

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

PJM Interconnection, L.L.C.)	
)	Docket No. ER24-99-000, -001
)	

**REQUEST FOR REHEARING OF THE
INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rule 713 of the Commission’s Rules and Regulations,¹ Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM² (“Market Monitor”), submits this request for rehearing of the order issued in this proceeding January 30, 2024 (“January 30th Order”). In the January 30th Order, the Commission accepted PJM’s revisions to capacity accreditation rules filed October 13, 2023 (“October 13th Filing”), and made them effective December 12, 2023, subject to compliance with minor conditions.

The January 30th Order errs. The record does not show that the revisions are just and reasonable and does not support acceptance. The record supports rejection of the October 13th Filing because protests show that the revisions are unjust and unreasonable. Rehearing should be granted and the revisions should be rejected.

¹ 18 CFR § 385.713 (2023).

² Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”), the PJM Operating Agreement (“OA”) or the PJM Reliability Assurance Agreement (“RAA”).

I. REQUEST FOR REHEARING

A. The Reasons Cited by the Commission as the Basis for Approving PJM's Capacity Accreditation Approach Do Not Support Approval.

The January 30th Order (at P 42) found the PJM marginal ELCC capacity accreditation approach just and reasonable, finding:

PJM's marginal ELCC capacity accreditation framework reasonably values resources' capacity based on their expected incremental contribution to resource adequacy across reasonably anticipated load, weather, and resource availability scenarios given the expected resource mix. We find that PJM's proposal will allow its markets to better value the ability of individual resources to address tight system conditions and emergencies, as well as resource adequacy challenges associated with correlated resource outages and an evolving resource mix.

The January 30th Order made four specific reasons for its finding stating that PJM's accreditation approach:

(1) incorporates the risk of correlated outages, especially in cold weather conditions, of all supply-side resources, including thermal resources;[See Rocha-Garrido Aff. ¶ 27 (explaining that PJM's marginal ELCC accreditation will capture correlated forced outages and ambient derates as a function of weather).] (2) reflects the fact that dual fuel resources are more likely to be available than gas-only resources during certain system conditions; (3) accounts for the fact that highly correlated resources such as solar and short-duration storage resources generally provide less reliability value as more of those resources are added to the system; and (4) accredits all resources within an ELCC class with identical performance characteristics equivalently.

No record basis exists that supports these findings. Given that PJM's ELCC approach would reverse PJM's very longstanding understanding that summer risk is the sole source of reliability risk and conclude that suddenly 90 percent of risk is in the winter at the very least deserves careful scrutiny, testing of the underlying software, the underlying model and the underlying assumptions. That careful scrutiny and testing did

not occur. Partial evidence of that is the fact that PJM has changed its ELCC ratings quite frequently and significantly over the last few months.

The record does not show that PJM's capacity accreditation approach appropriately incorporates the risk of correlated outages. The method ignores the fact that multiday events like the winter events that are the primary basis for PJM's ELCC calculations are correlated events. PJM treats the events as uncorrelated independent events, resulting in a significant overstatement of the importance of winter to PJM risk.

The record does not show that PJM's capacity accreditation approach properly accounts for the likely availability of resources, such as dual fuel resources versus gas only resources during certain system conditions. In its latest ELCC calculations, PJM eliminated the dual fuel ELCC category for combined cycle resources.

The record does not show that PJM's capacity accreditation approach appropriately accounts for the fact that highly correlated resources such as solar and short-duration storage resources generally provide less reliability value as more of those resources are added to the system. PJM fails to account for the geographic distribution and therefore diversity of resources in its class ELCC ratings. PJM's storage resource ELCC ratings are based on assumptions about optimal behavior that have no basis in history or fact.

The record does not show that PJM's capacity accreditation approach accredits all resources within an ELCC class with identical performance characteristics equivalently. ELCC class ratings are based on resources that have operated since 2012. By definition that excludes newer resources with improved performance. As a general matter, the PJM approach fails to provide either new resources or resources with new investments with the ability to improve their ELCC ratings.

The record does not support and even contradicts the key findings in the January 30th Order. Rehearing should be granted.

