UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midcontinent Independent System	**)**	**Docket No. ER18-462-000**
System Operator, Inc.	**)**	

REQUEST FOR REHEARING OF THE
MISO INDEPENDENT MARKET MONITOR

Pursuant to Section 313 of the Federal Power Act ("FPA"), 16 U.S.C. § 825l, and Rule 713 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.713, Potomac Economics, Ltd., respectfully seeks rehearing of the Commission's February 28, 2018 *Order Accepting Tariff Filing* in the above-captioned proceeding. *See Midcontinent Independent System Operator, Inc.*, 162 FERC ¶ 61,176 (2018) ("February 28 Order"). The February 28 Order accepted the Midcontinent Independent System Operator's ("MISO") re-submission, pursuant to Section 205 of the Federal Power Act, of the "Module E" tariff provisions[1] which establishes the Resource Adequacy Construct in the MISO region.[2]

As is explained below, the February 28 Order is based on multiple determinations that are arbitrary and capricious, and are not the product of reasoned decision making. The February 28 Order: (i) fails to make, or to adequately explain, rational connections between the facts in the record and its conclusions (while also mischaracterizing arguments that we presented); (ii) departs from well-established Commission precedent and policy without adequate explanation;

---

1 These provisions are principally located in "Module E" of the MISO's tariff and, for convenience, this pleading sometimes refers to all of them as if they were part of "Module E."

2 Hereinafter, we refer to the proposed Resource Adequacy Construct as the "Capacity Market."

and (iii) accepts a capacity market construct that has failed to produce, and inevitably will fail to produce, prices that are just and reasonable, at least with respect to independent generators that are not supported by retail rate mechanisms. The Commission should therefore grant rehearing and direct the MISO to develop just and reasonable capacity market mechanisms as we previously requested in this proceeding.[3]

I. SPECIFICATION OF ERRORS AND STATEMENT OF ISSUES

In accordance with Rule 713(c),[4] Potomac Economics submits the following specifications of error and statement of the issues on which it seeks rehearing of the February 28 Order:

1. The February 28 Order is Arbitrary and Capricious Because it is Based on Fundamental Errors of Fact and Economic Theory, Fails to Articulate a Reasoned Explanation for its Acceptance of the Module E Tariff Provisions, or Otherwise to Respond Meaningfully to the Objections Raised by the IMM and Other Parties. *See, e.g.,* 5 U.S.C. § 706(2)(A)*; Motor Vehicle Manufacturers Association of the United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29 (1983); New *England Power Generators Association, Inc. v. FERC*, 881 F.3d 202, 210 (D.C. Cir. 2018); and *TransCanada Power Marketing, Ltd. v. FERC*, 811 F.3d 1, 12 (D.C. Cir. 2015).

2. The February 28 Order is Arbitrary and Capricious Because it Departs, Without Adequate Explanation, From Commission Precedent and Policy that Capacity Markets Must be Designed to "Attract and Retain" Needed Capacity at Prices that are Just and Reasonable. *See, e.g.,* 5 U.S.C. § 706(2)(A); *New England Power Generators Association, Inc. v. FERC*, 881 F.3d 202, 210 (D.C. Cir. 2018); and *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014).

3. The February 28 Order Approves a Capacity Market Design that is Unjust and Unreasonable Because it does not Afford Capacity Suppliers a Reasonable Opportunity to Recover Their Costs. *See, e.g.,* 5 U.S.C. § 706(2)(A)*; Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); and *Jersey Central Power & Light Company v. FERC*, 810 F.2d 1168, 1177-78 (D.C. Cir. 1987).

---

[3] *See* Potomac Economics Protest at 6, 25-26.

[4] 18 C.F.R. § 385.713(c).

II. BACKGROUND

Potomac Economics is the Commission-approved Independent Market Monitor ("IMM") for the MISO. Potomac Economics filed a motion to intervene and protest in this proceeding on February 7, 2018 (the "Potomac Economics Protest"), and was duly granted party status by the Commission. The Potomac Economics Protest explained that "the MISO capacity market . . .has failed, since its inception, to perform efficiently and competitively because its design is fundamentally flawed."[5] It also emphasized that "[n]o objective analysis of the MISO capacity market could demonstrate that the outcomes under the current Module E are just and reasonable by any appropriate standard."[6] We therefore sought to ensure the efficiency and integrity of the MISO markets by asking the Commission to take effective action to "direct the MISO to develop design changes prior to the 2019-2020 Planning Resource Auction ("PRA") that would allow MISO capacity market to produce just and reasonable outcomes over the long-term."[7]

Specifically, we demonstrated that the capacity market design established under Module E has a fundamental flaw, that has prevented it, and necessarily will continue to prevent it, from producing just and reasonable rates. We explained that in the MISO capacity market, demand is modeled inaccurately; the MISO proposal uses a "vertical demand curve" in which "demand is a single quantity (by zone) for which MISO will pay any price up to a deficiency price." The problem with this approach is that, to operate properly, the market must ensure that the "reliability value of the capacity being purchased . . . determine[s] the shape of the demand curve."[8] If it does not – and the use of a vertical demand curve ensures that the market's

---

5 Potomac Economics Protest at 4.

6 *Id*.

