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BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the Application of Ohio)
Edison Company, The Cleveland Electric)
Illuminating Company, and The Toledo)
Edison Company for Approval of a Market)
Rate Offer to Conduct a Competitive Bidding)
Process for Standard Service Offer Electric)
Generation Supply, Accounting Modifications)
Associated with Reconciliation Mechanism,)
and Tariffs for Generation Service)

Case No. 08-936-EL-SSO

DIRECT TESTIMONY OF KEVIN M. MURRAY
ON BEHALF OF INDUSTRIAL ENERGY USERS-OHIO

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**DIRECT TESTIMONY OF KEVIN M. MURRAY
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I. INTRODUCTION

Q1. Please state your name and business address.

A1. My name is Kevin M. Murray. My business address is 21 East State Street, 17th
Floor, Columbus, Ohio 43215-4228.

Q2. By whom are you employed and in what position?

A2. I am a Technical Specialist for McNees Wallace & Nurick LLC ("McNees"),
providing testimony on behalf of Industrial Energy Users-Ohio ("IEU-Ohio").

Q3. Please describe your educational background.

A3. I graduated from the University of Cincinnati in 1982 with a Bachelor of Science
degree in Metallurgical Engineering.

Q4. Please describe your professional experience.

1 A4. I have been employed by McNees for 11 years where I focus on helping
2 IEU-Ohio members address issues that affect the price and availability of utility
3 services. I have also been active on behalf of commercial and industrial
4 customers in the formation of regional transmission operators and the
5 organization of regional electricity markets. I have previously served as an end
6 use customer sector representative on the Midwest ISO ("MISO") Advisory
7 Committee and I have been actively involved in MISO working groups that focus
8 on various issues. Prior to joining McNees, I was employed by the law firm of
9 Kegler, Brown, Hill & Ritter in a similar capacity. I also previously spent 12 years
10 with The Timken Company, a specialty steel and roller bearing manufacturer.
11 While at The Timken Company, I worked within a group that focused on meeting
12 the electricity and natural gas requirements for facilities in the United States. I
13 also spent several years in supervisory positions within The Timken Company's
14 steelmaking operations.

15 **Q5. Have you previously testified before the Public Utilities Commission of**
16 **Ohio ("Commission")?**

17 A5. I have previously submitted testimony in the Ohio Edison Company, The
18 Cleveland Electric Illuminating Company, and The Toledo Edison Company
19 (collectively "FirstEnergy" or "Companies") electric distribution companies' rate
20 increase cases which are pending before the Commission (Case No.
21 07-551-EL-AIR, *et al.*). However, on February 11, 2008, a Stipulation and
22 Recommendation supported by many of the parties in those proceedings was
23 submitted in the case. The Stipulation and Recommendation, if adopted, would

1 resolve many of the contested issues in those proceedings. As a result, my
2 prepared testimony was not offered.

3 **Q6. What is the purpose of your testimony?**

4 A6. The purpose of my testimony is to address certain aspects of FirstEnergy's
5 proposed market rate option ("MRO"). As a preliminary matter, consideration of
6 FirstEnergy's MRO application presents challenges, due to the limited time
7 available. Based on my review of FirstEnergy's MRO application, however, I
8 conclude that the application is missing information that I believe is required to
9 permit the Commission to approve an MRO for the purposes of establishing the
10 prices and other terms and conditions associated with standard service offer
11 ("SSO"). A summary of my findings follows.

12 First, the application is silent on how customer-sited capabilities can be eligible to
13 satisfy the requirements that would otherwise be met through the SSO. Based
14 on advice of counsel, it is my understanding that Amended Substitute Senate
15 Bill 221 ("SB 221") encourages electric distribution companies ("EDU") to rely on
16 customer-sited capabilities to meet their advanced energy resource, energy
17 efficiency and peak demand reduction portfolio requirements. It is my
18 understanding that these portfolio requirements must be satisfied by an EDU
19 regardless of whether the SSO is met through the MRO or the electric security
20 plan ("ESP") option.

21 Second, the proposed competitive bid process ("CBP") does not include a clear
22 product definition.

1 Third, the MRO application does not identify a published source of information for
2 traded electricity on-peak and off-peak products available for contracts for
3 delivery beginning at least two years from the date of the publication.

4 Fourth, the MRO application does not demonstrate that the relevant regional
5 transmission organization ("RTO") has an independent market monitor that can
6 take actions to mitigate market power.

7 Fifth, the MRO application does not indicate that the proposed CBP was
8 designed by an independent third party.

9 I discuss each of these findings in more detail in my testimony.

10 Based on these findings, I conclude that the MRO application is deficient and
11 should be supplemented before the Commission takes action on the application.
12 However, in the event the Commission concludes otherwise, I also address a
13 structural problem that should be addressed by the Commission before
14 permitting FirstEnergy to proceed with any CBP.