B. The January 30th Order Ignores PJM’s Failure to Account for Capacity Cost Allocation.

PJM’s proposed capacity accreditation approach shifts cost causation from a single summer coincident peak to reliance on winter events for 90 percent of the at risk hours. The January 30th Order ignores PJM’s complete failure to address the allocation implications of this radical shift in the reasons for incurring the costs of capacity. PJM’s tariff continues to allocate 100 percent of the costs of capacity to load serving entities on the basis of a single summer peak. The January 30th Order should not the October Filing without requiring PJM to include a fundamental part of the proposed ELCC model.

C. The Record Shows that PJM’s Capacity Accreditation Approach Fails Its Core Purpose Because It Does Not Create a Reliable Resource Mix.

January 30th Order (at P 75): “Protesters contend that PJM’s proposed marginal ELCC framework is unjust and unreasonable due to the potential for differences between the forecasted and actual cleared resource mix to cause inaccurate capacity accreditation values. We disagree. By design, PJM’s RPM aims to ensure resource adequacy for a future delivery year, and as such, there will inevitably be differences between the resource mix forecasted at the time of the auction and the actual, cleared resource mix. PJM’s current EFORd and average ELCC methods are each susceptible to inaccuracies that can occur from differences between the modeled and cleared resource mix.”

The Commission finds (at P 76) “that PJM has demonstrated that any differences between the forecasted and cleared resource mix are unlikely to introduce significant capacity accreditation errors.” The standard to which PJM is held is perplexingly low. PJM has not provided any serious analysis of the issue. The PJM study, the basis for the Commission’s finding, consisted of one additional observation, and the analysis around that one observation is not complete.³ No conclusions about a system as complex as the PJM

³ PJM Response to Deficiency Letter, Docket ER24-99-001 (December 1, 2023) at 31-33.

ELCC method can or should be drawn from an analysis consisting of two observations. PJM recently posted an update to the 2025/2026 ELCC class ratings. See Table 1.⁴

Table 1 Comparison of preliminary and most recent ELCC values

ELCC Class	Preliminary ELCC December 1, 2023	Updated ELCC Feb 2, 2024	Absolute Change	Relative change
Onshore Wind	21%	35%	14%	67%
Offshore Wind	39%	60%	21%	54%
Solar Fixed	15%	9%	(6%)	(40%)
Solar Tracking	25%	14%	(11%)	(44%)
Landfill Intermittent	56%	55%	(1%)	(2%)
Hydro Intermittent	41%	36%	(5%)	(12%)
4-hr Storage	76%	59%	(17%)	(22%)
6-hr Storage	85%	67%	(18%)	(21%)
8-hr Storage	89%	69%	(20%)	(22%)
10-hr Storage	92%	78%	(14%)	(15%)
Solar Hybrid Closed Loop - Storage Component	44%	NA		
Solar Hybrid Open Loop - Storage Component	44%	NA		
Demand Response	95%	77%	(18%)	(19%)
Nuclear	96%	96%	0%	0%
Coal	86%	85%	(1%)	(1%)
Gas Combined Cycle	87%	80%	(7%)	(8%)
Gas Combined Cycle Dual Fuel	88%	NA		
Gas Combustion Turbine	74%	62%	(12%)	(16%)
Gas Combustion Turbine Dual Fuel	90%	78%	(12%)	(13%)
Diesel Utility	91%	90%	(1%)	(1%)
Steam	78%	70%	(8%)	(10%)

PJM explained at a recent stakeholder meeting that the load forecast and the resource mix were updated.⁵ Detailed information on the resource changes were not provided but the “relatively larger changes” consisted of a 6.5 GW decrease in wind and a 3 GW increase in solar.⁶ Clearly the changes from the preliminary to the most recent update are significant,

⁴ See PJM, *ELCC Class Ratings for the 2025/2026 Base Residual Auction* (February 2, 2024). <<https://www.pjm.com/planning/resource-adequacy-planning/effective-load-carrying-capability>>.

⁵ See, PJM, *ELCC Education* at 35-36, Planning Committee ELCC Education Session (February 16, 2024) <<https://pjm.com/committees-and-groups/committees/pc>>.

