UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

	Docket No.

AFFIDAVIT OF MELISSA D. WHITED

ON BEHALF OF SIERRA CLUB

Introduction

1. My name is Melissa D. Whited. My business address is Synapse Energy Economics, Inc., 485 Massachusetts Avenue, Cambridge, Massachusetts 02139. I am a Senior Associate at Synapse Energy Economics ("Synapse") where I provide consulting services on a variety of topics related to energy economics, including utility ratemaking, market power, integrated resource planning, energy efficiency and demand response, and regional economic impacts of energy policy. Much of my work focuses on alternative regulatory models to respond to fundamental changes in the electricity landscape spurred by declining demand, new technologies, environmental policies, and the integration of large amounts of renewable energy.

2. My recent work includes authoring a handbook for regulators on utility performance incentive mechanisms; developing a benefit-cost analysis framework for distributed energy resources within the context of New York's "Reforming the Energy Vision" proceeding; consulting on decoupling cases in Maine, Hawaii, and Nevada; and evaluating proposals for time-varying rates in the Northeast.

3. I have previously evaluated the potential for market power in the EC-13-000 proceeding regarding the transfer of assets from Ameren to Dynegy, and have assisted in developing testimony regarding market power in Nevada. I hold a Master of Arts in Agricultural and Applied Economics and a Master of Science in Environment and Resources, both from the University of Wisconsin-Madison. My curriculum vitae is attached to this Affidavit as Attachment 1.

4. Sierra Club retained me to review the reasonableness of the results of the most recent capacity auction conducted by the Midcontinent Independent System Operator ("MISO") for MISO Zone 4. This is the third year that MISO conducted its Planning Resource Auction ("PRA") to ensure that the system has sufficient capacity to meet load. While the first and second auction cleared at prices less than $17 for all Zones, the 2015/2016 auction resulted in significant price separation for Zone 4.[1] In this most recent auction, Zone 4 cleared at a price of $150, while all other Zones cleared at $3.48 or below.

5. Having reviewed the capacity auction results and the particular market rules that contributed to these results; and relevant sections of Potomac Economics' *2014 State of the Market Report for the MISO Electricity Markets,* [2] it is apparent that the auction resulted in prices that are unjustifiably high for Zone 4. While high zonal prices and significant price separation may be justified where low-cost supply is scarce, such a situation did not exist in Zone 4. Instead, the auction results were an artifact of MISO's

[1] Since 2013, MISO has divided its service territory into separate Local Resource Zones ("Zones" or "Zone")
[2] Independent Market Monitor for MISO. *2014 State of the Market Report for the MISO Electricity Markets.* Potomac Economics, June 2015. Available at https://www.misoenergy.org/Library/Repository/Report/IMM/2014%20State%20of%20the%20Market%20Report.pdf.

price formation construct for the Planning Resource Auction and did not accurately reflect supply and demand. This allowed the offer prices of the largest capacity supplier in Zone 4 -- Dynegy -- to incorrectly represent marginal capacity supply, leading to the high prices.

6. As stated by the MISO Independent Market Monitor ("IMM") in the 2014 State of the Market Report,

> The capacity clearing prices in Zone 4 in the 2015/2016 planning resource auction cleared at higher prices than all other areas in MISO due to the binding local clearing requirement. The binding of the local clearing requirement in Zone 4 was impacted by roughly 1,200 MW exported from Zone 4 to PJM. These resources will continue to be dispatched by MISO and can be utilized to satisfy local requirements and manage congestion into the area. Yet, the current Tariff provisions require that the auction be cleared and prices be set as if these resources do not exist, **which does not accurately reflect the true supply and demand conditions in the zone**. This issue will become even more important next year as exports to PJM grow.[3]

7. The clearing prices for the auction are unjust and unreasonable because the clearing price mechanism inaccurately represents the economics of supply and demand and does not accurately account for the effects of imports and exports.

8. Also, the potential for the exercise of market power exists within Zone 4 due to high supplier concentration by Dynegy; many of Zone 4's supply bids were unusually high. Despite this, a thorough investigation of whether economic (and/or physical) withholding does not appear to have been performed by the Independent Market Monitor ("IMM") because no supply offers exceeded the IMM's threshold for investigation. This threshold is based on the "Initial Reference Level," which itself is based on PJM clearing prices.

[3] Independent Market Monitor for MISO. *2014 State of the Market Report for the MISO Electricity Markets.* Potomac Economics, June 2015, page 100, emphasis added.

However, the MISO and PJM markets are not well-enough aligned (due to barriers such as artificial limits on exports and imports between MISO and PJM) to ensure that these prices represent reasonable estimates of MISO suppliers' opportunity costs. As such, the threshold level for investigation should be re-evaluated, and the 2015/2016 PRA auction results should be thoroughly reviewed to ensure that no physical or economic withholding, or other improper market manipulation, occurred.

Artificial Constraint Imposed on Zone 4

9. MISO's tariff establishes the market structure and requires load serving entities obtain a certain portion of each Zone's capacity locally (referred to as the "Local Clearing Requirement), to ensure the availability of sufficient resources in the local area while respecting transmission constraints. The Local Clearing Requirement is calculated as the local resource requirement minus the Zone's capacity import limit. The Zone's capacity import limit is a critical factor that influences the local clearing requirement.

10. In MISO's first Planning Resource Auction (2013/14), the import limit for Zone 4 was 6,614 MW.[4] Prior to the second Planning Resource auction (for 2014/15), the Zone 4 import limit was reduced to 3,025 MW,[5] and was further changed to 3,130 MW for the 2015/16 auction.[6] A methodological change was made in the second year to reflect the inclusion of lower voltage facilities as limitations on inter-regional transfers,[7] resulting in

[4] MISO, *Planning Year 2013 LOLE Study Report*, Table 3-1, page 17, available at https://www.misoenergy.org/Library/Repository/Study/LOLE/2013%20LOLE%20Study%20Report.pdf
[5] MISO, *Planning Year 2014 LOLE Study Report*, Table 3.3-1, page 16, available at https://www.misoenergy.org/Library/Repository/Study/LOLE/2014%20LOLE%20Study%20Report.pdf
[6] MISO, *Planning Year 2015-2016 Loss of Load Expectation Study Report*, page 50, available at https://www.misoenergy.org/Library/Repository/Study/LOLE/2015%20LOLE%20Study%20Report.pdf .
[7] MISO 2014 LOLE Study Report, page 9, "Transfer analysis is used to establish Capacity Import Limits (CILs) and Capacity Export Limits (CELs) for Local Resource Zones (LRZs) in the Planning Reserve Margin (PRM) study for

a dramatic drop in the import limit of almost 3,600 MW (from 6,614 MW to 3,025 MW). It is unclear what reasoning used by MISO to support the higher import limit for the 2013/2014 Planning Resource Auction[8] was deemed no longer applicable for the 2014/15 and 2015/16 Planning Reserve Auctions. Given the critical nature of zonal import levels used in the Planning Resource Auctions, I recommend the Commission request MISO revisit the methodology and reasoning used to define that limit, and explain (if not fully reconcile) why the stated "enhancements" made for 2014/15 supersede MISO's earlier finding "that it would be unreasonable to include these lower-voltage constraints in the transfer-limit analysis."[9]

11. In addition, the Local Clearing Requirement methodology suffers from a flaw that served to exclude 1,200 MW of local capacity and artificially increased the Zone 4 clearing price in the 2015/2016 PRA. This specific flaw was identified by the Independent Market Monitor in the *2014 State of the Market Report*,[10] and should be rectified in order to produce just and reasonable capacity market prices.