7 Potomac Economics Protest at 6.

8 Potomac Economics Protest at 4-5.

demand curve will not accurately reflect the value of each increment of capacity acquired – then the market will not accurately value the capacity being acquired, and thus will not produce just and reasonable results. The IMM's Protest supported these points with substantive analysis.

The February 28 Order rejected our arguments and accepted MISO's filing as just and reasonable. As discussed below, this conclusion is arbitrary and capricious and must be revised on rehearing. The Commission must direct the MISO to make prospective market revisions that will result in just and reasonable market outcomes, at the very least with respect to independent generators that supply a large portion of the load in the MISO region.[9]

III. REQUEST FOR REHEARING

A. The February 28 Order is Arbitrary and Capricious Because it is Based on Fundamental Errors of Fact and Economic Theory, Fails to Articulate a Reasoned Explanation for its Acceptance of the Module E Tariff Provisions, or Otherwise to Respond Meaningfully to the Objections Raised by the IMM and Other Parties in this Proceeding

The "arbitrary-and-capricious" standard is firmly rooted in the Administrative Procedure Act[10] and firmly established by decades of well-known judicial precedent. It requires the Commission to 'examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'"[11] The Commission must also "respond meaningfully to the arguments raised before it."[12] The IMM

---

9 *See, e.g.,* February 28 Order at P 67 (noting that "[t]he vast majority (approximately 90 percent) of MISO's load is served by vertically integrated utilities over which state and local authorities play an active role in ensuring resource adequacy. . . ." and thereby acknowledging that a significant part of the regions load is served by independent generation.)

10 Under the Administrative Procedure Act, an agency action, finding, or conclusion can be set aside where it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or is "unsupported by substantial evidence" 5 U.S.C. § 706(2)(A).

11 *New England Power Generators Association, Inc. v. FERC*, 881 F.3d 202, 210 (D.C. Cir. 2018) (*citing Motor Vehicle Manufacturers Association of the United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29 (1983)).

12 *Id*.

respectfully submits that the Commission failed to make any "rational connection between the facts found and the choice[s] made," or to "respond meaningfully" to the arguments made by the IMM in opposition to MISO's proposed capacity market.

As discussed below, the February 28 Order failed to meet these standards in five specific instances. In each instance, the Commission made a determination that is not reasonably supported by record evidence and that cannot be shown to be reasonable because it is based on fundamental factual or economic errors. The Commission therefore also necessarily failed to provide a reasoned explanation of its inherently flawed determinations. These failures render the February 28 Order arbitrary and capricious.

1. Contrary to the February 28 Order's Assertions, the Presence of Surplus Capacity Does Not Demonstrate that the Module E Tariff Provisions Are Just and Reasonable

One of the February 28 Order's responses to the Potomac Economics Protest was to note the existing presence of surplus capacity in the MISO region. The Commission asserted that MISO's "resource adequacy construct enables the MISO region to maintain sufficient resources to meet system-wide and locational Reserve Requirements and, thus, results in just and reasonable rates."[13]

This finding is not the product of reasoned decision making for at least three reasons. First, it is based on an unstated, but fundamentally misguided, assumption that MISO capacity market prices have played a meaningful role in producing the current capacity surplus. Nothing in the record supports such an assumption that past market results have played any role in maintaining the current level of capacity. Actual data supports the opposite conclusion, namely that MISO has managed for the time being to maintain sufficient capacity resources despite the

[13] February 28 Order at P 58.

unreasonably low prices produced by the fundamentally flawed design of the capacity market. Our "State of the Market" Reports have shown that the MISO markets have consistently failed to produce revenues sufficient to support investment in the new and existing generating resources needed to satisfy the region's capacity needs.[14]

Second, the Commission has recognized that the majority of the load in MISO is served by vertically-integrated utilities. As such, capacity costs for these utilities will be augmented by regulated retail rates. This explains why substantially all of the new resources that have been built in MISO in the past decade have been built by these regulated utilities. However, the fact that additional revenues provided through the retail rates have supported capacity levels for the portion of the load served by the regulated utilities does not provide a reasonable basis for the Commission to conclude that the prices produced by MISO's capacity market are just and reasonable.

Third, even assuming that state regulators will likely continue to support capacity investment of the regulated utilities, a substantial portion of MISO's load (almost 10 percent) is not served by MISO's regulated utilities (*i.e.*, the "competitive load") and a similar amount of generation located in MISO is not owned by the regulated utilities (i.e., the "competitive supply").[15] In the past, the surplus capacity held by the regulated utilities has been large enough to supplement the competitive supply in satisfying the capacity requirements of the competitive loads.

