

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

PJM Interconnection, L.L.C.)	ER19-105-000
)	EL19-58-005
)	ER19-1486-001

**PJM POWER PROVIDERS GROUP COMMENTS IN RESPONSE TO
PUBLIC INTEREST AND CUSTOMER ORGANIZATIONS’
MOTION FOR EXPEDITED ORDER ON REMAND**

Pursuant to Rule 214 of the Federal Energy Regulatory Commission’s (“Commission” or “FERC”) Rules of Practice and Procedure, 18 C.F.R. § 385.214, the PJM Power Providers Group (“P3”)¹ submit these comments² in response to the October 8, 2021, Motion for Expedited Order on Remand (“motion”) filed by the Public Interest and Customer Organizations (“PICO”)³. For the reasons as set forth in more detail, below, P3 respectfully requests that the Commission deny PICO’s motion and reaffirm the use of the 10% adder for the Variable Resource Requirement (“VRR”) curve.

¹ P3 is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly designed and well-functioning electricity markets in the PJM Interconnection, L.L.C. (“PJM”) region. Combined, P3 members own over 67,000 MWs of generation assets and produce enough power to supply over 50 million homes in the PJM region covering 13 states and the District of Columbia. For more information on P3, visit www.p3powergroup.com

² The comments contained herein represent the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue. For more information on P3, visit www.p3powergroup.com

³ For purposes of these dockets, the Public Interest and Customer Organizations (“PICO”) collectively includes: the Office of the People’s Counsel for the District of Columbia, Maryland Office of the People’s Counsel, Delaware Division of the Public Advocate, the Pennsylvania Office of Consumer Advocate, Sierra Club, Natural Resources Defense Council, American Municipal Power, and the PJM Industrial Customer Coalition (“PJMICC”).

I. COMMENTS

PICOs seek to undo the Commission's 2019 order⁴ approving the reset of PJM Interconnection, L.L.C.'s ("PJM") VRR curve based on a court order⁵ that merely asks the Commission to reassess the use of the 10% adder based on what the court admitted was an incomplete understanding of the use of the 10% adder because the Commission did not provide a "satisfactory explanation."⁶ The Court, in its decision, specifically recognized that "there are good reasons" for capacity sellers to be permitted to use the 10% adder; however, the Court merely remanded to FERC for a "reassessment" of the adder without specifically vacating that part of the order. Fortunately, evidence exists in aggregated form that the 10% adder is indeed being employed and, as a result, the PICO's call for yet another significant reform impacting the upcoming capacity auction should be rejected. Instead of acting on the PICO's motion, the Commission should respond to the Court's remand by considering this publicly-available evidence and citing that as support for why continuing to include the 10% adder is the product of reasoned decision-making.

Contrary to the claims of the PICOs, there is evidence that the 10% adder is being used by resources participating in the energy markets. The 2020 State of the Market Report published by the PJM Independent Market Monitor ("IMM") presents multiple analyses of the PJM markets that demonstrate the use of the 10% adder.

Specifically, the IMM's analysis of "markup" suggests that the 10% adder is being employed. The State of the Market Report calculates the markup index for each marginal unit as

⁴ PJM Interconnection, L.L.C., 167 FERC ¶ 61,029 (2019) ("Order").

⁵ Del. Div. of Pub. Advocate v. Fed. Energy Regul. Comm'n, 3 F.4th 461, 469 (D.C. Cir. 2021), dated July 9, 2021.

⁶ *Id.*, p. 13.

$(\text{Price} - \text{Cost})/\text{Price}$.⁷ The State of the Market Report also reports dollar markup for a unit as the difference between price and cost.⁸ The State of the Market Report calculates an unadjusted markup as the difference between the price-based offer and the cost-based offer including the 10 percent adder in the cost-based offer and calculates an adjusted markup as the difference between the price-based offer and the cost-based offer excluding the 10 percent adder from the cost-based offer.⁹

The ten percent adder is relevant to resources' cost-based offers, but markup seeks to measure how a resource's price-based offers compares to its cost-based offers – thus, the IMM's analysis of markup in the context of adjusted offers is the adder used in price-based offers rather than cost-based offers.¹⁰ The ten percent adder is meant to allow resource owners, even in the context where they are mitigated to their costs, the ability within reason to represent in their offers certain costs that are difficult to estimate. However, when a seller's offers are not mitigated, that seller does not have market power, meaning that competitive pressures are alive and well and we should expect sellers to have market-based offers that reflect their own view of their costs. Otherwise, market sellers would be leaving profits on the table by forgoing market opportunities. The IMM's measure of markup is thus a better measure of hard to quantify costs, as it is not capped by an arbitrary ten percent ceiling. The IMM's analysis of markup of the marginal resource and of markup's contribution to LMPs, which we present below, is also a better capture of how