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the 2014-2015 planning year. The objective of this study is to determine how import capability for each zone can potentially delay the build of additional capacity. There were significant enhancements to this year's analysis. This **includes consideration of all facilities under MISO functional control, regardless of the voltage level, as potentially limiting** and utilizing MISO generation local to a zone for import limit analyses." (emphasis added)

[8] MISO 2013 – 2014 LOLE Study Report, page 18: **"**The CIL and CEL for each zone are determined by using a power-flow simulation application called: Power System Simulator for Managing and Utilizing System Transmission (PSS MUST or MUST). The MUST simulation is set to calculate and output results for limits reached on facilities over 100 kV and that carry a share of the simulated transfer that is no less than 3 percent. The results were reviewed, and a determination was made to quantify the CIL and CEL by considering only monitored facilities greater than 200 kV and with transfer distribution factors of 3 percent or more. The decision to neglect limits on facilities below 200 kV recognizes that many of these constraints would be manageable in MISO's real-time dispatch**, and thus that it would be unreasonable to include these lower-voltage constraints in the transfer-limit analysis**. A real-time dispatch would also optimize transfers much more effectively than the MUST method described in Section 3.2.3." (emphasis added)

[9] *Ibid.*

[10] Independent Market Monitor for MISO. *2014 State of the Market Report for the MISO Electricity Markets.* Potomac Economics, June 2015, pages 100-101

12. Specifically, MISO's local clearing requirement definition precludes counting capacity exports from a Zone as local capacity, even though these exports effectively allow for "counter flow" creation over the zonal interfaces that would permit the capacity to be replaced by capacity from other MISO areas. As noted by the Independent Market Monitor,

> To address this concern, **we recommend that MISO file Tariff revisions to treat local capacity exports as creating counter flow over the interfaces into the zone. This would cause the capacity to be replaced by the lowest-cost capacity from any area in MISO, rather than requiring that additional capacity be procured from within the zone**. In implementing this recommendation, it is necessary to rely on the neighboring market's performance requirements to have increased assurance that the units will be running when the MISO local zone needs the capacity.[11] [Emphasis added.]

13. MISO's failure to account for 1,200 MW of Zone 4 exports to PJM in the latest PRA caused Zone 4 to procure more local capacity than was necessary, driving up capacity prices. Had MISO recognized the counter flow generated by these exports, it could have used a portion of the lower-cost uncleared capacity from other MISO Zones to satisfy Zone 4 resource adequacy needs. The aggregate supply curve for these other Zones (excluding Zones 8 and 9) is depicted below, with the dashed line representing 1,200 MW of capacity. The graph also shows that the majority of capacity offer prices were far below $150, which indicates that without the flawed Local Clearing Requirement methodology, Zone 4 would have cleared at a much lower price.

[11] Independent Market Monitor for MISO. *2014 State of the Market Report for the MISO Electricity Markets.* Potomac Economics, June 2015, page 101, emphasis added

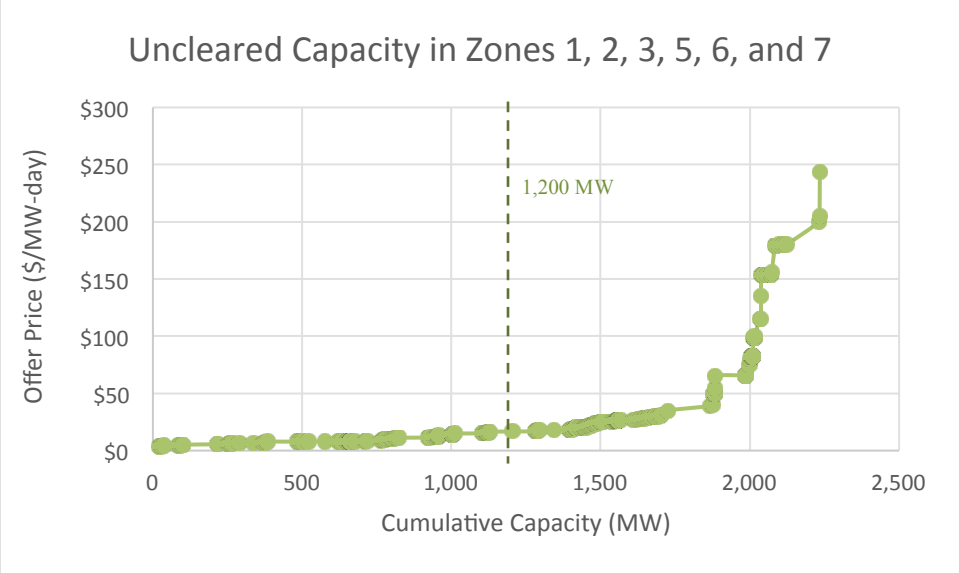

Figure excludes uncleared capacity from Zones 8 and 9, as well as additional uncleared capacity in Zone 4.

Source: 2015-2016 PRA Detailed Report,
https://www.misoenergy.org/_layouts/MISO/ECM/Redirect.aspx?ID=199977

14. In short, because the creation of counter flows from these 1,200 MW of Zone 4 exports were not recognized, the Zone 4 local supply requirement was 1,200 MW higher than necessary. This caused the local clearing requirement to be satisfied by higher-priced capacity, resulting in unjust and unreasonable clearing prices in Zone 4. In addition, ignoring this existing capacity also created the potential for Dynegy to improperly manipulate the auction and set even higher – and even more unjust and unreasonable – prices.

Market Concentration and Investigation of Economic Withholding

15. Economic withholding is defined in the MISO tariff as follows:

> Economic withholding of a Generation Resource, that is, submitting Offers for a Generation Resource, a Planning Resource, or a Stored Energy Resource that violate the economic withholding criteria set forth in Section 64.1.2 that cannot be justified, so that (i) output from the Generation Resource or Stored Energy Resource is not or will not be dispatched or scheduled, including Contingency Reserves, Regulating Reserves, Up Ramp Capability, and/or Down Ramp

Capability, (ii) the Offers will clear at prices significantly above competitive levels, or (iii) the Planning Resource will not clear the RAR voluntary capacity auction.[12] [Emphasis added.]