However, there is no evidence to support a conclusion that the surplus will continue into the future. MISO has exhibited a substantial surplus of capacity since the market began in 2005.

---

14 See *IMM State of the Market Reports*, Net Revenue analysis, 2005-2016. Available at www.potomaceconomics.com.

15 Potomac Economics Protest at 22.

However, this surplus has been falling over the past decade for two reasons: 1) regulated utilities with resources that are retiring frequently do not need to build additional resources if they have sufficient resources to satisfy their requirements; and 2) competitive suppliers have been exporting as much capacity as possible from some of their existing resources and retiring other resources because MISO markets do not provide sufficient revenue for existing resources with substantial going-forward costs.

There is thus no evidence in the record, or basis under economic theory, supporting a conclusion that the surplus is the result of the capacity market revenues or that the presence of surplus capacity will continue. Furthermore, given the fundamental market design flaw in the capacity market that predictably will continue to produce inefficiently depressed clearing prices, one can reasonably expect competitive suppliers to continue to exit the MISO market and for the market ultimately to be unable to sustain sufficient capacity to satisfy its reliability requirements.

In short, it was arbitrary and capricious for the February 28 Order to rely on a false assumption, while overlooking record evidence and failing to address arguments presented by Potomac Economics and others.

2. Contrary to the Commission's Assertions, the Fact that MISO has had Surplus Capacity and that the Capacity Market has Produced Prices Below Net CONE Does Not Demonstrate that It is Just and Reasonable

The February 28 Order also asserted that low capacity prices that have prevailed in the MISO capacity market "accurately reflect MISO's capacity surplus . . . [and are] indicative of a well-functioning capacity procurement construct. . ."[16] However, this assertion is not based on the evidence in the record. There is no demonstration that the recent prices produced by MISO's markets, which are consistently very close to zero, accurately reflect the surplus level in MISO.

16 February 28 Order at P 60.

In order to make this finding, the Commission would have had to apply some economic standard regarding what would constitute an accurate or economically efficient price.

The only standard articulated by the Commission in the February 28 Order is that the price should be less than net CONE in a market with excess capacity.[17] This is not a reasonable "standard" because any price between $0 per MW-day and the $250 per MW-day CONE would satisfy it. Effectively, the Commission is concluding that, during periods of capacity surplus, any price would be just and reasonable as long as it is not so high as to make investment in new resources economic. The Commission's seeming view that prices need simply be less than net CONE during surplus periods eliminates the possibility that it could find the prices to be unjust and unreasonable, regardless of how depressed they have been or will be under Module E. This finding is particularly arbitrary in this case because the Potomac Economics Protest clearly demonstrated that the fundamental market design flaw in the Module E tariff provisions causes prices to be depressed.[18]

The "standard" that the February 28 Order applies is not defensible. The Commission has very broad discretion to determine what constitutes just and reasonable rates[19] but its discretion is not totally unbounded.[20] The Commission must, at an absolute minimum, engage in reasoned decision making and make a reasoned effort to honor the "the statutory mandate that rates be 'reasonable, just, and nondiscriminatory . . . ."[21] The February 28 Order does not do so.

---

17 *Id.,* at P 59.

18 Potomac Economics Protest at 17.

19 *New England Power Generators Association, Inc. v. FERC*, 881 F.3d at 810 (D.C. Cir. 2018).

20 *Id. See also Jersey Central Power & Light Company v. FERC*, 810 F.2d at 1177.

21 *Id*.

The only other observation made by the Commission in finding that MISO's capacity market will produce just and reasonable outcomes is that PRA clearing prices and "excess capacity" have been correlated. In the February 28 Order, the Commission introduced evidence not in the record that it obtained from MISO's website that purported to show this correlation. We have reproduced this information in Table 1 below.

Table 1: PRA Clearing Prices and Excess Capacity in MISO North 2015-2017

Auction	Clearing Price	"Excess" Capcity
2015/16	$ 3.48	4,376
2016/17	$ 72.00	2,079
2017/18	$ 1.50	4,438

It is true that prices and excess capacity should be negatively correlated in a well-functioning capacity market. However, the seeming correlation shown in this table disappears if the data is correctly evaluated and a longer timeframe considered. The $72 per MW-day price that occurred in the 2016/17 auction, only occurred in the North zones because the transfer constraint bound from South to North. This happened because the limit was understated at a level of less than 1000 MW. The limit has since been increased to 1500 MW and has not bound in any subsequent auction. If this higher limit had been used in the 2016/17 Planning Resource Auction, it would have cleared at $12.75 per MW-day, which is not a substantial increase from the clearing prices in the other years shown.

