UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midcontinent Independent System Operator, Inc.	**Docket No. ER17-284-000**

AFFIDAVIT OF MARC D. MONTALVO

I. Qualifications and Purpose

1. My name is Marc D. Montalvo. I am President of Daymark Energy Advisors. My business address is One Washington Mall, Boston, Massachusetts 02108. Daymark Energy Advisors is a consultancy that provides policy, planning, and strategic decision-support services to the electric and natural gas industries.

2. I provide strategy, risk management and decision-making advisory services to a wide range of clients in the electricity industry. My principal practice areas are competitive power market design, wholesale market regulations and policy, and capital budgeting and investment analysis. Before joining Daymark Energy Advisors, I worked ten years at ISO New England where I served as Director of Enterprise Risk Management, Director of Market Analysis and Investigation of the Internal Market Monitor ("IMM"), and Director of Market Development. I have testified before the Federal Energy Regulatory Commission ("FERC" or "the Commission") numerous times on market design and market mitigation issues. In addition, I hold a part-time faculty position at the Graduate School of Management at Clark University, where I teach a course focused on financing renewable power projects. I

hold an M.S. in Finance from Clark University and a B.S. in Mathematics from Allegheny College.

3. NRG Energy, Inc. ("NRG") is the owner and developer of power generators that participate in the Midcontinent Independent System Operator, Inc. ("MISO") markets. I have been retained to review and comment on the Competitive Retail Solution ("CRS") design that MISO proposed in its November 1, 2016 filing.

4. This affidavit is organized as follows. I begin with a brief discussion of the resource adequacy issue in MISO, the new resource investment landscape, MISO's design constraints, and the goal of the CRS. I next provide a discussion of the market design: participation rules, supply and demand specification, and auction structure. I then discuss the expected interactions between the Forward Resource Auction ("FRA") and the Planning Resource Auction ("PRA"), bidding incentives, and price formation. Finally, I explain that the MISO proposal does not meet MISO's design objectives and that it may consequently lead to a sub-optimal allocation of investment capital, raising costs to consumers through time.

II. Background

5. The majority of generation resources in the MISO region are owned by Investor Owned Utilities ("IOUs") with cost-of-service rate recovery. A number of resources have been developed by Independent Power Producers ("IPPs") with offtake largely contracted under Purchase Power Agreements ("PPAs") and a smaller percentage has been developed as merchant facilities. Importantly, merchant facilities are located throughout the MISO footprint, with a relatively large number in MISO south, and not just limited to those

northern parts of MISO where retail competition prevails in Zone 4 and Zone 7 in Illinois and Michigan, respectively.

6. MISO's existing capacity market is designed to provide short-term reallocations of existing capacity to meet the aggregate planning needs of the RTO's ten (10) Local Resource Zones ("LRZs"). The total amount of capacity that trades at the prices coming from the market is generally small relative to the total amount of capacity required in the region. This is in principal part because the majority of Load Serving Entities ("LSEs") in MISO are IOUs that develop and own resources sufficient to cover their retail loads consistent with state planning requirements, where planning requirements exist and in states with regulatory oversight of resource adequacy and generation. Prices reflect: (1) the opportunity cost to sell to adjacent RTO regions, such as PJM, (2) inter-zonal transmission constraints, and (3) relative shortfall. MISO's existing capacity market, the PRA, does not provide, nor was it designed to provide, price signals against which efficient market-based investment and retirement decisions would be made.

7. MISO has recognized that prospectively, as resources retire and projected surpluses shrink, the absence of price signals designed to coordinate investments and retirements could threaten regional reliability – with particularly acute impact in Zone 4 and Zone 7 where competitive retail suppliers depend on the wholesale market and market prices to provide investment incentives. With the CRS proposal, MISO offers changes to the existing capacity market construct that it asserts will address this investment and retirement coordination problem in the competitive resource zones.