16. The MISO tariff sets a threshold for identifying possible economic withholding relative to a Reference Level. This Reference Level is based in large part on the opportunity cost of exporting capacity to a neighboring region.[13] To estimate the opportunity cost of exporting into a neighboring region, the IMM used PJM's Daily Capacity Deficiency Charge, calculated based on the Weighted Average Resource Clearing Price for the unconstrained Locational Deliverability Area.[14] This methodology is based on the assumption that MISO suppliers may be able to provide replacement capacity for PJM participants when a previously specified resource is unable to satisfy resource commitments.[15]

17. The use of PJM's clearing prices is not an accurate representation of MISO suppliers' opportunity costs. As noted by the IMM, direct participation in PJM's capacity auction, (called the Reliability Pricing Mode ("RPM")), is limited by the fact that the auction concludes prior to the MISO auction, as well as by the existence of numerous barriers that limit capacity trading (imports and exports) between MISO and PJM, including access to transmission, deliverability requirements, and "an unclear application of capacity obligations to external suppliers."[16]

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[12] MISO Tariff, Module D, 63.3.a.ii
[13] MISO Tariff Module D, 64.1.4.e
[14] Potomac Economics, Initial Reference Level for Zonal Reserve Offers: 2015/2016 Delivery Year, February 2015, https://www.misoenergy.org/Library/Repository/Report/IMM/2015-2016%20Inital%20Reference%20Level%20for%20Zonal%20Resources.pdf
[15] *Ibid.*
[16] Independent Market Monitor for MISO. *2014 State of the Market Report for the MISO Electricity Markets.* Potomac Economics, June 2015, page 97

18. The fact that PJM market prices serve as a poor proxy for opportunity costs facing MISO suppliers is significant because the estimated opportunity cost sets the threshold for identification of potential withholding in MISO, and thus investigation by the MISO IMM. Setting the threshold too high may enable suppliers to submit inflated bids with little fear of investigation. This potential for economic withholding is of particular concern in submarkets such as Zone 4, where a pivotal supplier has the opportunity to exercise market power and set the market clearing price using an inflated offer price. As I explain below, Dynegy's supply offer prices in Zone 4 were unusually high compared to the rest of MISO, but just low enough not to trigger an IMM investigation of economic withholding, which raises concerns of market manipulation.[17]

19. In December 2013, Ameren Energy Generating Company and its affiliates transferred 3,152 MW of coal capacity located in Zone 4 to Dynegy, which already controlled 2,980 MW in the Zone.[18] This transaction was reviewed by FERC in Docket No. EC13-93-000. On behalf of Sierra Club, I submitted an affidavit in that docket, citing concerns that the transaction would further concentrate ownership of generation in southern Illinois, where network constraints indicated that a sub-market might exist, thereby potentially enabling the exercise of market power.[19] This concern was exacerbated by the fact that the Applicants only analyzed the market power impacts of up to 5,000 MW of coal plant

[17] Dynegy submitted 94 percent of the supply offers that were priced above $100 in MISO Zones 1-7.
[18] *Ameren Energy Generating Company,* Docket No. EC13-93-000, Order Authorizing Disposition of Jurisdictional Facilities and Acquisition of Securities at 1, 145 FERC ¶ 61,034 (Oct. 11, 2013)
[19] Sierra Club's Motion to Intervene and my Affidavit from the EC-13-000 proceeding are attached hereto as Attachment 2.

retirements in MISO, despite MISO's expectation that approximately twice this much capacity would retire.[20]

20. To assess the potential competitive impacts on electricity markets related to the transfer of Ameren's plants to Dynegy, the Applicants conducted an analysis of market concentration (and thus the ability to exercise market power) using the Herfindahl-Hirschman Index ("HHI"). As I noted in my previous affidavit, this index has limited ability to account for network constraints or the physical characteristics of electricity. The MISO Independent Market Monitor has also recognized the limitations of the HHI, and that a better indicator of potential market power is whether a supplier is "pivotal;" that is, whether the supplier's capacity is required to satisfy demand.[21]

21. Despite the concerns raised regarding the analysis of market concentration only on a MISO-wide basis and the underestimation of coal plant retirements, the transaction was approved and Dynegy became the owner of more than half of southern Illinois' Zone 4 generation capacity, and the potential for the exercise of market power in Zone 4 increased substantially.

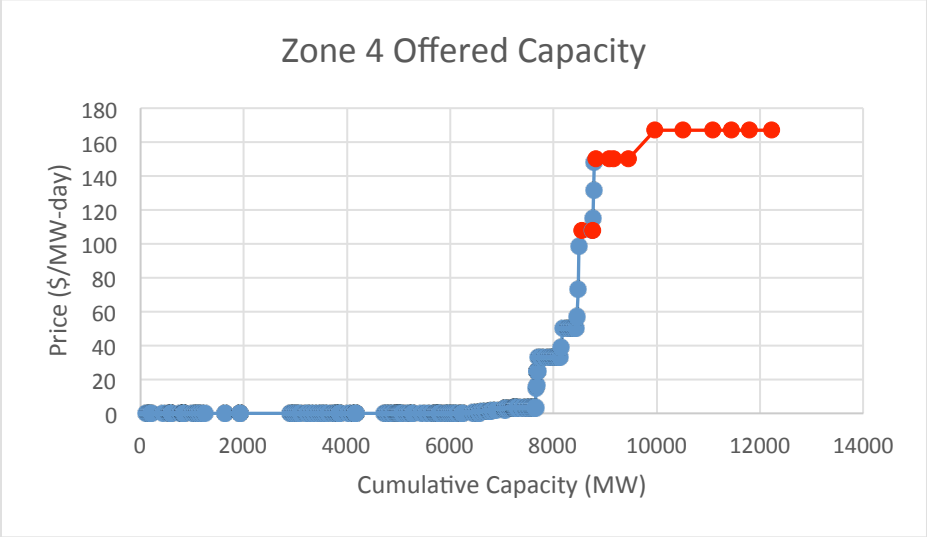
22. In the 2015/2016 PRA, offers totaling 11,156 MW were submitted to meet Zone 4's local clearing requirement of 8,852 MW. As also noted by the Illinois Attorney General and the Southwestern Electric Cooperative, Dynegy's generation was necessary to clear Zone

[20] Testimony of Clair J. Moeller, Executive Vice President of Transmission & Technology of the Midwest Independent Transmission System Operator, Inc. (MISO) Before the House Committee on Energy and Commerce Subcommittee on Energy and Power at 1 (March 19,2013) ("Moeller Congressional Testimony") available at http://docs.house.gov/meetings/IF/IF03/20130319/100527/HHRG-113-IF03-Wstate-MoellerC-20130319.pdf.

[21] Independent Market Monitor for MISO, *2012 State of the Market Report for the MISO Electricity Markets,* June 2013, ("Market Monitor") at 61, available at http://www.potomaceconomics.com/uploads/midwest_reports/2012_SOM_Report_final_6-10-13.pdf

4's reliability requirement,[22] meaning that Dynegy is the Zone 4 pivotal supplier. Through orchestrating its bids, Dynegy set the market price at a level that may have exceeded its actual costs.

23. As pointed out in the Attorney General's complaint, Dynegy's publicly reported auction results match the volumes cleared in the PRA of market participant ID 2132 and ID 2424. When mapped to the supply offer data, it becomes clear that the majority of the bids above $100/MW-day were submitted by Dynegy. This is shown in the graph below, with Dynegy's bids above $100 highlighted in red.



24. Such high bids do not appear to reflect actual costs, as the prices offered in the previous Zone 4 auction were generally much lower. Additionally, the volume of Zone 4 offers above $100 were significantly higher than the majority of bids in MISO. In Zone 4, nearly 3,700 MW were offered in at prices above $100, representing one third (33 percent) of Zone 4's capacity offers. In contrast, only a *total* of 218 MW in Zones 1, 2, 3,

[22] Although Dynegy owns more than 6,000 MW in Southern Illinois, it only offered only 5,404 MW into the auction, presumably due to having previously committed some capacity outside of MISO.

