UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.	)	Docket No. ER22-703-___
	)	
PJM Interconnection, L.L.C.	)	Docket No. EL22-32-___

REQUEST OF PJM INTERCONNNECTION, L.L.C. FOR REHEARING

PJM Interconnection, L.L.C. ("PJM") requests rehearing of the Federal Energy Regulatory Commission's ("Commission") February 28, 2022 order in this proceeding,[1] which rejected PJM's Federal Power Act ("FPA"), section 205 filing[2] in Docket No. ER22-703-000 to revise the PJM Open Access Transmission Tariff ("Tariff")[3] "as unsupported by the [existing] record in this proceeding"[4] and opened an FPA, section 206 investigation in Docket No. EL 22-32-000 ("Section 206 Proceeding"). As shown below, the February 28 Order errs by disregarding nearly all of the substantial evidence PJM presented in support of the December Section 205 Filing. In the alternative, even if the Commission does not grant rehearing, it should at a minimum confirm that the February 28 Order does not foreclose any argument PJM may present in support of any or all of the rejected section

[1] *PJM Interconnection, L.L.C.*, Order Rejecting Filing and Instituting Section 206 Proceeding, 178 FERC ¶ 61,146 (2022) ("February 28 Order").

[2] *PJM Interconnection, L.L.C.*, Revisions to PJM's FTR Credit Requirement and Request for 28-Day Comment Period, Docket No. ER22-703-000 (Dec. 21, 2021) ("December Section 205 Filing"); *amended by PJM Interconnection, L.L.C.*, Amendment to Revisions to PJM's FTR Credit Requirement, Docket No. ER22-703-001 (Dec. 30, 2021).

[3] The Tariff is currently located under PJM's "Intra-PJM Tariffs" eTariff title. See PJM Interconnection, L.L.C. - Intra-PJM Tariffs, https://etariff.ferc.gov/TariffBrowser.aspx?tid=1731 (last visited March 30, 2022). Terms not otherwise defined herein shall have the same meaning as set forth in the Tariff, and the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C.

[4] February 28 Order at P 31.

205 changes based on a new record in either the Section 206 Proceeding or a new FPA section 205 proceeding.

I. REQUEST FOR REHEARING

PJM presented abundant evidence in support of the December Section 205 Filing, more than sufficient to show that the proposed use of an historical simulation model ("HSIM") with a 97% confidence interval ("CI") to calculate the required initial margin for the Financial Transmission Right ("FTR") Credit Requirement is just and reasonable. The February 28 Order addresses little of that evidence. The February 28 Order instead limits its discussion to only two aspects of the support for the HSIM with a 97% CI: 1) an independent auditor's evaluation of the HSIM model, offered only as a supplemental check on the model's technical capability, which the February 28 Order discounts because the model version reviewed by the auditor used a 99% CI; and 2) the December Section 205 Filing's estimation that the overall level of collateral would be lower under the HSIM with a 97% CI compared to the level of collateral under the current effective rules—which the February 28 Order asserts means that PJM has not shown how the proposed Tariff revisions will collect sufficient collateral to address the riskiest market participants.

As shown below, neither of these bases for the rejection of the December Section 205 Filing is well-founded, and both should be withdrawn on rehearing. Moreover, as also shown below, the February 28 Order never engages with the large bulk of the evidence PJM provided in support of the HSIM with a 97% CI—as if that evidence had never been presented. Such fundamental failure by the Commission to address the record evidence is a signal of unlawful agency conduct, which the Commission now has an opportunity to correct on rehearing.

A. The February 28 Order's Assertion that PJM Has Not Demonstrated that the HSIM Model Would Operate as Represented Across Extreme Events or that the Initial Margin Estimates Would Cover Expected Losses Disregards PJM's Back-Testing Analyses, Which Made Those Very Demonstrations, and Misunderstands the Limited Purpose of the Additional Check Provided by the Independent Auditors' Validation of the HSIM Model.

The February 28 Order contends that, because independent auditors validated the HSIM model at a 99% CI rather than a 97% CI, that validation "does not demonstrate whether the HSIM model would operate as represented across extreme events or that the initial margin estimates would cover losses as expected."[5] That alleged failure in PJM's demonstration, however, requires a complete disregard of PJM's extensive back-testing analyses, which showed precisely how the model would operate under a very wide range of conditions, including whether the initial margin estimates under a 97% CI would cover the losses that version of the model is designed to address.

