UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midcontinent Independent System Operator, Inc.'s Reliability Based Demand Curve	**)** **)** **)**	**Docket No. ER23-2977**

Public Interest Organizations Protest of MISO's Deficiency Response and Motion for Leave to Reply and Reply to MISO's Answer to Comments and Protests

I. INTRODUCTION

Pursuant to Rules 211, 212, and 213 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("FERC" or "Commission"),[1] Sierra Club, Natural Resources Defense Council, and the Sustainable FERC Project (collectively, "Public Interest Organizations" or "PIOs") submit this protest of Midcontinent Independent System Operator's ("MISO's") December 21, 2023 Response to Deficiency Letter ("Deficiency Response"),[2] and separately move for leave to respond and respond to MISO's December 6, 2023 Motion for Leave to Answer and Answer ("Answer"),[3] in the above-captioned docket.

PIOs are filing a motion to respond to MISO's Answer only at this juncture in an effort to simplify the Commission's review of the parties' argumentation. In November 2023, the

[1] 18 C.F.R. 385.211-.213 (2023).

[2] Midcontinent Independent System Operator, Inc.'s Response to Deficiency Letter for the Reliability Based Demand Curve (Dec. 21, 2023), Docket No. ER23-2977-000, Accession No. 20231221-5103 (hereinafter "Deficiency Response").

[3] Motion for Leave to Answer and Answer of the Midcontinent Independent System Operator, Inc. (Dec. 6, 2023), Docket No. ER23-2977-000, Accession No. 20231206-5149 (hereinafter "MISO Answer").

Commission issued a letter informing MISO that its filing opening this proceeding was deficient ("Deficiency Letter"),[4] and requested additional information within thirty days. MISO filed its Answer to PIOs' Protest as well as those of several other parties in early December 2023, and it filed the Deficiency Response in late December 2023. To avoid repetitive briefing, and because a Response to MISO's Answer is not allowed as of right in the first instance, PIOs delayed requesting the privilege of a response to that Answer to consolidate it with this protest.

PIOs stand by and restate the concerns previously raised in the Limited Protest ("Protest") of MISO's Proposed Tariff Revisions to Implement a Reliability Based Demand Curve ("RBDC") in its annually operated seasonal Planning Resource Auction ("PRA").[5] Nothing in MISO's Deficiency Response or Answer has alleviated the concern that MISO's proposed "X% Adder" introduces an inappropriate bias that will unduly disincentivize Load-Serving Entities ("LSEs") from opting out of the PRA, and possibly lead to over-procurement of capacity and excessive costs. As explained in more detail in the attached Supplemental Affidavit prepared by James. F. Wilson in support of this filing, MISO's Deficiency Response offers no convincing new rationale to justify its focus on "cleared quantities rather than assigned costs" as a principal metric for determining the comparability of the different options available to LSEs; and MISO's Answer misstates aspects of PJM's sloped demand curve in a way that undermines any justification for its proposed use of an X% Adder.[6]

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[4] Federal Energy Regulatory Commission Letter informing Midcontinent Independent System Operator, Inc. that the 09/29/2023 filing is deficient and requesting additional information to be filed within 30 days to assist in processing under ER23-2977 (Nov. 22, 2023), Accession No. 20231122-3043 (hereinafter "Deficiency Letter').

[5] Public Interest Organizations Limited Protest of MISO's Proposed Tariff Revisions to Implement a Reliability Based Demand Curve (Nov. 3, 2023), Docket No. ER23-2977, Accession No. 20231103-5235 (hereinafter "Protest").

[6] Supplemental Affidavit of James F. Wilson in Support of the Protest and Reply of Public Interest Organizations (Jan. 11, 2024), attached hereto as Exhibit A (hereinafter "Suppl. Wilson Aff."), at P 7.

