UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Public Citizens, Inc.,	)	
	)	
v.	)	
	)	**Docket No. EL15-70-000**
Midcontinent Independent System Operator, Inc.,	)	
	)	
The People of the State of Illinois	)	
	)	
	)	
	)	
v.	)	**Docket No. EL15-71-000**
Midcontinent Independent System Operator, Inc.,	)	
	)	
Southwestern Electric Cooperative, Inc.,	)	
	)	
v.	)	
	)	
	)	**Docket No. EL15-72-000**
Midcontinent Independent System Operator, Inc., Dynegy, Inc., and Sellers of Capacity into Zone 4 of the 2015-2016 MISO Planning Resource Auction	)	**(Not consolidated)**

PROTEST AND COMMENTS OF THE NRG COMPANIES

Pursuant to Rules 211 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (the "Commission"),[1] and in accordance with the Commission's Notice Granting Extension of Time issued June 10, 2015, the NRG

[1] 18 C.F.R. §§ 385.211, 385.214 (2013).

Companies[2] respectfully submit this protest and comments to the Complaints filed in the above referenced dockets by the Illinois Attorney General ("Illinois AG Complaint"), the Southwestern Electric Cooperative, Inc. ("Southwestern Complaint") and Public Citizen, Inc., ("Public Citizen Complaint") (collectively, "Complainants") against the Midcontinent Independent System Operator, Inc. ("MISO") and with respect to the Southwestern Complaint, against MISO, Dynegy, Inc. and other Sellers of Capacity into Zone 4 of the 2015/16 MISO Planning Resource Auction ("PRA"). The Complainants argue that the $150/MW-Day 2015/16 PRA clearing price for Zone 4 was unjust and unreasonable and request that the Commission suspend the rate, establish new rates for Zone 4 and establish a proceeding to investigate the rate.

The NRG Companies take no position with respect to any allegations about the specific bidding behavior of any of its competitors. However, we note that the generic allegations against capacity market sellers in Zone 4 appear to be a collateral attack on the existing MISO auction rules, which specifically include a "safe harbor" for resources bidding below the administratively-determined opportunity cost "reference level" of $155.79/MW-Day established by the existing MISO Tariff and approved by the MISO Independent Market Monitor ("IMM"). Given that the Complaints are devoid of any suggestion that MISO failed to follow its existing rate on file, the Commission should summarily dismiss the Complaints as collateral attacks on the existing rate.

[2] For purposes of this filing, the NRG Companies are NRG Power Marketing LLC and GenOn Energy Management, LLC.

Additionally, NRG takes this opportunity to note that the Zone 4 clearing price appears to be entirely consistent with supply/demand balance, market dynamics, the business models of generation owners in retail choice states, like Illinois. Further, that increases in single-year clearing prices are a direct and expected consequence of MISO's decision to rely on a vertical demand curve.

I. BACKGROUND

A. The NRG Companies

The NRG Companies, through its affiliates, engage in three related electric businesses: (1) wholesale power generation and electricity and fuel trading, (2) retail electric supply and demand response and (3) deployment and commercialization of alternative energy technologies, such as electric vehicle charging infrastructure, distributed solar and smart meter technology. In connection with the first of these business segments, NRG owns or controls over 53,000 MW of electric generating capacity throughout the United States, including approximately 4,700 MW in MISO, with one facility in MISO's capacity Zone 4 – the 344 MW Shelby Facility located in Neoga, Illinois.

B. 2015/16 PRA Results and the Complaints

MISO's annual capacity auction – the PRA – is not a forward auction held for future years, but is held each year for the current delivery year. A prominent feature of MISO's capacity market is MISO's use of a vertical demand curve. MISO's vertical

demand curve was adopted by the Commission in a June 11, 2012 Order on MISO's resource adequacy proposal and the order is still pending rehearing.[3] While each of the three eastern ISO's initially employed a vertical demand curve, the resulting "boom or bust" price volatility inherent in that market design led them to adopt sloping demand curves.[4]

The 2015/2016 PRA was comprised of 9 different capacity zones. Prior to each auction, MISO divides the region into capacity zones based on transmission constraints and other factors. On April 14, 2015, MISO announced the results of the 2015/16 PRA, which took effect on June 1, 2015.