15 **Q7. What are the timing challenges presented by FirstEnergy's application?**

16 A7. FirstEnergy submitted its application on July 31, 2008, and it is my understanding
17 that the application is subject to Commission rules that have not been finalized.

18 I have been advised by counsel that even after the Commission issues rules,
19 they will not become effective until, at the earliest, 65 days after review by the
20 Joint Committee on Agency Rule Review ("JCARR").

1 It is quite possible that final rules adopted by the Commission may prescribe
2 specific requirements for the CBP that have not been addressed in FirstEnergy's
3 application. Therefore, I am reserving the right to supplement my testimony once
4 final Commission rules are effective.

5 From a more practical perspective, FirstEnergy filed both an MRO application
6 and an ESP application on July 31, 2008 and other EDUs have filed ESP
7 applications as well. These applications included proposals that will affect the
8 price and other terms and conditions associated with the SSO that will succeed
9 the existing SSO on or about January 1, 2009. The workload associated with
10 these applications and the timeline that applies to the Commission's processing
11 of the applications stretches technical, legal and other resources in ways that
12 affect our ability to identify and address issues raised by the applications. For
13 this reason, I recommend that the Commission use great care and caution in
14 making sure that any MRO applications contain provisions that will advance the
15 state policy which I understand is set forth in Section 4928.02, Revised Code.
16 Regardless of whether the Commission approves the MRO or ESP approach to
17 the SSO, it is my understanding that the MRO or ESP means must satisfy the
18 objectives set forth in the law.

19 Finally, in the case of EDUs that do not own or control generation assets, it is my
20 understanding, based on advice of counsel, that the Commission's authority to
21 affect SSO pricing may be, in some circumstances, limited by its obligation to
22 respect determinations made by the Federal Energy Regulatory Commission
23 ("FERC"). It is my understanding that in both the MRO and ESP, an EDU without

1 generating assets has the opportunity to recover the cost of generation supply
2 used to meet the SSO requirements. It is also my understanding that any ESP
3 proposal must be evaluated relative to the results of an MRO and this relative
4 comparison applies to all EDUs. Thus, the larger practical significance of the
5 ultimate generation supply pricing significance of the Commission's
6 determinations regarding FirstEnergy's MRO application is connected to the
7 Commission's review of FirstEnergy's ESP application.

8 **II. CUSTOMER-SITED CAPABILITIES**

9 **Q8. What are customer-sited alternative energy resource, demand response,**
10 **energy efficiency and peak demand capabilities?**

11 A8. It is my understanding that these customer-sited capabilities are means an EDU
12 may use to comply with the portfolio requirements of SB 221 beginning in 2009.

13 **Q9. How is compliance with these requirements measured?**

14 A9. It is my understanding that compliance is addressed in SB 221 both directly and
15 by giving the Commission the ability to issue rules. The Commission recently
16 issued draft rules on the portfolio requirements.

17 **Q10. How should EDUs treat customer-sited capabilities for purposes of**
18 **providing the SSO in conjunction with the MRO?**

19 A10. It is my understanding that the portfolio requirements apply to an EDU regardless
20 of whether the SSO is provided under the MRO or ESP approach and that SB

221 encourages the use of customer-sited capabilities to meet these requirements in both an MRO and ESP context.

Q11. Does FirstEnergy's MRO application address how customer-sited capabilities will be used to meet its portfolio obligations?

A11. No, it does not. The application is silent on this subject, thus complicating the relative comparison of its proposed MRO with its proposed ESP, which does include provisions dealing with customer-sited capabilities. More specifically, it is my understanding that the Commission is required to consider whether an ESP is more favorable in the aggregate as compared to the expected results that would occur under an MRO. In this context, it is my opinion that determining whether an ESP is more favorable in the aggregate than the MRO option, and determining whether a MRO proposal meets the policy goals I mentioned previously, requires consideration of how the portfolio requirements will be satisfied in general and with specific regard to customer-sited capabilities. Because FirstEnergy has not included any discussion in its application on how it will address compliance with the demand response, energy efficiency and peak demand reduction requirements, FirstEnergy has not proposed an MRO that includes enough detail to permit the type of relative comparison that I understand is necessary.

III. INDEPENDENT THIRD PARTY DESIGN OF BIDDING PROCESS

Q12. Did an independent third party design FirstEnergy's CBP?

A12. Not according to FirstEnergy's application.