II. PROTEST OF MISO'S DEFICIENCY RESPONSE

MISO's Deficiency Response to the Commission's question 7(b) offers the following description why it believes the amount of procured capacity is the correct metric for determining comparable treatment of different LSEs:

> [T]he rules under the Module E-1 Tariff have operated under the principle of unus pro omnibus, omnes pro uno. That is, the Resource Adequacy rules have been established so that the resulting reliability is both non-excludable and non-rivalrous for all LSEs.
>
> Because the amount of capacity procured is what matters to achieve the reliability target under this paradigm, the RBDC Opt Out Adder is designed to recognize its non-excludability and non-rivalrous attributes. The cost of procuring capacity varies with the resource mix owned or contracted for by each LSE, varies by the retail rate regulatory environment it operates under, and other factors. What matters for achieving the 0.1 LOLE target in the long run are MWs, shared comparability across LSEs whether participating directly in the PRA or electing the RBDC Opt Out participation model.[7]

This response does not adequately explain why MISO believes it is important to require opted-out LSEs to procure excess capacity. It contains nothing more than a recitation of a laudable unifying principal made famous by Alexandre Dumas in *The Three Musketeers*[8] (and adopted by the country of Switzerland), followed by a statement about "what matters" for achieving MISO's 0.1 LOLE target, which is of course beside the point because the X% Adder would require opted-out LSEs to *exceed*, not merely *achieve*, that LOLE target. However, the response is nonetheless instructive because it highlights the fundamental oversight at the heart of MISO's proposed policy: MISO remains focused on how much capacity differently situated LSEs

[7] Deficiency Response, *supra* note 2, at 9-10.

[8] Suppl. Wilson Aff., *supra* note 6, at P 14.

procure, when it should be focused on the incentives LSEs face as they decide how best to ensure resource adequacy.

MISO's focus on equal outcomes is not just or reasonable because the "equal" outcome here forces opted-out LSEs to overinvest in capacity resources at a presumptively higher rate than what cleared in the PRA,[9] with the sole purpose of ensuring that they match the degree to which other LSEs (at a lower cost) exceed MISO's 0.1 LOLE reliability standard. And MISO's suggested methodology for calculating the adder amount further places opted-out LSEs in a subordinate position to PRA participants, because their long-term capacity costs will ultimately be dictated (every three years) by highly variable PRA results, even as operation of the RBDC minimizes disruption to PRA participants' long-term capacity costs. This differential treatment is exacerbated by the reality that the circumstances in which the PRA results impose the most significant burden on opted-out LSEs (when the PRA clears very long on capacity and therefore forces a high X% Adder) are also those in which PRA participants are paying the least.[10]

MISO mentions in the Deficiency Response its desire to ensure that system reliability is "non-rivalrous," meaning that one LSE's achievement of system reliability should not interfere with another's. But MISO's proposal achieves the opposite: opted-out LSEs will be directly harmed by PRA participants achieving excess system reliability, by being forced to procure excess capacity at a presumptively higher rate than the PRA participants. This tethering of opted-out LSEs' capacity obligations to operation of the PRA with an RBDC ensures that LSEs who

[9] *Id.* at P 10.

[10] *Id.* at P 9.

participate in the PRA will regularly interfere with the capacity obligations of LSEs who don't. This is exactly what MISO should, and says it wants to, avoid.

PIOs also note that MISO's two numeric examples presenting potential market outcomes in a hypothetical year under its proposal focus on a narrow range of favorable scenarios: when the PRA clears around 3% above the PRM.[11] (This amount of excess capacity clearing is favorable because it matches the 3% Opt Out Adder MISO wants to impose, and therefore market outcomes appear balanced between PRA participants and opted-out LSEs.). To help the Commission consider a broader range of potential market outcomes, Mr. Wilson has provided two additional scenarios; where the PRA clears at the PRM; and where the PRA clears 2% short of the PRM.[12] In the first scenario, the extra 3% capacity that opted-out LSEs are required to procure ends up subsidizing PRA participants, such that their actual capacity obligations fall 3% *below* the PRM.[13] In the second, this effect is even stronger: even as opted-out LSEs are still obligated to provide 3% more than the PRM (10% more than their load forecasts), PRA participants' capacity obligations do not even exceed their load forecasts, falling 7% short of the PRM.[14] In both cases, under MISO's proposed rules PRA participants do not contribute their fair share toward achieving (or attempting to achieve) the 0.1 LOLE standard. And this forced subsidization by opted-out LSEs of PRA participants occurs when the market is tight or short, i.e. when capacity prices are at their highest. This is an absurd result, which is particularly troubling because it arises from a policy MISO claims is designed to avoid forcing LSEs to

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[11] Deficiency Response, *supra* note 2, at 13-14.