5, 6, and 7 submitted offers of $100 or above, representing 0.4 percent of offers in those Zones. The vast majority of the bids in MISO higher than $100 were submitted by a single supplier -- Dynegy.[23]

25. Given Dynegy's status as a pivotal supplier in Zone 4, the anomalously high bids in this Zone, and the presence of significant market barriers that limit the applicability of PJM market prices in determining appropriate thresholds for identifying economic withholding, the Commission should thoroughly investigate the results of the 2015/2016 PRA to determine whether Dynegy improperly exercised market power.

Conclusions and Recommendations

26. Based on my review of the 2015/2016 PRA results and market conditions, I find that the auction suffered from several serious flaws which resulted in unjust and unreasonable prices for Zone 4. First, the failure to properly account for capacity export counter flows resulted in an artificially high Local Clearing Requirement for Zone 4, and this binding constraint increased prices beyond what they otherwise would have been. Second, such binding constraints create submarkets within MISO, where market power is extremely relevant, and the Commission should investigate. Despite Dynegy being the pivotal supplier in Zone 4 and submitting unusually high bids, the possibility that Dynegy exercised economic withholding does not appear to have been thoroughly investigated, due to a flawed method for determining the Initial Reference Level, and thus the threshold, for investigating economic withholding. The flaw is based on the presumption

[23] As noted above, 94 percent of the bids in Zones 1-7 that were $100 or greater were submitted by Dynegy.

that MISO suppliers have sufficient access to PJM markets, when in fact significant barriers exist and the markets are not yet well linked.

27. For the above reasons, the Commission should reject the results of the 2015/2016 PRA and take actions to correct these flaws. In addition, I recommend that:

- The Commission request MISO to revisit the methodology and reasoning used to define Capacity Import Limits, and explain (if not fully reconcile) why the stated "enhancements" made for 2014/15 supersede MISO's earlier findings regarding the methodology used to determine capacity import limits.

- The Commission order MISO to reduce the Local Clearing Requirement to account for exports to neighboring markets, as recommended by the Independent Market Monitor, and to re-evaluate its Local Clearing Requirement rules and methodologies to determine if it can require less local generation, as was the case for the first PRA.

- Until barriers to capacity transfers with PJM are significantly reduced, the Commission should order MISO to set an Initial Reference Level that reflects MISO-specific opportunity costs.

- The Commission should investigate or order the MISO Independent Market Monitor to investigate whether Dynegy exercised improper economic withholding.

- The Commission should implement mitigation measures, including Tariff revisions, to ensure that pivotal suppliers in each Zone (such as Dynegy in Zone

4) do not have the opportunity to exercise market power. The value of such preventative measures will increase as retirements accelerate and capacity transfers become possibly more constrained across MISO sub-Zones.

- The Commission should require applicants for all future mergers and acquisitions investigate the potential for market power at constrained local or zonal levels, in addition to the regional transmission organization-level. The Commission should also consider requiring the use of other tests in addition to the HHI test when evaluating mergers and acquisitions.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Public Citizen, Inc.	)	
	)	
v.	)	
	)	Docket No. EL15-70-000
Midcontinent Independent System Operator, Inc.	)	
	)	
The People of the State of Illinois By Illinois Attorney General Lisa Madigan	)	
	)	
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)

AFFIDAVIT

MELISSA D. WHITED being duly sworn, deposes and states: that she prepared the Affidavit of Melissa D. Whited and that the statements contained therein are true and correct to the best of her knowledge and belief.

M. Whited
Melissa D. Whited

SUBSCRIBED AND SWORN TO BEFORE ME, this 2nd day of July, 2015.

JANICE CONYERS
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 27, 2018

Notary Public, Massachusetts

Printed Name: JANICE CONYERS

My Commission Expires: 7/27/18

EXHIBIT SC-1
Attachment 1

Melissa Whited, Senior Associate

Synapse Energy Economics I 485 Massachusetts Avenue, Suite 2 I Cambridge, MA 02139 I 617-453-7024
mwhited@synapse-energy.com

PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Cambridge MA. *Senior Associate, 2015 – present, Associate*, 2012 – 2015

Conduct research, author reports, and assist in preparation of expert testimony. Consult on issues related to energy efficiency, demand response, renewable resources, water use and conservation, regional economic impacts, cost-benefit analysis, integrated resource planning, utility ratemaking, and market power.

University of Wisconsin - Madison, Department of Agricultural and Applied Economics, Madison, WI. *Teaching Assistant – Environmental Economics*, 2011 – 2012

Developed teaching materials and led discussions on cost-benefit analysis, carbon taxes and cap-and-trade programs, management of renewable and non-renewable resources, and other topics.

Public Service Commission of Wisconsin, Water Division, Madison, WI. *Program and Policy Analyst - Intern*, Summer 2009

Researched water conservation programs nationwide to develop a proposal for Wisconsin's state conservation program. Developed spreadsheet model to calculate avoided costs of water conservation in terms of energy savings and avoided emissions.

Synapse Energy Economics, Cambridge, MA. *Communications Manager*, 2005 – 2008

Developed technical proposals for state and federal agencies, environmental and public interest groups, and businesses. Edited reports on energy efficiency, integrated resource planning, greenhouse gas regulations, renewable resources, and other topics.

National Council for International Visitors, Washington, DC. *Program Associate*, 2003 – 2005

Managed print media, provided membership services, and assisted in preparing core grant proposal and annual and quarterly reports. Researched and produced community economic impact statements.

International Gender and Trade Network, Washington, DC. *Research Intern*, Summer 2003

Researched implications of water privatization in developing countries.

EDUCATION

University of Wisconsin, Madison, WI
Master of Arts in Agricultural and Applied Economics, 2012. Certificate in Energy Analysis and Policy.

University of Wisconsin, Madison, WI
Master of Science in Environment and Resources, 2010

Southwestern University, Georgetown, TX
Bachelor of Arts in International Studies, 2003. *Magna cum laude.*

ADDITIONAL SKILLS

Analytical abilities:

- Econometric Modeling – Linear and nonlinear modeling including time-series, panel data, logit, probit, and discrete choice regression analysis
- Nonmarket Valuation Methods for Environmental Goods – Hedonic valuation, travel cost method, and contingent valuation
- Cost-Benefit Analysis
- Input-Output Modeling for Regional Economic Analysis

Software:

- MATLAB (Econometric analysis)
- IMPLAN (IMpact analysis for PLANning) Economic Model
- R Statistical Package (OLS and Time-Series Regression Analysis)
- STATA Statistical Package
- STELLA System Dynamics Modeling Software

FELLOWSHIPS AND AWARDS

- Winner, M. Jarvin Emerson Student Paper Competition, Journal of Regional Analysis and Policy, 2010
- Fellowship, National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT), University of Wisconsin – Madison, 2009
- Nelson Distinguished Fellowship, University of Wisconsin – Madison, 2008

PUBLICATIONS

Luckow, P., B. Fagan, S. Fields, M. Whited. 2015. *Technical and Institutional Barriers to the Expansion of Wind and Solar Energy.* Synapse Energy Economics for Citizens' Climate Lobby.

Wilson, R., M. Whited, S. Jackson, B. Biewald, E. A. Stanton. 2015. *Best Practices in Planning for Clean Power Plan Compliance.* Synapse Energy Economics for the National Association of State Utility Consumer Advocates.

Whited, M., T. Woolf, A. Napoleon. 2015. *Utility Performance Incentive Mechanisms: A Handbook for Regulators*. Synapse Energy Economics for the Western Interstate Energy Board.

