and non-ELCC Resources are not similarly situated (historically or presently), PJM’s proposal represents a reasonable attempt to treat them more comparably *going forward*, given that both categories of resources intend to compete in the same

¹⁴ *PJM Interconnection, L.L.C.*, 176 FERC ¶ 61,056 at P 71 (2021). This is not to say that PJM is opposed to extending the ELCC accreditation methodology to non-ELCC Resources, as this issue currently being discussed in the stakeholder process. See <https://www.pjm.com/committees-and-groups/task-forces/rastf>. But the fact that this complex issue may be addressed sequentially, given the recognized differences between intermittent and non-intermittent resources, does not render the continuation of two separate analyses discriminatory on its face.

¹⁵ *Enron Power Marketing, Inc.*, 119 FERC ¶ 63,013, at P 157 (2007) (citing *KN Energy, Inc., v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992) (“Simply put, it has been traditionally required that all approved rates reflect to some degree the costs actually caused by the customer who must pay them.”)).

markets. Specifically, under PJM’s proposal, *any* resource (ELCC or non-ELCC) that wants to increase their CIRs to increase their corresponding accreditation must re-enter the Interconnection Queue. There is no preference provided to one type of resource over another—both must enter the queue to increase their CIRs and corresponding accreditation. Similarly, PJM’s proposed transition mechanism allows *any* resource (ELCC or non-ELCC) to apply for transitional system capability in the interim, while the resource is waiting for its additional CIRs to process through the Interconnection Queue. While the Clean Energy Associations disagree with this comparable treatment between ELCC and non-ELCC Resources,¹⁶ their Protest ignores the fact that non-ELCC Resources will only be eligible for a *dramatically smaller* portion of transitional system capability than ELCC Resources. Because non-ELCC Resources have historically been required to have CIRs up to their ICAP, the amount of additional CIRs that non-ELCC Resources can theoretically request (up to the unit’s Maximum Facility Output) is dramatically smaller than the amount of CIRs that ELCC Resources can request.

Lastly, the fact that this just and reasonable outcome may modify the framework by which ELCC Resources previously received CIRs does not render PJM’s proposal unduly discriminatory. The Commission has explained that “[a]lthough the Commission generally seeks to maximize regulatory certainty, we may nonetheless require or approve changes in rates or market designs that may in some ways be counter to investor expectations in order to ensure that rates are just and reasonable.”¹⁷ The Commission has also explained in the specific context of FPA section 205 filings, “Section 205 of the FPA permits public utilities to propose revisions to tariffs even if those

¹⁶ Clean Energy Associations at 6-7.

¹⁷ *PJM Interconnection, L.L.C.*, 179 FERC ¶ 61,161 at P 23 (2022) (citing *Midcontinent Indep. Sys. Operator, Inc.*, 173 FERC ¶ 61,139 at P 98 (2020); *PJM Interconnection L.L.C.*, 178 FERC ¶ 61,020 at n.44 (2022)).

revisions may change a party's expectation as long as the utility provides a reasonable explanation for the change.”¹⁸

B. The “March 3, 2023” Date Identified in PJM’s Proposed Tariff Language Does Not Violate the Prior-Notice Provisions of FPA section 205.

In its February 8, 2023 205 Filing, PJM proposed tariff language that identifies March 3, 2023 as the date prior to which entities seeking to apply for transitional system capability must: (i) submit a New Service Request into the New Services Queue to increase their CIRs; and (ii) submit a request for a transitional system capability study, as detailed in the PJM Manuals.¹⁹ As PJM explained, the deadline of “prior to March 3, 2023” represents the absolute latest that PJM staff estimate they will be able to begin transitional system capability studies in anticipation of the June 2023 BRA.²⁰

The Clean Energy Associations argue that, notwithstanding the fact that the tariff record containing this language is coded with an effective date of April 10, 2023 (the sixty-first day after filing), the date contained *within* the tariff record (March 3, 2023) that defines the boundaries of the class of entities eligible to receive a transitional system capability study, violates the 60-day prior notice requirement of FPA section 205.²¹

PJM respectfully disagrees with this assertion. The Commission has unequivocally explained, both in its orders and regulations, that statutory effective dates may *only* be established via the eTariff coding of the applicable tariff record itself (not a date *within* the text of the tariff record).²² April 10, 2023 is the proposed effective date of PJM’s revised tariff language, as

¹⁸ *PJM Interconnection L.L.C. v. PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157 at P 148 (2016).