III. The Market Design

8. MISO proposes a new Forward Resource Auction ("FRA") through which LSE's in competitive resource zones (Zone 4 and Zone 7) would procure capacity sufficient to meet the expected zonal capacity requirement three years in advance of a Planning Year. LSEs in these zones could alternatively demonstrate satisfaction of the forward capacity procurement requirement via a Prevailing State Compensation Mechanism ("PSCM") or Forward Fixed Resource Adequacy Plan ("FFRAP"). Non-competitive resource zones would not use the FRA, but rather would continue to rely on utility capital planning to guide investments.

9. The existing PRA would continue to be used annually. Through this process, LSEs that do not use a Fixed Resource Adequacy Plan ("FRAP") can procure or sell Zonal Resource Credits ("ZRCs") to meet the Local Resource Requirements ("LRR") and system wide Planning Reserve Margin Requirements ("PRMR") for the prompt planning year. An LSE that has demonstrated sufficient ZRCs through submission of an FFRAP cannot participate in the PRA, but rather must submit a FRAP for that PRA prior to the Planning Year. This constraint is argued as a means of avoiding FRA/PRA price arbitrage. As proposed, the FRA and the PRA are separate auctions. All capacity cleared though the FRA is "self-scheduled" into the PRA as a zero-price offer. FRA positions do not settle against a PRA "spot" price, as one would expect in a standard forward market model.

10. The FRA will clear against a downward-sloping demand curve called the Variable Reliability Target ("VRT"). The demand curve is structured to procure all of a Local Resource Zone's ("LRZ") capacity requirement (i.e., the sum of all LSE's capacity obligations), not just the local sourcing requirement (i.e., the amount of capacity that must be located within the zone given limitations of the transmission system). The shape of the demand curve in the FRA is based on a zonal Net CONE calculation, the amount of capacity required to maintain 1-in-10

LOLE in the zone, and an estimate of incremental value of surplus capacity. The PRA will procure additional capacity above that purchased in the FRA if failure to procure additional capacity would result in an LOLE below 1-in-5.

11. New Generation Resources that intend to participate in the FRA will be required to satisfy all of MISO's existing requirements for qualification as a Planning Resource prior to the relevant Planning Year. A new resource must have a Facilities Study and a System Impact Study completed seven (7) Calendar Days in advance of an FRA.

12. FRA participation for LSEs in non-competitive resource zones is voluntary. FRA participation is mandatory for capacity resources located in competitive retail areas ("CRAs"). An LSE serving demand in a non-competitive retail zone may offer its capacity into the FRA, provided it demonstrates to MISO that it has sufficient capacity to meet its Resource Adequacy Requirements ("RAR") for the FRA Planning Year and the subsequent Planning Year. Planning Resources owned or contracted by LSEs are exempted from the Pivotal Supplier evaluation, if the sum of the ZRCs from those Planning Resources is less than or equal to the LSE's Safe Harbor Exemption Limit.[1]

13. Unless the Market Participant provides the Transmission Provider written notification of an intent to cease participation as Capacity Resources, resources located in a competitive resource zone that clear a FRA have a FRA Subsequent Year Offer Requirement, must offer in the next FRA, and must continue to offer in subsequent FRAs. Resources will be evaluated for physical and economic withholding. The stated goal of these requirements is the provision of stable capacity supply.

[1] *See MISO Transmittal Letter* at 27.

IV. Evaluating the Proposed Capacity Market Design

14. An efficient well-functioning capacity market produces prices that reflect the opportunity cost of committing capital to maintaining regional reliability. In this way, such prices coordinate decisions to build or retire resources, to import or export capacity, and to maintain and make capital improvements to existing facilities. Ensuring the efficient allocation of capital is fundamentally the investment goal of both the market designer and the regulator. That said, the capacity market design problem is complicated by the participation of both integrated utility and competitive retail supply and merchant resources within the same market construct.

15. A utility invests under a regulated planning and cost-recovery model, subject to internal financial goals and state regulatory requirements. The prices that the utility charges to its franchise retail customers are structured to recover the investment made to provide reliable service, plus a return. Once the jurisdictional regulatory authority has deemed such investment proper, absent gross mismanagement by the utility, the utility will recover all costs irrespective of prevailing market conditions. Under this paradigm, a utility's customers implicitly assume both market and performance risk.