Moreover, if the Commission would have included the data for the 2014/15 auction, it would have found that the surplus was over 5,000 MW and a clearing price in the North of $16.75 per MW-day. Table 2 shows this more complete data.

Table 2: PRA Clearing Prices and Excess Capacity in MISO North 2014-2017

Auction	Clearing Price	"Excess" Capcity
2014/15	$ 16.75	5,360
2015/16	$ 3.48	4,376
2016/17	$ 12.75	2,079
2017/18	$ 1.500	4,438

The extra year of data along with the rational adjustment for the understated transfer limit in the 2016/17 auction shows that there is no clear correlation between the surplus and the price as asserted by the Commission.[22] In fact, the highest price occurred when the highest surplus occurred, which is not consistent with a well-functioning capacity market.

Even if there were correlation between the surplus and price during these years, it does not mean price levels are just and reasonable. In fact, the excess capacity values shown in the tables indicates a relatively tight market, as opposed to a market in surplus. The MISO capacity market clears over 140,000 MW of capacity. With a market "surplus" in the 2,000 to 4,000 MW range (about 1 to 3 percent), the market is barely meeting its requirements (consider for example that NYISO experienced an 11 percent surplus in the Summer of 2017.)

In our Protest, we showed that at these modest surplus levels, an efficiently-designed market would clear at roughly $115 per MW-day (in the most recent year).[23] The Commission ignored this evidence and presented the table discussed above. The values in Table 2 support the contention that flaw in the capacity market causes it to produce inefficiently low prices, clearing at close to zero even when the capacity market is relatively tight.

---

22 https://old.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Planning%20Year%2014-15/2014-2015%20Planning%20Resource%20Adequacy%20Results.pdf

23 Potomac Economics Protest at 21.

3. The Predominance of Vertically-Integrated Utilities Does Not Support the February 28 Order's Finding that the Use of a Vertical Demand Curve is Just and Reasonable

The February 28 Order concluded that "[g]iven the extremely high proportion of vertically integrated utilities and the active role that states have played, we find that the vertical demand curve is just and reasonable for use in MISO's resource adequacy construct."[24]

The Commission has failed to establish a rational connection showing that a vertical demand curve is just and reasonable simply because the MISO region is characterized by relatively high participation by vertically-integrated utilities subject to state regulation. In other ISO/RTO regions where the Commission has approved capacity market demand curves, the curves were underpinned by specific economic relationships. The primary feature of these other capacity market demand curves is that, like the demand for products in any market, they are related to the value that the underlying product provides to consumers. In those other regions, a discernable zone of reasonableness was established whereby the economic fundamentals guided the Commission's conclusion.[25]

In the case of MISO, the Commission is approving a demand curve based on "the extremely high proportion of vertically-integrated utilities" in MISO and "the active role that states have played" in ensuring resource adequacy.[26] These statements suggest the Commission is satisfied that, at least for vertically-integrated utility participants, resource adequacy can be assured through regulator-guaranteed cost recovery. Essentially, this means the capacity price is

---

[24] February 28 Order at P 68.

[25] *See, e.g., New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 at P 35, *reh'g denied*, 105 FERC ¶ 61,108 (2003).

[26] February 28 Order at P 68.

adequate to support investment so long as the investor has recourse to supplemental revenues from retail customers.

While the Commission is correct that the current market will allow continued investment by regulated utilities, this approach abandons a critical part of the capacity market, namely non-regulated suppliers and vertically-integrated utility demand for short-term spot-market purchases of capacity. In fact, these parts of the market are likely to provide most marginal activity and, as such, determine the key price signals.

We agree that the MISO states help ensure regulated utilities recover investment in resources, and, accordingly, that the low capacity prices that prevail may be adequate for these entities due to the regulated revenue guarantee. But this necessarily means that investment costs are recovered only partially through capacity market revenues. Capacity prices therefore do not provide adequate incentives and compensation for other market participants, particularly competitive suppliers.

Accepting a market structure that results in consistently near-zero prices on the ground that the effects of such prices can be mitigated by state subsidies for a subset of participants, implies that prices are unreasonably low for others. Essentially, the Commission is accepting an unreasonably low price because vertically-integrated utilities receive revenues outside the Commission's jurisdiction that permit them, at least for the time being, to provide adequate capacity.

As is discussed below in Section III.B, the February 28 Order's determination on this point is an impermissible and unexplained departure from decades of Commission precedent concerning both the function of capacity prices and prohibiting undue discrimination against competitive suppliers. The February 28 Order's decision must also be rejected as arbitrary and capricious. It was not reasoned decision making for the Commission to claim that retail rate subsidies sufficiently ameliorate the fundamental design flaw in the capacity market when those subsidies are not available to competitive suppliers. The Commission also failed to explain how ignoring the impacts of near zero capacity prices on competitive suppliers could possibly be reasonable and overlooked arguments by suppliers raising these concerns.