Each of the Complaints at issue in these proceedings compare the $150/MW-Day 2015/16 PRA clearing price for Zone 4 (Illinois) to both (i) the $3.29/MW-Day and $3.48/MW-Day PRA 2015/16 clearing prices for all other zones, and (ii) the $16.75/MW-Day Zone 4 clearing price for the 2014/15 PRA and the $1.05/MW-Day Zone 4 clearing price for the 2013/14 PRA. Based solely on the difference in prices, the Complainants suggest that the $150 MW-Day price is not just and reasonable and therefore must be an indication of market manipulation that the Commission should investigate.

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[3] *Midwest Indep. Transmission Sys. Operator, Inc.*, 139 FERC ¶ 61,199 (2012).

[4] *See* "Centralized Capacity Market Design Elements," Commission Staff Report, Docket No. AD13-7-000 (dated Aug. 23, 2013) ("Commission Staff Report") (noting that "[c]oncern over volatility in capacity market prices under a vertical demand curve was a key reason that NYISO and PJM chose to move to the downward-sloping demand curve.")(citing *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at PP 75-76 (2006); *New York Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,201 at PP3-5; *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079, at PP 92 (2006)). *ISO New England, Inc.*, 147 FERC ¶ 61,173 (2014) (accepting ISO-NE filing to establish a system-wide sloped demand curve for the forward capacity market).

The MISO Tariff includes measures that are designed to prevent the exercise of market power by suppliers, including tests specifically designed to detect and prevent physical or economic withholding by capacity suppliers.[5] The MISO IMM ensures that the auction is conducted in line with all tariff rules and procedures. As part of that process, the Market Monitor is tasked with reviewing capacity offers. Specifically, as part of those Tariff provisions designed to prevent supplier-side[6] market power, market participants selling capacity into the PRA can either undergo a facility specific review of their costs to establish their maximum allowable offer price or bid under the generic reference level, which is the maximum offer price allowed by the IMM without any offer review.[7]

The MISO IMM set the 'reference level' price for the 2015/16 PRA at $155.79 per MW-Day.[8] The 'reference level' price is the maximum offer price allowed by the IMM without additional offer review. The IMM based the reference price on the estimated opportunity cost of exporting capacity to PJM and tied the price to the PJM capacity market clearing price in this delivery year. The PJM Base Residual Auction clearing

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[5] *See,* MISO Tariff, §§ 63, 64; *see also, Midwest Indep. Trans. Sys. Operator, Inc.*, 139 FERC ¶ 61,199 at 290 (2012) ("MISO's Tariff establishes adequate mitigation of seller market power for its capacity market, and thus, capacity market prices would not exceed reasonable levels due to the exercise of market power.").

[6] Note that the MISO market currently has no protections against buyer-side market power.

[7] MISO Tariff, Section 64.1.4(e), (f).

[8] Potomac Economics, "*Initial Reference Level for Zonal Reserve Offers: 2015/2016 Planning Year.*" Dated February 5, 2015. *Available at*: https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2015/20150205/20150205%20SAWG%20Item%2004%20IMM%20PRA%20Reference%20Levels.pdf

prices for the 2015/16 delivery year ranged from $136/MW-Day (in the RTO zone) to $357/MW-Day (in the ATSI zone).[9]

II. PROTEST

A. Challenges to the 2015/16 PRA Reference Level Set by the Market Monitor Represent a Collateral Attack on the Existing Tariff.

The rules set forth in the MISO Tariff recognize that generation resources have a choice to sell their capacity attributes into adjoining regions or sell them into the MISO market. In recent years, the "opportunity cost" of taking an obligation in the MISO capacity market, and foregoing the right to sell outside of MISO, has been set by the price that a resource can receive from the PJM market. The Commission has explained that "[i]n order to accept a capacity obligation, a competitive resource would require that the capacity payment exceed this opportunity cost."[10] Thus, the MISO IMM is authorized by the Tariff to set a safe harbor "reference level" price that is equal to the revenues, minus costs, that a resource could earn from the PJM market. For the 2015/2016 PRA, that reference level price was set at $155.79/MW-Day.