⁷ The markup index is normalized and can vary from -1.00 when the offer price is less than the cost-based offer price, to 1.00 when the offer price is higher than the cost-based offer price. The markup index does not measure the impact of unit markup on total LMP. Monitoring Analytics, LLC, State of the Market Report for PJM 2020, Volume 2: Detailed Analysis (“2020 State of the Market Report”), page 208.

⁸ *Id.*

⁹ *Id.*

¹⁰ Resources submit both cost-based offers and price-based offers; resources generally are dispatched based on their price-based offers, except under certain circumstances where they are mitigated to their cost-based offers.

resources expect to operate and be compensated in the energy market – the IMM’s analysis captures any use of the ten percent adder to the extent that cost-based offers are marginal and set LMP, and the IMM’s analysis captures any markup to the extent that price-based offers are marginal and set LMP.

The summary data for marginal offers reported in the State of the Market Report provides clear evidence that market participants regularly use the 10% in part or in full. Adjusted markup index values of 0.09 or higher would indicate that the marginal offer is at least 10% greater than adjusted cost-based offers and thus would indicate that market sellers are using the 10% adder.¹¹ In Table 3-99 from the 2020 State of the Market Report, the IMM reports the average real-time marginal unit market index. The summary data clearly shows “markups” in the neighborhood of 10% for prices greater than \$10/MWh. For offers between \$10/MWh and \$50/MWh, which covers the vast majority of offers, the average markup index is between 0.08 and 0.17. For prices above \$50/MWh, the average markup index is typically well above 0.09, indicating that the 10% adder is a likely a substantial *underestimate* of difficult to quantify costs.

¹¹ For example, if a resource’s cost-based offer is \$20 without any adder, then a price-based offer that includes a 10% adder would be \$22. The index in that case would be calculated as $(\$22-\$20)/\$22 = 0.09$.

Table 3-99 Average, real-time marginal unit markup index (By offer price category adjusted): 2019 and 2020

Offer Price Category	2019			2020		
	Average Markup Index	Average Dollar Markup	Frequency	Average Markup Index	Average Dollar Markup	Frequency
< \$10	0.08	(\$1.37)	5.9%	0.00	(\$0.65)	15.0%
\$10 to \$15	0.10	\$1.33	14.8%	0.11	\$1.30	36.4%
\$15 to \$20	0.15	\$2.46	31.7%	0.08	\$1.15	30.1%
\$20 to \$25	0.10	\$1.98	28.9%	0.10	\$1.87	11.7%
\$25 to \$50	0.15	\$4.32	16.7%	0.17	\$5.02	5.1%
\$50 to \$75	0.40	\$22.62	0.9%	0.56	\$32.99	0.4%
\$75 to \$100	0.60	\$51.21	0.3%	0.58	\$49.64	0.1%
\$100 to \$125	0.41	\$43.48	0.2%	0.20	\$22.09	0.5%
\$125 to \$150	0.50	\$68.18	0.0%	0.11	\$14.37	0.4%
\$150 to \$400	0.17	\$31.28	0.4%	0.23	\$37.58	0.3%
>= \$400	0.11	\$47.71	0.1%	0.96	>\$400.00	0.0%

Table 3-103 from the 2020 State of the Market Report reports summary data for the average day ahead markup index. There is even stronger evidence that the day ahead marginal offer incorporates costs consistent with the 10% adder. Average day ahead markup values are at or significantly above the 0.09 threshold, again suggesting that the 10% adder is a likely a substantial *underestimate* of difficult to quantify costs.