4. The February 28 Order Did Not Adequately Address the IMM's Arguments Regarding Market Volatility

In addressing claims that the vertical demand curve results in volatility, the February 28 Order states "that high volatility does not necessarily render a market construct unjust and unreasonable if such volatility accurately reflects underlying supply and demand conditions."

We agree that a reasonable market construct should reflect underlying volatility in market fundamentals. For example, an efficient and reasonable market should produce volatile prices when there is volatility in the quantity available to supply or volatility in demand. However, the volatility should not be caused by the market design. As our protest and others demonstrated the volatility in MISO capacity prices is the direct result of the vertical demand curve itself. The vertical demand curve is not a "market fundamental," it is a choice to model demand in a manner that departs from the underlying value of the product as we explained in our Protest. The Commission has noted itself previously:

> When vertical demand curves are used, even small increases or decreases in supply can result in large changes in price, because a fixed amount of capacity must be procured. In addition, because a small decrease in supply can lead to a significantly higher price, sellers may have an incentive to withhold certain resources.[27]

Therefore, while we agree that underlying volatility in the market fundamentals should be reflected in the market price, it should not be the direct result of a flawed market design. It is arbitrary and capricious for the Commission to have ignored this fact and the arguments raising it.

---

27 ISO New England, Inc., et al., 153 FERC ¶ 61,338 (2015).

5. The February 28 Order Mischaracterized, and Wrongly Relied Upon, Our Statement Regarding Cost Recovery by Competitive Suppliers' in the MISO

The Potomac Economics Protest explained why most suppliers offer capacity at offer prices close to zero in the MISO: "[b]ecause *most existing resources earn enough energy and ancillary services revenues to entirely cover their going-forward costs* ("GFC"), the net GFC is zero or very close to zero."[28]

The February 28 Order cited this statement as the sole basis for rejecting arguments by various independent generators that the Module E structure does not provide them with a reasonable opportunity to recover their costs.[29] But our statement was expressly limited to "most existing resources" and thus neither explicitly nor implicitly encompassed all existing resources or new resources. Moreover, the Potomac Economics Protest also observed that the "[t]he $115 per MW-day clearing price would provide revenues still less than half of net CONE for a new peaking resource, but it would cover the going forward costs of a large number of generators that will likely otherwise retire or export to other markets."[30]

It was thus arbitrary and capricious for the Commission to rely on it to support the proposition that the MISO capacity market produce just and reasonable outcomes for such resources. Our statement could not possibly be used to support the February 28 Order's conclusion concerning cost recovery. The February 28 Order's reliance on a mischaracterization of our position is arbitrary and capricious.

---

[28] Potomac Economics Protest at 9 (emphasis added).

[29] February 28 Order at P 59 and n. 138.

[30] Potomac Economics Protest at 5.

In addition, as is discussed below in III.C, Commission precedent is clear (and the law unambiguously requires) that competitive suppliers in Commission-jurisdictional markets must be afforded a reasonable opportunity to recover their costs. The fact that the February 28 Order denies competitive suppliers this opportunity is another reason why it must overturned on rehearing.

B. The February 28 Order is Arbitrary and Capricious Because it Departs, Without Adequate Explanation, From Commission Precedent and Policy that Capacity Markets Must be Designed to "Attract and Retain" Needed Capacity at Prices that are Just and Reasonable

It is "textbook administrative law that an agency must provide a reasoned explanation for departing from precedent or treating similar situations differently."[31] "Although an agency 'need not demonstrate to a court's satisfaction that the reasons for [a] new policy are better than the reasons for the old one,' the agency must 'ordinarily . . . display awareness that it is changing position.'"[32] An "agency may not . . . depart from a prior policy *sub silentio* or simply disregard rules that are still on the books."[33]

The Commission's approval of the MISO capacity market in the February 28 Order departs, without explanation, from well-established Commission precedent, and therefore is arbitrary and capricious. In particular, and as outlined in detail below, the Commission has long held that, in the context of capacity markets, the key question is whether the market design will produce price signals sufficient to "attract and retain" the necessary capacity resources.[34] The

---

[31] *New England Power Generators Association, Inc. v. FERC*, 881 F.3d at 810 *(quoting West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014)).

[32] *Id.* (*quoting FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 516 (2009)).

[33] *Id.*

[34] *See, e.g., New York Independent System Operator, Inc.*, 111 FERC ¶ 61,117 at P 25 (2005) ("The purpose of an ICAP requirement is to ensure a minimum amount of capacity in the market to promote reliability, and thus, to elicit additional capacity that might not otherwise enter the market.").