Stanton, E. A., S. Jackson, B. Biewald, M. Whited. 2014. *Final Report: Implications of EPA's Proposed "Clean Power Plan."* Synapse Energy Economics for the National Association of State Utility Consumer Advocates.

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Peterson, P., M. Whited, S. Fields. 2014. *Synapse Comments on FAST Proposals in ERCOT.* Synapse Energy Economics for Sierra Club.

Hornby, R., N. Brockway, M. Whited, S. Fields. 2014. *Time-Varying Rates in the District of Columbia.* Synapse Energy Economics for the Office of the People's Counsel for the District of Columbia, submitted to Public Service Commission of the District of Columbia in Formal Case No. 1114.

Peterson, P., M. Whited, S. Fields. 2014. *Demonstrating Resource Adequacy in ERCOT: Revisiting the ERCOT Capacity, Demand and Reserves Forecasts*. Synapse Energy Economics for Sierra Club – Lone Star Chapter.

Stanton, E. A., M. Whited, F. Ackerman. 2014. *Estimating the Cost of Saved Energy in Utility Efficiency Programs.* Synapse Energy Economics for the U.S Environmental Protection Agency.

Ackerman, F., M. Whited, P. Knight. 2014. "Would banning atrazine benefit farmers?" *International Journal of Occupational and Environmental Health* 20 (1): 61–70.

Ackerman, F., M. Whited, P. Knight. 2013. *Atrazine: Consider the Alternatives.* Synapse Energy Economics for Natural Resources Defense Council (NRDC).

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Hurley, D., P. Peterson, M. Whited. 2013. *Demand Response as a Power System Resource: Program Designs, Performance, and Lessons Learned in the United States.* Synapse Energy Economics for Regulatory Assistance Project.

Whited, M., D. White, S. Jackson, P. Knight, E.A. Stanton. 2013. *Declining Markets for Montana Coal*. Synapse Energy Economics for Northern Plains Resource Council.

Woolf, T., M. Whited, T. Vitolo, K. Takahashi, D. White. 2012. *Indian Point Energy Center Replacement Analysis: A Plan for Replacing the Nuclear Plant with Clean, Sustainable, Energy Resources.* Synapse Energy Economics for National Resources Defense Council and Riverkeeper.

Whited, M., K. Charipar, G. Brown. *Demand Response Potential in Wisconsin.* Nelson Institute for Environmental Studies, Energy Analysis & Policy Capstone for the Wisconsin Public Service Commission.

Whited, M. 2010. “Economic Impacts of Irrigation Water Transfers in Uvalde County, Texas.” *Journal of Regional Analysis and Policy* 40 (2): 160–170.

Grabow, M., M. Hahn and M. Whited. 2010. *Valuing Bicycling’s Economic and Health Impacts in Wisconsin*. Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment (SAGE) for State Representative Spencer Black.

Whited, M., D. Bernhardt, R. Deitchman, C. Fuchsteiner, M. Kirby, M. Krueger, S. Locke, M. Mcmillen, H. Moussavi, T. Robinson, E. Schmitz, Z. Schuster, R. Smail, E. Stone, S. Van Egeren, H. Yoshida, Z. Zopp. 2009. *Implementing the Great Lakes Compact: Wisconsin Conservation and Efficiency Measures Report.* Department of Urban and Regional Planning, University of Wisconsin-Madison, Extension Report 2009-01.

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TESTIMONY

Federal Energy Regulatory Commission (Docket No. EC13-93-000): Affidavit regarding potential market power resulting from the acquisition of Ameren generation by Dynegy. On behalf of Sierra Club. August 16, 2013.

Wisconsin Senate Committee on Clean Energy: Joint testimony with M. Grabow regarding the importance of clean transportation to Wisconsin’s public health and economy. February 2010.

TESTIMONY ASSISTANCE

Wisconsin Public Service Commission (Docket No. 05-UR-107): Direct and surrebuttal testimony of Rick Hornby regarding Wisconsin Electric Power Company rate case. On behalf of The Alliance for Solar Choice. August 28, 2014 and September 22, 2014.

Maine Public Utilities Commission (Docket No. 2013-00519): Direct testimony of Richard Hornby and Martin R. Cohen on GridSolar's smart grid coordinator petition. On behalf of the Maine Office of the Public Advocate. August 28, 2014.

Maine Public Utilities Commission (Docket No. 2013-00168): Direct and surrebuttal testimony of Tim Woolf regarding Central Maine Power’s request for an alternative rate plan. December 12, 2013 and March 21, 2014.

Massachusetts Department of Public Utilities (Docket No. 14-04): Comments of Massachusetts Department of Energy Resources on investigation into time varying rates. On behalf of the Massachusetts Department of Energy Resources. March 10, 2014.

State of Nevada, Public Utilities Commission of Nevada (Docket No. 13-07021): Direct testimony of Frank Ackerman regarding the proposed merger of NV Energy, Inc. and MidAmerican Energy Holdings Company. On behalf of the Sierra Club. October 24, 2013.

PRESENTATIONS

Whited, M. 2015. "Performance Incentive Mechanisms." Presentation to the e21 Initiative, May 2015.

Whited, M., F. Ackerman. 2013. "Water Constraints on Energy Production: Altering our Current Collision Course." Webinar presentation sponsored by Civil Society Institute, September 2013.

Whited, M., G. Brown, K. Charipar. 2011. "Electricity Demand Response Programs and Potential in Wisconsin." Presentation to the Wisconsin Public Service Commission, April 2011.

Whited, M. 2010. "Economic Impact of Irrigation Water Transfers in Uvalde County, Texas." Presentation at the Mid-Continent Regional Science Association's 41st Annual Conference/IMPLAN National User's 8th Biennial Conference in St. Louis, MO, June 2010.

Whited, M., M. Grabow, M. Hahn.2009. "Valuing Bicycling's Economic and Health Impacts in Wisconsin." Presentation before the Governor's Coordinating Council on Bicycling, December 2009.

Whited, M., D. Sheard. 2009. "Water Conservation Initiatives in Wisconsin." Presentation before the Waukesha County Water Conservation Coalition Municipal Water Conservation Subgroup, July 2009.

Resume dated June 2015

EXHIBIT SC-1
Attachment 2

KEYES, FOX & WIEDMAN LLP

August 16, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: *Ameren Energy Generating Co. et al.*, Docket No. EC13-93-000,

Dear Secretary Bose,

On behalf of Sierra Club we hereby submit the attached Motion to Intervene and Protest.