¹⁹ February 8, 2023 205 Filing at 25-26.

²⁰ *Id.* at n.39

²¹ Clean Energy Associations Protest at 2-4.

²² See *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at PP 4-5 (2010) (“The Commission will be using these data elements to establish statutory filing and other procedural dates. The Commission will use the “Type of Filing” code

memorialized by the tariff records submitted through eTariff in this proceeding. In accordance with FPA section 205(d),²³ April 10, 2023 is the date by which these tariff records, if accepted, would be legally enforceable—the sixty-first day after PJM’s filing. Until the tariff records become effective on April 10, 2023, March 3, 2023 is *not* a legally enforceable date, and no entity is bound by it. Rather, March 3, 2023 simply defines a class of entities that may be eligible for a transitional system capability study, *once the applicable tariff records become effective April 10, 2023*.

This concept is not new, and it certainly does not “violate[] Section 205(d) of the Federal Power Act.”²⁴ Just over three months ago, the Commission approved this very same concept in its ruling on PJM’s interconnection queue reform proposal.²⁵ In that proceeding, PJM submitted under FPA section 205 proposed tariff revisions on *June 14, 2022*. As the Commission noted in its order accepting PJM’s tariff records, “*the New Rules will apply to New Service Requests submitted on or after October 1, 2021, the date the AH2 queue window opened.*”²⁶

(filing type) together with the “Tariff Record Proposed Effective Date” (proposed effective date) to establish whether a filing is statutory and the applicable statutory timelines. All filers making statutory filings must choose a statutory filing type and include a proposed effective date to have their filings treated as statutory filings upon which the Commission must act within statutorily-established time frames. That is, the filing type selected by the filer will determine the type of filing and whether the filing is to be treated as a statutory filing. Any discrepancy between the description of the filing in the transmittal letter (or other pleading) and the Type of Filing code chosen will be resolved in favor of the Type of Filing code. Because the Commission is using the electronic metadata to establish statutory action dates throughout its electronic systems, the primacy of the Type of Filing code is necessary to ensure the integrity of Commission processes and to ensure Commission action on such filings within the time period provided under the appropriate statute.”). *See also* 18 C.F.R. § 385.205(b) (“A tariff or rate filing must be made electronically in accordance with the requirements and formats for electronic filing listed in the instructions for electronic filings. A tariff or rate filing not made in accordance with these requirements and formats will not have a statutory action date and will not become effective should the Commission not act by the requested action date.”).

²³ 16 U.S.C. § 824d(d).

²⁴ Clean Energy Associations Protest at 2.

²⁵ *See PJM Interconnection, L.L.C., Tariff Filing of PJM Interconnection, L.L.C.*, Docket No. ER22-2110-000 (Nov. 29, 2022).

²⁶ *PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162, at P 8 (2022) (emphasis added).

To the extent the Clean Energy Associations are raising concerns about the ability of PJM Members to understand the importance of this deadline and act accordingly, as a practical (rather than legal) matter, these concerns are completely unsupported by the evidence. This deadline has been continually discussed and vetted, in at least seven distinct stakeholder meetings, going back to November 18, 2022.²⁷ The deadline is also explicitly documented in PJM’s language for Manual 14B, Attachment K,²⁸ and discussed at length in the posted “FAQ” document addressing questions about the transition mechanism.²⁹ As of the date of this pleading, PJM has received over 400 requests for transitional system capability studies, clearly indicating that PJM Members are well apprised of the significance of this deadline and are acting accordingly. There is simply no evidence that this date has actually discriminated against any entity. Rather, it ensures that all entities can be processed in a timely manner, given the timing of the upcoming capacity auction.