16. Competitive retail suppliers and merchant resource developers, on the other hand, make all capital allocation decisions based on an evaluation of market conditions – not least of which is expected market revenues. The competitive assessment requires a careful evaluation of prevailing supply and demand conditions, the incentive structure of the market place, and the obligations and risks associated with taking a position. The competitive supplier recovers its costs and earns a return only to the extent that its costs of supplying capacity remain below

the marginal cost (market price) of providing capacity into the market place. Under this paradigm, a supplier – not its customers – assumes both market and performance risk.

Coordination Role of the Market

17. Through the PRA, MISO seeks to ensure that there is sufficient capacity allocated to each zone in a Planning Year. The PRA clears supply against a vertical demand curve set to meet 1-in-10 LOLE under 90/10 loads and all lines in conditions. However, because capacity investments across the majority of the MISO footprint are made by integrated utilities subject to state planning processes, the PRA does not play an investment coordination function. That is, PRA prices are not the principal signal guiding investment in the region's capacity resources. With the FRA, MISO is attempting to add a structure that will perform the investment coordination role in Zones 4 and 7 – the CRAs – while not fundamentally changing the investment processes in the balance of the MISO zones.

18. MISO, in its filing, states that it is proposing a forward capacity market design much like that approved for use in ISO New England ("ISO-NE") and PJM. However, this statement is not entirely correct. The forward capacity markets operated by ISO-NE and PJM have a different objective than that of MISO's proposed FRA. The ISO-NE and PJM markets seek to procure the set of capacity resource that most cost-effectively delivers <u>reliability</u> (defined as the ability to deliver energy and ancillary services during stressed real-time system conditions) to the market-place. The MISO FRA proposal, on the other hand, seeks to procure the total quantity of capacity (iron in the ground) in Zones 4 and 7 needed to meet the three-year ahead PRA vertical demand in the Planning Year.

19. MISO's FRA proposal does not share any of the important incentive features of ISO-NE or PJM's forward capacity markets.

20. Both the ISO-NE and PJM capacity markets have been designed to align the performance incentives in the capacity market with the delivery incentives in the energy and reserves market, i.e., a resource only earns scarcity revenues in real time if it operates. The settlement and performance rules link the provision of the capacity product to these real-time operational markets. The forward capacity obligation is settled in the spot market against energy market results and capacity market penalty provisions. The demand curve essentially measures the impact of different amounts of capacity on expected scarcity rents (which is correlated with LOLE). In this way, the forward capacity price equals the risk adjusted expected value of avoided scarcity. New investment occurs when scarcity rents avoided by entry are at least equal to the net cost of new entry (Net CONE). This is consistent with basic economic theory.

21. Moreover, the ISO-NE and PJM designs both procure the total quantity of capacity needed to meet the market-wide reliability objective while recognizing any limitations of the transmission infrastructure to freely deliver energy under planning conditions to all parts of the market, creating location-specific resource capacity needs (referred to as the local clearing requirement) within the market region footprint. Importantly, these market designs include the forward procurement of capacity for the entire market region, not just a subset of the market or the local clearing needs. Beneficially, this allows the market to select the most cost effective set of resources that meet regional reliability subject to all transmission constraints. Understanding that the most cost effective resource to meet a regional need may be located in a constrained zone and that even in the most constrained zones, only a subset of

the requirement must be met locally. The set of clearing prices, both regional (unconstrained) and local (constrained), then, signals generation developers, transmission developers, and demand response providers to site resources appropriately.

22. These designs recognize and seek to align the trade-offs between resource type, location, and actual and expected performance in the real-time markets in order to internalize all risks and opportunities into the forward capacity bid. Through this mechanism, then, competitive suppliers are able to make investment decisions that support the regional reliability goal at lowest possible cost to consumers.