Because the existing Tariff rules create a "safe harbor" bidding threshold of $155.79/MW-Day, the Commission should categorically reject the unsupported allegations that market participants engaged in unlawful activity. Reference levels, such as those established by MISO under its Tariff, are specifically designed to give

[9] *See,* "2015/2016 RPM Base Residual Auction Results," *available at:* https://www.pjm.com/~/media/markets-ops/rpm/rpm-auction-info/20120518-2015-16-base-residual-auction-report.ashx.

[10] *Id.* at P 338.

market participants the ability to bid up to the Commission-approved reference price.[11] Absent specific evidence of wrong-doing (which Complainants do not even attempt to provide), the Commission can rely on the fact that the clearing price was below the Commission-approved reference level in dismissing the complaint. The $150/MW-Day Zone 4 price for the 2015/16 PRA is under the $155.79/MW-Day reference level set by the market monitor pursuant to the MISO Tariff.

Under Section 64.1.4(e) of the MISO Tariff the IMM is required to set the reference level before each auction and reference levels "will be based on the estimated opportunity cost of exporting capacity to a neighboring region." The IMM did just that and based the reference level on "the estimated opportunity cost of exporting capacity to PJM."[12] As noted in the Complainants' filings, the 2015/16 PRA price across zones was in the $3/MW-Day range. The PJM capacity prices for the same 2015/16 delivery year ranged from $136/MW-Day (RTO) to $357.00/MW-Day (ATSI), with all other LDAs clearing at $167.46/MW-Day.[13] Because the lowest PJM capacity price is nearly 8.5 times greater than the MISO price, there is strong incentive for market participants to sell capacity into PJM. To counter this incentive, the MISO Tariff sets the reference levels at

[11] *See also PJM Interconnection, LLC, et al.*, 151 FERC ¶ 61,208 at P 340 (2015) (holding that "[a]ny Capacity Performance offer below the default offer cap can properly be deemed competitive[.]")

[12] *See supra* at n.10.

[13] "2015/2016 RPM Base Residual Auction Results" *available at:* https://www.pjm.com/~/media/markets-ops/rpm/rpm-auction-info/20120518-2015-16-base-residual-auction-report.ashx

a cap to reflect the opportunity cost to sell into PJM.[14] The $155.79/MW-Day reference level set by the IMM and the increase in facility-specific reference levels resulting from decreasing energy revenues and increasing operating costs likely permitted and enabled higher bidding than that which was historically seen in MISO. The 2015/16 Zone 4 PRA clearing price was flat compared to the neighboring market's clearing price. To the extent the Complaints have concerns about the $155.79/MW-Day reference level set by the IMM, they lack jurisdiction to challenge the reference level since the requirement that the reference level be based on the opportunity cost of exporting to a neighboring region was established in an earlier Commission order.[15] Such a challenge amounts to an impermissible collateral attack.[16]

Indeed, the fact that the clearing price in the 2015/2016 PRA is below the safe harbor reference level established by the MISO IMM gives the Commission ample justification to simply reject the Complaints. As the MISO IMM confirmed, a clearing price below the safe harbor reference level it established means that the PRA results

[14] MISO Tariff, Section 64.1.4(e), (f).

[15] *See Midwest Indep. Transmission Sys. Operator, Inc.*, 137 FERC ¶ 61,213 (2011) (accepting the use of neighboring ISOs prices as a reference level benchmark); *see also City of Nephi v. FERC*, 147 F.3d 929, 934 (D.C. Cir. 1998) (holding that, if a petitioner fails to challenge a particular FERC order, it lacks jurisdiction to collaterally attack that order in challenges to other orders).

[16] *See id.*

"are reliable and participants' behavior was in line with all tariff rules and procedures."[17]

III. COMMENTS

A. The Vertical Demand Curve Used By MISO Encourages Volatile Capacity Price Swings.

MISO's vertical demand curve sets the stage for the sharp increases like we saw in the Zone 4 PRA price for 2015/16. Thus, the fact that prices can increase sharply under the existing market design is a well-understood feature of MISO's existing market design and should not, by itself, be seen as indicative – or even suggestive – of market manipulation.

Indeed, the swing in clearing prices from one capacity auction to the next[18] is an expected outcome of using a vertical demand curve to determine capacity prices. The defining attribute of a vertical demand curve is "boom or bust" price volatility. The MISO IMM has cautioned the Commission and MISO for years of the market implications of the vertical demand curve and has concluded that, "[t]his market will result in significant volatility and uncertainty for market participants."[19] Typically, with a vertical demand curve, a small surplus drives prices to essentially zero and a minor

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[17] MISO, 2015-16 Planning Resource Auction Results Frequently Asked Questions, *available at:* https://www.misoenergy.org/_layouts/MISO/ECM/Redirect.aspx?ID=199293.

