UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midwest Independent Transmission System Operator, Inc.	**)** **)** **)**	**Docket No. ER11-4081-001**

INITIAL BRIEF OF THE NRG COMPANIES

On August 12, 2013, the Federal Energy Regulatory Commission ("FERC" or "Commission"), pursuant to Rule 713(d)(2) of the Commission's Rules of Practice and Procedure,[1] directed additional briefing in this docket to address whether it is appropriate for the Midcontinent Independent System Operator ("MISO") to revise its resource adequacy requirements to include buyer-side market mitigation rules.[2] The NRG Companies[3] welcome the opportunity to participate in this proceeding, and respectfully request that the Commission consider this Initial Brief in support of the adoption of buyer-side market power.

I. Introduction

The Commission has long recognized that capacity markets are a critical component to efficient and competitive energy markets and are the best way of ensuring that grid operators have the reserve margins necessary to ensure long-term reliability. As the Commission heard at the September 25, 2013 Technical Conference on Capacity Markets, the capacity constructs in the eastern markets have been successful in ensuring adequate reserve margins in those regions, even as

[1] 18 C.F.R. § 385.713(d)(2) (2012).

[2] *Order Initiating Briefing Procedures in Midwest Independent Transmission System Operator*, 144 FERC ¶ 61,125 (2013) ("*Briefing Order*").

[3] The NRG Companies are Louisiana Generating LLC ("LaGen"), NRG Power Marketing LLC, GenOn Energy Management, LLC, Bayou Cove Peaking Power LLC, Big Cajun I Peaking Power LLC, NRG Sterlington Power LLC, Cottonwood Energy Company LP and NRG Wholesale Generation LP.

low gas prices and new environmental rules are stressing the nation's electrical infrastructure. These markets have been successful in bringing new capacity into the market, retaining existing capacity, and creating a market structure for incenting cost-effective redevelopment of previously retired facilities.[4] There is no reason why the Commission should not secure these same benefits for MISO ratepayers.

Effective buyer-side market power mitigation rules, such as those on which the Commission requested additional briefing, are ***one*** necessary component of a successful resource adequacy market. However, even the adoption of a Minimum Price Offer Rule ("MOPR"), by itself, is unlikely to allow the MISO resource adequacy construct to succeed. Instead, we urge the Commission to revisit its *Resource Adequacy Order* and direct MISO to adopt other reforms, including a sloped demand curve and the requirement to procure the resource adequacy needs of the entire system in the auction.[5]

II. Background

In 2010, the Commission concluded that there is a compelling need for a centralized resource adequacy construct in the MISO region.[6] This compelling need has only been enhanced over the past several years, with increasing retirements of coal and other facilities in response to low natural gas costs and new environmental requirements. In response to this clear directive, MISO proposed to implement a centralized capacity market construct designed to ensure: (i) capacity

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[4] *See, e.g.*, Comments of Lee Davis, President of NRG Energy Inc.'s East Region, filed in AD13-7-000 on September 10, 2013.

[5] *Midwest Independent Transmission System Operator, Inc.*, 139 FERC ¶ 61,199 (2012) ("*Resource Adequacy Order*").

[6] *Midwest Independent Transmission System Operator, Inc.*, 131 FERC ¶ 61,228 at P 23 (2010) (directing "a permanent approach to address congestion that limits aggregate deliverability in the resource adequacy markets.").

levels are measured on a localized basis; (ii) the locational value of capacity is recognized; and (iii) that sufficient capacity is procured within each locally constrained area to ensure reliability throughout the entire MISO footprint.

In 2012, the Commission partially approved MISO's proposed resource adequacy construct in its landmark *Resource Adequacy Order*.[7] While the Commission's order was a major step in the right direction, the market design approved by the Commission had several design deficiencies, including:[8]

1. The lack of mandatory participation on behalf of capacity buyers, while requiring sellers of larger than 50 MW to offer capacity into the market at their marginal cost;

2. The lack of buyer-side market power protections; and

3. The installation of a vertical demand curve, which assigns a zero value to any capacity over the minimum reserve margin.

The end result of these provisions is that they will leave MISO without a stable structure to ensure that it maintains an acceptable reserve margin. Further, the existing MISO market structure will deny generators in the MISO market any opportunity to earn an appropriate contribution to their fixed costs, even over the long run.