[12] Suppl. Wilson Aff., *supra* note 6, at PP 16-18.

[13] *Id.* at PP 17.

[14] *Id.* at PP 18.

subsidize other LSEs' capacity needs. No policy allowing such a result to occur on any sort of regular basis should be seen as just or reasonable.

III. MOTION FOR LEAVE TO REPLY TO MISO ANSWER

The Commission's Rules prohibit parties from submitting answers to answers unless specifically authorized,[15] but the Commission may waive this prohibition for good cause, and has done so when the filing aids in the Commission's decision-making process.[16] Because there is no provision for parties to file answers to answers, there is also no time limit when any such proposed answers must be filed.[17] Thus, the Commission may consider the timeliness of a proposed answer as part of its determination whether good cause exists to permit that answer into the case record. Here, there is good cause for the Commission to allow PIOs' proposed Reply: the Reply is narrowly tailored to MISO's comparison with a similar PJM program that is not discussed in the Deficiency Response; it corrects errors of fact and of omission made by MISO for the benefit of the Commission; it promotes efficiency because it is avoids needlessly repetitive briefing;[18] and it is timely because it is within the window of the Commission's consideration of MISO's filing. PIOs' Reply will help the Commission's understanding of MISO's proposed tariff modifications, as well as PIOs' particular concerns regarding the X% Adder. Thus, the Commission should grant PIOs' request to submit the following response.

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[15] 18 C.F.R. § 385.213(a)(2) (2023).

[16] 18 C.F.R. § 385.101(e) (2023); *see, e.g.*, Midcontinent Indep. Sys. Operator, Inc., 178 FERC ¶ 61,249, P 16 (2022).

[17] 18 C.F.R. § 385.213(a)(2) (2023).

[18] Filing the Reply concurrently with the Protest of MISO's Deficiency Response allowed PIOs to simultaneously address MISO's similar arguments in the Answer and Deficiency Response that comparability of outcomes is best measured based quantitative capacity outcomes.

IV. REPLY TO MISO'S ANSWER

The bulk of MISO's Answer specifically to PIOs' Protest focuses on the comparison PIOs drew between MISO's RBDC proposal, which includes a mandatory X% Adder; and PJM's sloped capacity demand curve opt-out mechanism (the "Fixed Resource Requirement" or "FRR"), which does not.[19] In particular, MISO claims that PIOs' comparison to PJM's "fail[s] to tell the whole story," and provides three separate arguments to support this claim.[20] None of these arguments are effective.

First, MISO argues that PJM has created an incentive for LSEs to opt-out of the capacity auction because entities opting out and using the FRR have consistently had a lower capacity requirement than what actually cleared in the market.[21] This argument is based on MISO's flawed premise that quantity of cleared capacity is the most appropriate metric to evaluate whether comparable treatment of LSEs has been achieved, and can be ignored for all the reasons outlined above.[22] It also is belied by PJM's experience with the FRR: less than a quarter of PJM's load is subject to the FRR,[23] and until recently that fraction was even smaller: use (or threatened use) of the FRR mechanism only expanded recently in response to PJM's then-effective Minimum Offer Price Rule.[24] This actually proves that allowing opted-out LSEs to

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[19] MISO Answer, *supra* note 3, at 13-15.

[20] *Id.* at 13.

[21] *Id.*

[22] *See also* Suppl. Wilson Aff., *supra* note 6, at PP 8-9.

[23] Planning Period Parameters for 2022-23 Base Residual Auction, *available at* https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-bra-planning-period-parameters.ashx.

