UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.) Docket No. ER23-1067-000

COMMENTS OF
AMERICAN MUNICIPAL POWER, INC.

On February 8, 2023, PJM Interconnection, L.L.C. ("PJM") filed, pursuant to Federal Power Act ("FPA") section 205,[1] proposed revisions to the PJM Open Access Transmission Tariff ("Tariff") and the Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region ("RAA").[2] PJM states that the proposed revisions would establish new rules regarding the application of Capacity Interconnection Rights ("CIRs") to Generation Capacity Resources, in connection with PJM's Effective Load Carrying Capability ("ELCC") accreditation rules.[3] Pursuant to the Commission's notice dated February 8, 2023,[4] American Municipal Power, Inc. ("AMP") submits these comments supporting PJM's filing. The Commission should accept PJM's procompetitive filing to provide an opportunity for resources subject to the ELCC rules to offer additional capacity in PJM's Reliability Pricing Model ("RPM") capacity auctions.

I. BACKGROUND

AMP is a non-profit Ohio corporation organized in 1971. AMP has 133 members, including 132 member municipal electric systems in the states of Ohio, Pennsylvania, Michigan, Virginia, Kentucky, West Virginia, Indiana, and Maryland, and the Delaware Municipal Electric Corporation ("DEMEC"), a joint action agency with nine members that

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1 16 U.S.C. § 824d.

2 PJM, Filing, Docket No. ER23-1067-000 (filed February 8, 2023) ("Filing").

3 *Id.* at 1.

4 Combined Notice of Filings #1 (February 8, 2023).

is headquartered in Smyrna, Delaware. AMP provides wholesale energy supply and related services to its members. AMP and its members purchase transmission service and related wholesale market services from PJM. Further, as load serving entities in PJM, AMP and its members are obligated under the RAA to pay a Locational Reliability Charge for capacity that recovers the cost of PJM's payments to generation resources that are awarded capacity commitments in RPM auctions.

PJM's filing is intended to allow capacity resources that are subject to the ELCC accreditation rules to obtain additional CIRs, which will ensure deliverability of an additional increment of capacity, and thereby allow these resources to offer more capacity in PJM's RPM auctions. Facilitating additional capacity supply from these existing resources is procompetitive and, all else equal, should tend to lower RPM auction clearing prices, reducing the Locational Reliability Charge paid by AMP, its members, and other PJM load serving entities, while producing additional revenue for these resources. The filing results from a significant compromise between generators and load serving entities; as noted by PJM, stakeholders overwhelmingly approved of this filing.[5]

The roots of this filing include PJM's adoption in 2021[6] of its ELCC accreditation rules. These rules apply to certain Generation Capacity Resources that are defined as Variable Resources, Limited Duration Resources, and Combination Resources (collectively, "ELCC Resources"). In general, Variable Resources include wind and solar,[7]

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[5] Filing at 1-2.

[6] *See generally PJM Interconnection L.L.C.*, 176 FERC ¶ 61,056 (2021) (accepting PJM's second ELCC filing); *PJM Interconnection L.L.C.*, 175 FERC ¶ 61,084 (2021) (rejecting PJM's first ELCC filing based on a finding that the proposed transition mechanism was unjust, unreasonable and unduly discriminatory).

[7] The RAA definition of Variable Resources also includes "run of river hydroelectric power without storage, and landfill gas units without an alternate fuel source."

while Limited Duration Resources include storage,[8] and Combination Resources include a combination of these. The purpose of the ELCC accreditation methodology is to determine the maximum amount of capacity that these resources can offer as Accredited Unforced Capacity ("UCAP") in PJM's RPM auctions. The ELCC methodology "considers the simultaneous reliability contribution of all resources and recognizes the complementary and antagonistic interactions among resources . . . ."[9] The ELCC analysis is premised on the view that "diminishing returns [are] associated with greater levels of deployment for most ELCC Resource types . . . ,"[10] along with the increasing prevalence of these resources in PJM.