On August 12, 2013, the Commission directed additional briefing on the second flaw identified above, but did not elect to address the other fundamental flaws plaguing the MISO market.

III. Initial Brief

A. The Commission can Both Respect Regional Differences, Ensure Reliability, and Provide Just and Reasonable Rates for Merchant Generation in the MISO/Entergy Footprint.

In part, the Commission based its *Resource Adequacy Order* decision on supposed "regional differences" between MISO and the eastern RTOs. There is no need for different buyer-side

[7] *See Resource Adequacy Order.*

[8] *See Request for Rehearing of the NRG Companies*, filed in Docket No. ER11-4081-000 on July 11, 2012.

market power rules in states with integrated utilities and states where divestiture has occurred. Merchant generation accounts for approximately 30 percent of the MISO pool.[9] Thus, these resources are critical to MISO retaining an acceptable reserve margin. Yet the current market structure lacks a robust and transparent means of incenting these resources to remain viable. We request that the Commission consider several facts:

First, a well-designed wholesale market is indifferent to the underlying retail rate structure. Ratepayers of integrated utilities are in no way disadvantaged by a competitive capacity procurement mechanism that includes buyer-side market power mitigation rules, as well as a sloped demand curve and other basic capacity market features. If an integrated utility is truly self-sufficient, and supplies the entirety of its load from its own resources, then the market will ensure that only facilities that cost less than the utilities' own suite of resources will be selected to provide capacity. Otherwise, the revenues earned from the capacity market will simply be credited back to ratepayers. Thus, a full-functional resource adequacy market will increase competition and ensure the least-cost means of ensuring reliability. Claims that ratepayers benefit when Load Serving Entities ("LSEs") over-spend by procuring more expensive resources should be viewed with skepticism.

Second, as the MISO Independent Market Monitor ("IMM") noted, the *Resource Adequacy Order* did not fully address the interplay between the bilateral market and the Commission's centralized resource adequacy construct.[10] There is no question that MISO's integrated utilities will continue to look to the bilateral market for a large portion of their non-self-supply capacity needs. As the Commission has recognized, there can be significant interplay between the bilateral market and prices revealed in a centralized resource adequacy construct. By allowing MISO LSEs to either

[9] This estimate is derived from publically available information compiled by Ventyx. Note that this 30% figure is expected to rise once Entergy is integrated into MISO.

[10] Market Monitor Request for Rehearing at 9.

insert new, unmitigated entry into the market, or alternatively, take capacity out of the market by bidding in less than their total load, there is a clear economic incentive for net-long resources to exercise buyer-side market power. Thus not only are competitive suppliers in MISO denied just and reasonable rates from the MISO *centralized* resource adequacy construct, but they are also denied any realistic opportunity to recover their fixed costs through the *bilateral* market.

Third, in response to Commissioner Clark's concerns expressed in his dissent in the *Briefing Order*, we submit that establishing a MOPR-type mechanism is entirely consistent with allowing states with integrated resource planning programs to plan their systems as they see fit. States can continue to bring new renewable resources to the system, direct the phase-out of select existing resources, direct the construction of new resources, invest in demand response and other non-traditional sources of capacity, as well as to order the construction of new transmission facilities. The MOPR only prevents uneconomic or premature investment in generation from suppressing prices for the remainder of the market, and ensures that states are truly guided by resource planning, and not by the desire to artificially reduce market prices.

Finally, while regional differences certainly exist, it is not clear why buyer-side mitigation rules are appropriate for the eastern states, but not appropriate for MISO. The PJM footprint, for example, includes both integrated and non-integrated states. Yet the RPM rules work for all participants. Creating substantially different rules for the MISO market than exist in every other market creates exactly the type of needless difference between capacity market structures that results in the Commission adjudicating what is effectively the same issue in multiple different cases, increasing the amount of litigation surrounding capacity markets. All parties, the Commission included, would be significantly better off if the Commission were to ensure some minimum level of consistency between key capacity market features in different markets.