C. The NRDC Protest Confuses Two Different Work Streams Regarding Deliverability.

The NRDC Protest describes the two work streams in the PJM stakeholder process to examine deliverability—one for ELCC Resources, the other for “traditional generators.” The NRDC Protest argues that, because “[t]raditional generators and ELCC Resources were [] similarly situated with respect to deliverability,” and these two work streams were resolved differently by PJM stakeholders, this has “led to the undue discrimination between the treatment of traditional generation and the treatment of ELCC Resources in the Proposal,” and the Commission should

²⁷ See, e.g., November 18, 2022 Special PC Meeting Presentation at Slide 1: [item-02---cir-for-elcc-timeline.ashx \(pjm.com\)](#); December 6, 2022 PC Meeting Presentation at Slide 18: [item-06a---cir-for-elcc-resources-first-read.ashx \(pjm.com\)](#); December 21, 2022 MRC Meeting Presentation at Slide 7: [item-04---1-cir-for-elcc-resources---presentation.ashx \(pjm.com\)](#); January 10, 2023 PC Presentation at Slide 7: [item-05---cir-for-elcc-resources.ashx \(pjm.com\)](#); January 13, 2023 Special MRC Presentation on Redlines at Page 39/40: [item-01---package-i-draft-raa-and-tariff-revisions.ashx \(pjm.com\)](#); January 25, 2023 MRC Presentation at Slide 5: [item-01---1-cir-for-elcc-resources---presentation.ashx \(pjm.com\)](#); January 25, 2023 MC Presentation at Slide 5: [item-02---1-cir-for-elcc-resources---presentation.ashx \(pjm.com\)](#).

²⁸ Available here: [item-01---3-manual-14b-attachment-k-revisions---clean.ashx \(pjm.com\)](#).

²⁹ Available here: [transitional-resource-request-form-faq.ashx \(pjm.com\)](#).

“reject[] the Proposal and emphasiz[e][] this unequal treatment between two similarly situated resource classes as one of the reasons for the rejection.”³⁰

PJM respectfully disagrees with this argument. First, as explained above in Section II.A, ELCC Resources and non-ELCC Resources are *not* similarly situated with respect to the interaction between deliverability and upstream accreditation, and have not been historically.

Second, the NRDC Protest overlooks the fundamentally different purposes of these two work streams. While both initiatives were conducted in response to a projected increase in ELCC Resources, the work stream for the generator deliverability test was built around a change in PJM’s proactive approach to analyzing *transmission system reliability*, recognizing a significant increase of renewable resources on the PJM system. The work stream regarding ELCC Resources and CIRs was focused on *resource adequacy* and the specific application of the already-approved ELCC approach to determining the reliability value of intermittent resources. Specifically, it was focused on ensuring that CIRs were more accurately represented in the ELCC analysis during system peak load conditions. In other words, notwithstanding the fact that both initiatives were conducted in response to a projected increase in ELCC Resources, these two work streams had entirely different objectives and trajectories in the PJM stakeholder process, and accordingly were resolved differently.

PJM also respectfully disagrees with the general premise that requiring ELCC Resources to procure proportionally more CIRs going forward than what they have been required to procure historically, as compared with non-ELCC Resources, is unduly discriminatory. The Commission reached a similar conclusion in its November 13, 2020 order³¹ accepting the Midcontinent

³⁰ NRDC Protest at 13-15.

³¹ *Midcontinent Indep. Sys. Operator, Inc.*, 173 FERC ¶ 61,139 (2020).

Independent System Operator, Inc.’s (“MISO”) proposal to enhance the deliverability requirements applicable to intermittent capacity resources. The Commission explicitly found that *“[a]lthough Clean Energy Entities correctly note that it is possible that certain intermittent resources may have to procure more additional transmission capacity than what MISO proposed for conventional resources in the Conventional Deliverability Filing to convert their full Unforced Capacity values to ZRCs, this distinction is not unduly discriminatory.”*³² In support of this conclusion, the Commission explained that *“[b]ecause the ELCC allocation for intermittent resources is based in part on historical peak energy production, whether it was deliverable or not, it is reasonable for such resources to have sufficient firm Transmission Service to ensure that such peak energy production is deliverable.”*³³ While the Clean Energy Associations Protest correctly point out that MISO’s regime is not identical to PJM’s, the Commission’s key point applies equally in this case—because ELCC Resource allocation is partially based on peak energy output, it is reasonable that ELCC Resources take the steps necessary to ensure that such peak energy output is deliverable. This is exactly what PJM’s proposal seeks to achieve, and is consistent with the Commission’s findings on this point in the above-cited MISO order.