[18] A $150 MW-Day clearing price in Zone 4 for 2015/16 as compared to the $16.75 MW-Day and $1.05 MW-Day respective Zone 4 clearing prices for the 2014/15 and 2013/14 PRAs.

[19] *See, e.g., Midwest Indep. Transmission System Op., Inc*., "Motion to Intervene Out of Time and Comments of the Midwest ISO's Independent Market Monitor", Docket No. ER11-4081 at pp. 5-9 (filed Sept. 16, 2011).

shortage will send prices straight up to the price cap.[20] The price volatility surrounding vertical demand curves is the reason that they have fallen out of favor in every other organized capacity market.[21] Given the expectation of price volatility inherent in the MISO capacity market design, the Commission should reject any suggestion that price volatility is probative of market manipulation.

B. Comparing Unbundled Capacity Costs in Retail Choice States with Costs in Vertically Integrated States Provides a False Comparison.

The Complainants also allege market manipulation based upon the difference in pricing in Zone 4 as compared to pricing in all other MISO zones, which all cleared in the $3/MW-Day range. However, in making this argument the Complainants fail to recognize that Zone 4 is the only MISO capacity zone comprised entirely of a retail choice state and merchant generators. While 91% of MISO load is under traditionally rate-regulated utilities,[22] the entirety of Zone 4 is located within Illinois, which is a retail choice state. It is a falsity to suggest that unbundled capacity rates in the only MISO capacity Zone comprised solely of a retail choice state should clear the same as the other zones comprised of non-retail choice states, where capacity costs are "bundled" into retail rates.

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[20] *Id.; see also Commission Staff Report* at 5 (noting that with a vertical demand curve volatility is likely "with prices at or near the deficiency charge when supply was not sufficient to meet the planning reserve margin, and prices near or at zero once the planning reserve margin was met.").

[21] *See supra* n.4.

[22] "Midcontinent Independent System Operator, Inc. Fuel Assurance Report," Docket Nos. AD13-7, AD14-8 at p. 13, n.12 (filed Feb. 18, 2015).

In non-retail choice states, utility captive ratepayers are already paying for capacity through their bundled retail rates. Only a very small portion of the bundled capacity cost gets recovered by the utilities through the capacity auction. Because the price of capacity is already "baked" into states with vertically regulated utilities, utilities do not have to rely on MISO's capacity market for a large portion of their revenues. Thus, it is incorrect to draw comparisons between unbundled capacity prices in Illinois with the price of capacity in the vertically integrated regions of MISO.[23]

Importantly, ratepayers in vertically integrated states are actually likely paying higher capacity prices over time than ratepayers in retail choice states. A utility self-building a generation facility in a non-retail choice state is *guaranteed* to receive the full cost of new entry for that facility, backstopped by its ability to pass 100% of those costs through to retail ratepayers. While rolled-in rate recovery may result in more short-term price stability (until the next major power plant drives rate increases), the recovery each year of the full cost of new entry of generation resources almost by definition results in *increased* overall costs for ratepayers. As a result, the captive customers of regulated utilities are likely to face higher costs over the long-run than retail choice states, where compensation is generally always less than the long-run cost of new entry.

In contrast, in retail choice states, generation is owned independently of the retail distribution utility and independent power producers in such states, like Illinois,

[23] While MISO could reduce overall capacity costs for both bundled and unbundled customers by encouraging more robust competition in its capacity market even in areas that are largely vertically integrated, that is not the market design that MISO current has.

have no captive ratepayers and have to rely on MISO's capacity market to receive a large portion of their revenues.

Applying the above logic to the 2015/16 PRA, one can see that because of the fundamental business model differences between regulated utilities with captive customers and independent power producers it is to be expected that unbundled capacity prices in Zone 4 would be different than in the rest of MISO. Thus, comparing the unbundled Zone 4 capacity price is entirely disingenuous, since the utilities are simply recovering their costs of supplying capacity through means other than the PRA and does not provide any evidence that the 2015/2016 PRA prices were either manipulated or that they are unjust and unreasonable.

