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August 18, 2004

RECEIVED

AUG 1 8 2004

PUBLIC STRVICE COMMISSION

VIA HAND DELIVERY

Elizabeth O'Donnell Executive Director Kentucky Public Service Commission 211 Sower Boulevard Frankfort, Kentucky 40601

RE: Investigation of Kentucky Utilities Company and Louisville Gas and Electric

Company and Kentucky Utilities Company in the Midwest Independent

Transmission System Operator

Case No. 2003-00266

Dear Ms. O'Donnell:

Enclosed please find and accept for filing the original and ten copies of Louisville Gas and Electric Company's and Kentucky Utilities Company's Initial Data Requests for Information to The Midwest Independent Transmission System Operator in the above-referenced matter. Please confirm your receipt of this filing by placing the stamp of your Office with the date received on the enclosed additional copies and return them to me in the enclosed self-addressed stamped envelope.

Should you have any questions or need any additional information, please contact me at your convenience.

Very truly yours,

Kendrick R. Riggs

KRR/ec Enclosures

cc: Parties of Record

#### COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION RECEIVED

In the Matter of:		AUG 1 8 2004
INVESTIGATION INTO THE MEMBERSHIP OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY IN THE MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	) ) ) )	PUBLIC SERVICE COMMISSION CASE NO. 2003-00266

# LOUISVILLE GAS AND ELECTRIC COMPANY'S AND KENTUCKY UTILITIES COMPANY'S INITIAL DATA REQUESTS FOR INFORMATION TO THE MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR

Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively, the "Companies") submit their initial set of data requests for information to the Midwest Independent Transmission System Operator ("MISO").

As used herein, "Documents" include all correspondence, memoranda, notes, maps, drawings, surveys or other written recorded materials, whether external or internal, of every kind or description, in the possession of or accessible to MISO, its witnesses, consultants or its counsel. Please identify by name, title, position and responsibility the person or persons answering each of these requests for information for MISO at the bottom of each response.

- 1. Please provide any analysis or empirical evidence of the costs LG&E and KU will incur through their participation in the Midwest ISO's Open Access Transmission and Energy Markets Tariff ("TEMT").
- 2. Please provide in electronic format (i.e., Excel spreadsheet format) all of the worksheets that accompany the affidavit of Ronald R. McNamara submitted in the MISO Filing Re: Midwest Independent Transmission System Operator, Inc., Docket No. ER04-691-000 and

Public Utilities with Grandfathered Agreements in the Midwest ISO Region, Docket No. EL04-104-000.

- 3. Please refer to the two exhibits RRM-4 (Annual Congestion Management Savings from Proposed TEMT-Cost of Service Perspective) and RRM-5 (Annual Congestion Management Savings from Proposed TEMT-Market Price of Power Perspective Sensitivity Analysis with 92.3% Maximum Flowgate Utilization), exhibits supporting the affidavit of Ronald R. McNamara submitted in the MISO Filing Re: Midwest Independent Transmission System Operator, Inc., Docket No. ER04-691-000 and Public Utilities with Grandfathered Agreements in the Midwest ISO Region, Docket No. EL04-104-000. Please provide in electronic format (i.e., Excel spreadsheet format) a breakdown of each column in RRM-4 and RRM-5 by state and utility.
- 4. Please provide in electronic format (i.e., Excel spreadsheet format) any and all of the worksheets that either accompany or support Ronald R. McNamara's testimony regarding the analysis of the benefits and costs to Louisville Gas and Electric Company and Kentucky Utilities Company in KPSC Case No. 2003-00266 (i.e., Investigation into the Membership of Louisville Gas and Electric Company and Kentucky Utilities Company in the Midwest Independent Transmission System Operator, Inc.).
- 5. Please provide in electronic format (i.e., Excel spreadsheet format) any and all of the worksheets that accompany the testimony of Michael P. Holstein in Case No. 2003-00266 (i.e., Investigation into the Membership of Louisville Gas and Electric Company and Kentucky Utilities Company in the Midwest Independent Transmission System Operator, Inc.).
- 6. Please provide in electronic format (i.e., Excel spreadsheet format) the most recent analysis performed by MISO or any of its consultants of the locational marginal prices

that are relevant to the Louisville Gas and Electric Company and Kentucky Utilities Company generator nodes and load nodes as participants in MISO.