Lastly, the NRDC Protest states that “[f]or thermal generation, the new tests revealed transmission issues that left a publicly undisclosed amount of capacity undeliverable and would cost \$142 million to fix,” and “[f]or ELCC Resources, the new tests revealed a transmission issue of around 5MW affecting a single facility that would cost \$7 million to fix.”³⁴ PJM respectfully disagrees with this statement, on the basis that it is not accurate. PJM performed an illustrative

³² *Id.* at P 86. (Emphasis added).

³³ *Id.* (Emphasis added).

³⁴ NRDC Protest at 13.

transmission study using proposed rule changes for the generator deliverability test, which included analysis of the summer, winter, and light load periods under various transmission contingency conditions. The total transmission costs to support the new rules was estimated to be \$142M, with \$7M as the amount needed to support full accreditation of the ELCC Resources considered in the study. While the majority of these changes and costs are largely driven by renewable development and being borne by load customers, it is appropriate that ELCC Resources pay for the requisite transmission upgrades necessary to support their own accreditation, as described above. Therefore, in the illustrative example used by the NRDC Protest, the referenced 5 MWs of ELCC Resources have to go back into the PJM New Services Queue to pay for the network upgrades required to achieve their full accreditation.

D. PJM Respectfully Disagrees with the Characterization of Cost Impacts in the NRDC Protest.

The NRDC Protest states that “PJM estimates total cost to load from lost capacity at \$700 million to \$1.1 billion,” and that “NRDC presents evidence here that as little as \$7 million in transmission may avoid \$700 million or more in capacity costs.”³⁵ PJM respectfully disagrees with this characterizations, on the basis that the NRDC Protest is comparing two completely different studies, that analyzed two completely different timeframes, and two completely different sets of assumptions. The cost impacts NRDC attributes to PJM’s proposal are also incorrect.

PJM performed two illustrative studies for stakeholders. The first study examined *near-term* conditions, and found that under the proposed generator deliverability changes, a \$7 million increase in transmission upgrades would be required to support full accreditation of *existing* ELCC Resources, via transmission enhancements necessary for 5 MWs of the *existing* set of ELCC

³⁵ *Id.* at 16.

Resources. The analysis performed to identify this transmission cost was in response to a specific allegation that *existing* intermittent resources were not deliverable.

The second study examined a speculative, *long-term* condition, and found that an approximate \$2 billion increase would be required to support full *future* accreditation of *future* ELCC Resources. In that study, PJM estimated that, if this additional \$2 billion in transmission upgrades were not constructed, the reduction in accreditation would cost the system approximately \$700 million in capacity payments, over a five-year period.

In other words, it was *never* the case, under *either* study, that “as little as \$7 million in transmission may avoid \$700 million or more in capacity costs.”³⁶

Under PJM’s proposal, the additional capacity payments necessary to avoid the above-referenced additional \$2 billion in transmission upgrades *and* support full accreditation of existing and future ELCC Resources, are anticipated to be between \$0 and \$700 million over a five-year period, depending on the impact of PJM’s proposed transition mechanism.³⁷ The transition mechanism proposed in PJM’s February 8, 2023 205 Filing is specifically designed to *minimize* the impact of capacity costs to load, while ensuring that only output levels from ELCC Resources that are deliverable are considered in the upstream Accredited UCAP process. This is accomplished by: 1) requiring ELCC Resources that want to achieve their full accreditation to submit a request into the PJM New Services Queue for an increase in their CIRs and to pay for any necessary transmission enhancements; 2) performing a transmission headroom study prior to each Base Residual Auction during the transition period to see if resources that submitted such

³⁶ *Id.*

³⁷ See January 10, 2023 Planning Committee presentation titled “ELCC/CIR Package Transition Component Considerations” at 4 for “Package I,” available here: <https://pjm.com/-/media/committees-groups/committees/pc/2023/20230110/item-05b---elcc-cir-options-considerations.ashx>.

CIR uprate requests into the New Services Queue are deliverable without any transmission enhancements during the transition period; and 3) applying the CIRs and any transitional system capability in the upstream accreditation process.

E. PJM Respectfully Disagrees with the Clean Energy Association Protest Regarding the Impact of PJM's Proposal on Hybrid Resources.