23. Contrast this with MISO's proposal.

24. The proposed FRA purchases an amount of capacity against a demand curve that is calculated as a function of zonal LOLE. This demand is not tied to expected scarcity (energy and ancillary prices) in the region. Thus the organic economic link between forward price and investment signal is lacking.

25. Additionally, MISO proposes to set the demand in the zonal FRA's equal to the Zone 4 or Zone 7 capacity requirement, not the local clearing requirement, with no corresponding FRA in any other zone. This approach to the FRA fails to reflect that capacity in a competitive retail area may meet needs not only in the zone in which it is located, but also in other interconnected MISO zones. The optimal amount of capacity procured in the competitive resource zones should reflect the value of capacity in the location, and the entire market. However, because the FRA demand is not tied strictly to the local reliability need (as would be reflected in the local clearing requirement) or to the MISO-wide reliability requirement, the local capacity price does not reflect the marginal reliability value contributed by a

resource located in the zone. The FRA clearing prices, then, will provide no real signal to generation developers, transmission developers, and demand response providers to site resources appropriately.

Restrictions on Trade

26. The rules proposed for allocating transmission to the FRA appear to adversely impact the ability of competitive resources located outside of the competitive resource zones to sell forward. While the description of the process for allocating transmission capability to the FRA is not clear, the testimony (see Bladen, pp. 36 and 37) suggests that the ability to deliver capacity across MISO inter-zonal interfaces in the FRA is established via a process that pre-loads the non-competitive capacity that clears the PRA prior to the FRA into the Simultaneous Feasibility Test ("SFT"). MISO argues that this is appropriate because the distribution of supply is unlikely to change between the PRA and the three-year forward planning year. The proposed transmission allocation rule raises the following fundamental design problems:

    - The design will tend to suppress prices in the PRA, particularly in areas outside the CRAs, and to restrict competition in the CRAs. Moreover, the transmission allocation rule taxes trade by transferring costs from the PRA into the FRA, raising FRA prices and increasing costs to consumers in Zones 4 and 7.

    - The FRA does not reflect the system topology, loads, and offered supply relevant to the three-year ahead planning year.

- The design effectively requires competitive suppliers to clear the current-year PRA at uneconomic zero-price bids in order to gain access to the FRA.

27. First, the proposed rule could restrict competition and raise prices above otherwise competitive levels in the FRA, increasing costs to consumers in Zones 4 and 7. Given the number of regulated utility resources, as a practical matter, it seems that a resource located outside of Zones 4 or 7 would have to clear the prior PRA in order to guarantee access to the FRA. If this is the case, the potential gains from trade accrue to the participants in the PRA at the expense of those buying and selling through the FRA. To see this, consider the following.

28. The proposed design sets up a game with inefficient payoffs. There is a high likelihood that much if not all of the available transmission capability across key inter-zonal interfaces, such as the North-South interface, will be fully "subscribed" in each PRA (this interface is most often binding in the PRAs). Given the amount of utility capacity offered at zero-prices relative to PRA demand, competitive suppliers that want to guarantee access to the FRA have an incentive to offer into the PRA at or near a zero price to clear. The opportunity cost of PRA participation for a competitive supplier is not zero. Thus the competitive supplier is submitting a bid that is not reflective of its true economic costs. This is inefficient. A competitive supplier that clears the PRA at a bid at or near zero will likely experience a negative payoff on the position. Moreover, the presence of additional zero-priced offers submitted to the PRA for the purpose of securing access to the FRA will tend to suppress PRA prices.