1 **Q13. Please explain your answer.**

2 A13. Page 13 of the application states that the CBP Manager will be responsible for
3 ensuring that there will be a clear product definition and, to ensure this result, the
4 CBP Manager will design the solicitation. On page 5 of the Direct Testimony of
5 Kevin. T. Warvell, he also identifies that The Brattle Group has been assigned
6 these responsibilities as the CBP Manager. However, page 2 of the Direct
7 Testimony of James D. Reites states that The Brattle Group has been hired "to
8 support the design, administration and supervision of the Competitive Bidding
9 Process ("CBP")." FirstEnergy's application does not state that The Brattle
10 Group designed the CBP. In fact, Mr. Warvell's testimony describes the CBP in
11 detail and then states, "for the Companies' filing, The Brattle Group has been
12 retained as the CBP Manager. The CBP Manager *will be* responsible for
13 designing the competitive bidding process to ensure it is an open, fair and
14 transparent competitive solicitation, and that it contains a clear product definition
15 and standardized bid evaluation." (emphasis added). It does not appear that
16 The Brattle Group had any involvement in designing the tranches that
17 prospective bidders are required to bid on. In fact, it does not appear they had
18 any involvement in the actual design of what prospective suppliers are being
19 requested to bid upon. It appears FirstEnergy exclusively designed what
20 suppliers would be asked to bid upon, and once this process was complete
21 FirstEnergy turned the reigns over to The Brattle Group to administer the bidding
22 process.

1 **Q14. Can you provide any examples of how a CBP might be structured**
2 **differently if it were designed by an independent third party?**

3 A14. Yes I can. FirstEnergy's proposed bidding process is structured such that
4 participants bid on slice-of-system tranches with each tranche representing
5 approximately 100 MW of peak demand. There will be a total of 39 tranches
6 representing nominally approximately 11,500 MW of peak demand (100 MW x
7 115). The tranches are load following; that is, each successful bidder will be
8 expected to supply a quantity of electricity that varies up or down in each hour of
9 the year as the total system load changes. The bidding process is generally
10 summarized in Mr. Warvell's direct testimony and detailed specifications are
11 contained within Exhibits A through I of FirstEnergy's application. I am merely
12 highlighting one feature of the proposed competitive bid structure for the
13 purposes of comparison.

14 In contrast to the feature just described, the CBP could have been structured to
15 include a mix of fixed block and load following requirements. For example, if
16 FirstEnergy's minimum hourly system load was 6,000 MW, rather than having all
17 115 tranches classified as load following, a third party administrator might elect to
18 conduct two auctions; the first for 60 tranches of fixed blocks (100 MW to be
19 delivered all 8760 hours of the year) with the remaining 55 tranches offered as
20 load following. The combined results of each auction would support the MRO.
21 This is but one example of many options that exist to structure the bidding
22 process.

1 **IV. PRODUCT DEFINITION**

2 **Q15. Are slice-of-system tranches, as they are presently designed, clearly**
3 **defined products?**

4 A15. No, they are not. Although FirstEnergy has nominally defined the tranches as
5 100 MW slices of the total system load, a closer examination of the technical
6 specifications leads to the conclusion that bidders are being requested to quote
7 on a product that is better described as a product that requires the bidder to
8 assume an obligation to do whatever it takes to supply FirstEnergy's retail load,
9 with all risk on the lack of product specificity falling upon the prospective bidder.
10 This not only fails to provide a clear product definition, but will work to increase
11 the prices that bidders will likely offer if the proposal is approved.

12 **Q16. Can you provide any examples?**

13 A16. Yes. Exhibit F to the FirstEnergy application contains the Master Standard
14 Service Offer Supply Agreement ("SSO Agreement") that successful bidders in
15 the auction will be required to execute. Section 2.3 of the SSO Agreement,
16 which appears on page 14, identifies the products that each SSO supplier is
17 expected to provide. The SSO Agreement states that:

18 Each SSO Supplier must make all necessary arrangements for the
19 delivery of SSO Supply through MISO. As MDMA [Meter Data
20 Management Agent] for settlement purposes, the Companies will
21 advise MISO of the magnitude of each SSO Supplier's actual SSO
22 Supplier Responsibility Share, as required by applicable MISO
23 Rules, for the purpose of calculating such SSO Supplier's
24 appropriate Energy obligation, Resource Adequacy Requirements
25 obligation, Ancillary Services obligation, Firm Transmission Service
26 obligation, and other requirements and obligations currently and as
27 may be amended from time to time by MISO, related to the

1 provision of service under this Agreement by SSO Suppliers arising
2 under the applicable MISO Rules. Each SSO Supplier will remain
3 responsible to MISO for the performance and cost of its Asset
4 Owner, Market Participant and LSE obligations associated with the
5 provision of SSO Supply under this Agreement until the effective
6 date of the transfer of such Asset Owner, Market Participant and
7 LSE obligations (emphasis added).
8

9 It is no secret that MISO markets are in a state of flux, and changes to both
10 resource adequacy requirements and potentially ancillary services are underway.

11 On March 26, 2008, FERC issued an order approving MISO's proposal to adopt
12 long-term planning reserve requirements. This order required MISO to submit a
13 further compliance filing addressing the financial consequences associated with
14 meeting planning reserve requirements. Thus, details of how the planning
15 reserve requirements will operate in practice remain unknown. In fact, one of
16 FirstEnergy's witnesses in its ESP proceeding (Case No. 08-935-EL-SSO), Scott
17 T. Jones, has submitted testimony that MISO's resource adequacy program is a
18 work in progress and that this circumstance presents uncertain risks to suppliers
19 of full requirements service (Direct Testimony of Scott T. Jones at 10-11).