Sincerely,

/s/ *David R. Wooley*

David R. Wooley
Thad Culley
Keyes, Fox & Weidman, LLP
Attorney for Sierra Club
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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Ameren Energy Generating Company, AmerenEnergy Resources Generating Company, Ameren Energy Marketing Company, Electric Energy, Inc., Midwest Electric Power, Inc., AmerenEnergy Medina Valley Cogen, L.L.C., Dynegy Inc.	Docket No. EC13-93-000

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MOTION TO INTERVENE AND PROTEST OF SIERRA CLUB

On April 16,2013, Ameren Energy Generating Company ("AEG"), AmerenEnergy Resources Generating Company ("AERG"), Ameren Energy Marketing Company ("AEM"), Electric Energy, Inc., Midwest Electric Power, Inc., AmerenEnergy Medina Valley Cogen, L.L.C., and Dynegy Inc. ("Dynegy") (collectively, "Applicants") submitted, pursuant to Section 203 of the Federal Power Act ("FPA"), an application for approval of certain transactions by which Dynegy will acquire the majority of Ameren's merchant generating fleet-including all of its coal-fired units-as well as Ameren's unregulated marketing affiliate ("Application"). On July 26, 2013, the Commission's Division of Electric Power Regulation found the studies supporting the Asset Transfer to be incomplete because they failed to monitor all the 100 kV and above transmission elements in the first-tier areas. It required Applicants to resubmit the study monitoring all the 100 kV and above transmission elements in the first-tier areas, and, if the rerun simultaneous transmission import limits study produces different results, the Applicants were required to resubmit the delivered price test analysis for a set of prescribed cases.

The Applicants filed supplemental information in response to this request on

August 5, 2013. On August 6, 2013 the Commission noticed this filing for public comment, requiring comments by August 19, 2013.

The Sierra Club seeks to intervene for the purpose protesting the power plant ownership transfer, to critique the original Application and to comment on the August 5, 2013 Amended filing. In support of its motion to intervene, the Sierra Club states as follows:

I. PROTEST

The proposed transaction would transfer ownership of five large coal fired power generation plants from Ameren to Dynegy. These plants include: Coffeen (895 MW), Newton (1,197 MW), Duck Creek (410 MW) and E.D. Edwards (650 MW), and Joppa (1,241 MW - including a 239 MW of gas-fired peaking unit). Dynegy proposes to acquire 4,393 MW of generating assets of which 4,154 MW is coal-fired base load capacity.[1] Dynegy currently owns 2,954 MW of generation in MISO, all of which is coal-fired base load generation. After the proposed transaction, Dynegy's coal-fired base load generation in MISO will increase to 7,108 MW, which more than doubles Dynegy's existing generation capacity ownership in MISO. Dynegy also owns gas generation plants including, via a wholly owned subsidiary, a natural gas-fired electric generating facility with a net capacity of 1,140 MW (summer rating), located in Kendall, Illinois (about 40 miles southwest of Chicago). After the transaction Dynegy would own 8,477 MW of generating capacity in Illinois. On August 1, 2013, Applicant Ameren recently announced plans to sell over 1,000 MW of gas fired generation capacity in Illinois, with

[1] The transaction would increase generation capacity ownership of Dynegy by a total of 3,152 MW in MISO and 1,241 MW in EEI.

potential buyers undisclosed.[2] It is also reported that Midwest Generation intends to sell or close four large coal-fired power plants in Illinois.[3] In other words, this transaction could be the beginning of a much larger set of power plant asset transfers in the region. Future transactions, combined with coal plant retirements, could exacerbate the market power risks associated with this transaction.

The transaction in question is not in the public interest. Consolidating the ownership of 8,477 MW of power generation in Illinois could give the new owner the ability to exercise market power in ways that will unfairly increase costs of electric power in Central and Southern Illinois region. This would have an adverse effect on electric rates. This region of the state experiences transmission congestion, suggesting that plants located there can command higher wholesale prices and potentially schedule and withhold generation in ways to artificially inflate or suppress wholesale electricity prices. The Appendix to this Motion describes the location of the Transfer Assets in relation to Congested Flowgates in the region.[4]

The Applicants' supporting information does not demonstrate the absence of market power, since it only looked at the market power impacts across a very broad region encompassed by the MISO Regional Transmission Organization. Applicants did not perform a market power analysis on a local basis, in spite of the fact that the generators at issue are in a highly localized geographical market. This is fatal to the

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[2] SNL, *Update: With 'multiple interested buyers,' Ameren expects to sell gas plants by year end,* August 1, 2013, http://www.snl.com/InteraciveX/article.aspx?ID=18818926.

[3] Chicago Tribune Business, *Do Illinois' coal-fired plants have a future?*
Fate of two-thirds of state's coal-fired plants could be determined in next 2 years, August 11, 2013, http://articles.chicagotribune.com/2013-08-11/business/ct-biz-ameren-dynegy-20130811_1_plants-julien-dumoulin-smith-midwest-generation.

[4] *See* Appendix A: Affidavit of Melissa Whited at pp. 2 - 5.

application since it does not give the Commission enough information to determine the whether the ownership transfer will effect on the public interest, by creating opportunities for the new owner to exercise market power.[5] The Commission should either reject the petition or require the Applicants to study the impact of the asset transfer on potential to exercise market power in the transmission-congested sub-regions in Central and Southern Illinois. See the Appendix to this Motion for a description of the need for a study of the impact of the transaction on sub-regions.[6]

The Applicants' supporting information is also flawed in that it assumed a very small level of anticipated coal-fired power plant retirement – much lower than is likely to occur in the region in which the consolidated coal-fired power plant fleet is located. If the Applicants had assumed a higher level of coal-fired power plant retirement, the transfer could trip market power screens, requiring a much deeper analysis of market power potential. The Commission should either deny the application or require the Applicants to undertake additional market power studies that assume a higher level of coal plant retirements (15,000 MW) in the area. Sierra Club has gained considerable expertise on this subject and by granting intervention the Club can supply information on likely coal plant retirements as they affect market power concentration in this region.[7]

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[5] Midwest Indep. Transmission Sys. Operator, Inc., 122 FERC ¶ 61,172, at P 54 (2008).

[6] *See* Appendix A: Affidavit of Melissa Whited at pp. 2 – 5.

[7] Sierra Club endorses and adopts by reference the arguments of Intervenor Missouri Joint Municipal Electric Utility Commission:

> …Applicants' expert witness significantly underestimates the amount of coal-fired capacity that is likely to be retired in the near term due to compliance with recently adopted environmental regulations. Applicants' expert assesses the impact of "reducing the Economic Capacity] and [Available Economic Capacity] market size by 5,000 MW in all time periods" and also by removing 4,000 MW of projected coal retirements identified by specific owners. 1d These estimates are less than half of MISO's own recent assessment, based on an owner survey, which is an "expected 12,000 MW of coal unit] retirements]" due to Mercury and Air Toxic Standards ("MATS") and other environmental regulations. In addition to understating the magnitude of the

See the Appendix to this Motion for a description of expected power plant retirements in the region.[8]

The Applicants failed to sufficiently consider the effect of the proposed transaction on Ancillary Services. This failure is fatal to the application because it does not provide the Commission with a sufficient basis to approve the proposed transaction. Sierra Club endorses the arguments contained in the Protest by Southwest Electric Cooperative, Inc. at pages 5-11, including the following conclusion:

> The proposed transaction will make Dynegy a very dominant Ancillary Services supplier—if not the only qualified Ancillary Servicer supplier—in the geographic area where SWEC is located. A proper market power analysis will confirm this assertion. Therefore, SWEC requests that the Commission order the applicants to provide a detailed Ancillary Services market power analysis before it considers approving the proposed transaction.[9]

II. MOTION TO INTERVENE

Pursuant to Rules 211, 212 and 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.211, 385.212 and 385.214, and the Commission's Combined Notice of Filings #1 dated August 6, 2013, Sierra Club moves to intervene in the above-captioned proceeding. In addition, Sierra Club protests the proposed transaction and urges the Commission to delve more deeply into the potential anticompetitive effects of the transaction in light of industry developments that are not sufficiently examined by

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> unit retirements … In order to meet the MATS compliance deadline it is anticipated that a very large amount of the affected generation will be unavailable due to retrofit outages over the time period from 2014 to 2017, depending upon the time frame for design, construction and installation. MISO Survey at p. 3. Although much of the retrofit work will likely be scheduled for shoulder month periods, it is unclear whether these schedules will hold. There will be a tremendous demand across the country for the same hardware and skilled workers necessary to retrofit the currently non-compliant units. These retrofits must also be considered in evaluating Dynegy's post-merger market power. [Footnotes omitted.]