29. This set of outcomes in the PRA sets up additional perverse bidding incentives in the FRA. There are two cases to examine. (1) If the available transmission capability is fully

subscribed by non-competitive capacity in the current-year PRA, competitive suppliers located outside of a CRA cannot clear the FRA. In this case, the supply available to CRA load is limited to that located within Zones 4 and 7. (2) If not all of the transmission capability is fully subscribed by non-competitive capacity in the current-year PRA, competitive suppliers located outside of a CRA can clear the FRA. However, in this case, because the competitive supplier has committed to a loss by taking a PRA position, the opportunity cost of participating in the FRA has increased by an amount equal to the loss (adjusted for the time-value-of-money). The competitive supplier will rationally bid its opportunity costs, which equals its going-forward costs plus its PRA lost-opportunity costs, into the FRA. This bidding dynamic puts competitive suppliers located outside of the CRAs at a competitive disadvantage to those located within the CRA (resources located within the CRA economically bid only their going-forward costs). This game has the perverse effect of raising prices above otherwise competitive levels, both when a competitive resource clears and when a resource that would have cleared, but for the inclusion of the PRA lost opportunity cost, fails to clear.

30. Second, as described by MISO, the PRA and the FRA are not linked. Logically, then, each market should be considered to operate independently from one another. The PRA should reflect the system topology, loads, and offered supply relevant to the PRA planning year and the FRA should reflect the expected system topology, loads, and offered supply relevant to the planning year three years ahead. Instead of allocating transmission capacity for use in the FRA on the basis of an unrelated current-year PRA, such a design would allow all resources in MISO to compete to provide the most cost-effective set of capacity resources to Zones 4 and 7 based on conditions expected in the forward period. This outcome seems consistent

with the goals of the forward market. As long as resources are deliverable within MISO under the forward market planning assumptions, peak load and transmission topology, there should be no arbitrary restriction on participation.

31. Third, the majority of the capacity that "clears" through PRAs today is regulated utility-owned and self-scheduled at a zero-price. Much of this zero-priced utility-owned capacity is located south of Zones 4 and 7. Under MISO's proposal, capacity that bids a zero-price and so clears the PRA would have first call on the transmission capability south to north in the FRA, consequently restricting the transmission capacity available to competitive resources that might otherwise participate in the FRA to serve retail loads in Zones 4 and 7. These PRA cleared resources are not required to operate the FRA. The construct has the effect of uneconomically discriminating against both the consumers in Zones 4 and 7 who face a restricted set of potential suppliers and the competitive suppliers located south of the North-South interface that cannot access loads in Zones 4 and 7.

32. MISO states that the proposed FRA is designed to be open to all capacity resources within its footprint. However, full participation seems improbable as scarce transmission is not allocated to suppliers either on the basis of held firm transmission rights (available through the OATT on a nondiscriminatory basis) or on the basis of economic rationing in the FRA as a function of competitive offers (i.e., offers that reflect the going forward costs of all offered supply). Given the proposed design, to put competitive suppliers on a common footing with regulated utilities, competitive suppliers should have the right of first refusal to the firm transmission rights that they already hold. Such an approach would allow competitive suppliers to secure a transmission allocation for use in the FRA without having to first submit clearly uneconomic zero-price bids into the PRA.

The Relationship between a Forward and Spot Market

33. MISO proposal states explicitly that there is no relationship between the FRA and the PRA, and that resources with positions in the FRA will have their capacity self-scheduled into the PRA at a zero-price.

34. This is odd and problematic. As a basic proposition, forward markets are derivative markets; i.e., the product that trades forward "derives" its value from an underlying product that trades on a spot or cash market. One would expect that buyers would seek to contract forward in order to avoid the risk of high spot prices in the future and sellers would seek to contract forward to avoid the risk of low prices in the future. In the capacity market context, the risk to load is a combination of high scarcity induced energy and ancillary services prices under scarcity and the potential for shortage. The risk to supply is the inability to recover going forward costs. Load should be willing to pay up to the value of lost load and the supply offers should reflect a generators' going-forward costs or opportunity costs of providing the reliability service in the relevant timeframe. The ISO-NE and PJM forward capacity markets follow this basic design premise, with the real time energy and ancillary services markets underlying the forward price.