20 Further, MISO has also proposed significant changes in how ancillary services
21 will be procured and priced. Presently, utilities within MISO operate as separate
22 balancing areas and retain certain reliability responsibilities to ensure that
23 generation supply and demand are balanced. These responsibilities include
24 arranging for the necessary amounts of generation to supply regulation, spinning
25 reserve and supplemental reserves (collectively operating reserves). Generation
26 to supply operating reserves is set aside or carved out of MISO's energy market
27 and is not dispatched by MISO except under certain emergency conditions.

1 Because MISO carves reserves out of its market, reserves are provided at cost-
2 based rates.

3 MISO has proposed implementing markets for operating reserves in which the
4 selection of resources to provide reserves would be co-optimized with the
5 selection of resources to provide energy. FERC has approved MISO's plans to
6 implement ancillary services markets and, up until recently, MISO had planned to
7 launch its ancillary services markets on September 9, 2008. However, MISO
8 recently decided to delay market launch due to problems experienced with
9 artificial scarcity pricing during market trials and it has now suggested a new
10 market launch date of December 9, 2008.

11 These are but two examples, and there are others, of how MISO's markets are in
12 a significant state of flux. Thus, when prospective bidders are requested to bid
13 on a full requirements tranche, subject to whatever requirements MISO has or
14 may put in place, it is not really a clearly defined product such as on-peak or off-
15 peak energy. Instead, bidders are effectively asked by FirstEnergy's proposal to
16 assume an obligation to do whatever it takes to supply FirstEnergy's SSO load,
17 and internalize all operational and performance risk.

18 **Q17. Are there additional factors that support your conclusion that the proposed**
19 **CBP does not reflect a clear product definition?**

20 **A17.** Yes. Under the proposal, potential bidders will be asked to bid on tranches
21 defined as load following, but the quantities of electricity they will be required to
22 provide are largely undefined and unpredictable. As previously noted, although

1 each tranche is nominally 100 MW, the actual amount of electricity a successful
2 bidder will be required to provide will vary hour by hour, set as a percentage of
3 total system load. The SSO Agreement defines the SSO Supplier Responsibility
4 Share as:

5 [F]or each SSO Supplier, the fixed percentage share of the
6 Companies' SSO Load for which the SSO Supplier is responsible
7 as set forth in Appendix A. The stated percentage share is
8 determined by multiplying the number of Tranches won by the SSO
9 Supplier in the solicitation times the Tranche size percentage
10 share.

11
12 The SSO Agreement further specifies in Section 7.3 that FirstEnergy will not
13 provide load forecasting services. FirstEnergy's actual system peak load of
14 customers served through the MRO is subject to change over the three-year
15 term. Load growth may cause the system peak to increase. Conversely,
16 customers switching to competitive retail electric suppliers ("CRES") may cause
17 the system peak of customers served through the MRO to decline. Bidders will
18 have no direct knowledge of how the load served through the MRO may be
19 fluctuating.

20 **V. PUBLISHED SOURCE OF INFORMATION**

21 **Q18. Does FirstEnergy's application address whether a published source of**
22 **information exists for traded electricity on-peak and off-peak products that**
23 **are contracts for delivery beginning at least two years from the date of the**
24 **publication?**

25 **Q18. Yes it does.**

26 **Q19. How is this addressed in FirstEnergy's application?**

1 A19. Mr. Warvell discusses this requirement on pages 4-5 of his direct testimony. He
2 cites several sources of published information that "represent contracts" for future
3 delivery, including ICAP, Intercontinental Exchange ("ICE"), Platts and NYMEX.
4 Mr. Warvell also includes, as Attachment A to his testimony, information obtained
5 from a Platts website as an example of the type of information that can be
6 obtained.

7 **Q20. Does this amount to a published source of information that exists for**
8 **traded electricity on-peak and off-peak products that are contracts for**
9 **delivery beginning at least two years from the date of the publication?**

10 A20. Although Mr. Warvell cites several examples that "represent contracts" for future
11 delivery, they are not contracts. This can be seen by examining the information
12 contained in Attachment A to Mr. Warvell's direct testimony.

13 **Q21. What is shown in Attachment A to Mr. Warvell's direct testimony?**

14 A21. Attachment A lists eight columns of data. Although the columns are not labeled,
15 the data included in each column led me to suspect that the columns include,
16 from left to right, a transactional identification, the location/product/delivery date,
17 the type of currency, the units (megawatts), a transaction date, the price, a
18 product label, and the region. What is notable, however, is that for each row of
19 information, there is no column that provides transactional volumes or quantities.
20 Therefore, it does not appear that the data in Attachment A include pricing for
21 any actual contracts for delivery. The data appear to be based on broker quotes
22 or bid prices.