As PJM explained in the December Section 205 Filing, PJM's back-testing "analyze[d] if the initial margin collected for a given FTR Market Participant's portfolio was sufficient to cover potential losses over the Liquidation Period, should the FTR Market Participant default following an FTR auction."[6] In PJM's back-testing, the failure rate, i.e., any instance when the initial margin was *not* sufficient to cover the potential loss, "did not exceed 3% which is consistent with the model confidence interval of 97%."[7] In other words, directly contrary to the February 28 Order, PJM *did demonstrate* that "the HSIM

[5] February 28 Order at P 32. The February 28 Order adds that "PJM has not provided sufficient information regarding how validation conducted at the 99% confidence interval would apply at the 97% confidence interval." *Id.*

[6] December Section 205 Filing at 33.

[7] *Id; see also* December Section 205 Filing, Affidavit of Dr. Alex Eydeland on Behalf of PJM Interconnection, L.L.C. at 11 ("In the performed back-testing, the failure rate did not exceed 3%, which is consistent with the model CI = 97%, and it did not exceed 1% for CI = 99%.").

model would operate as represented across extreme events [and] that the initial margin estimates would cover losses as expected."[8]

The February 28 Order also disregards the limited focus of the independent auditors' validation, and the significance of the selected CI assumption to that review. As PJM explained in the transmittal letter to the December Section 205 Filing, the consulting firm of KPMG "reviewed PJM's model, its assumptions and the back-testing of the model [and] verified that the model operated as intended, and that the resulting output of the model was as intended."[9] In addition, KPMG "assess[ed] the conceptual soundness of PJM model's methodology and assumptions, data assessment, and implementation verification. . . . test[ed] [] the model implementation, and perform[ed] sensitivity analysis and stress testing of the model."[10] Importantly, KPMG's review was a supplemental check on the model—and not the only support for the HSIM model.

Moreover, while the HSIM model requires a choice of CI, the model, by definition, can operate with any number of different CIs. The CI simply reflects the choice made about what percentage of conceivable occurrences the initial margin should protect against. That choice changes the *output* of the model, but it does not change the *mechanical operation* of the model. Thus, by "review[ing] PJM's model, its assumptions and the back-testing of the model. . . . [and] verif[ying] that the model operated as intended, and that the resulting output of the model was as intended,"[11] KPMG reviewed *PJM's* back-testing so

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[8] February 28 Order at P 32.

[9] December Section 205 Filing at 34.

[10] *Id.*

[11] *Id.*

that they could affirm that, for example, a selected CI (e.g., 99%) resulted in no more than the expected failure rate (e.g., no more than 1%). And as already shown above, the back-testing PJM presented directly to the Commission in this proceeding showed that the failure rate for the HSIM with a 97% CI resulted in the "expected" failure rate, i.e., no more than 3%. The other identified aspects of KPMG's validation, such as model implementation, sensitivity analysis, and stress testing have no obvious dependence on the choice of CI, given that each of these reviews can be performed regardless of the particular CI chosen for an HSIM.

In short, the February 28 Order's focus on the CI assumption in the independent auditor's review overstates the materiality of that review to PJM's overall showing of support for the Tariff revisions, and misunderstands the importance of the particular CI assumption used in that review.

B. The February 28 Order's Statements that PJM Had Not Shown How the 97% CI Would Ensure Market Participants Provide Adequate Collateral Relative to the Riskiness of the Market Participants Themselves, or Their Portfolios, Disregard Recent Tariff Reforms on Assessment of Participant Riskiness and Misinterpret How the HSIM and its Associated CI Address Risk.

The February 28 Order found that "PJM failed to demonstrate that its proposed FTR Credit Revisions are reasonably calibrated to ensure that market participants will be required to provide adequate collateral relative to the risks of their positions" because the "proposed 97% confidence interval would result in a reduction in market participants' aggregate collateral commitments relative to the existing FTR Credit Requirement," and PJM had "not provided evidence or otherwise explained why its proposed FTR Credit

Revisions will ensure adequate margin requirements for the riskiest market participants."[12] The February 28 Order found that this "means that PJM has not met its burden to show that the FTR Credit Revisions are just and reasonable, particularly in light of the significant recent defaults involving the FTR market."[13]

These statements fail well-accepted standards of reasoned decision-making.[14] Those statements: i) to the extent they introduce issues of the riskiness of market *participants*, stray beyond the focus of an HSIM, and disregard PJM's recent extensive Tariff reforms that *do concern* the riskiness of market participants; and ii) unreasonably elevate the importance of changes in overall collateral levels, disregarding the *very different* assessment of FTR position risk under the HSIM relative to the current effective FTR Credit Requirement.