[24] Sarah Vogelsong, "Dominion's exit from regional capacity market raises some eyebrows — and questions," *Virginia Mercury* (May 25, 2021), *available at* https://www.virginiamercury.com/2021/05/25/dominions-exit-from-regional-capacity-market-raises-some-eyebrows-and-questions.

avoid the capacity excesses sloped demand curves can cause will *not* create the incentive to leave MISO is so concerned about: if FRR had created a meaningful incentive to leave PJM's capacity auction, surely more LSEs would have done so.

Second, MISO claims that PJM's tariff does contain an "excess capacity withholding provision," which it claims PIOs have ignored.[25] As Mr. Wilson explains, the only such provision in PJM applies exclusively to LSEs that have opted out but want to sell excess capacity into the capacity market.[26] This is a crucial distinction: PJM is imposing an adder to the capacity obligations of its opted-out LSEs *only* if and when they subsequently try to re-enter the capacity market to sell off their excess capacity. PJM's implementation of an adder only as a barrier to market re-entry is not just defensible; it is exactly the right way to be thinking about opted-out LSEs. Any LSE entering a capacity market should be subject to the rules of that market, whether they participated from the start or only after identifying a capacity surplus. What PJM lacks—to its benefit—is a requirement that all opted-out LSEs procure more capacity than is strictly needed to ensure zonal resource adequacy.

Finally, MISO identifies concerns that have been raised at PJM around the FRR mechanism.[27] PIOs note here simply that a statement of concern unsubstantiated by a stakeholder process or proposed tariff amendment does not undermine the relevance of PJM's actual, Commission-approved, tariff.

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[25] MISO Answer, *supra* note 3, at 14.

[26] Suppl. Wilson Aff., *supra* note 6, at P 11.

[27] MISO Answer, *supra* note 3, at 14-15.

V. CONCLUSION

For the foregoing reasons, PIOs respectfully reaffirm their request that the Commission deny MISO's Reliability Based Demand Curve filings, with instructions to correct its problematic Opt-Out Mechanism.

Dated: January 11, 2024.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing has been served in accordance with 18 C.F.R. § 385.2010 upon each party designated on the official service lists in these proceedings listed above, by email.

Dated: January 11, 2024.

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EXHIBIT A

Supplemental Affidavit of James F. Wilson in
Support of the Protest and Reply of
Public Interest Organizations

(January 11, 2024)

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midcontinent Independent System Operator, Inc.'s Reliability Based Demand Curve	**)** **)** **)**	**Docket No. ER23-2977**

SUPPLEMENTAL AFFIDAVIT OF JAMES F. WILSON IN SUPPORT OF THE PROTEST AND REPLY OF PUBLIC INTEREST ORGANIZATIONS

January 11, 2024

I. Introduction

1. My name is James F. Wilson. I am an economist and independent consultant doing business as Wilson Energy Economics. My business address is 4800 Hampden Lane Suite 200, Bethesda, MD 20814.

2. My initial affidavit in support of the limited protest of the Public Interest Organizations ("Initial Affidavit") was filed on November 3, 2023 in this docket, which involves the Midcontinent Independent System Operator, Inc. ("MISO") proposal to enhance its Resource Adequacy construct through the implementation of a Reliability Based Demand Curve ("RBDC") in its Planning Resource Auction ("PRA"). My experience and qualifications were described in my initial affidavit and in my CV, included at Attachment JFW-2.

3. On December 6, 2023, MISO filed its Answer to comments and protests in this docket ("MISO Answer"), and on December 21, 2023, MISO filed its response to the

Commission's November 22, 2023 Deficiency Letter[1] ("Deficiency Response"). MISO's Answer and its Deficiency Response address issues raised in my initial affidavit with regard to the proposed mechanism to allow Load Serving Entities ("LSEs") to opt out of the RBDC ("RBDC Opt Out Mechanism").

4. This supplemental affidavit was also prepared at the request of Sierra Club, Natural Resources Defense Council, and Sustainable FERC Project ("Public Interest Organizations"). My assignment was to review and respond to MISO's attempt to rebut issues I raised in my initial affidavit through its Answer and Deficiency Response.