1 **Q22. Is the publishing of broker quotes as opposed to actual transactional data**
2 **unique?**

3 A22. Not in my experience. Although there are several sources that publish electricity
4 pricing information as Mr. Warvell has noted, the actual amount of forward
5 trading in electricity products can be quite thin. For example, the Department of
6 Energy's Energy Information Administration ("EIA") now collects and publishes
7 select data from the ICE. Attached to my testimony as Exhibit I is a printout from
8 EIA's website describing the information that it collects and publishes. Page 2 of
9 Exhibit I is a copy of the spreadsheet published by EIA with data on on-peak ICE
10 trading at the Cinergy Hub. Although these data reflect actual transactions, as
11 reported by ICE, two things are notable. First, the actual trading shows very little
12 liquidity—many days only have one transaction. Second, the trading that is
13 occurring shows little forward market activity. The reported trades are for
14 deliveries within a few days of the trading date. No trades are shown two years
15 forward.

16 One of the other sources of published information cited by Mr. Warvell is
17 NYMEX. NYMEX supports trading of electricity products at several locations,
18 including the Cinergy Hub. Attached to my testimony as Exhibit II is a recent
19 printout from NYMEX's website with published information on trading at the
20 Cinergy Hub. Although NYMEX publishes both on-peak and off-peak forward
21 prices, they do not publish on their website transactional volumes. Thus, these
22 data, rather than reflecting actual contracts, appear to be based on broker quotes
23 rather than data from a published source that identifies pricing information for

1 traded on-peak and off-peak energy products that are actual contracts for
2 delivery beginning at least two years from the date of publication.

3 **VI. MARKET MONITORING**

4 **Q23. Does FirstEnergy's application address the requirement of whether an RTO**
5 **market monitor has the ability to identify and mitigate market power?**

6 A23. Mr. Warvell discusses this issue on pages 3-4 of his direct testimony. He
7 identifies that MISO has an independent market monitor and that FERC has
8 found that MISO's market monitoring function meets the requirements of Order
9 2000, as well as FERC's policy statement on market monitoring units.

10 **Q24. What is the implication of a positive FERC-determination regarding MISO's**
11 **market monitor relative to the mitigation of market power?**

12 A24. Part of the answer lies in how market power is defined. Traditionally, some
13 regulatory agencies have defined market power as:

14 Market power to a seller is the ability to profitably maintain prices
15 above competitive levels for a significant period of time. In some
16 circumstances, a sole seller (a "monopolist") of a product with no
17 good substitutes can maintain a selling price that is above the level
18 that would prevail if the market were competitive. Similarly, in some
19 circumstances, where only a few firms account for most of the sales
20 of a product, those firms can exercise market power, perhaps even
21 approximating the performance of a monopolist, by either explicitly
22 or implicitly coordinating their actions. Circumstances also may
23 permit a single firm, not a monopolist, to exercise market power
24 through unilateral or non-coordinated conduct -- conduct the
25 success of which does not rely on the concurrence of other firms in
26 the market or on coordinated responses by those firms. In any

1 case, the result of the exercise of market power is a transfer of
2 wealth from buyers to sellers or a misallocation of resources.¹
3

4 FERC, on the other hand, has viewed market power differently. In the case of
5 the RTO-organized power markets, FERC has not approached market power
6 based upon an examination of whether behavior could result in the ability to
7 profitably maintain prices above competitive levels for a significant period of time.
8 In fact, FERC has not attempted to measure market power in RTO markets, but
9 rather looks at RTO mitigation measures to determine whether they are, in the
10 eyes of FERC, reasonable. FERC has indicated, in its approval of MISO's tariff
11 for example, that it assesses mitigation measures not against the question of
12 whether market power is mitigated, but rather on whether the mitigation
13 measures strike an appropriate balance between the need to protect consumers
14 from the exercise of market power and FERC's goal of avoiding over-mitigation
15 that FERC believes may keep resources out of RTO markets. Further, FERC
16 starts with a **presumption** that RTO markets are competitive and does not
17 require an affirmative demonstration that each RTO product market is
18 competitive or that the type of market developed by an RTO such as MISO will
19 produce reliable service and reasonable prices. Stated differently, FERC's
20 approach does not require a determination by FERC that electricity markets are
21 competitive before it grants sellers of electricity market-based rate authority.
22 FERC has granted such authority if it finds that market mitigation measures are
23 reasonable.

¹ U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines (footnotes omitted). A copy of these guidelines is available at: http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmq1.html (last accessed August 28, 2008).

1 **Q25. Do you agree that MISO's independent market monitor can identify and**
2 **mitigate market power?**

3 A25. I acknowledge that FERC has accepted MISO's market monitoring and mitigation
4 measures. However, I do not agree that MISO's measures mitigate market
5 power, at least in the traditional sense. The structure of MISO's mitigation
6 measures do not attempt to detect and mitigate market power. Rather, the
7 mitigation measures are structured to create safe harbors for behavior that is
8 deemed acceptable by FERC.