B. Buyer-Side Mitigation Rules are Critical to Successful Markets.

The Commission has recognized that mitigation of buyer-side market power is critical to developing a successful resource adequacy construct. In fact, buyer-side mitigation rules are a cornerstone of the capacity markets in ISO New England, NYISO, and PJM. Without such a rule, it becomes virtually impossible to ensure both an appropriate reserve margin and just and reasonable rates for merchant generators, who comprise almost 30 percent of the total installed capacity in the MISO market. There is no question that merchant investment in MISO is critical to meeting the region's resource needs. Yet as experience has shown, merchant investment in market areas is difficult to justify if an integrated utility can simply build a far more expensive resource next door, transfer all the risk of that new facility on ratepayers, and eliminate the merchant's investment. As the commission has repeatedly found in the eastern markets, this scenario both stifles investment and results in rates that are unjust and unreasonable.

The Commission explained the problem with net-buyers artificially decreasing capacity prices succinctly in its recent order directing ISO New England to put into place a minimum offer price for new resources:[11]

> Entities with buyer-side market power can artificially lower the capacity price, sometimes substantially, by subsidizing new investment that is then offered into the market at prices below its full entry costs. The result is that new resources enter the market even though the market clearing price is lower than their true cost of entry. The cost of the subsidized new resource is higher than the market price, which on first impression would seem to be financially harmful to buyers. But buyers as a whole may benefit from the subsidized resource because the lower market price may reduce the total bill for acquiring existing capacity, and this bill reduction may outweigh the net cost of the new resource.

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[11] *ISO New England, Inc. and New England Power Pool Participants Committee,* 135 FERC ¶ 61,029 at P 158 (2011).

The proper response, the Commission determined, was for ISO New England to adopt a minimum offer floor for new entrants seeking to participate in New England's Forward Capacity Market ("FCM"):[12]

> [W]e find that applying offer-floor mitigation to the ISO-NE capacity market with values based on the proposed benchmarks from the July 1 Proposal would render the FCM just and reasonable. First, if the offer floor is set at a level that approximates the net cost of entry of a new resource, offer-floor mitigation would deter the exercise of buyer-side market power and the resulting suppression of capacity market prices associated with uneconomic entry. By preventing new resources from offering at prices that are significantly below their true net cost of entry, new resources would not be able to lower the price of capacity significantly below competitive levels. As a result, there would be no financial reward for subsidizing new resources for the purpose of exercising buyer-side market power.

The same is true with respect to PJM where the Commission concluded that:[13]

> [P]ermitting new self supply investment to compete as a price-taker in RPM impermissibly shifts the investment costs of self-supply to competitive supply by suppressing market clearing prices, and will create an environment in which only such self supply investment will occur. Failure to subject new self-supply to the MOPR, that is, permitting new self-supply to participate in RPM as a price-taker, would significantly impede competition from all types of private investment and shift long-term investment risk from private investors to captive customers.

Notwithstanding the clear Commission directives and the recommendations of MISO's own IMM, the Commission approved a MISO market design that does not incorporate any type of buyer-side mitigation rules, even for net buyers of capacity, who the Commission clearly recognized have an economic incentive to keep prices low.[14]

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[12] *Id.* at P 166.

[13] *PJM Interconnection LLC,* 135 FERC ¶61,022 at P 195 (2011).

[14] MISO Capacity Market Filing, footnote 63 (". . . MISO declined to adopt these IMM proposals for the minimum offer price provisions.").

1. A Vertical Demand Curve, Combined with Weak Buyer-Side Market Power Rules, Creates a Volatile Market Design.

When weak buyer-side market power rules are combined with a vertical demand curve, the effects of the unchecked exercise of buyer-side market power are particularly pernicious. There is no question that the lack of a downward sloping demand curve makes capacity markets particularly susceptible to buyer-side market power, as even a small amount of additional capacity in the market can have a dramatic impact on clearing prices. By contrast, a downward sloping demand curve mitigates the effectiveness of buyer-side market power by reducing the incentive and ability of net buyers of capacity to suppress market prices.[15] Thus, we strongly urge the Commission to address both the lack of buyer-side market power and the lack of a downward sloping demand curve in the MISO resource adequacy construct. These two items go hand in hand, and without them, there is a substantial risk that MISO consumers will suffer through boom-bust cycles that will ultimately raise prices and decrease long-term reliability.