II. Recap of My Initial Affidavit

5. In my Initial Affidavit, I compared the features of the RBDC Opt Out Mechanism to PJM's Fixed Resource Requirement ("FRR") opt out rules that have been applicable to PJM's Reliability Pricing Model ("RPM") sloped demand curve capacity construct since RPM first went into effect eighteen delivery years ago.[2] I noted that MISO proposes one novel detail that is not found in the FRR rules: an RBDC Opt Out Adder, an additional quantity of capacity beyond what is needed for reliability that LSEs electing the Opt Out option would be required to procure.[3] Based on my evaluation, I concluded the following:

[1] Federal Energy Regulatory Commission Letter informing Midcontinent Independent System Operator, Inc. that the 09/29/2023 filing is deficient and requesting additional information to be filed within 30 days to assist in processing under ER23-2977 (Nov. 22, 2023), Accession No. 20231122-3043 (hereinafter "Deficiency Letter').

[2] Public Interest Organizations Limited Protest of MISO's Proposed Tariff Revisions to Implement a Reliability Based Demand Curve, Docket No. ER23-2977 (Nov. 3, 2023), Accession No. 20231107-5010, Exhibit A, Affidavit of James F. Wilson in Support of the Comments of Sierra Club (hereinafter "Initial Affidavit"), PP 7-10.

[3] MISO Tariff Filing: Reliability Based Demand Curve (September 29, 2023) (hereinafter "MISO Transmittal Letter") at 27, Accession No. 20230929-5322, p. 27; Tab C – Prepared Direct Testimony of Todd Ramey (September 29, 2023) (hereinafter "Ramey Testimony") at 19, Accession No. 20230929-5322; Tab B – Clean Tariff (hereinafter "MISO Tariff") at §§ 69A.7.6, 69A.9.1.

i. MISO and its witnesses had not provided any valid rationale for the Opt Out Adder provision;

ii. If "comparability" is a concern, when properly considered to be about cost, not quantities, it is clearly accomplished by the sloped demand curve (PRA entities pay a shrinking fraction of total capacity cost, and opt out entities pay a growing fraction of total capacity cost, when the PRA clears excess); and

iii. The proposed approach to calculating the Adder could have unintended and inefficient consequences.

6. I recommended removing the RBDC Opt Out Adder provision. In the alternative, I recommended rules that ensure the Opt Out LSEs never have to procure and retain a higher reserve margin than the PRA has cleared.

III. On "Comparability" and Incentives

7. In both its Answer and its Deficiency Response, MISO persists in focusing on cleared quantities, rather than assigned costs, in discussing the incentives and relative benefits of PRA participation and the Opt Out provision.[4] As I explained in the Initial Affidavit, LSEs and their customers care about cost assignment; the quantity assignments are merely intermediate values used in the calculations.[5] While under many circumstances costs are proportional to quantities, under the circumstances applicable here of a sloped demand curve, the assigned cost

[4] Motion for Leave to Answer and Answer of the Midcontinent Independent System Operator, Inc. (Dec. 6, 2023), Docket No. ER23-2977-000, Accession No. 20231206-5149 (hereinafter "MISO Answer"), at 13-14; Midcontinent Independent System Operator, Inc.'s Response to Deficiency Letter for the Reliability Based Demand Curve (Dec. 6, 2023), Docket No. ER23-2977-000, Accession No. 20231206-5149 (hereinafter "Deficiency Response"), at 10.

[5] Initial Affidavit, PP 12-14.

changes in an *inverse* manner to changes in cleared and assigned quantities: as the cleared quantities grow, assigned cost shrinks.