35. Importantly, ISO-NE and PJM designed their capacity markets to address the inability of energy and ancillary services markets on their own to efficiently produce prices that would allow generating resources to earn <u>scarcity rents</u> sufficient to motivate timely investment and maintain target reliability. In its proposal, MISO is ostensibly offering the FRA to accomplish this; however, there is no underlying reliability product. Unlike with the ISO-NE and PJM forward capacity markets, it is unclear what a resource that clears in the FRA

delivers, or what reliability service (if any) an LSE that is paying for the resource is receiving.

36. It seems possible that there could be enough supply offered against the PRA's vertical demand curve in a Planning Year to produce prices that are lower than the FRA prices – surplus in the PRA has no value, while it is positively valued in the FRA. If the value of the FRA is the avoided PRA cost, then it is not clear why the PRA demand curve is not the same as the FRA curve. MISO has made no argument, nor does it seem plausible that the implied elasticity of demand (marginal value of reliability) is different in the forward timeframe versus the planning year timeframe.

37. Also, because the FRA demand is disconnected from the zone's exposure to future scarcity, it is not clear what incents real-time delivery and performance (besides an administrative penalty in the PRA, which is indirect and difficult to set correctly). Minimally, in the competitive retail zones, addition of a sloped demand curve and use of all available supply in the PRA would introduce a risk and potential opportunity cost associated with failing to deliver the forward position, even when the zone is somewhat long.

Bidding Incentives

38. As proposed, both competitive suppliers who depend entirely on market revenues and utility assets that receive regulated cost recovery are able to compete in the FRA. While on its face it is reasonable to allow all resources that can provide capacity to participate in the FRA, the participation of regulated assets should not undermine the incentives to induce sufficient merchant resource investment and performance. Competitive suppliers will make timely

investments only if there is expectation of a sufficient financial return in MISO's markets; the decisions of utility assets are not based on the same information.

39. Resources located in the competitive resource zones must offer into the FRA, while resources located outside of these areas participate on a voluntary basis. Consequently, clearing results in the FRAs are likely to be highly dependent on whether regulated utilities decide to participate – not on the going forward costs of all resources in the market that are technically able to supply. The proposed rule that requires a resource that offers and clears in an FRA to offer into subsequent FRAs does not resolve this source of uncertainty.

40. In a good market design, the bids submitted should depend solely on common information and the bidders' cost structure; that is, bidders should be able to construct no regrets bids without consideration of the bidding behavior of other participants. In the proposed FRA structure, the opportunities and risks faced by competitive suppliers and regulated utilities are immensely different. A competitive supplier must gain a position that covers its going forward costs in the FRA and have reasonable expectations of continued coverage in order to justify investment. Consequently, a supplier offering competitively has no incentive to offer below its risk-adjusted going forward costs. A regulated utility, on the other hand, does not need any revenues from the FRA to support new investment or ongoing capital cost recovery. Consequently, a utility supplier has discretion regarding participation in the FRA. If it does decide to offer, it will do so with little incentive to offer at a price much above zero. Moreover, it is probable that the jurisdictional regulators will play a role in deciding whether and to what extent any risks associated with the forward sales of surplus capacity is prudent.

41. For the competitive supplier, this dynamic sets up the following problem. In a given FRA, the competitive supplier may only face part of the available supply; that is, given the total amount of capacity that is technically capable of participation, a subset (which may not be the same from auction to auction) may choose not to participate. The subset of supply associated with regulated utility supply may offer at or near zero, with the balance of supply (competitive supply, whether located in the CRA or outside) offering competitive going-forward costs. This is similar to the bidding dynamic we see today in the PRA, however in the PRA there is no investment signal.

42. Assume in the FRA that a competitive supplier clears the market at a price that justifies investment in a new resource. -- This presumes that the supplier would be willing to commit capital on the basis of one auction. This has not been the case in other markets, leading to the seven year price lock, for example, in New England. -- In the next FRA, because only a subset of regulated utility supply was offered to the previous auction, with no change in the actual total supply in MISO, additional supply can be offered to the FRA, potentially collapsing the price. To protect against this outcome, the competitive suppliers will adjust their bids to reflect the uncertainty (note that the risk cannot be calculated since the probability is unknown) associated with regulated utility supply participation. The likely outcome is higher bids from competitive suppliers. This game has the perverse effect of raising prices above otherwise competitive levels, both when a competitive resource clears and when a resource that would have cleared, but for the risk adjustment, fails to clear.