[8] *See* Appendix A at pp. 5 - 6.

[9] Protest and Motion to Intervene of Southwest Electric Coop, Inc. at p. 11.

Applicants' Appendix A analysis.

A. Service And Communications

The names, addresses, and telephone numbers of the person to whom communications concerning this matter should be addressed are as follows:

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B. Description of Sierra Club

Movants seek full intervention in order to ensure that their interests in lower-cost and cleaner energy options are fully represented. Sierra Club is one of the oldest conservation groups in the country with over 625,000 members nationally in sixty-four chapters in all fifty states, the District of Columbia, and Puerto Rico. Sierra Club has over 22,500 members in Illinois.

C. Grounds for Intervention

Many of Sierra Club's members are electric power consumers in Illinois who may be directly affected by the outcome of the proceeding, due to potential for increased rates caused

by an exercise of market power by the owner of a consolidated fleet of coal-fired power plants in Illinois.

Sierra Club's participation is in the public interest because Sierra Club is a non-profit organization representing the interests of a significant number of electricity consumers in the area affected by this transaction. Sierra Club is actively involved in a number of proceedings affecting power generation and consumption in Illinois and can bring that knowledge and expertise to issues in this case. Sierra Club has retained an expert with experience in market power issues and hopes to provide useful information to the Commission on the question of whether this transaction is in the public interest.

III. CONCLUSION

WHEREFORE, for the foregoing reasons, Sierra Club Inc., respectfully requests that the Commission grant the following relief:

1. Reject the Joint Application for Authorization as deficient based on the issues presented above;

2. In the alternative, require the Applicants to submit a market power analysis focusing on the effect of the proposed transaction on local markets served by the generators at issue and accounting for a more realistic estimate of coal plant retirement in the region (15,000 MW);

3. Direct Staff to inquire of the Applicant Dynegy of any plan to acquire additional generation capacity beyond that covered by the transaction in question;

4. If the Authorization is granted, condition it on a commitment by Dynegy not to acquire additional generation capacity in Illinois; and,

5. Grant such other relief as the Commission may deem necessary and appropriate.

Dated: August 16, 2013

Respectfully submitted,

_____/S/_____

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APPENDIX A

AFFIDAVIT OF MELISSA D. WHITED

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Ameren Energy Generating Company, AmerenEnergy Resources Generating Company, Ameren Energy Marketing Company, Electric Energy, Inc., Midwest Electric Power, Inc., AmerenEnergy Medina Valley Cogen, L.L.C., Dynegy Inc	Docket No. EC13-93-000

AFFIDAVIT OF MELISSA D. WHITED

ON BEHALF OF THE SIERRA CLUB

Introduction

My name is Melissa D. Whited. My business address is Synapse Energy Economics, Inc., 485 Massachusetts Avenue, Cambridge, Massachusetts 02139. I am an Associate at Synapse Energy Economics ("Synapse") where I provide consulting services on a variety of topics related to energy economics, including utility ratemaking, integrated resource planning, energy efficiency and demand response, and regional economic impacts of energy policy. I hold a Master of Arts in Agricultural and Applied Economics and a Master of Science in Environment and Resources, both from the University of Wisconsin-Madison. Prior to rejoining Synapse, I published in the Journal of Regional Analysis and Policy regarding the economic impacts of water transfers, analyzed state water efficiency policies while at the Wisconsin Public Service Commission, and conducted econometric analyses of energy efficiency cost-effectiveness. I also testified before the Wisconsin Senate Committee on Clean Energy regarding the economic impacts of clean transportation options and presented to the Wisconsin Public Service

Commission regarding the state's electricity demand response programs and potential.

I have been asked by the Sierra Club to summarize concerns related to the Applicants' evaluation of potential competitive impacts on electricity markets related to the transfer of generation resources from Ameren Corporation to Dynegy Inc. Specifically, I analyzed whether the analysis of Julie R. Solomon adequately accounted for the existence of transmission constraints and projected power plant retirements.

Based on the information contained in this affidavit, I conclude that there exists sufficient evidence of transmission constraints within Southern Illinois to warrant concern regarding the potential for exercise of market power on a localized basis. This concern is compounded by the expected retirement of much larger amounts of coal generation capacity than was analyzed by the Applicants.

There are submarkets in MISO that are a legitimate market power concern

The application states that, "For purposes of geographic market definition, Ms. Solomon observes that there are no geographic areas within MISO that, under current regulations, recent guidance, or any evidence, would be considered relevant submarkets for the Transaction."[1] However, the transaction involves large amounts of capacity in Southern Illinois, a part of MISO which has significant local constraints and deserves location-specific analysis.

According to the 2012 State of the Market Report for the MISO Electricity Markets by the MISO Independent Market Monitor, "Locational market power in wholesale markets can be substantial when transmission constraints or reliability requirements limit the effective

[1] Joint Application for Authorization Under Section 203 of the Federal Power Act, FERC Docket No. EC13-93 (filed Apr. 16, 2013) ("Joint Application") at 22.

competition to satisfy the system's needs in an area."[2] The Market Monitor notes that the Herfindahl-Hirschman index (HHI) is "limited as an indicator of overall competitiveness" because this metric does not account for network constraints or the physical characteristics of electricity.[3] Thus the Market Monitor recommends analyzing whether a supplier is pivotal to managing network constraints or satisfy load in order to assess the potential for market power.