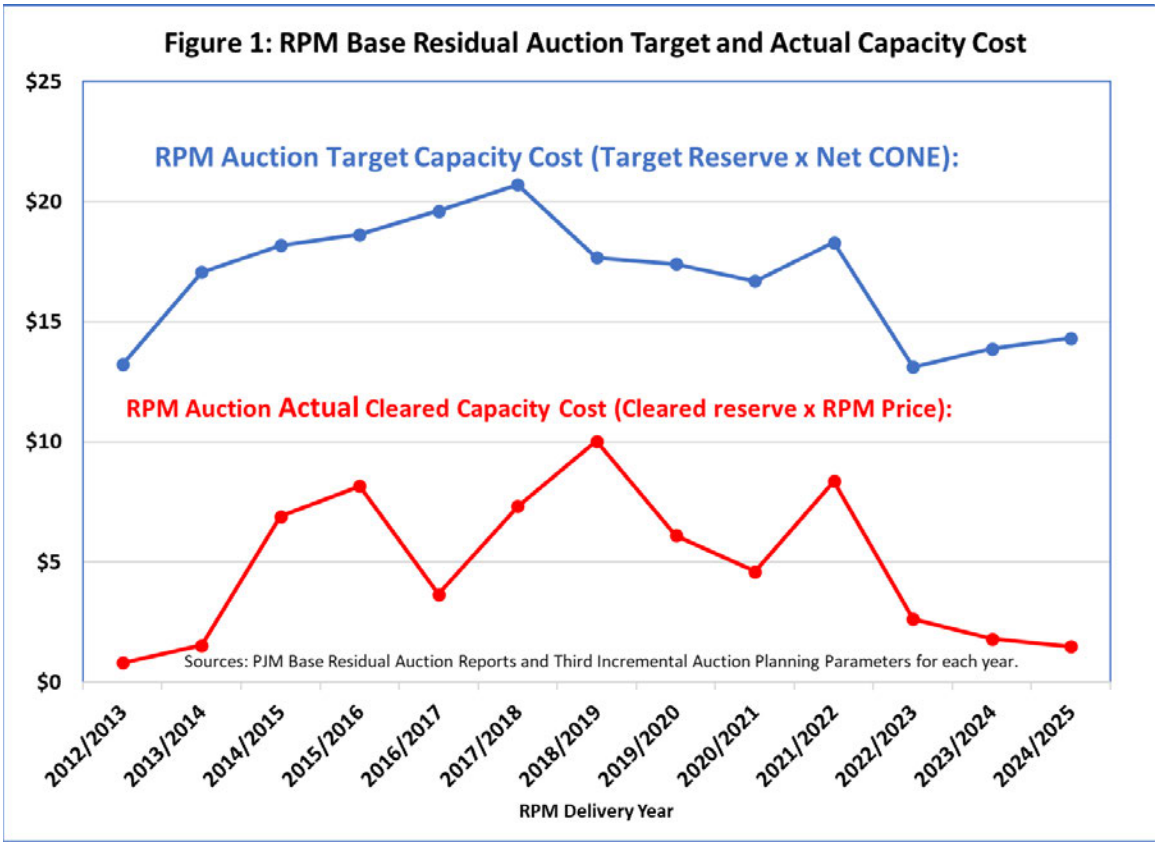
8. Based on the invalid notion that the procured excess capacity quantity is an appropriate metric for judging comparable treatment, MISO claims in its Answer that PJM's FRR has created "negative incentives" for LSEs to participate in the market, noting that while FRR entities are required to provide just the target reserve margin, PJM's capacity market has typically cleared 5 or 6 percent excess capacity.[6] Again, this ignores that when RPM clears a quantity above the reserve margin, the clearing price is far below the target price of Net CONE, and the assigned cost is much lower than if clearing at the target.

9. Figure 1 shows the valid comparison, in the PJM context: the actual market capacity cost (actual cleared quantity times actual clearing price) compared to the "target" capacity cost (target reserve margin quantity times Net CONE). Market entities have consistently been allocated capacity cost far below the target capacity cost, as a result of clearing excess capacity at a low capacity price far below Net CONE.

10. In my Initial Affidavit I explained that while we don't know the capacity cost incurred by Opt Out entities in MISO or PJM, it is reasonable to assume these costs reflect long-run average capacity costs,[7] and accordingly will likely be much closer to the target capacity cost values based on Net CONE shown in Figure 1. Thus, with sloped demand curves, clearing excess capacity creates strong incentives for entities to prefer the market construct to the opt out mechanisms.

[6] MISO Answer at 13-14 and Figure 1.

[7] Initial Affidavit, PP 13-14.