PJM's instant filing addresses the interaction between the capacity accreditation determined using the ELCC methodology and the CIRs awarded to each of these resources in its Interconnection Service Agreement ("ISA"). The Tariff defines Capacity Interconnection Rights as the "rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System." The Tariff addresses CIRs primarily in Part VI, which pertains to new service requests and the rights associated with customer-funded (*i.e.,* generator-funded) upgrades. Essentially, once a generator complies with the Tariff's new service request process, including undertaking any required funding obligation for necessary upgrades associated with the request, the generator is

[8] The RAA defines a Limited Duration Resource as "a Generation Capacity Resource that is not a Variable Resource, that is not a Combination Resource, and that is not capable of running continuously at Maximum Facility Output for 24 hours or longer," and notes that this specifically includes Capacity Storage Resources.

[9] 176 FERC ¶ 61,056 at P 11.

[10] *Id.*

awarded CIRs at the level memorialized in the ISA.[11] The level of CIRs awarded corresponds with the maximum volume of energy that PJM has determined can be reliably injected into the transmission system at the point of interconnection at times of peak system usage, including any incremental volumes associated with customer-funded upgrades.

PJM's filing results from the fact that the level of CIRs awarded in the new service request process may be less than the Accredited UCAP determined by the ELCC methodology and the fact that the CIR award, which represents the maximum level of deliverable capacity, caps the amount of Accredited UCAP the resource may offer in RPM auctions, notwithstanding the fact that application of the existing ELCC methodology alone may yield a greater value. As explained by the Commission:

> after PJM has determined ELCC Resources' Accredited UCAP, PJM will limit an ELCC Resource's capacity market offer to be no greater than its CIRs, ensuring that the capacity market clearing process will not give an ELCC resource a capacity supply obligation that exceeds the capacity the resource can physically deliver.[12]

The primary reason for this potential variance is that the existing ELCC methodology does not explicitly consider limitations imposed by the locational nature of resources and transmission constraints, while the CIR award does.[13] In the simplest terms, the existing ELCC methodology determines the output the generating resource is capable of reliably producing, while the CIR award determines the output of the generating resource that the

[11] *See* Tariff section 230.

[12] *PJM Interconnection, L.L.C.,* 176 FERC ¶ 61,056 at P 53.

[13] *See id.* PP 49, 53.

transmission system is capable of receiving and that the resource is therefore capable of delivering, even if the resource is capable of producing a greater amount.

Stakeholders were aware of the interaction between CIRs and ELCC Resources' Accredited UCAP at the time of PJM's filings of its existing ELCC methodology. For example, in approving PJM's June 1, 2021 refiling of its amended ELCC proposal, the Commission noted the "ongoing stakeholder process [intended] to address concerns about CIRs."[14] Even earlier, in rejecting PJM's initial filing of the ELCC methodology, the Commission acknowledged a number of CIR- and ELCC-related arguments made by stakeholders that the Commission determined were outside the scope of the proceeding addressing PJM's first ELCC filing.[15]

The stakeholder process referenced by the Commission in its July 30, 2021 order accepting PJM's second ELCC filing is the process that yielded PJM's instant filing. On February 9, 2021, PJM transferred the Capacity Interconnection Rights for Variable Resources Problem Statement and issue charge from the Capacity Capability Senior Task Force to the Planning Committee.[16] PJM's Problem Statement stated that:

> PJM's adoption of [the ELCC] analysis to determine the capacity market capability of [ELCC Resources] raises questions and opportunities to address concerns related to the permissible amount of [CIRs] requested for planned ELCC Resources, the relationship between CIRs and the amount of capacity offered into the capacity market, [and] the role CIRs should play in determining ELCC . . . .[17]

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[14] *Id.* P 45; *see id.* P 49.

[15] *PJM Interconnection, L.L.C*, 175 FERC ¶ 61,084 at P 78.

[16] *See* PJM, Planning Committee Agenda (February 9, 2021), https://pjm.com/-/media/committees-groups/committees/pc/2021/20210209/20210209-agenda.ashx.