The Commission need look no further than ISO New England's FCM to see what happens when weak buyer-side market power rules are paired with a vertical demand curve. In such a market design, even small amounts of additional capacity can take the pool long and move supply from one side of the vertical demand curve to the other, resulting in the cratering of capacity prices below a just and reasonable rate and a decrease in system reliability. In New England, the 2,000+ MWs of state-sponsored entry made an already over-supplied market even longer.[16] The result of this unmitigated exercise of buyer-side market power was that prices in New England cratered to such

[15] Note that a downward sloping demand curve also effectively mitigates the exercise of *seller-side* market power, for exactly the same reason.

[16] While there is nothing inherently wrong with state-sponsored contracts, there is no question that allowing 2,000+ MW of state-backed contracts into the New England market, with no mitigation, fundamentally undermined the FCM construct.

low levels that the Commission was forced to impose an artificial price floor up to, and including, the 2016/2017 delivery year.

Indeed, the first Forward Capacity Auction to take place without a price floor is scheduled to take place in early 2014 (for the 2017/2018 delivery year). And while the Auction is still months away, preliminary bid data released by ISO New England on October 7, 2013 suggest that so many resources have elected to retire from the New England market (have placed "non-price retirement bids" in New England parlance), that the New England power pool may be deficient in its resource adequacy in 2017/2018. Along with a number of generators, at least one-third of all demand response capacity resources announced that they were leaving the market, regardless of price. These retirements are in addition to resources that are expected to leave the market by placing static delist bids. The end result is that consumers in New England can expect volatile energy prices and uncertain reliability.

There is no justification for the Commission to allow the same toxic cocktail of a vertical demand curve and weak buyer-side market power mitigation in MISO that appears poised to destroy the FCM construct in New England. Instead, the commission should act to avoid driving otherwise economic capacity resources out of the MISO market.

2. Allowing Load Serving Entities to Purchase Only a Part of their Resource Adequacy Needs Presents Equally Large Buyer-Side Market Power Problems.

The *Resource Adequacy Order* actually provides LSEs two entirely different ways of exercising buyer-side market power. Commissioner Clark was correct in his dissent from the *Briefing Order* that installation of a MOPR-type mechanism by itself will not effectively deter the exercise of buyer-side market power. Under the MISO construct as approved by the Commission, an LSE can either: (i) bid in new generating capacity at less than its actual cost and take the pool long, reducing price; or (ii) only purchase a portion of its supply needs in the markets thereby also depressing prices below competitive levels. In fact, an LSE buying less than 100% of its resource needs from the auction has

exactly the same impact on the zonal clearing price as if the LSE bid in the same amount of new generation into the auction as a price taker. Both of these bidding behaviors constitute the exercise of buyer-side market power, and both need to be mitigated.

The NRG Companies respectfully request that, if the Commission decides to address the need for a minimum offer price rule on new generation in MISO, it also address the pernicious effects of allowing load to clear less than its full resource adequacy needs through the centralized market construct. Otherwise, sellers will be required to offer 100% of their capacity into the market (at cost), but buyers are not required to buy from the market at all. In a market where there is a limited number of buyers, this type of fundamental mismatch of obligations simply represents another avenue for the exercise of buyer-side market power and denies the 30,000 MW of merchant capacity in MISO any opportunity to earn a just and reasonable return.

C. The Current Discrepancies between MISO and PJM Market Design are Creating Inefficient Outcomes.

Entities trapped in the failing MISO capacity construct are fleeing the market, and seeking to sink capacity into PJM. The greatest evidence of this dysfunction is that capacity in the MISO footprint is clearing at a tiny fraction of capacity next door in the PJM region. For the 2014/2015 delivery year, capacity in MISO cleared at $1.05/MW-day, while capacity immediately across the border in PJM cleared at $27.73/MW-day. The supply and demand conditions between the two markets are not markedly different; only the market design accounts for this 27-fold difference in price. This vast difference in pricing of the same commodity product is resulting in a "flight to quality" where market participants in MISO are voting with their feet and moving capacity into the PJM market. The divergence in prices is not being driven by fundamental market differences, but instead by government policies. The Commission should seriously consider whether this is an appropriate outcome.