11. Next, MISO refers without citation to an "excess capacity withholding provision" in the FRR rules.[8] MISO is apparently referring to the "Threshold Quantity" provision,[9] which is only applicable to an FRR entity that has excess capacity and wishes to sell it through the PJM RPM auctions rather than on a bilateral basis. This provision requires the FRR entity to retain an additional quantity (450 MW) and only sell amounts above that quantity into the RPM auctions.[10] Thus, the Threshold Quantity provision is not applicable to FRR entities that do not hold excess capacity, or that would sell their excess on a bilateral basis. MISO asserts, "Instead of having an

[8] MISO Answer at P 14.

[9] PJM Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region (hereinafter "RAA"), Article 1, Definitions, and Schedule 8.1, Fixed Resource Requirement Alternative, *available at* https://www.pjm.com/directory/merged-tariffs/raa.pdf.

[10] RAA Schedule 8.1 Section E.

excess capacity withholding provision, an LSE selecting the RBDC Opt Out has a Final PRMR that is based on the PRM plus the RBDC Opt Out Adder, with no requirement to withhold additional capacity."[11] The two provisions are not at all similar; the Opt Out Adder is applicable to all opt out entities, while the FRR Threshold Quantity only applies to an entity that has excess capacity and wishes to sell it through the RPM auctions rather than on a bilateral basis.

12. The Commission's Deficiency Letter further explores the question of comparable treatment (question 7.b):

b. *MISO states that the RBDC Opt Out Adder is designed to provide comparable treatment to LSEs who participate in the Auction and those LSEs that elect to use the RBDC Opt Out. Please explain what MISO means by "comparable treatment" in this context, including whether such comparability is with respect to the amount of procured capacity and/or the cost of procuring capacity.*[12]

13. MISO's response was as follows [citations omitted]:

Response:

The Resource Adequacy construct in MISO has been crafted to support reliable grid operations by targeting a 0.1 LOLE across the footprint. Since the start of MISO's markets, the construct has been crafted as a risk sharing pool, which has resulted in billions of dollars of savings for the LSEs. As such, the rules under the Module E-1 Tariff have operated under the principle of *unus pro omnibus, omnes pro uno*. That is, the Resource Adequacy rules have been established so that the resulting reliability is both non-excludable and non-rivalrous for all LSEs.

Because the amount of capacity procured is what matters to achieve the reliability target under this paradigm, the RBDC Opt Out Adder is designed to recognize its non-excludability and non-rivalrous attributes. The cost of procuring capacity varies with the resource mix owned or contracted for by each LSE, varies

[11] MISO Answer at P 14.

[12] Deficiency Letter at P 5.

by the retail rate regulatory environment it operates under, and other factors. What matters for achieving the 0.1 LOLE target in the long run are MWs, shared comparability across LSEs whether participating directly in the PRA or electing the RBDC Opt Out participation model.[13]

14. In retreating to the Three Musketeers mantra, *unus pro omnibus, omnes pro uno* (all for one, one for all), MISO is acknowledging that it has no justification for the position it takes in response to the Commission's question about comparable treatment, and it has no rebuttal to the points I made in my Initial Affidavit. The discussion around the Opt Out Adder in the MISO stakeholder process focused on the extent to which one or another approach would encourage or discourage opting out compared to auction participation. That discussion turns on questions of comparability, and how it affects incentives. As the Commission's question suggests, and as I explained in my Initial Affidavit, to understand incentives the focus should be on the *cost* assignment resulting from an approach, not on the quantity assigned, which is merely an intermediate value in the calculation of cost responsibilities. Because, under a sloped demand curve, excess cleared quantities lead to low auction prices, the cost assigned to auction participants declines as the cleared quantity increases, and auction participants pay a shrinking proportion of the total market cost.

IV. Examples

15. In the Deficiency Response, MISO provided two examples of the operation of the proposed Opt Out Adder.[14] This section of my supplemental affidavit provides additional examples, based on MISO's template, to further clarify the operation of the proposed Adder.

[13] Deficiency Response at P 10.

[14] Deficiency Response, response to question 10.b, PP 12-14.