The February 28 Order errs in faulting PJM "for not provid[ing] evidence or otherwise explain[ing] why its proposed FTR Credit Revisions will ensure adequate margin requirements for the riskiest market participants."[15] It is possible the February 28 Order is using interchangeably the distinct issues of the riskiest participants (which concern a particular participant's demonstrated ability and willingness to honor its financial obligations) and the riskiest portfolios or positions (which concern the level of risk that the potential losses on a particular portfolio might exceed the posted collateral). But even if

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[12] February 28 Order at P 33.

[13] *Id.*

[14] *See, e.g.*, 5 U.S.C. § 706(2)(A); *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) ("[T]he 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.'" (citation omitted)).

[15] February 28 Order at P 33.

this is only inadvertant, the February 28 Order's merger of these distinct concerns is error and needs to be corrected.

The HSIM model does not look at a participant's financial strength or creditworthiness. Instead, it evaluates available history on the pricing of the FTR source-sink pairs in a portfolio to construct a probabilistic range of possible losses from that portfolio, and then sets the initial margin level to provide a high level of certainty (e.g., 97%) that the loss will not exceed the posted initial margin.

The HSIM model, regardless of the selected CI, *is not*, contrary to the premise stated in the February 28 Order designed to "ensure adequate margin requirements for the riskiest market participants."[16] PJM has tools designed to protect against possible losses that would stem from the riskiness of a market participant. Indeed, the Commission approved reforms in this area less than two years ago, enhancing PJM's ability to implement "know your customer" best practices, accelerate demand for collateral call payments, enhance material adverse change language, implement industry specific financial risk models, require audited financials, limit or suspend a risky participant from participating in PJM's FTR market, and identify and protect against "unreasonable credit risks."[17] Separately, the Commission reestablished PJM's ability to liquidate a defaulted portfolio in a way that mitigates the financial loss to PJM Members.[18]

This distinction between participant risk and portfolio risk has important consequences that the February 28 Order overlooks. First, as noted, the HSIM model does

[16] *Id.*

[17] *See PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,173, at PP 35-37 (2020).

[18] *See PJM Interconnection, L.L.C.*, 174 FERC ¶ 61,064 (2021).

not address inherent entity risk; second, the HSIM model *does not need* to address inherent entity risks because PJM's other tools address that risk; and third, because HSIM *does not address* inherent entity risks, these other tools *are* important to ensuring that PJM and its Members are adequately protected from the financial consequences of default. In other words, all of these tools are needed to ensure adequate mitigation of risks; the February 28 Order's error arises from its apparent focus on participant risk in a filing offered to address portfolio risk. To be clear, the availability of these tools to address participant risk is not controlling on the choice of a 97% CI versus, for example, a 99% CI. PJM's point here is simply that the February 28 Order errs by introducing risk mitigation as to the "riskiest participants" as the standard for a filing designed to address portfolio risk.

Beyond that failing, the February 28 Order also errs in suggesting that the HSIM and 97% CI are not just and reasonable based on the December Section 205 Filing's estimate of the overall level of collateral that the HSIM model and 97% CI might produce, relative to the level of collateral under the current effective rules. The February 28 Order's focus on that estimate, to the exclusion of the other evidence presented by PJM, is misplaced. The estimate is simply an indication of possible collateral at a point in time, and is highly sensitive to the positions and market conditions included in the estimate. The HSIM model is not intended to produce a static forecast but rather looks at FTR paths and volumetric positions and considers their relative historic price movements and their interactions within a portfolio, resulting in a dynamic initial margin driven by the price risk and positions held within the portfolio.

As just one example, a diversified FTR portfolio may present less risk than a portfolio that is less diversified. In that scenario, the participant with numerous offsetting positions may have lower overall collateral requirements under an HSIM relative to the current effective rules, while the participant with little offset in its position may see a higher collateral requirement under the HSIM model.[19] This scenario could result even if the market participant with little offset is simply hedging its historical physical resource to physical load paths. A simple comparison of the HSIM versus status quo rules, without more, is therefore not the sine qua non of whether the HSIM is just and reasonable.

C. At Bottom, the February 28 Order's Conclusion that PJM Did Not Demonstrate that an HSIM with a 97% CI is Just and Reasonable Assumes Away Most of the Evidence PJM Did Present.