Under PJM's proposal, in determining the ELCC Resource Performance Adjustment for the 2025/2026 Delivery Year and subsequent Delivery Years, "actual output of the Variable Resource component of a Combination Resource is adjusted to reflect historical curtailments, and is capped at: (i) the Combination Resource's Capacity Interconnection Rights for hours in the months of June through October and the following May of the Delivery Year *minus the Effective Nameplate Capacity of the Limited Duration Resource component of the Combination Resource*, and (ii) the Combination Resource's winter deliverability MW as defined in the PJM Manuals for hours in the months of November through April of the Delivery Year *minus the Effective Nameplate Capacity of the Limited Duration Resource component of the Combination Resource*."³⁸

As PJM explained in its February 8, 2023 205 Filing, this language uses the phrase "minus the Effective Nameplate Capacity of the Limited Duration Resource component of the Combination Resource" because all Combination Resources must have a Limited Duration Resource component, which does not have a variable output.³⁹ If the Effective Nameplate Capacity of the Limited Duration Resource was not subtracted from the total output of the Combination Resource when determining the Variable Resource output, PJM would risk over-counting the output of the Variable Resource component, and risk having the combined output of

³⁸ February 8, 2023 205 Filing at 14 (emphasis added).

³⁹ *Id.* at 15.

both Combination Resource components (Limited Duration Resource and Variable Resource) exceed the Combination Resource's CIRs and/or winter deliverability MW.⁴⁰

The Clean Energy Associations Protest takes issue with this concept, arguing that “[a]s separate resources, both ELCC resources [within a hybrid] would be separately accredited, and (in the aggregate) would have a capacity accreditation equal to the sum of its parts” but that “PJM’s approach would accredit hybrids as *less* than the sum of their parts.”⁴¹

PJM respectfully disagrees with these contentions, on several grounds. First, the example⁴² provided by the Clean Energy Associations Protest does not actually support the assertion that “PJM’s approach would accredit hybrids as less than the sum of their parts,” because, as explained below, the example is more likely to produce an accreditation of a hybrid that is *higher* than the sum of its parts. This is because solar Class Ratings in PJM are significantly lower than storage Class Ratings, as shown in the 2022 PJM ELCC Report Table 2.⁴³

⁴⁰ *Id.*

⁴¹ Clean Energy Associations Protest at 10 (emphasis in original).

⁴² *Id.* (“The absurdity of PJM’s position is made clear in footnote 36 of the Transmittal, in which PJM states that a hypothetical hybrid resource with a 150 MW solar component, a 50 MW storage component, and 100 MW of CIRs would have its summer hourly output for the solar component *capped at 50 MW* because the battery’s nameplate capacity would be *subtracted* from the CIRs. This ignores that in PJM’s own example, the solar component could provide its full 100 MW of CIRs, while simultaneously using the remaining 50 MW of solar to charge the storage component. Viewed *as a whole*, the hybrid would still be producing energy deliverable up to its CIR level, while the charging would enable delivery of energy from the storage component in additional hours of the day. For the sake of comparison, consider a standalone 150 MW solar resource with 75 MW of CIRs, and a 50 MW storage resource with 25 MWs of CIRs—the same resource capacity and *net* CIR figures as in PJM’s example. As separate resources, both ELCC resources would be separately accredited, and (in the aggregate) would have a capacity accreditation equal to the sum of its parts. PJM’s approach would accredit hybrids as *less* than the sum of their parts. This reduction in ELCC due to the presence of a storage component does not recognize the value and capability of the resource and reduces the availability of otherwise-viable capacity.”).

⁴³ Available here: <https://www.pjm.com/-/media/planning/res-adeq/elcc/elcc-report-december-2022.ashx>. The accreditation gains resulting from capping the solar output at 75 MW (as in the case of the two standalone resources in the example) relative to capping the solar output at 50 MW (as in the case of the hybrid resource in the example) are not large enough to offset the accreditation loss resulting from having a storage resource with 25 MW of CIRs (as in the case of the two standalone resources in the example) relative to a storage resource with 50 MW of CIRs (as in the case of the hybrid resource in the example).