There are several examples of potential societal waste arising from the existing paradigm. *First*, generators in areas south and west of PJM, including several owned by NRG, are procuring firm transmission service into PJM through MISO in order to participate in the Reliability Pricing Model. It is not at all clear that these transmission expenditures are a societal good – even though they are clearly in the economic interest of the parties taking the service. Again, these expenditures are largely being driven by the Commission's regulatory approach to the MISO capacity market.

Second, the Commission should consider in any assessment of the state of the MISO market design the magnitude of lost opportunity costs as a result of generators monopolizing the firm transmission capability between MISO and PJM. While difficult to prove, there is little question that this transmission capability could be utilized in a more efficient manner than fleeing one ineffective regulatory construct into another, more successful, regulatory construct.

Third, the capacity price vacuum in MISO is having unintended consequences in the neighboring PJM market. PJM has already expressed concern that it is capable of accepting a large number of cross-border refugees and maintain a reliable and robust system. While unintended impacts on PJM are not the subject of this proceeding, it is worth noting that uneconomic outcomes driven by the PJM-MISO price disparity are harming consumers on both sides of the border. As Mr. Davis stated, "[o]nly when the Commission installs a robust market in MISO will the exodus of resources – including those needed for reliability in MISO – cease."[17]

D. Any Successful MISO Capacity Market Must Implement Buyer-Side Mitigation ***and*** Other Enhancements.

The NRG Companies appreciate the Commission's request for additional briefing on the need for buyer-side market power mitigation in the MISO's resource adequacy construct. As discussed above, buyer-side market power protections are a critical element of any successful

[17] *Comments of Lee Davis*, at p. 11.

capacity market. However, we remain concerned that even a single significant flaw in a resource adequacy market design is often deleterious to the health of the market. Simply put: the focus of the *Briefing Order* is too narrow.

As the Commission heard in detail at the September 25, 2013 Technical Conference, successful capacity markets each have the following attributes:

1. **Market Power Mitigation:** Mitigation of new entrants to prevent buyer-side market power is critical to developing a successful capacity construct, as the Commission has recognized in each of the markets with an existing capacity construct.

2. **Mandatory Participation by both Sellers and Buyer:** A successful capacity market must include the resource mix of the entire footprint. Allowing entities to "opt out" of the capacity market as proposed by could be devastating to system reliability.

3. **Downward Sloping Demand Curves:** In prior proceedings, the Commission has directed use of a downward sloping demand curve, finding that it resulted in more accurate and efficient investment signals.

Both the successful NYISO and PJM capacity markets have a downward sloping demand curve, mandatory participation for all buyers and sellers, as well as strict buyer-side market power mitigation rules that prevent uneconomic purchases by capacity buyers in a manner that subverts the competitive market process. Unfortunately, the MISO construct initially approved by the Commission lacks each of these features, and it is difficult to see how the Commission will secure the benefits of a comprehensive and successful capacity construct without addressing each of these deficiencies.

E. Entry of the Entergy Footprint into MISO Provides Additional Impetus for the Commission to Revisit its Decision.

The NRG Companies are especially concerned about how the lack of buyer-side mitigation rules would disproportionately affect the Entergy system when it joins MISO on December 19, 2013. Historically, the Entergy region has not been friendly to merchant developer interests. Of the seven combined cycle facilities built on a merchant basis in the early part of the last decade, Entergy

has purchased, or has definitive agreements to purchase, four of the seven facilities for pennies on the dollar. There is no question that bringing Entergy to MISO will increase competition in the Entergy footprint. However, providing Entergy the option to self-build new capacity, and to bid that capacity into the market at a zero price, would (1) seriously inhibit the ability of the NRG Companies and others like us to justify making additional large-scale capital investments into the Entergy region; and (2) result in inaccurate price signals in the broader MISO market. Such a result would lead to inefficient market outcomes and undermine the competiveness of the MISO markets.

III. Conclusion

The NRG Companies appreciate the Commission's initiative to investigate whether buyer-side market power mitigation rules should be implemented in MISO. We respectfully request that the Commission grant rehearing on the issue of buyer-market power rules, as well as on the other matters discussed above.

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Respectfully submitted,

/s/ Abraham Silverman
Abraham Silverman
Cortney Madea
NRG Energy, Inc.
211 Carnegie Center
Princeton, NJ 08540

Attorneys for the NRG Companies

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the comments by via email upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Princeton, N.J., October 11, 2013

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/s/

Kathryn B. Wig