9 MISO's mitigation measures rely upon what are called conduct and impact
10 thresholds to determine whether supplier offers should be subject to mitigation.
11 The conduct threshold examines a supplier's bid and compares it to an offer in a
12 prior period to determine whether the supplier has raised its offer price in excess
13 of an allowable threshold. The thresholds vary by product and geographic
14 region, depending on transmission constraints. If, and only if, an offer exceeds
15 the conduct threshold, it is subject to a second test, called the impact test. The
16 impact test looks at whether the increase in offer price actually affected market
17 clearing prices. If an offer fails both the conduct and impact test, then and only
18 then is it subject to mitigation according to FERC and MISO's approach.

19 This creates what I characterize as a safe harbor for behavior that might
20 otherwise be viewed as an exercise of market power. If a supplier realizes that it
21 may be pivotal, in that its output is needed to meet demand, it may elect to
22 increase its offer price by an amount just under the offer threshold. For example,
23 if the offer threshold was \$50 per MWH and the supplier's reference price for a

1 prior period was \$40 per MWH, the supplier could raise its offer to \$89.99 per
2 MWH and not fail the threshold test. If this behavior was sustainable, the ability
3 to profitably maintain prices above competitive levels for a significant period of
4 time might otherwise be attributed to the exercise of market power under some
5 definitions of market power. However, under MISO's mitigation measures, since
6 this behavior falls within the safe harbor, it is deemed acceptable behavior
7 irrespective of whether the pricing results involved the use of market power.
8 Therefore, MISO's mitigation measures do not mitigate market power.

9 **Q26. Are there planned changes in MISO's markets that can increase the**
10 **opportunities to use these safe harbor thresholds to extract higher prices**
11 **or to exercise market power?**

12 A26. Yes. As previously discussed, MISO plans to implement markets for ancillary
13 services. However, MISO is not going to initiate ancillary services markets as
14 MISO-wide markets. Rather, due to reliability concerns or considerations, MISO
15 will be separating the ancillary services markets into one or more reserve
16 delivery zones, to be defined and changed quarterly. When a separate delivery
17 zone is established, MISO will then, and on a day-to-day basis, specify a
18 minimum level of regulation, spinning and supplemental reserves that must be
19 supplied from resources, primarily generation, physically located within the zone.
20 Carving up MISO into separate geographic markets will increase the likelihood,
21 duration and frequency of pivotal suppliers or suppliers that have the ability to
22 strategically supply or withhold their capability to affect pricing outcomes.

23 **Q27. Have the MISO reserve delivery zones been defined?**

1 A27. No, they have not. Under MISO's approved tariff, the zones will be initially
2 defined and then redefined each quarter. However, the initial reserve delivery
3 zones are only required to be published seven days in advance. MISO has
4 previously said it will not publish the zones in advance of its tariff deadline.

5 **Q28. Has MISO indicated what these reserve delivery zones may look like?**

6 A28. Yes. Attached to my testimony as Exhibit III is a graphical representation of
7 reserve zones published by MISO over the summer. MISO published this
8 information as part of its stakeholder educational efforts prior to market start-up.

9 At the time MISO published this information, it indicated that the seven zones
10 graphically depicted on Exhibit III were representative of the zones likely to be in
11 effect when MISO started its markets on September 9, 2008.²

12 **Q29. Do you have any observations on MISO's reserve delivery zones?**

13 A29. Yes, I do. The zones published by MISO this summer would have separated
14 FirstEnergy among three zones, which are labeled on Exhibit III as Zones 3, 4
15 and 5. In Zones 3 and 5, FirstEnergy would be grouped with other electric
16 utilities in the subregion. Thus, although these regional geographic markets may
17 be concentrated, there should be more than one supplier in many hours for
18 Zones 3 and 5. However, Zone 4 is unique. Zone 4 is a subset of FirstEnergy's
19 territory, comprised of several counties in northern Ohio bordering Lake Erie,
20 including the cities of Cleveland and Ashtabula. Within Zone 4, the only
21 generating stations are Ashtabula, Avon, Eastlake, Edgewater, Lakeshore, Perry,

² As previously noted, MISO's ancillary services markets start-up has since been delayed.

1 Seneca, Solon and West Lorain. All of these stations are owned by FirstEnergy.
2 Thus, Zone 4 would be a monopoly supply situation. In the case of Zone 4,
3 MISO's safe harbor mitigation measures would not discipline prices unless they
4 fall outside the established safe harbor zone.

5 **Q30. What do you conclude about whether FirstEnergy's application meets the**
6 **requirement that the RTO to which it belongs has a market monitor**
7 **function and the ability to take actions to identify and mitigate market**
8 **power or the electric distribution utility's market conduct?**

9 A30. I conclude that despite FERC's acceptance of MISO's market monitoring and
10 mitigation measures, the measures do not mitigate market power, at least in the
11 traditional sense. Further, for the reasons discussed, it is incumbent upon the
12 Commission to make its own determination as to whether MISO's market
13 monitoring actually mitigates market power and to not rely on FERC's
14 determination.