"attract and retain" standard is and always has been the central yardstick used to assess the justness and reasonableness of a capacity market design. The February 28 Order effectively abandons the "attract and retain" criterion, and it does so without adequate explanation.

The "attract and retain" standard has been a central part of the Commission's efforts to facilitate changes in the MISO resource adequacy construct. MISO's efforts to revise its resource adequacy rules effectively commenced after the Commission issued an order in 2010 definitively rejecting MISO's prior resource adequacy construct, and directing MISO to revamp its mechanisms for procuring capacity.[35]

In describing the changes needed to the MISO capacity procurement process, the 2010 Order referred to a Brattle Group report that had identified, among the problems then facing the MISO resource adequacy construct, the fact that the MISO "mechanisms do not provide a locational bilateral or centralized capacity price incentive to develop or retain resources in the right location" and that the MISO construct involved substantial out-of-market interventions that "can . . . undermine the energy and ancillary markets price signals."[36] Fundamentally, the Commission's key goals, as articulated by the Commission itself, included providing a "…capacity price incentive to develop or retain resources in the right location," and minimizing the use of out-of-market mechanisms in the implementation of a revised capacity construct.

The importance of providing appropriate price signals to developers of new capacity, and therefore of ensuring that they build their resources in the right locations, has consistently been a Commission priority for many years.[37] This principle is reflected not only in the Commission

---

35 *See Midwest Independent Transmission System Operator, Inc.*, 131 FERC ¶ 61,228 (2010) ("2010 Order").

36 *Id.*, at P 26.

37 *See, e.g.*, *New York Independent System Operator, Inc.*, 147 FERC ¶ 61, 152 at P 17 (2014) (Emphasizing the importance of creating appropriate price signals to incent entry of new locational

orders that led to the development of Module E and the existing MISO capacity market, but in the Commission's orders addressing other ISO/RTO capacity market constructs, particularly their adoption of a downward-sloping demand curve that accurately models the reliability benefits of each increment of additional capacity procured in the market. As the Commission explained in its approval of the downward-sloping demand curve for the New York Independent System Operator ("NYISO") installed capacity market:

> [W]e conclude that the proposal has been adequately supported and that there is a reasonable expectation that it will achieve the goal of improving reliability in New York, as well as promoting greater stability in the ICAP and energy markets. The proposed Demand Curve rests on a more rational economic basis than the current demand curve, as it more realistically reflects the economic value of capacity reserves. As the likelihood of inadequate capacity decreases with increased reserves, the value of additional reserve capacity decreases. The proposed downward sloping demand curve reflects the decreasing but still positive value of additional reserves (while the existing vertical demand curve does not) and is a substantial improvement over the existing demand curve.[38]

The Commission elaborated further that the "proposed Demand Curve will yield the price signals to suppliers and their investors to build more capacity in constrained areas . . . will encourage the construction of new generation, encourage the formation of long-term bilateral transactions, and . . . will reduce incentives to withhold capacity."[39] This goal of providing appropriate price signals to incent the development of new resources in the desired localities was

resources in NYISO capacity market); *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079 (2006) (emphasizing that the then-existing PJM capacity construct did not provide appropriate price signals to construct capacity in needed locations); *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 at P 35, *reh'g denied*, 105 FERC ¶ 61,108 (2003).(emphasizing the importance of sending appropriate price signals to suppliers to build new capacity in constrained areas).

38 *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 at P 35, *reh'g denied*, 105 FERC ¶ 61,108 (2003).

39 *Id.*, at P 36.

also cited by the Commission in its decisions to approve the use of a downward-sloping demand curve in the PJM and ISO-New England markets.[40]

The central holding in all of these Commission orders is the need for a capacity market mechanism that sends appropriate price signals to incent the development and retention of sufficient capacity in the appropriate locations in an ISO/RTO footprint to ensure reliable service. The Commission's acceptance of the MISO capacity market design in the February 28 Order represents a clear departure from its otherwise consistent policy of evaluating capacity market designs in light of the "attract and retain" standard. As explained in detail above, the MISO capacity market design does not, and cannot, "attract and retain" needed capacity at just and reasonable prices because it fails to accurately model the incremental value of demand, and therefore fundamentally misprices the capacity acquired in the market.

In response to the fundamental problems associated with Module E that we and others have highlighted, the Commission focuses on irrelevant or otherwise non-responsive arguments that do nothing to address the objections that we have raised.