- 7. Please provide in electronic format (i.e., Excel spreadsheet format) the most recent analysis performed by MISO of the allocation of FTRs to Louisville Gas and Electric Company and Kentucky Utilities Company as participants in MISO under the TEMT.
- 8. Please provide in electronic format (i.e., Excel spreadsheet format) the most recent forecast developed by MISO of the rates that would be expected to be charged for recovering costs under Schedules 10, 16 and 17 of the MISO's TEMT. Please provide the forecast of these rates on an annual basis for the period 2005 to 2010, if a forecast for that entire period is available. Otherwise provide a forecast of the rates for all years that are available in that period of time.
- 9. In the current market (i.e., Day 1 market), does MISO ever take title to energy transmitted on the MISO-operated transmission system? Will MISO ever take title to energy transmitted on the MISO-operated transmission system in the proposed Day 2 market?
- 10. Please trace the proposed Day 2 Market chain of title as MISO understands it of a MWh of energy from LG&E/KU self-scheduled generation to LG&E/KU native load.
- 11. Please trace the proposed Day 2 Market chain of title as MISO understands it of a MWh of energy from LG&E/KU generation dispatched by MISO to LG&E/KU native load.
- 12. In the proposed Day 2 Market, from whom does a MISO load obtain title to the energy it consumes or resells?
- 13. In the proposed Day 2 Market, to whom does a generator in MISO transfer title to energy generated and dispatched into the MISO pool?

- 14. Describe the role MISO plays in securing payment from a bankrupt MISO load or LSE in the proposed Day 2 Market.
- 15. Identify each out-of-state, out-of-control-area resource and the MW amount that has historically been imported by an LSE into already identified Narrowly Constrained Areas ("NCAs").
  - 16. Identify each known MISO NCA.
- 17. Please explain how MISO will calculate and allocate uplift associated with NCA congestion as FERC requires in Paragraphs 91-93 of FERC's August 6, 2004 Order approving the TEMT.
- 18. List each Grandfathered Agreement ("GFA") and the MW amount associated with it in which the contracting parties have elected to settle on Option B.
- 19. Please provide any estimates, and all the workpapers in electronic format (i.e., Excel spreadsheet format), MISO has prepared of the Day 2 Market congestion cost uplift associated with the GFA contracts for which the relevant parties have agreed to settle on with MISO by choosing MISO's proposed Option B.
- 20. Please provide any estimates, and all the workpapers in electronic format (i.e., Excel spreadsheet format), MISO has prepared of the congestion cost uplift associated with FERC's ordered NCA congestion uplift.
- 21. Please list each known potential source of costs that would be subject to uplift and recovered through a schedule charge in the MISO proposed Day 2 market.
- 22. For each known potential source of costs listed in the previous question, provide a description of the respective methodology for uplifting that cost and recovering it through a

schedule charge, including those sources of uplift that arise as a result of FERC's August 6, 2004 order conditionally approving the MISO Day 2 TEMT.

- 23. In the proposed Day 2 Market, can designated network resources be self-scheduled price takers?
- 24. In the proposed Day 2 Market, must a self-scheduled price taking generator be a designated network resource in order to utilize network integrated transmission service?
- 25. In the proposed Day 2 Market, if LG&E/KU were to self-schedule available generation in an amount intended to meet forecasted LG&E/KU native load, and LG&E/KU did not designate those self-scheduled resources as network resources, how would LG&E/KU be charged for transmission?
- 26. In the proposed Day 2 Market, if LG&E/KU were to self-schedule available generation in an amount intended to meet forecasted LG&E/KU native load would LG&E/KU alone be responsible for any commitment costs associated with these self-scheduled resources?
- 27. In the proposed Day 2 Market, if LG&E/KU were to self-schedule available generation in an amount intended to meet forecasted LG&E/KU native load would LG&E/KU be potentially responsible for any commitment costs incurred by MISO in clearing the Day-Ahead market or in the MISO Reliability Assessment Commitment ("RAC") process? If yes, please explain.
- 28. In Paragraph 528 of the Aug 6, 2004 Order on the TEMT, FERC states: "Entities relying on self-scheduling, such as AMP-Ohio, are not disadvantaged in any way by RAC procedures. All may offer their own resources into the RAC to ensure that any costs they may incur are offset by equivalent RAC payments. Similarly, we reject LG&E's concerns that an optout provision is needed or additional assurances are required to guarantee that the RAC process

will not be used to increase liquidity of the RTM. The RAC process in no way impairs LG&E's ability to use its resources to serve its load or exposes it to costs that it would not otherwise incur."