15 VII. SUPPLY SHORTFALLS

16 **Q31. Do you have any concerns with the structure of the CBP as it pertains to**
17 **FirstEnergy's plans to address supply shortfalls?**

18 A31. Yes, I do. FirstEnergy's application and the SSO Agreement address several
19 contingencies that could arise. These include supplier default on delivery and
20 repudiation of the SSO Agreement after being determined to be a successful
21 bidder. The contingency plans all contemplate that FirstEnergy might rely upon
22 purchases from MISO's spot market to address supply shortfalls. FirstEnergy is

1 proposing that it has the right to pass through to customers the costs of any
2 MISO spot market purchases under these circumstances. FirstEnergy is also
3 proposing that it has the right to pass through any other costs incurred to remedy
4 the default, to the extent that the supplier's credit instruments prove to be
5 insufficient to offset any costs.

6 While I understand the need for these provisions, they ignore retail customers'
7 interests. In the event of these types of defaults, the credit assurances provided
8 by the supplier should be used not only to offset FirstEnergy's costs, but also to
9 be drawn upon to offset any costs such as MISO spot market purchases that
10 FirstEnergy plans to pass through to retail customers.

11 **VIII. CONCLUSION**

12 **Q32. What are your conclusions regarding FirstEnergy's application?**

13 A32. I conclude that FirstEnergy's application needs to be supplemented before the
14 Commission acts on the application.

15 **Q33. Does that conclude your testimony?**

16 A33. Yes, it does. However, I reserve the right to submit supplemental testimony as
17 described herein.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Direct Testimony of Kevin M. Murray on Behalf of Industrial Energy Users-Ohio* was served upon the following parties of record this 8th day of September 2008, via electronic transmission, hand-delivery or first class mail, postage prepaid.



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Energy Information Administration

Official Energy Statistics from the U.S. Government

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Exhibit I

[Home](#) > [Electricity](#) > [Intercontinental Exchange \(ICE\) / Wholesale](#)

Report: Wholesale Market Data

Released: August 22, 2008

Next Release: August 29, 2008

Wholesale Market Data

Wholesale electric power price and volume information is now available on this page. Daily volumes, high and low prices, and weighted average prices are posted for six major electricity trading hubs around the country from 2001 forward. These data are from the Intercontinental Exchange (ICE), and are updated by EIA weekly.

About the Intercontinental Exchange (ICE)

About the ICE data

Calculation of the weighted average prices

Wholesale average annual volumes and prices by North American Electric Reliability Council (NERC), developed from the Form EIA-861, "Annual Electric Power Industry Report," are also available.

Wholesale Volumes
Average Wholesale Price

Contact:

Howard Stone

Phone: 202-586-3189

E-Mail: [Howard Stone](#)

Wholesale Day Ahead Prices at Selected Hubs, Peak

(Intercontinental Exchange (ICE) data, republished with permission.)

Trading Hub	Region	2001	2002	2003	2004	2005	2006	2007	2008
NEPOOL Mass Hub	New England	xls	xls	xls	xls	xls	xls	xls	xls
PJM West	Pennsylvania	xls	xls	xls	xls	xls	xls	xls	xls
Cinergy	Ohio	xls	xls	xls	xls	xls	xls	xls	xls
Entergy	Louisiana	xls	xls	xls	xls	xls	xls	xls	xls
SP 15	California	xls	xls	xls	xls	xls	xls	xls	xls
ERCOT	Texas	xls	xls	xls	xls	xls	xls	xls	xls

For other hubs, check [ICE](#).

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Category **Electricity**

Products **EM- Cinergy Hub LMP Swap / Peak**

	08/27/2008	08/26/2008	08/25/2008
Aug 2008	70.08	71.68	72.44
Sep 2008	65.50	65.25	63.13
Oct 2008	63.38	62.75	61.13
Nov 2008	58.63	58.50	57.25
Dec 2008	63.88	63.13	61.00
Jan 2009	73.38	72.38	70.88
Feb 2009	73.38	72.38	70.88
Mar 2009	68.75	68.31	66.69
April 2009	68.75	68.31	66.69
May 2009	65.38	65.00	62.83
June 2009	73.63	72.88	71.13
July 2009	85.81	85.38	83.31
Aug 2009	85.81	85.38	83.31
Sep 2009	67.88	68.25	66.75
Oct 2009	64.81	64.94	64.13
Nov 2009	64.81	64.94	64.13
Dec 2009	64.81	64.94	64.13
Jan 2010	70.81	70.88	70.19
Feb 2010	70.81	70.88	70.19
Mar 2010	70.81	70.88	70.19
April 2010	70.81	70.88	70.19
May 2010	70.81	70.88	70.19
June 2010	70.81	70.88	70.19
July 2010	70.81	70.88	70.19
Aug 2010	70.81	70.88	70.19
Sep 2010	70.81	70.88	70.19
Oct 2010	70.81	70.88	70.19
Nov 2010	70.81	70.88	70.19
Dec 2010	70.81	70.88	70.19
Jan 2011	69.63	70.17	70.00
Feb 2011	69.63	70.17	70.00
Mar 2011	69.63	70.17	70.00
April 2011	69.63	70.17	70.00
May 2011	69.63	70.17	70.00
June 2011	69.63	70.17	70.00
July 2011	69.63	70.17	70.00
Aug 2011	69.63	70.17	70.00
Sep 2011	69.63	70.17	70.00
Oct 2011	69.63	70.17	70.00
Nov 2011	69.63	70.17	70.00
Dec 2011	69.63	70.17	70.00
Jan 2012	70.83	70.88	70.63
Feb 2012	70.63	70.88	70.63