While the two sections above focus on what the February 28 Order *did* say on support for an HSIM with a 97% CI, the February 28 Order is more notable for what it did *not* say, i.e., why it disregarded most of the evidence PJM submitted on this question. In brief, PJM showed that:

- The failure rate (i.e., how frequently losses exceed the prescribed initial margin) under the HSIM with a 97% CI was less than 2%, compared to an 8% failure rate under the currently effective rules;[20]
- Although the 97% CI is lower than the 99% CI used by derivative clearing organizations ("DCOs"), the slightly lower CI for PJM's FTR market reasonably takes account of the very different margin period of risk for PJM's FTR auctions (months) versus that for the DCOs (a few days, at most), and thus better addresses the margin costs to FTR Market Participants associated with covering risk for such a lengthy time period;[21]
- The 97% CI as part of the HSIM in the December Section 205 Filing "prudently avoid[s] any disruption of the orderly functioning of the FTR markets that might be expected by imposing a sudden increase in margin levels"[22] which could "shock the market system and possibly force some Market Participants to unwind FTR positions or to decide not to continue participation in the FTR auctions and FTR

[19] *See* December Section 205 Filing, Affidavit of Nigeria Bloczynski on Behalf of PJM Interconnection, L.L.C., at 14:4-10 ("Bloczynski Aff.").

[20] December Section 205 Filing at 33, nn.126, 129.

[21] December Section 205 Filing, Affidavit of Neal Wolkoff and Robert Anderson on Behalf of PJM Interconnection, L.L.C. at 19-20.

[22] *Id.* at 20.

markets entirely;"[23] and therefore, "[i]t is not in the public interest to have a potentially-avoidable market disruption in the PJM FTR market."[24]

- PJM's Chief Risk Officer testimony that the proposed adoption of an HSIM with a 97% CI embodies "a high confidence interval and a significant improvement to the PJM collateral practices."[25]
- The support of PJM stakeholders for the Tariff changes (including the HSIM with a 97% CI) in the December Section 205 Filing, having endorsed those changes by acclamation.[26]

The Commission is required to consider and engage with the evidence before it.[27] That fundamental requirement of administrative law is particularly apt here where the sole basis of the Commission's *complete rejection* of the December Section 205 Filing is that PJM *did not support that filing with record evidence*. The Commission is in no position to rest such a momentous decision on such a blanket statement if it does not consider the evidence that *was* submitted. The February 28 Order thus commits plainly reversible error, which PJM urges the Commission to correct on rehearing.

II. ALTERNATIVE REQUEST FOR CLARIFICATION

In the alternative, if the Commission does not grant rehearing, it should at a minimum grant clarification. Specifically, PJM seeks confirmation that the February 28 Order's various statements that the record fails to support PJM's proposed use of an HSIM model with a 97% CI[28] do not foreclose PJM's re-use, in the Section 206 Proceeding or a

[23] *Id.*

[24] *Id.*

[25] December Section 205 Filing, Bloczynski Aff. at 15: 6-8.

[26] December Section 205 Filing at 10.

[27] *Petro Star Inc. v. FERC,* 835 F.3d 97, 102-03 (D.C. Cir. 2016) ("[T]he Commission's failure to respond meaningfully to the evidence renders its decisions arbitrary and capricious." (internal citations and quotation marks omitted)).

[28] *See* February 28 Order at PP 31-34.

new section 205 proceeding, of any aspect of the ER22-703 record, appropriately supplemented to address the concerns expressed in the February 28 Order; and that those statements do not foreclose the Commission from relying on any facts or arguments from the ER22-703 record (appropriately re-submitted and supplemented) as part of the record in the Section 206 Proceeding or a new section 205 proceeding to support approval of an HSIM model with a 97% CI.

The requested confirmation should be unnecessary, given that the February 28 Order is explicit that its rejection of the December Section 205 Filing is due solely to an insufficient record in Docket No. ER22-703. PJM is concerned, however, that PJM's future response to the February 28 Order's specific critiques of the support previously offered for the 97% CI might be characterized as disagreement with those statements, and that PJM would waive any objection to any alleged binding force in those critiques if PJM did not seek rehearing of the February 28 Order. PJM accordingly files this request for clarification, out of an abundance of caution, as a protective measure to ensure PJM can bring to a productive conclusion the multi-year effort to enhance PJM's FTR Credit Requirement.

Given the February 28 Order's repeated and consistent formulation of the basis for its rejection of the December Section 205 Filing, i.e., "a lack of record support for a 97% confidence interval at this time;"[29] "lack of support regarding how the HSIM model used at a 97% confidence interval establishes reasonably calibrated collateral levels;"[30] "the record fails to support PJM's proposed use of an HSIM model with a 97% confidence

[29] *Id.* at P 34.

[30] *Id.* at P 33.

interval;"[31] and "PJM has not provided sufficient information [regarding validation of the HSIM model] at the 97% confidence interval;"[32] it is readily apparent that the Commission is not saying that an HSIM with a 97% CI *cannot* be supported, only that a 97% CI *was not* supported on the particular record developed in Docket No. ER22-703.