[17] PJM, Problem/Opportunity Statement—Capacity Interconnection Rights for Variable Resources, at 1 (February 9, 2021) ("Problem Statement"), https://pjm.com/-/media/committees-groups/committees/pc/2021/20210209/20210209-item-06b-cir-problem-statement.ashx.

Further, the Problem Statement noted that adoption of the ELCC methodology:

> did not change the amount of CIRs that such ELCC Resources are eligible to request and retain. On the one hand, for some types of ELCC Resources such as storage and potentially hydro, CIR requests for planned units and the retention of CIRs is based on their Installed Capacity (ICAP) . . . . On the other hand, for wind and solar resources, CIR requests for planned units are [in general] administratively set at generic, pre-defined values based on the class average summer capacity factor set forth in the PJM manuals . . . .[18]

Among other things, the problem statement observed that this raised "a question about the extent to which the ELCC analysis should take CIRs into account in order to not overstate the accredited UCAP."[19] PJM's filing addresses this issue. As described by PJM, "PJM proposes to strengthen the link between an ELCC Resource's CIRs and the upstream Accredited UCAP process performed by PJM staff, in two distinct ways: (i) capping of output in the ELCC model; and (ii) accounting for historical curtailments in the ELCC model."[20] As PJM explains, both of these proposals are just and reasonable because they are intended to increase the accuracy of modeling and forecasting in the capacity accreditation model that determines the amount of capacity that can be offered in RPM auctions.[21]

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[18] *Id.*

[19] *Id.*

[20] Filing at 9; *see generally* Filing at 8-17.

[21] *See id.* at 10, 12 ("The Commission has consistently found that increased accuracy in modeling and forecasting is a just and reasonable outcome under the FPA." (citing *Managing Transmission Line Ratings*, 177 FERC ¶ 61,179, at P 38 (2021) ("Order No. 881"))); *Midcontinent Indep. Sys. Operator, Inc.*, 145 FERC ¶ 61,278, at P 22 (2013)).

The second issue identified in the Problem Statement involves potential discrepancies between CIRs based on ICAP and the UCAP value that ELCC Resources are authorized to offer into RPM auctions.[22] The Problem Statement noted that:

> basing CIRs on average resource outputs will not ensure that higher than average outputs will be deliverable. As a result, the effective UCAP may be significantly lower than the assigned UCAP because transmission limitations are not considered. Further, under the current ELCC proposal, CIRs are not accounted for in the determination of the accredited UCAP.[23]

PJM's proposal to link CIRs to the ELCC accreditation process, as discussed above, will resolve this discrepancy on a going forward basis for newly accredited resources.

PJM's proposal includes a transition mechanism for resources that have already been accredited, or are already in the accreditation process. Specifically, PJM proposes to allow "any Interconnection Customer with an active New Service Request that has been submitted into the New Services Queue prior to March 3, 2023 to increase the CIRs of a resource . . . to be studied annually through a 'transitional system capability' study, conducted by PJM staff."[24] The study will "identify the MW value of any unutilized transmission system capability, or 'headroom,' available on the PJM system for each Delivery Year."[25] PJM describes this so-called "headroom" as "the locational transmission system injection capability that is available in the full summer generator deliverability test (single contingency and common mode outage) for the applicable Delivery Year, during the transition period, beyond the capability that is required to support all PJM CIRs

[22] Problem Statement at 1.

[23] *Id.*

[24] PJM Filing at 18 (footnotes omitted).

[25] *Id.* at 18-19.

considered in the interim CIR study."[26] Concisely, this "headroom" is transmission system capability that PJM predicts will go unused during the delivery year.