---

40 *See PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079 (2006) ("The Commission finds PJM's existing capacity construct to be unjust and unreasonable. PJM has shown that the existing construct will, in the future, fail to achieve the intended goal of ensuring reliable service. It does not enable market participants to see the reliability problems in particular locations, does not provide price signals that would elicit solutions to reliability problems in enough time before the problems occur, and does not allow transmission and demand response to compete on a level playing field with generation to solve reliability problems. These factors, in conjunction with other factors (such as load growth in particular locations, and the lack of price signals sent by the energy markets) render PJM's current construct unreasonable on a long-term basis."); *ISO New England, Inc., et al.*, 153 FERC ¶ 61,338 at P 12 (2015) ("[T]he use of vertical demand curves in the FCM presents challenges such as increased price volatility and a susceptibility to the exercise of market power. When vertical demand curves are used, even small increases or decreases in supply can result in large changes in price, because a fixed amount of capacity must be procured. In addition, because a small decrease in supply can lead to a significantly higher price, sellers may have an incentive to withhold certain resources. Further, given the shift in New England's capacity supply in recent years, as noted in the Commission's [**10] January 24, 2014 Order on administrative pricing, it is even more important to ensure that the market produces accurate price signals").

One such argument raised by the Commission is the claim that "MISO differs from other RTOs/ISOs because of the greater portion of load served by vertically-integrated utilities that are subject to retail cost-of-service regulation compared to the prevalence of retail choice in other RTOs/ISOs."[41] This is not a viable response to the current Module E capacity market's failure to meet the "attract and retain" standard. The Commission's willingness to accommodate regional differences among ISOs/RTOs is irrelevant here. The fact that the Module E construct does not satisfy the "attract and retain" standard is not a mere "particular aspect of the construct that differs from what the Commission approved in another RTO."[42] It is a fundamental difference that necessarily results in the Module E regime being unjust and unreasonable.

Moreover, the Commission's response ignores the fact that there is substantial competitive load in the MISO footprint that is not served through regulated retail rates, as well as substantial independent generation. It is, therefore, vital that the market mechanisms implemented by MISO work efficiently to attract and retain needed capacity. The fact that substantial load in MISO is served through regulated retail rates is a distraction from, not a response to, this critical point.

Similarly, the Commission's attempt to justify the MISO capacity construct on the grounds that MISO capacity prices are "below the net Cost of New Entry"[43] and that low capacity prices in MISO "accurately reflect MISO's capacity surplus"[44] are merely evasions of the objections that we raised in our protest. As we explain in detail above, the fact that there is currently a surplus of capacity in the MISO market, and that prices in the MISO capacity market are well below net CONE, are not proof that the MISO market is working to "attract and retain"

---

41 February 28 Order at P 57.

42 *Id*.

43 *Id.,* at P 59.

44 *Id.,* at P 60.

capacity. These two circumstances exist in spite of, and not because of, the existing market structure. These arguments do not address or justify the fundamental departure from the "attract and retain" standard represented by the February 28 Order.

In sum, the factors cited by the Commission in support of its acceptance of the Module E provisions are not only illogical and insufficient to support the Commission's decision, but also obscure the fact that the Commission is departing from its long-standing principle that capacity markets must be structured to attract and retain sufficient capacity at just and reasonable rates in approving the MISO capacity market. The Commission does not adequately explain this departure from long-standing precedent, and its decision to approve the MISO capacity market structure is therefore arbitrary and capricious.

C. The February 28 Order Approves a Capacity Market Design that is Unjust and Unreasonable Because it Does Not Afford Capacity Suppliers a Reasonable Opportunity to Recover Their Costs

As noted above, although the Commission is "afforded wide latitude in rate-setting due to its expertise and broad statutory mandate,"[45] that latitude is not infinite. There "are limits inherent in the statutory mandate that rates be 'reasonable, just, and nondiscriminatory.'"[46] In particular, "there is a zone of reasonableness within which rates may properly fall . . . bounded at one end by the investor interest against confiscation and at the other by the consumer interest against exorbitant rates."[47] If a rate, term, or condition of jurisdictional service falls outside this zone of reasonableness, it is not just and reasonable.

The bottom end of this zone of reasonableness was defined by the Supreme Court's decision in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) to reflect

---

45 *New England Power Generators Association, Inc. v. FERC*, 881 F.3d at 810.

46 *Washington Gas Light Co. v. Baker*, 188 F.2d 11, 14 (D.C. Cir. 1950), *cert. denied*, 340 U.S. 952 (1951).

47 *Id.*

rates that are sufficiently high to protect legitimate investor interests. The Court ruled that rates must account for:

> the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock.[48]

Put another way, rates must be sufficiently high to "enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed . . . ."[49] Rates below this level are confiscatory not only under the FPA, but under the Constitution's Takings Clause as well. Prices set in Commission-jurisdictional markets are subject to the same requirements since they are, for FPA purposes, market-based rates.