Table 3-103 Average day-ahead marginal unit markup index (By offer price category, adjusted): 2019 and 2020

Offer Price Category	2019			2020		
	Average Markup Index	Average Dollar Markup	Frequency	Average Markup Index	Average Dollar Markup	Frequency
< \$10	0.30	\$0.44	2.9%	0.01	(\$1.37)	10.2%
\$10 to \$15	0.12	\$1.54	9.2%	0.15	\$1.85	30.5%
\$15 to \$20	0.20	\$3.33	32.0%	0.15	\$2.43	37.4%
\$20 to \$25	0.10	\$2.10	32.8%	0.10	\$1.96	14.7%
\$25 to \$50	0.15	\$4.36	21.8%	0.12	\$3.64	6.3%
\$50 to \$75	0.26	\$14.66	0.7%	0.25	\$14.98	0.2%
\$75 to \$100	0.51	\$45.55	0.1%	0.30	\$25.30	0.0%
\$100 to \$125	0.56	\$58.19	0.0%	0.01	\$0.64	0.1%
\$125 to \$150	0.38	\$53.81	0.1%	0.02	\$2.61	0.2%
>= \$150	0.12	\$28.39	0.5%	0.08	\$12.98	0.3%

Average values can mask how the entire distribution of marginal offers behave. To address this limitation, the IMM reports the frequency with which the marginal price-based offer is greater than the corresponding cost-based offer with and without the 10% adder. One can use the

frequency of zero or positive markups for unadjusted offers to understand how often the marginal price-based offer equals or exceeds the cost-based offer including the 10%, indicating that the market seller used all or more of the 10% adder.¹²

Table 3-100 in the 2020 State of the Market Report reports that gas-fired units used all or more of the 10% adder more than 61% of the time in both 2019 and 2020. Coal units used all or more of the 10% adder more than 40% of the time in 2019 and 2020. Similarly, one can use the frequency of positive markups for adjusted offers to understand how often the marginal price-based offer exceeds the cost-based offer excluding the 10%, indicating that the market seller used at least some of the 10% adder. Table 3-101 in the 2020 State of the Market Report reports results that are consistent with the inference drawn from unadjusted offers. Gas-fired units used at least some of the 10% adder more than 70% of the time in both 2019 and 2020. Coal units used at least some of the 10% adder more than 43% of the time in 2019 and 2020. This is clear evidence that the marginal offer from gas- and coal-fired units regularly use the 10% adder.

¹² The inference is not entirely direct as it appears that the adjusted and unadjusted cost-based offers are the same in some instances, particularly for oil units. Gas and coal units appear to typically have different adjusted and unadjusted cost-based offers allowing one to draw clear conclusions. Since the reference unit is a gas unit, the differing behavior of oil units is not relevant to the question before the Commission of whether it is a reasonable assumption that the reference unit uses the 10% adder.

Table 3-100 Percent of marginal units with markup below, above and equal to zero (By fuel type with unadjusted offers): 2019 and 2020

Type/Fuel	2019			2020		
	Negative	Zero	Positive	Negative	Zero	Positive
Coal	50.88%	26.41%	22.70%	58.40%	21.72%	19.88%
Gas	31.13%	12.52%	56.35%	38.51%	6.07%	55.42%
Oil	21.12%	77.66%	1.22%	3.99%	95.55%	0.46%

Table 3-101 Percent of marginal units with markup below, above and equal to zero (By fuel type with adjusted offers): 2019 and 2020

Type/Fuel	2019			2020		
	Negative	Zero	Positive	Negative	Zero	Positive
Coal	35.09%	21.73%	43.17%	34.75%	17.85%	47.40%
Gas	12.76%	7.09%	80.15%	24.66%	4.48%	70.86%
Oil	0.32%	77.09%	22.58%	2.13%	73.80%	24.07%

The IMM’s 2020 State of the Market Report also breaks down the average LMP into its different components. According to the IMM’s analysis of adjusted cost-based offers, i.e., removing the ten percent adder and looking at the entire markup that market participants use in their offers that are used to set LMP, the total “Markup” in Table 3-65 below is 10.0% of the real-time, load weighted, average LMP in 2020 and 13.3% in 2019.¹³ The IMM conducts the same analysis to decompose day-ahead LMPs, finding that the total “Markup” in Table 3-67 below is 4.7% of the day-ahead, load weighted, average LMP in 2020 and 7.2% in 2019. The IMM’s

¹³ Note that the line item for the Ten Percent Adder shows as 0% the table presents the analysis that uses adjusted offers rather than unadjusted offers. For adjusted offers, the IMM removes any ten percent adders for cost-based offers and compares that to resources’ market offers, to evaluate how much market participants increase their offers over their costs, which is precisely the question before the Commission in considering whether it is reasonable to assume that a resource would include a ten percent adder on top of its cost-based offer when offering into the energy market. While we have explained why markup is a more accurate measure of the adder sellers use in all their offers, the IMM’s equivalent table for *unadjusted* offers, Table 3-64, shows the separate impact of the Ten Percent Adder, which had a contribution to real-time LMPs of 7.7% in 2020 and 7.6% in 2019, and Markup, which had a contribution of 2.3% to real-time LMPs in 2020 and 5.7% in 2019. Table 3-65, looking at *adjusted* offers, shows these contributions as additive and includes both under Markup.

analysis should dispel any notions among those who do not sell energy that the ten percent adder is indeed a material part of the market.