- a. Can a self-scheduled unit receive MISO Security Constrained Unit Commitment ("SCUC") commitment payments?
- b. If LG&E/KU were to self-commit and self-schedule generation to serve its load, would LG&E/KU nevertheless incur a share of MISO's SCUC and RAC revenue sufficiency guaranty payment costs? If yes, do LG&E/KU incur these costs today?
- c. Are the startup and no-load bids entered into the Day-Ahead Market and RAC process cost-based or market-based? Are they guaranteed to be paid as bid or on a market-clearing price basis?
- 29. In the proposed Day 2 Market, how does MISO intend to manage LG&E/KU interruptible retail customers in accordance with TEMT Section 70.1.1? Specifically, will LG&E/KU interruptible retail customers be called upon by MISO in response to MISO coincident demand or LG&E/KU demand?
- 30. Both the Demand Response Task Force and Markets Subcommittee have within the past month unanimously passed a motion to change the TEMT definition of "Demand Response Resource" from:

Load located within the Transmission Provider Region whose withdrawals are monitored by the Transmission Provider and who is capable of following Dispatch Instructions in the Real-Time.

to:

Load within the Transmission Provider Region whose withdrawals are monitored by the Transmission Provider and who is permitted to participate in Transmission Provider administered markets under

the laws and regulations enacted by the legislature or promulgated by a duly authorized agency of the State in which the monitored withdrawals take place.

Will MISO file the stakeholder-approved revised "Demand Response Resource" definition above at FERC? If so, when and how? If not, why not?

- 31. In the proposed Day 2 Market, are energy sales from LG&E/KU designated resources recallable by MISO to satisfy energy deficiencies within MISO even when LG&E/KU themselves are energy sufficient and otherwise not required to respond to the deficient area?
- 32. Explain TEMT Section 69 in light of Paragraphs 573-4, and 576 of FERC's August 6, 2004 order approving MISO's TEMT. What is the minimum MW amount of designated resources that LG&E/KU must have in order to serve LG&E/KU native load from any LG&E/KU owned or controlled generation resource using network integration transmission service?
- 33. Is MISO aware of any changes to any of NERC's operating Policies 1 through 9 that will occur as the result of MISO commencing the proposed Day 2 Market operations?
- 34. Is MISO currently fulfilling all its obligations as Reliability Authority under NERC Operating Policies?
- 35. Is the RAC performed as described in EMT Section 40.1 required in order for MISO to fulfill its responsibilities as NERC Reliability Authority? If yes, why isn't MISO doing this today? If no, why is it necessary to so in Day 2?
- 36. Why does MISO believe that a unit who is assured of a Revenue Sufficiency Guaranty will in fact start up and be ready to generate energy if dispatched? Is there any penalty for a MISO committed unit that fails to startup and cannot perform when called upon? And if so, what is that penalty?

- 37. Is MISO aware that LG&E/KU are assured of recovering all startup and no-load costs whether or not committed by MISO? If yes, why did MISO propose to include those native load customers who pay LG&E/KU those commitment costs among those who share in paying the commitment costs arising from MISO's unit commitment whether in the SCUC or RAC processes?
- 38. Does MISO take on any new obligation to serve load in the proposed Day 2 Market? If yes, explain what that obligation is and how it interacts with or supplants the obligation to serve of state-franchised utilities residing within MISO. If no, explain why MISO will commit units pursuant to TEMT Section 40.1 so that "the Transmission Provider can reliably operate the facilities and serve its Load Forecast and Capacity requirements?"
- 39. What are the Transmission Provider "Capacity requirements" referred to at the end of the last sentence in TEMT Section 40.1?
- 40. In the proposed Day 2 Market, will MISO calculate external proxy prices for external control areas based on the simple average of LMP prices within the defined external area, i.e., without regard to MW load weighting? If not, explain the methodology.
- 41. In the proposed Day 2 Market, if MISO changed its proposed methodology of calculating external price proxies from a simple average to a load weighted average calculation, could the external LMP proxy change? If not, why not?
- 42. How many control areas for whom MISO will be calculating an external LMP proxy directly interconnect with LG&E/KU?
- 43. Will Eastern Kentucky Power Cooperative ("EKPC"), Tennessee Valley Authority ("TVA") and Big Rivers Electric Cooperative ("BREC") generation be included in MISO's LMP congestion management system?