43. Consequently, the MISO proposal fails to provide incentives for cost-effective investments that will address reliability needs. The proposed FRA will tend to advantage regulated utility resources. As proposed, the FRA has a structural bias toward selecting utility resources,

because these resources have lower opportunity costs. This structural bias occurs because the market design provides no mechanism to force resources to offer based on their going-forward costs. Rather, the design allows resource to bid their opportunity costs – which as explained previously, are materially different for competitive and regulated utility supply. Even as such, the capacity market must fully compensate for the opportunity cost of committing capital to the zones, or fail to meet its goal.

44. For the prices in Zones 4 and 7 to be meaningful, they must reflect the marginal cost of adding competitive supply to the zone. As discussed, such offers must reflect the going forward costs of the resources in question. Note that the important and fundamental difference in the offers made by regulated utilities versus competitive suppliers into the capacity market is that the regulated utilities are making no investment, retirement, or capital improvement decisions on the basis of the forward price. In ISO-NE and PJM, the forward market offers are examined for a number of non-market-based revenues that might subsidize an offer. In this case, it would be appropriate to require the regulated utilities offering forward to construct offers that essentially reflect the going-forward costs of the assets assuming no regulated rate recovery. This would at least put the offers from all resources into the market on a common footing.

45. The FRA (the PRA for that matter) does not select the resources that most cost-effectively deliver reliability. Simply put, there is no mechanism to compensate performance. Regulated utility resources can submit near zero-price bids in the FRA because of the regulated revenues they receive, making them more likely to clear in the capacity auction. These resources may not be the most reliable, or cost effective means of meeting the zonal requirements going forward. Rather, all that can be said is that they are able to submit low

offers, because they have guaranteed cost recovery. On the other hand, competitive suppliers – and not ratepayers – in the retail competition zones bear the risk and the rewards associated with their investments.

46. In this way, the proposal is not resource neutral. This proposal does not allow regulated utility and competitive resources to compete on an equal footing. The goal of a single capacity market price signal that selects for a reliable, cost-effective resource portfolio that includes both rate regulated and competitive supply, is undermined to the extent that the available resources are not all exposed to the same opportunity set, and required to submit comparable bids.

Minimum Offer Price Rule

47. Buyer-side mitigation refers to offer floors that have been put in place by the FERC to deter large net buyers and local governments from subsidizing new entry and artificially depressing capacity market prices. MISO states in its filing that buyer-side mitigation via adoption of a Minimum Offer Price Rule ("MOPR") is not needed for this market design to produce efficient prices. In an ideal world, this might be so. However, experience in ISO-NE, PJM, NYISO, all provide clear evidence that via many means, whether intentional or not, large net buyers and local governments in pursuit of their economic self-interest and policy objectives do enter into arrangements that have the effect of suppressing capacity prices below otherwise competitive levels. Consequently, all of the RTOs have implemented detailed screening tools to ensure that the prices submitted to the capacity auction reflect competitive going-forward costs. Moreover, as state policies have evolved, these RTOs have committed substantial resources to ensuring the effectiveness of their MOPRs. Given this

experience, it would seem inconsistent that MISO not adopt a rule that provides a level of screening now, prophylactically, to prevent the exercise of buyer-side market power. It is much harder to address market power after the fact; when the price distortion have already effected investment decisions.

V. The CRS does not meet MISO's design objective

48. MISO asserts that the CRS proposal will address the investment and retirement coordination problem in the competitive retail zones. MISO proposes to leave the rules affecting the non-competitive retail zones largely unchanged in order to reflect the regional differences in utility regulation that exist within MISO's footprint.

49. It is unlikely that the proposed CRS design will select the resources that most cost-effectively deliver reliability to zones 4 and 7.

VI. This completes my affidavit.