C. Zone 4 PRA Prices are Consistent with Supply/Demand Fundamentals.

While the existence of a safe harbor opportunity cost reference price should be sufficient for the Commission to close out this case, it is also important for the Commission to recognize that energy market revenues have decreased in MISO, while the costs of operating the marginal facility has increased. Thus, the fact that MISO PRA prices have increased year-over-year is not only consistent with the reference price safe harbor established by the IMM, but is also consistent with changes in the MISO market overall.

Under the Tariff, the IMM works with each generation owner to establish a unit specific reference level that equals the resource's going forward costs minus energy

and ancillary services revenues.[24] It is important for the Commission to recognize that energy revenues have been driven down over the last few years by the collapse of natural gas prices. As the Market Monitor explained in his 2014 State of the Market Report:

> Although natural gas-fired units produce a modest share of the energy in MISO, they play an important role in setting energy prices. Natural gas-fired units set the system-wide price in 46 percent of all intervals from January to March and in 23 percent all intervals for the year, which tend to be the highest-load intervals. Congestion frequently causes natural gas-fired resources to be on the margin in a local area in the same interval that a lower-cost resource may be setting the system-wide price. Hence, natural gas set LMPs in local areas in 84 percent of all intervals, which underscores why natural gas prices continue to be an important driver of energy prices.[25]

The natural effect of these reduced energy and ancillary services revenues is to increase the amount of money that a resource needs to seek from the capacity market. Coal units, which are often the marginal resource in the coal-rich Midwest, have been particularly challenged by the historic reduction in natural gas prices over the past few years. In other words, in past years where a coal plant made significant infra-marginal revenues (*i.e.*, "dark spread") from the energy market, those revenues were credited against a coal unit's fixed going-forward costs, which in turn increases the capacity that a merchant coal unit needs from the capacity market.

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[24] MISO Tariff, Section 64.1.4(f)(i).

[25] 2014 State of the Market Report, at p. 5 (*available at* https://www.misoenergy.org/MarketsOperations/IndependentMarketMonitor/Pages/IndependentMarketMonitor.aspx).

Further the increase in capacity prices is also consistent with increased operating costs of generating units over the past several years. While energy revenues have decreased since 2014, the costs of operating a coal plant have increased substantially. Environmental rules, for example the Mercury and Air Toxics Standards, continue to increase environmentally-related capital expenditures. Operating and maintenance costs have also increased for coal units (as well as other non-coal steam units) as wind has become the over-night marginal resource. Because of its strong wind resource, MISO is increasingly asking coal units to back down their generation overnight, which leads to increased risk of boiler tube and other failures. The decrease in energy revenues and increase in operating costs is also consistent with the capacity prices seen in the 2015/16 PRA.

IV. CONCLUSION

In the 2015/16 auction the vertical demand curve and near-vertical supply curve combined to create a highly volatile pricing outcome. The supply curve was more vertical in 2015/16 because of the large amounts of generation coming off-line due to environmental restrictions. The supply curve was likely more elastic in 2014/15 because of a number of retirement postponement decisions. The 2015/16 PRA prices in Zone 4 were largely the result of a vertical demand curve and increased reference levels created by market changes and are just and reasonable. The irony of the higher Zone 4 prices is that the MISO capacity zones have all historically cleared near zero because of

the vertical demand curve and it is the same vertical demand curve that allowed for the jump in the Zone 4 price.

To summarize the chain of events, because of the near zero capacity prices, MISO market participants have been exporting their power to PJM where possible. Capitalism dictates that profit-seeking firms will sell their products in the markets that value them the most. All of these factors combined with the vertical demand curve, created volatile clearing prices that cannot be meaningfully compared to the clearing prices of prior auctions or zones. The past MISO capacity prices of basically zero are an outlier and cannot be expected to continue. If the MISO States, including Illinois, want the benefits of stable prices, determined on a multi-year forward basis, then they should adopt the type of capacity market structure favored by the three eastern markets, which include a downward sloping demand curve.

July 2, 2015

Respectfully submitted,

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Certificate Of Service

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

Dated at Princeton, New Jersey this 2nd day of July, 2015.

/s/ *Kathryn Wig*
Kathryn Wig