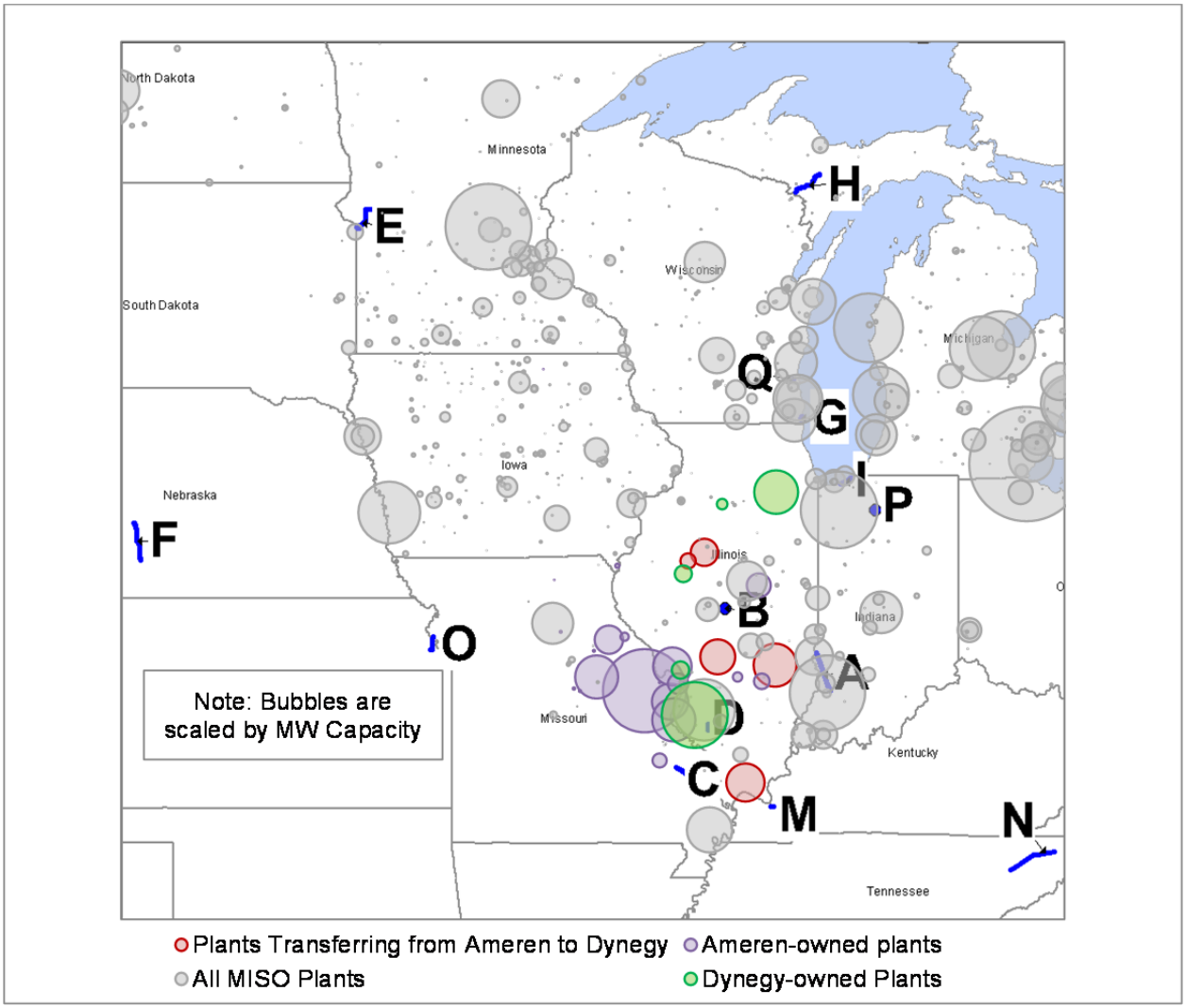
Network constraints are currently present in MISO and may become more acute in the future as load grows or power plants retire. Flowgates represent boundaries between parts of a transmission system that frequently experience congestion. Many of the top congested flowgates in MISO are located in the Southern Illinois region where Dynegy will be significantly expanding its share of the local generation capacity. The map below overlays the results of MISO's Top Congested Flowgate Study[4] with the location and capacity of MISO power plants. The power plants in red are those that are proposed to be transferred from Ameren to Dynegy, while the power plants in green are those already owned by Dynegy.

[2] Independent Market Monitor for MISO, *2012 State of the Market Report for the MISO Electricity Markets*, June 2013, ("Market Monitor") at 61, available at http://www.potomaceconomics.com/uploads/midwest_reports/2012_SOM_Report_final_6-10-13.pdf

[3] Market Monitor at 61.

[4] MISO, MTEP11 Top Congested Flowgate Study, Presentation at the 7th TRG Meeting, Feb. 21, 2012, available at https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/PAC/2011/20110928/20110928%20PAC%20Item%2002%20MTEP11%20Top%20Congested%20Flowgates%20Study.pdf

Figure 1. Map of Top Congested Flowgates and MISO Power Plants



A thorough assessment of the proposed transaction would look not just at HHIs for the entire MISO region, but rather would examine local market power issues related to both energy and unit commitments made for local reliability purposes. The MISO Market Monitor notes that there have been "excess payments made to units committed for capacity."[5] With regard to these issues, the Market Monitor urges caution:

> Despite infrequent mitigation in 2012, the pivotal supplier analyses discussed earlier in this section continue to indicate that local market

[5] Market Monitor at 65.

> power is a significant concern. If exercised, local market power could have substantial economic and reliability consequences within MISO.[6]

Hence, market power mitigation measures remain essential. MISO has experienced excess payments made to units committed for capacity purposes. All of the units involved in the proposed transaction are located in an area of MISO already experiencing floodgate congestion, raising the possibility that the transaction could increase instances where local market power could be exercised. This should be examined as part of a comprehensive review of market power and the transaction.

The treatment of power plant retirements in MISO is inadequate

Ms. Solomon analyzes two cases with substantial coal plant retirements: one with approximately 4,000 MW (and retiring specific plants) and another case with 5,000 MW (but no specific plants identified). However, in testimony before the House Committee on Energy and Commerce Subcommittee on Energy and Power in March 2013, Clair Moeller of MISO testified that MISO had an "expected 12,000 MW retirement level."[7] A March 2013 presentation of MISO's survey results indicates that approximately 6,000 MW of coal capacity in MISO will be replaced, with another 6,000 MW yet to be determined. For forecasting purposes, the presentation lists 10,000 MW of expected retirements.[8]

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[6] *Id* at 66.

[7] Testimony of Clair J. Moeller, Executive Vice President of Transmission & Technology of the Midwest Independent Transmission System Operator, Inc. (MISO) Before the House Committee on Energy and Commerce Subcommittee on Energy and Power at 1 (March 19,2013) ("Moeller Congressional Testimony") available at http://docs.house.gov/meetings/IF/IF03/20130319/100527/HHRG-113-IF03-Wstate-MoellerC-20130319.pdf.

[8] Updated Resource Adequacy Impacts of EPA Implementation (March 21,2013) ("MISO Survey"), available at https://www.misoenergy.org/Library/Repository/Communication%20Material/Power%20Up/EPA%20Compliance%20Update.pdf.

Ms. Solomon's scenarios of coal retirements analyze far fewer retirements than are generally expected and that MISO assumes for planning purposes. The HHI analyses in Ms. Solomon's Affidavit should be performed with a more reasonable range of retirement scenarios, ranging from a minimum of 5,000 MW to at least 15,000 MW. We would expect that additional coal retirements could, and will, influence the operation of the grid in this region. For example, congestion in broad constrained areas ("BCAs") and local reliability commitment needs may increase in a coal retirement scenario. As described above, this could create a situation where market power mitigation should be implemented.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Ameren Energy Generating Company, AmerenEnergy Resources Generating Company, Ameren Energy Marketing Company, Electric Energy, Inc., Midwest Electric Power, Inc., AmerenEnergy Medina Valley Cogen, L.L.C., Dynegy Inc	Docket No. EC13-93-000

AFFIDAVIT

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MELISSA D. WHITED being duly sworn, deposes and states: that she prepared the Affidavit of Melissa D. Whited and that the statements contained therein are true and correct to the best of her knowledge and belief.

M. Whited
Melissa D. Whited

SUBSCRIBED AND SWORN TO BEFORE ME, this 16 day of August, 2013.

Notary Public, Massachusetts

Printed Name: JANICE CONYERS

My Commission Expires: 7/27/18

JANICE CONYERS
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 27, 2018