Once PJM has determined the available "headroom," "PJM will allocate the headroom to eligible resources prior to each Base Residual Auction during the transition period, using a cluster approach that considers transmission constraints identified in the studies, as well as a resource's electrical proximity and MW contribution to such transmission constraints . . . ."[27] This will allow these resources the potential to utilize available transmission capability above their CIR values to support UCAP offered in RPM auctions during the transition period that PJM expects will span five Delivery Years. During the transition period, these resources may also enter the PJM New Services Queue to request (and, as necessary, pay for upgrade costs associated with) additional CIRs. There is, however, "no guarantee that that there will be any transitional system capability available during the transition period . . . ."[28]

PJM's transition mechanism strikes a reasonable balance between the needs of existing resources that may lack CIRs sufficient to support offering their full accredited UCAP values in RPM auctions, and network transmission service customers (*i.e.*, load and load serving entities) who pay the cost of constructing and operating the transmission system in rates. For a limited period of time, these resources may utilize unused transmission system capability, which was paid for by load, without incurring additional costs. Similarly, during this transition period, no incremental costs associated with the transition proposal should be borne by load and load-serving entities.

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[26] *Id.* at 19.

[27] *Id.*

[28] *Id.* at 21.

PJM's transition period proposal differs significantly from one early approach suggested by PJM. Namely, PJM proposed in the stakeholder process that load and load-serving entities fund the construction of transmission system upgrades that would bridge the gap between ELCC Resources' CIRs and accredited UCAP, based upon an erroneous assumption that these upgrades would be required "due to anticipated changed system conditions necessitating changes to planning assumptions."[29] PJM estimated those upgrade costs at one point to be $2 billion,[30] but one stakeholder's analysis indicated that $2 billion would be the lower bound.[31]

Load and load-serving entities vehemently objected to this overreaching proposal that would have shifted to load and load-serving entities the burden of paying for transmission system upgrades required to fully and reliably integrate generation resources, contrary to existing Tariff constructs and cost-causation principles that require generators to bear those costs. PJM members as a whole implicitly rejected this grossly unjustified alternative in endorsing PJM's filing through a sector-weighted vote of 4.438/5.0.[32] Accordingly, the Commission should accept PJM's just and reasonable

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[29] PJM, *Treatment of System Upgrade Costs Due to Changes in Deliverability Testing Requirements*, at 4 (December 14, 2021), https://pjm.com/-/media/committees-groups/committees/pc/2021/20211214/20211214-item-07-cir-elcc-resources.ashx.

[30] PJM, *Transitional Costs to Load To Support CIRs for ELCC Resources Solution Packages*, at 1-4 (September 6, 2022), https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220906-special/item-02---informational-posting---transitional-costs-to-load-to-support-cirs-for-elcc-resources.ashx. This document shows various PJM net impact on load calculations ranging from $700 million to $2 billion, and one component of the analysis at $11 billion. PJM ultimately suggested that the impact on load could be reduced to $700 million by shifting costs to parties with generator interconnection requests already in the queue, rather than appropriately assigning the costs to existing generators who would benefit from the increased CIRs.

[31] Roy E. Shanker, Ph.D., *Simplified Explanation of the $2 Billion*, at 1 (September 6, 2022), https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220906-special/item-02---informational-posting---roy-shankers-slides-on-cost.ashx.

[32] *See* Filing at 1-2 (noting the January 25, 2023 Markets and Reliability Committee sector-weighted vote of 4.529/5.0 and the January 25, 2023 PJM Members Committee sector-weighted vote of 4.438/5.0).

instant filing and reject any effort to replace it with any alternative that would unjustly and unreasonably shift costs to load and load-serving entities.

II. CONCLUSION

WHEREFORE, for the foregoing reasons, AMP respectfully requests that: (1) the Commission accept PJM's filing effective as proposed, and (2) reject any effort by any party to shift the costs of integrating generation resources to load and load-serving entities.

Respectfully submitted,

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Dated: March 1, 2023

CERTIFICATE OF SERVICE

I hereby certify that I have on this date caused a copy of the foregoing document to be served on each person included on the official service list maintained for this proceeding by the Commission's Secretary, by electronic mail or such other means as a party may have requested, in accordance with Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010.

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Dated at Columbus, Ohio, this 1st day of March, 2023.

Document Content(s)