Second, the example provided by the Clean Energy Associations Protest is misleading, because it uses non-comparable MW values as between the Combination Resource and the individual resources included in the example. Specifically, PJM’s proposed definition of Effective Nameplate Capacity ensures that a Limited Duration Resource’s Effective Nameplate Capacity used in the ELCC model cannot exceed the Limited Duration Resource’s CIRs.⁴⁴ Accordingly, the example’s description of what would happen under PJM’s proposal is incorrect, because under PJM’s proposal, the maximum output of the Limited Duration Resource would never exceed 25 MWs, due to the CIR cap.

If one were to conduct a correct comparison, it would show that there is no undue difference in accreditation as between the hybrid resource and the sum of its components. For a fair comparison to the standalone resource included in the example, the configuration of the hybrid resource would need to have a 25 MW storage component (because the CIRs of the standalone battery in the example are 25 MW), which would result in the solar component’s output in the hybrid being capped at 75 MW (*i.e.*, an identical configuration to the standalone solar resource in the example). Therefore, the modified example should compare the following two scenarios:

Scenario #1 - Single Hybrid: 150 MW Nameplate Solar Component plus 25 MW Storage Component (100 MW CIR, 75 MW CIR for Solar and 25 MW CIR for Storage)

Scenario #2 - Two Separate Resources: 150 MW Nameplate Solar (75 MW CIR), 25 MW Storage (25 MW CIR)

⁴⁴ “Effective Nameplate Capacity” shall mean “(i) for each Variable Resource and Combination Resource, the resource’s Maximum Facility Output; (ii) for each Limited Duration Resource, the sustained level of output that the unit can provide and maintain over a continuous period, whereby the duration of that continuous period matches the characteristic duration of the corresponding ELCC Class, with consideration given to ambient conditions expected to exist at the time of PJM system peak load, to the extent that such conditions impact such resource’s capability. *For the 2025/2026 Delivery Year and subsequent Delivery Years, the Effective Nameplate Capacity of each Limited Duration Resource shall not exceed the Capacity Interconnection Rights of such Limited Duration Resource.*” (emphasis added)

In the above two scenarios, the solar component of the hybrid and the standalone solar would get accredited identically. Additionally, to the extent that the Class Rating for a storage component in hybrids is higher than the Class Rating of standalone storage resources—a result that is likely to occur in future years as shown in the 2022 ELCC Report - Figure 4⁴⁵—the hybrid resource in Scenario 1 will correctly get a higher accreditation than the sum of the accreditation of the separate resources in Scenario 2.

Third, the capping of the Variable Resource output in the ELCC model contemplated by PJM’s proposal does not *in any way* preclude the Limited Duration Resource component from charging from the Variable Resource component in a Closed-Loop Hybrid, during hours in which the Variable Resource production may be higher than the CIRs of the Variable Resource Component.⁴⁶ This is evidenced by the absence of *any* restriction in PJM’s proposed Tariff or RAA language. Capping the output of the Variable Resource Component of a Combination Resource in the upstream Accredited UCAP process is not the same thing as preventing charging.

Finally, under PJM’s current ELCC model, PJM does not currently have a methodological approach to precisely predict in what future hours a Limited Duration Resource may produce energy. Because PJM does not know the precise hours in which the Limited Duration Resource may produce energy *in advance*, PJM’s proposal provides a reasonable means to ensure alignment between total CIRs and total hourly output in the specific case of Combination Resources. While it may be feasible in the future for PJM to develop refinements to the ELCC model to better predict in advance the future output of Limited Duration Resource components of Combination Resources,

⁴⁵ Available here: <https://www.pjm.com/-/media/planning/res-adeq/elcc/elcc-report-december-2022.ashx>.

⁴⁶ Clean Energy Associations Protest at 10 (“This ignores that in PJM’s own example, the solar component could provide its full 100 MW of CIRs, while simultaneously using the remaining 50 MW of solar to charge the storage component.”).

this potentiality—which is not before the Commission—does not support the claim that PJM’s current proposal is unjust and unreasonable.

III. CONCLUSION

In accordance with the foregoing, PJM respectfully requests that the Commission accept this Answer into the record of this proceeding.

Respectfully submitted,

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On behalf of
PJM Interconnection, L.L.C.

March 20, 2023

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document on those parties on the official Service List compiled by the Secretary in this proceeding.

Dated at Audubon, Pennsylvania this 20th day of March 2023.

/s/ Thomas DeVita
Thomas DeVita
Associate General Counsel
PJM Interconnection, L.L.C.