Table 3-65 Components of real-time (Adjusted), load-weighted, average LMP: 2019 and 2020

Element	2019		2020		Change Percent
	Contribution to LMP	Percent	Contribution to LMP	Percent	
Gas	\$11.51	42.1%	\$9.03	41.5%	(0.7%)
Coal	\$7.21	26.4%	\$5.17	23.7%	(2.7%)
Markup	\$3.63	13.3%	\$2.19	10.0%	(3.2%)
Constraint Violation Adder	\$1.85	6.8%	\$1.67	7.7%	0.9%
Variable Maintenance			\$1.34	6.2%	(0.1%)
Variable Operations	\$1.71	6.3%	\$0.84	3.9%	3.9%
NA	\$0.35	1.3%	\$0.57	2.6%	1.3%
CO ₂ Cost	\$0.21	0.8%	\$0.37	1.7%	0.9%
LPA Rounding Difference	\$0.15	0.5%	\$0.18	0.8%	0.3%
Ancillary Service Redispatch Cost	\$0.24	0.9%	\$0.13	0.6%	(0.3%)
Scarcity Adder	\$0.24	0.9%	\$0.08	0.4%	(0.5%)
Oil	\$0.06	0.2%	\$0.07	0.3%	0.1%
Opportunity Cost Adder	\$0.10	0.4%	\$0.07	0.3%	(0.0%)
Increase Generation Adder	\$0.10	0.4%	\$0.06	0.3%	(0.1%)
LPA-SCED Differential	\$0.01	0.0%	\$0.01	0.1%	0.0%
NO _x Cost	\$0.02	0.1%	\$0.01	0.0%	(0.0%)
Market-to-Market Adder	\$0.00	0.0%	\$0.00	0.0%	0.0%
SO ₂ Cost	\$0.00	0.0%	\$0.00	0.0%	(0.0%)
Ten Percent Adder	\$0.00	0.0%	\$0.00	0.0%	(0.0%)
Other	\$0.00	0.0%	\$0.00	0.0%	(0.0%)
Uranium	\$0.00	0.0%	\$0.00	0.0%	0.0%
Landfill Gas	\$0.00	0.0%	(\$0.00)	(0.0%)	(0.0%)
Renewable Energy Credits	(\$0.02)	(0.1%)	(\$0.01)	(0.0%)	0.1%
Decrease Generation Adder	(\$0.05)	(0.2%)	(\$0.02)	(0.1%)	0.1%
Total	\$27.32	100.0%	\$21.77	100.0%	0.0%

Table 3-67 Components of day-ahead, (adjusted), load-weighted, average LMP (Dollars per MWh): 2019 and 2020

Element	2019		2020		Change Percent
	Contribution to LMP	Percent	Contribution to LMP	Percent	
Coal	\$6.01	22.1%	\$5.22	24.4%	2.4%
DEC	\$5.81	21.3%	\$5.13	24.0%	2.6%
Gas	\$5.36	19.7%	\$4.02	18.8%	(0.9%)
INC	\$5.69	20.9%	\$3.25	15.2%	(5.7%)
Markup	\$1.97	7.2%	\$1.01	4.7%	(2.5%)
Variable Maintenance			\$0.89	4.1%	(0.3%)
Variable Operations	\$1.21	4.4%	\$0.74	3.4%	3.4%
Up to Congestion Transaction	\$0.69	2.5%	\$0.64	3.0%	0.4%
CO ₂	\$0.14	0.5%	\$0.28	1.3%	0.8%
DASR LOC Adder	(\$0.04)	(0.1%)	\$0.08	0.4%	0.5%
Dispatchable Transaction	\$0.31	1.1%	\$0.05	0.2%	(0.9%)
Constrained Off	\$0.00	0.0%	\$0.03	0.2%	0.2%
Oil	\$0.06	0.2%	\$0.02	0.1%	(0.1%)
Price Sensitive Demand	\$0.01	0.0%	\$0.01	0.1%	0.0%
NO _x	\$0.01	0.0%	\$0.01	0.0%	(0.0%)
DASR Offer Adder	\$0.01	0.0%	\$0.00	0.0%	(0.0%)
SO ₂	\$0.00	0.0%	\$0.00	0.0%	(0.0%)
Other	\$0.01	0.0%	\$0.00	0.0%	(0.0%)
Municipal Waste	(\$0.00)	(0.0%)	\$0.00	0.0%	0.0%
Uranium	\$0.00	0.0%	\$0.00	0.0%	0.0%
Ten Percent Cost Adder	\$0.01	0.0%	(\$0.00)	(0.0%)	(0.0%)
Wind	(\$0.01)	(0.1%)	(\$0.00)	(0.0%)	0.0%
NA	\$0.00	0.0%	\$0.03	0.2%	0.2%
Total	\$27.23	100.0%	\$21.40	100.0%	0.0%