The D.C. Circuit subsequently summed up the bounds of the Commission's discretion under the *Hope* zone of reasonableness test:

> The teaching of these cases is straightforward. In reviewing a rate order courts must determine whether or not the end result of that order constitutes a reasonable balancing, based on factual findings, of the investor interest in maintaining financial integrity and access to capital markets and the consumer interest in being charged non-exploitative rates. Moreover, an order cannot be justified simply by a showing that each of the choices underlying it was reasonable; those choices must still add up to a reasonable result.[50]

In the context of competitive markets, the Commission has emphasized that the ultimate measure of whether a market design is just and reasonable is whether it gives suppliers an opportunity to recover their costs. Indeed, the Commission has "no obligation in a competitive marketplace to guarantee [a seller] its full traditional cost-of-service" but rather is . . . responsible

---

48 *Hope Natural Gas*, 320 U.S. at 602.

49 *Id.*, at 606.

50 *Jersey Central Power & Light Company v. FERC*, 810 F.2d 1168, 1177-78 (D.C. Cir. 1987).

. . . for assuring that [a seller] is provided the opportunity to recover its costs."[51] If a market design does not afford suppliers a reasonable opportunity to recover their costs, then it is, by definition, unjust and unreasonable.

In the case of the MISO capacity market, the February 28 Order approves a market design that is inherently unjust and unreasonable because it does not give capacity suppliers a reasonable opportunity to recover their costs. As outlined at length above, and in our protest, the MISO capacity market does not model demand accurately. For this reason, it fundamentally misprices capacity procured in that market. This mispricing of capacity will not, and indeed cannot, improve unless the market is revised to allow the incremental value of each increment of capacity to be accurately reflected in the market price.

The fact that substantial load in the MISO footprint is served through regulated retail rates is insufficient to address the inaccurate pricing of capacity in the MISO market. There remains substantial load in the MISO footprint that does not receive regulated retail rates, and that cannot count on integrated resource planning to ensure that sufficient capacity will be available to meet its future needs. This load is dependent upon a capacity market construct that sends appropriate price signals to attract and retain sufficient future capacity.

As discussed above (and in the Potomac Economics Protest), it is true that most generators that do not face substantial going-forward costs in the near term can cover their costs through energy and ancillary services revenues. But this is *not* true for the older, higher-cost existing resources that are needed to satisfy MISO's reliability needs. Importantly, these older, higher-cost resources are needed and economic for satisfying the MISO's resource adequacy needs. In

---

51 *See Bridgeport Energy*, LLC, 113 FERC ¶ 61,311, at P 29 (2005) ("[T]he Commission has no obligation in a competitive marketplace to guarantee Bridgeport its full traditional cost-of-service. Rather, in a competitive market, the Commission is responsible only for assuring that Bridgeport is provided the opportunity to recover its costs.").

addition, new resources being developed by unregulated suppliers are not in a position to recover their GFCs through energy or ancillary services revenues. Since the capital costs for these resources are not yet sunk as they are for existing resources, there must be an expectation of cost recovery for investment to occur. Importantly, this kind of investment is critical over the long run to economically satisfy MISO's resources adequacy needs because it will continue to have substantial competitive loads to be served, and because this investment by unregulated suppliers may be lower cost than investment by the regulated utilities.

As we explain above, it is imperative that the market create an expectation of cost recovery in order to support the necessary capacity investment. If a supplier does not have such an expectation, then it will not enter the market, and the amount of available capacity in the MISO market will continue to fall. Under the existing market construct, there is no such expectation of cost recovery. Indeed, given the near zero prices in the MISO capacity market, and the fundamental mispricing of capacity that will continue to exist under the vertical demand curve model, generators are not afforded any kind of reasonable opportunity to recover their costs.

For these reasons, the Module E capacity market falls outside the wide zone of reasonableness applicable to Commission rate determinations. Without providing generators with a reasonable opportunity to recover their costs, the Module E capacity market fails to allow such generators, over the long run, to operate successfully, maintain their financial integrity, attract capital, or compensate their investors. The Module E resource adequacy construct is fundamentally unjust and unreasonable. The Commission should order the MISO to revamp its market rules to ensure that they produce just and reasonable prices.

IV. NOTICE AND COMMUNICATIONS

All correspondence and communications in this matter should be addressed to:

Dr. David B. Patton
Potomac Economics, Ltd.
9990 Fairfax, Boulevard, Suite 560
Fairfax, VA 22030
(703) 383-0720

Dr. Robert Sinclair
Potomac Economics, Ltd.
9990 Fairfax, Boulevard, Suite 560
Fairfax, VA 22030
(703) 383-0726

V. CONCLUSION

For the reasons set forth above, the Commission should grant rehearing of the February 28 Order and direct the MISO to develop design changes prior to the 2019-2020 PRA that would allow MISO capacity market to produce just and reasonable outcomes over the long-term.

Respectfully submitted,

/s/ David B. Patton

David Patton
President
Potomac Economics, Ltd.
March 30, 2018

CERTIFICATE OF SERVICE

I hereby certify that I have this day e-served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 30th day of March 2018 in Fairfax, VA.

/s/ David B. Patton

____