Mar 2012	70.63	70.88	70.63
April 2012	70.63	70.88	70.63
May 2012	70.63	70.88	70.63
June 2012	70.63	70.88	70.63
July 2012	70.63	70.88	70.63
Aug 2012	70.63	70.88	70.63
Sep 2012	70.63	70.88	70.63
Oct 2012	70.63	70.88	70.63
Nov 2012	70.63	70.88	70.63
Dec 2012	70.63	70.88	70.63
Jan 2013	71.75	71.75	71.75
Feb 2013	71.75	71.75	71.75
Mar 2013	71.75	71.75	71.75
April 2013	71.75	71.75	71.75
May 2013	71.75	71.75	71.75
June 2013	n/a	n/a	n/a
July 2013	n/a	n/a	n/a
Aug 2013	n/a	n/a	n/a
Sep 2013	n/a	n/a	n/a
Oct 2013	n/a	n/a	n/a
Nov 2013	n/a	n/a	n/a
Dec 2013	n/a	n/a	n/a

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Category **Electricity**

Products **EJ- Cinergy Hub Off Peak LMP Swap**

	08/27/2008	08/26/2008	08/25/2008
Aug 2008	40.00	40.40	40.48
Sep 2008	31.13	30.75	30.00
Oct 2008	34.75	34.25	33.75
Nov 2008	34.75	34.25	33.75
Dec 2008	34.75	34.25	33.75
Jan 2009	49.00	48.25	48.75
Feb 2009	49.00	48.25	48.75
Mar 2009	43.25	42.75	42.25
April 2009	43.25	42.75	42.25
May 2009	35.50	35.00	34.75
June 2009	38.50	35.75	35.25
July 2009	41.50	40.75	40.25
Aug 2009	41.50	40.75	40.25
Sep 2009	34.00	33.75	33.25
Oct 2009	35.00	35.25	34.75
Nov 2009	35.00	35.25	34.75
Dec 2009	35.00	35.25	34.75
Jan 2010	40.13	40.06	39.68
Feb 2010	40.13	40.06	39.68
Mar 2010	40.13	40.06	39.68
April 2010	40.13	40.06	39.68
May 2010	40.13	40.06	39.68
June 2010	40.13	40.06	39.68
July 2010	40.13	40.06	39.68
Aug 2010	40.13	40.06	39.68
Sep 2010	40.13	40.06	39.68
Oct 2010	40.13	40.06	39.68
Nov 2010	40.13	40.06	39.68
Dec 2010	40.13	40.06	39.68
Jan 2011	41.75	41.88	41.63
Feb 2011	41.75	41.88	41.63
Mar 2011	41.75	41.88	41.63
April 2011	41.75	41.88	41.63
May 2011	41.75	41.88	41.63
June 2011	41.75	41.88	41.63
July 2011	41.75	41.88	41.63
Aug 2011	41.75	41.88	41.63
Sep 2011	41.75	41.88	41.63
Oct 2011	41.75	41.88	41.63
Nov 2011	41.75	41.88	41.63
Dec 2011	41.75	41.88	41.63
Jan 2012	44.75	44.88	44.50
Feb 2012	44.75	44.88	44.50

Mar 2012	44.75	44.88	44.50
April 2012	44.75	44.88	44.50
May 2012	44.75	44.88	44.50
June 2012	44.75	44.88	44.50
July 2012	44.75	44.88	44.50
Aug 2012	44.75	44.88	44.50
Sep 2012	44.75	44.88	44.50
Oct 2012	44.75	44.88	44.50
Nov 2012	44.75	44.88	44.50
Dec 2012	44.75	44.88	44.50
Jan 2013	48.00	48.00	48.00
Feb 2013	48.00	48.00	48.00
Mar 2013	48.00	48.00	48.00
April 2013	48.00	48.00	48.00
May 2013	48.00	48.00	48.00
June 2013	n/a	n/a	n/a
July 2013	n/a	n/a	n/a
Aug 2013	n/a	n/a	n/a
Sep 2013	n/a	n/a	n/a
Oct 2013	n/a	n/a	n/a
Nov 2013	n/a	n/a	n/a
Dec 2013	n/a	n/a	n/a

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Exhibit III.