Clearly, there is additional information readily and publicly available that can further the Commission’s and the Court’s understanding of the employment of the 10% adder in the PJM energy markets and why, as a result, it should be considered when calculating the Net CONE of the Reference Resource used to set the VRR curve. It is important to note that the Court was not even remotely suggesting that the 10% adder be removed from the EAS offset and Net CONE calculations as the PICO’s motion would do. The Court certainly had the ability to do so, but instead offered that the Commission should “reassess.” P3 respectfully suggests that the evidence presented here should move the Commission to reaffirm its finding that the ten percent adder is a just and reasonable assumption in the case at hand.

Notwithstanding the fact that this data demonstrates resources do include adders above their costs on file, and that the ten percent adder may be an *underestimate* of those hard to estimate costs, some may attempt to argue that this data is insufficient support for the Commission to find

that the ten percent adder is always used in full, and thus the Commission should remove the ten percent adder. The Commission should not heed such argument. The PIOs request asks the Commission to remove use of the ten percent adder, which is in effect asking the Commission to say that it is a better assumption to assume that resources *never* use the ten percent adder. Clearly, the data demonstrates that it is more accurate to assume that resources use the ten percent adder, and less accurate to assume that resources use a zero percent adder. If the choice is between always or never including the ten percent adder, this is clear evidence that always using the ten percent adder is more representative of how resources actually behave.

The uncertainty swelling around the upcoming auction is hard to understate. PJM has an entirely new regulatory structure for the policing of market power and mitigating the impacts of out of market subsidies that is severely flawed and, as a result, could not garner support from a majority of the commissioners.¹⁴ As evidenced by the PJM rehearing filing regarding the Commission's decision to change the rule governing the Capacity Market Seller Offer Cap, the market is at serious risk of over mitigation.¹⁵ Finally, the PJM and the IMM disagree on whether costs related to Pennsylvania's entry into RGGI should be included in a unit's net ACR calculation.¹⁶ Moreover, as of the date of this filing, there is not even clarity on the next auction date. The last thing the upcoming auction needs is yet another last minute, arbitrary policy change that will further disrupt an already extremely compromised auction.

¹⁴ *Notice Of Filing Taking Effect By Operation Of Law*, PJM Interconnection, L.L.C., Docket No. ER21-2582-000, dated September 29, 2021.

¹⁵ *Request For Clarification and Request For Rehearing of PJM Interconnection, L.L.C.*, Docket Nos. EL19-47-002; EL19-63-002; ER21-2444-001, dated October 4, 2021, pp. 5-7.

¹⁶ *Answer of PJM Interconnection, L.L.C.*, Docket Nos. EL19-47-002; EL19-63-002; ER21-2444-001, dated October 14, 2021.

II. CONCLUSION

For the foregoing reasons, the Commission should not act hastily to the PICO's request that would compound that distress, but rather, should reaffirm the use of the 10% adder.

Respectfully submitted,

On behalf of the PJM Power Providers Group

By: Glen Thomas _____

Glen Thomas
Laura Chappelle
GT Power Group
101 Lindenwood Drive, Suite 225
Malvern, PA 19355
gthomas@gtpowergroup.com
610-768-8080

October 22, 2021

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 22nd day of October 2021.

On behalf of the PJM Power Providers Group

By: Laura Chappelle_____

Laura Chappelle
GT Power Group
101 Lindenwood Drive, Suite 225
Malvern, PA 19355
gthomas@gtpowergroup.com
610-768-8080