⁶ *Id.* at 36.

by any measure one chooses. It is not clear how much of the change is attributable to the change in the resource mix since the load forecast changed as well. Marginal ELCC class ratings are volatile. PJM will release still another update to the 2025/2026 ELCC class ratings soon. The volatility of the marginal ELCC class ratings has not been adequately studied by PJM. PJM should rerun the ELCC calculations using a wide range of the portfolio mix. The Market Monitor has demonstrated that differences between the ELCC portfolio of resources and the resources that clear or are selected in an FRR plan will be substantial. The assumed resource mix is approximately 20 GW more than the cleared resource mix for the 2023/2024 Delivery Year.^{7 8}

The Commission states (at 76) that Third Incremental Auction will allow “PJM to account for any forecast errors and their effect on resources’ capacity accreditation.” This is not correct. PJM will use the capacity resource fleet in its ELCC analysis. The ELCC analysis prior to the Third Incremental auction will use the same portfolio used in the ELCC analysis prior to the BRA after accounting for retirements, new resources and updates to the notices of intent. The ELCC analysis prior to the Third Incremental Auction will still include thousands of MW that will not clear any of the capacity auctions and will not be included in an FRR plan.

The PJM study, which the Commission gives considerable weight, removed 2 GW of solar and .3 GW of 4 hour storage from the portfolio and produced new ELCC class ratings. The Commission dismisses (at 76) “the IMM’s argument that PJM’s sensitivity analysis revealed larger changes between the forecasted and cleared resource mixes than PJM suggests.” Eleven of the 22 ELCC class ratings changed, in absolute terms, by 2 to 3 percentage points. PJM and the Commission base their conclusions of insignificance on

⁷ Protest of the Independent Market Monitor for PJM, Docket No. ER24-99-000 (November 9, 2023).

⁸ See Table 2 in Comments on Response to Deficiency Notice of the Independent Market Monitor for PJM at 28, Docket ER24-99-000 (December 21, 2023).

absolute changes in the class ratings and the net impact on reliability. PJM and the Commission fail to consider the size of the relative changes. The class rating for tracking solar changed from 25 percent to 28 percent, a relative change of 12 percent. The class rating for fixed solar changed from 15 percent to 17 percent, a relative change of 13 percent. Due to the overstatement of the tracking solar capacity and 4 hour storage capacity, each individual tracking solar resource lost 12 percent of its capacity value. A 1,000 MW tracking solar resource would have been allowed to offer up to 250 MW in a capacity auction under the 25 percent class rating, whereas in this example, this resource will be allowed to offer only 280 MW of capacity.

January 30th Order (at P 77): “Second, we reaffirm the Commission’s prior finding that an “*ex ante*” approach has the benefit of informing ELCC Resources of their capacity accreditation prior to the capacity auction, which will reduce uncertainty for ELCC Resource owners and provide them with better information to construct their capacity supply offers.”

The advance notice is of little comfort when it occurs weeks before an auction and includes significant changes from prior ELCC ratings.

The January 30th Order (at P 78) states without evidence or support: “Further, we note that any potential capacity accreditation errors under PJM’s proposed marginal ELCC framework will likely be dwarfed by the known limitations of its existing accreditation frameworks.”

January 30th Order (at P 79): “We reject the IMM’s argument that PJM’s proposal results in an unreasonable “exchange rate” between resource types.”

The ELCC based accreditation method attempts to quantify equivalency between different resource types. The method assumes that equivalency calculated at margin for a relatively

⁹ *PJM Interconnection, L.L.C.*, 176 FERC ¶ 61,056 (2021), at P 38 (citing *PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,084 (2021), at P 55.

minute substitution (100 ICAP MW) can be applied without any restrictions to substitutions, far larger in magnitude while not holding the underlying resource mix constant. The exchange rate between the capacity of different resource types based on the ELCC approach is not unconditional and not uniform. PJM's application of them as such leads to unjust and unreasonable outcomes.

The January 30th Order (at P 128) states: "We disagree with protests that contend that PJM's Capacity Performance construct or marginal ELCC accreditation proposal is unjust and unreasonable because, for example, solar resources cannot perform at night." Approving rules for an analysis that anticipates performance by resources that is impossible and necessarily produces inaccurate results is arbitrary and capricious.

D. The January 30th Order's Finding on the Rule of Reason Is Arbitrary and Capricious.

January 30th Order (at PP 53, 265) rejected arguments that PJM's proposed revisions to RAA Schedule 9.2 and OATT Attachment DD (notice of intent) fail to satisfy the rule of reason.