In a similar vein, the February 28 Order "acknowledge[d]" both "concerns" about the Market Participant impacts of a 99% CI versus a 97% CI, and "aver[ments]" by certain parties discounting such concerns,[33] but drew no conclusions and made no findings regarding those acknowledgements, and did not connect those acknowledgements to the Commission's rejection of the December Section 205 Filing. To the contrary, by including these acknowledgements *after* stating the "basis" for rejecting the Tariff revisions,[34] the February 28 Order plainly signaled the Commission's continuing open mind on that topic.

It logically follows from the February 28 Order that a 97% CI *could be* accepted if supported on a different record in a different proceeding, such as the Section 206 Proceeding, or in the new section 205 proceeding suggested by the February 28 Order.[35] PJM respectfully requests that the Commission so confirm.

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[31] *Id.* at P 32.

[32] *Id.*

[33] *Id.* at P 34.

[34] *See id.* at P 33.

[35] *Id.* at P 38.

III. STATEMENT OF ISSUES AND ERRORS

Consistent with Rules 203(a)(7) and 713(c) of the Commission's regulations, 18 C.F.R. §§ 385.203(a)(7), 385.713(c), PJM provides the following Statement of Issues and Errors:

Issue 1: The February 28 Order's Assertion that PJM Has Not Demonstrated that the HSIM Model Would Operate as Represented Across Extreme Events or that the Initial Margin Estimates Would Cover Expected Losses Disregards PJM's Back-Testing Analyses Which Made Those Very Demonstrations, and Misunderstands the Limited Purpose of the Additional Check Provided by the Independent Auditors' Validation of the HSIM Model.

The February 28 Order erred in disregarding PJM's evidence that the HSIM model with a 97% CI would operate as represented across extreme events, and that the Initial Margin Estimates would cover expected losses.

See Administrative Procedure Act, 5 U.S.C. § 706(2)(A); *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43 ("[T]he 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'" (citation omitted)); *Off. of Consumers Couns. v. FERC*, 783 F.2d 206, 227 (D.C. Cir. 1986) (ruling that the Commission's factual conclusions must be supported by substantial evidence demonstrating that reasoned consideration was given to each of the pertinent factors underlying agency's decision).

Issue 2: The February 28 Order's Statements that PJM Had Not Shown How the 97% CI Would Ensure Market Participants Provide Adequate Collateral Relative to the Riskiness of the Market Participants Themselves or Their Portfolios Disregard Recent Tariff Reforms on Assessment of Participant Riskiness and Misinterpret How the HSIM and its Associated CI Address Risk.

The February 28 Order disregards recent Tariff reforms on assessment of participant riskiness and misinterprets how the HSIM and its associated CI address risk

See 5 U.S.C. § 706(2)(A); *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43 ("[T]he 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'" (citation omitted)); *Petro Star Inc. v. FERC*, 835 F.3d 97, 102-03 (D.C. Cir. 2016) ("Unless an agency answers objections that on their face appear legitimate, its decision can hardly be said to be reasoned." (internal citations and quotation marks omitted)); *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) ("An agency's 'failure to respond meaningfully' to objections raised by a party renders its decision arbitrary and capricious.").

Issue 3: The February 28 Order's Conclusion that PJM Did Not Demonstrate that an HSIM with a 97% CI is Just and Reasonable Assumes Away Most of the Evidence PJM Did Present.

The February 28 Order unduly dismisses PJM's evidence showing the HSIM model with a 97% CI is just and reasonable.

See Petro Star, 835 F.3d at 102-03 ("[T]he Commission's failure to respond meaningfully to the evidence renders its decisions arbitrary and capricious." (internal citations and quotation marks omitted)).

IV. CONCLUSION

In accordance with the foregoing, PJM respectfully requests that the Commission grant rehearing of the February 28 Order as described in Section I above, or, in the alternative, grant clarification of the February 28 Order as described in Section II above.

Respectfully submitted,

/s/ Paul M. Flynn

Paul M. Flynn
Elizabeth P. Trinkle
Wright & Talisman, P.C.
1200 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 393-1200 (phone)
(202) 393-1240 (fax)
flynn@wrightlaw.com
trinkle@wrightlaw.com

Craig Glazer
Vice President – Federal Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W.
Suite 600
Washington, D.C. 20005
(202) 423-4743
craig.glazer@pjm.com

Colleen E. Hicks
Associate General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403
(610) 666-3010
colleen.hicks@pjm.com

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

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 Washington, D.C., this 30th day of March 2022.

/s/ Elizabeth P. Trinkle
Elizabeth P. Trinkle