16. MISO's examples both assumed a 7% target reserve margin for the initial PRMR and a 3% Opt Out Adder, so Opt Out entities would be assigned a total quantity 10% above their forecast peak loads. MISO's examples show the calculation of the final reserve margins for entities participating in the auction, based on the actual auction clearing and the quantities assigned to Opt Out entities. In particular, MISO provided a Scenario A and a Scenario B:

i. In MISO's Scenario A, the auction clears at 4% above the target reserve margin (11% above the load forecast), and results in the auction entities being assigned 12% reserve margins. Combined with the Opt Out entities' 10% reserve margins, this equates to the auction's 11% reserve margin.

ii. In MISO's Scenario B, the auction clears at 2% above the target reserve margin (9% above the load forecast), and results in the auction entities being assigned 8% reserve margins. Combined with the Opt Out entities' 10% reserve margins, this equates to the auction's 9% reserve margin.

17. The table below shows a Scenario C, based on MISO's template and assumptions, with the auction clearing right at the target reserve margin, 7% above the load forecast. Because the Opt Out entities have been assigned an additional 3%, for a final PRMR of 10%, the auction participants are assigned only 4%. As I pointed out in my Initial Affidavit, this outcome, which may be likely in the coming years, produces an absurd result, standing "comparability" on its head.[15] While the auction has failed to attract and clear any excess capacity at all, the auction entities are assigned quantities and costs less than target values, due to the Opt Out Adder and assignment of excessive quantities and costs to Opt Out entities.

[15] Initial Affidavit at P 16.

Scenario C – RBDC clearing is 7% above Load Forecast (at Target)

PRA Cleared Capacity = 4,000 (1 + 0.07) = 4,280 MW

Final PRMR for LSEs who elected RBDC Opt Out will be based on RBDC Opt Out Adder, so LSE A and LSE B both have Final PRMR of 1,000*(1+.07+.03) = 1,100 MW. LSE C and LSE D both have Final PRMR of 1,040 MW. See Table below.

LSEs	Initial PRMR (MW)	Final PRMR (MW)	Final PRMR (%)
A (RBDC Opt Out)	1,070	1,100	10%
B (RBDC Opt Out)	1,070	1,100	10%
C (auction)	1,070	(4,280 – 1,100 – 1,100) = 2,080, *(1,070)/(1,070 + 1,070) = 1,040	4%
D (auction)	1,070	(4,280 – 1,100 – 1,100) = 2,080, *(1,070)/(1,070 + 1,070) = 1,040	4%
System Total	4,280	4,280	

18. The next table shows a Scenario D, with the auction clearing 2% below the target reserve margin. Now the market entities are assigned no reserve margin at all under MISO's proposal.

Scenario D – RBDC clearing is 5% above Load Forecast (2% below Target)

PRA Cleared Capacity = 4,000 (1 + 0.05) = 4,200 MW

Final PRMR for LSEs who elected RBDC Opt Out will be based on RBDC Opt Out Adder, so LSE A and LSE B both have Final PRMR of 1,000*(1+.07+.03) = 1,100 MW. LSE C and LSE D both have Final PRMR of 1,000 MW. See Table below.

LSEs	Initial PRMR (MW)	Final PRMR (MW)	Final PRMR (%)
A (RBDC Opt Out)	1,070	1,100	10%
B (RBDC Opt Out)	1,070	1,100	10%
C (auction)	1,070	(4,200 – 1,100 – 1,100) = 2,000, *(1,070)/(1,070 + 1,070) = 1,000	0%
D (auction)	1,070	(4,200 – 1,100 – 1,100) = 2,000, *(1,070)/(1,070 + 1,070) = 1,000	0%
System Total	4,280	4,200	

19. To conclude, nothing in MISO's Answer or Deficiency Response changes any of the points I made in my Initial Affidavit. Comparability and incentives naturally turn on questions of cost, not quantities. I again recommend that the Opt Out Adder be removed from the tariff. If it is retained in some form, the rules should ensure that the Opt Out entities are not required to procure and retain quantities representing a higher reserve margin that the corresponding auction has cleared.

20. This concludes my supplemental affidavit.