The January 30th Order (at P 53) relies on a mischaracterization of the provisions missing from Schedule 9.2 as "mere implementation details." The rules approved in the January 30th Order are critical to price formation. The issue is not just a question of where the rules are incorporated. At present the rules have not been developed or "clearly implied" in the "tariff's express terms" or anywhere else. The January 30th Order notes (at P 55): "PJM commits to providing the necessary information and data for its marginal ELCC accreditation methodology." The January 30th Order has it backwards. First PJM must submit its proposed method, only then may the Commission approve it. The rules are not developed and are not included in the tariff, yet they have nevertheless been approved. The January 30th Order constitutes arbitrary and capricious decision making. Rehearing should be granted.

The binding notice of intent lacks sufficient details and is unenforceable. Participants have already failed to offer capacity covered by a notice of intent, and, consequently, have

undermined the accuracy of the ELCC based parameters that will determine PJM's procurement of resources.

II. STATEMENT OF ISSUES

As required by Commission Rule 713(c)(1)&(c)(2),¹⁰ the Market Monitor specifies and requests rehearing of the following errors in the January 30th Order that result in the order being arbitrary, capricious, and otherwise not in accordance with law:¹¹

¹⁰ 18 CFR § 385.713.

¹¹ *See, e.g.*, 5 USC § 706(2)(E) (“The reviewing court shall ... hold unlawful and set aside ... findings ... found to be ... unsupported by substantial evidence”); *Motor Vehicle Mfrs. Ass’n. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. U.S.*, 371 U.S. 156, 168 (1962) (“Nevertheless, the agency must examine the relevant data and articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’”); *Illinois Commerce Comm’n*, 576 F.3d 470, 477 (7th Cir. 2009) (explaining that a reviewing court cannot “uphold a regulatory decision that is not supported by substantial evidence on the record as a whole”); *Pacific Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004) (“PG&E”); *Missouri Pub. Serv. Comm’n v. FERC*, 337 F.3d 1066, 1072–75 (D.C. Cir. 2003) (vacating and remanding Commission orders because it found, among other things, that the Commission had failed to articulate the actual reasons for its decision, and the reasons it did cite were “speculative,” unsupported by record evidence, and did not support its decision). *See also* 5 USC § 557(c) (the Commission is charged with addressing “all the material issues of fact, law, or discretion presented on the record”); 5 U.S.C. § 706(2)(A). *Nw. Env’tl. Def. Ctr. v. Bonneville Power Admin.*, 477 F.3d 668, 687–88 (9th Cir. 2007) (“[A]n agency changing its course must supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored, and if an agency glosses over or swerves from prior precedents without discussion it may cross the line from the tolerably terse to the intolerably mute.”) (internal quotation marks and citation omitted); *Atchison, Topeka & Santa Fe Ry. v. Wichita Bd. of Trade*, 412 U.S. 800, 808, 93 S.Ct. 2367, 37 L.Ed.2d 350 (1973) (“Atchison”) (“Whatever the ground for the [agency’s] departure from prior norms, . . . it must be clearly set forth so that the reviewing court may understand the basis of the agency’s action and so may judge the consistency of that action with the agency’s mandate.”); *Ill. Commerce Comm’n v. FERC*, 576 F.3d 470, 477 (7th Cir. 2009) (explaining that a reviewing court cannot “uphold a regulatory decision that is not supported by substantial evidence on the record as a whole”); *Ass’n of Oil Pipelines v. FERC*, 83 F.3d 1424, 1431 (D.C. Cir. 1996) (the Commission’s orders must articulate “‘a rational connection between the facts found and the choice made’”) (citations omitted); *Ne. Util. Serv. Co. v. FERC*, 993 F.2d 937, 944 (1st Cir. 1993) (reasoned decision making requires “a reasoned explanation supported by a stated connection between the facts found and the choice made”) (citation omitted).

- The reasons cited by the Commission as the basis for approving PJM's capacity accreditation approach do not support approval.
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- The January 30th Order ignores PJM's failure to account for capacity cost allocation.
- The record shows that PJM's capacity accreditation approach fails its core purpose because it does not create a reliable resource mix.
- The record does support the finding that the treatment of ELCC classes and resource types is just and reasonable, and not unduly discriminatory.
- The rejection of argument that the January 30th Filing fails to satisfy the rule of reason.

III. CONCLUSION

For the reasons provided above, the Market Monitor respectfully requests that the Commission grant rehearing.

Respectfully submitted,



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Dated: February 29, 2024

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,
this 29th day of February , 2024.



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