- 44. In the proposed Day 2 Market, will NERC Transmission Loading Relief procedures ("TLRs") be called contemporaneously with LMP congestion management?
- 45. In the proposed Day 2 Market, at what percentage of Operating Security Limit does MISO propose to bind a constraint in its Security Constrained Economic Dispatch ("SCED")?
- 46. In the proposed Day 2 Market, once identified as a constraint by MISO operating engineers, how long does it take MISO to incorporate a constraint into its SCED?
- 47. In the proposed Day 2 Market, how long does the MISO SCED take to correctively redispatch once a constraint has been entered into the SCED algorithm?
- 48. In the proposed Day 2 Market, at what point in the process of MISO operating engineers identifying a constraint, passing that information to the SCED and altering the dispatch does MISO issue a NERC TLR for any tagged transactions that may impact the same constraint?
- 49. In the proposed Day 2 Market congestion management, when and how does MISO unbind a constraint?
- 50. Please explain the process by which MISO will run a proposed Day 2 Market LMP congestion management system at the same time MISO will utilize NERC TLRs to obtain relief on a constrained transmission element. Please include in this explanation a description of how MISO plans to avoid redispatching MISO generation to support external and through and out transactions.
- 51. Under an LMP-based SCED, if a constraint is ignored or not entered into the SCED, will MISO deviate from what it understands to be the economic order of dispatch?
- 52. In the proposed Day 2 Market, will MISO rely to any extent on external parties when identifying constraints to be entered into the MISO SCED?

- 53. How does MISO propose to collect Schedule 21 costs? What is the total estimated costs to LG&E associated with MISO recovery of Schedule 21 charges?
- 54. Referring to MISO's recently filed market benefits testimony at FERC in which MISO claims the lower market clearing price arising from a MISO centrally dispatched market will generate on the order of \$586.1 million annually in savings:
  - a. What percentage of load within MISO pays a market-clearing price today for energy?
  - b. What percentage of load in the proposed Day 2 Market does MISO anticipate paying market-clearing price for their energy requirements?
- 55. In paragraph 588 of FERC's 8/6/04 Order FERC states: "The Commission rejects LG&E's notion that self-scheduling entities should not have to pay the generator uplift charge. As the Commission stated previously: [S]tart-up and minimum load costs support both energy and ancillary services such as regulation and operating reserves, as well as redispatch to alleviate transmission congestion. Ancillary services are necessary for reliability, and all loads benefit from reliable operation of the transmission system. Since all loads benefit from the system's reliability and since loads from both ISO and bilateral markets may benefit from congestion management and ancillary services, it is not unreasonable that these costs be recovered through the scheduling charge from all loads."
  - Explain the reason MISO exempts in TEMT Section 37.3.a Transmission
     Owners taking Network Integration Services to serve Bundled Load from paying Schedules 1-6.
  - b. To the extent Transmission Owners taking Network Integration Services to serve Bundled Load self-supply the ancillary service costs MISO

recovers through Schedules 1-6, do other MISO loads contribute to that Transmission Owner's self-supplied ancillary service cost recovery?

- 56. Paragraph 573 of FERC's August 6, 2004 Order approving the TEMT, in the 2<sup>nd</sup> sentence, FERC states that "generation resources can be designated self scheduling or network resources." Please state whether MISO's believes that the term "network resource" in the preceding sentence is analogous to being a MISO designated "network resource"?
- 57. The 3<sup>rd</sup> sentence of Paragraph 573 of the August 6, 2004 Order goes on to say that "...LG&E has the option of designating all its generation resources as self-scheduled and thereby serve all retail load with its own generation..." How does this comport with MISO Network Integrated Transmission Service that requires the customer to register Designated Network Resources to serve its projected load? How does a self-scheduled resource obtain transmission service, if it is no longer a network resource as suggested by FERC?
- 58. Paragraph 573 of FERC's August 6, 2004 Order implies that self-scheduling resources to serve retail load is analogous to the way it would occur without an ISO energy market. However, self-scheduled generation (and load) is settled no differently than if the resource were offered and cleared by the MISO market.
  - a. How does self-scheduling allow LG&E/KU to serve native load in the same way as without the ISO energy market, when Day-Ahead settlement is the same for all cleared Day-Ahead schedules?
  - b. How does self-scheduling allow LG&E/KU to avoid having available Designated Network Resource ("DNR") capacity available for MISO Day-Ahead dispatch for non-LG&E/KU load, perhaps at mitigated prices?

- c. How does self-scheduling allow LG&E/KU to avoid paying the costs of MISO SCUC revenue guarantees?
- d. How does self-scheduling allow LG&E/KU to avoid paying the costs of MISO RAC revenue guarantees?
- e. Is self-scheduled load exempted from MISO uplift of GFA Option B congestion or NCA congestion costs?
- 59. In the proposed Day 2 Market, are energy sales from LG&E/KU designated resources recallable by MISO to satisfy energy deficiencies within MISO even when LG&E/KU themselves are energy sufficient and otherwise not required to respond to the deficient area?
- 60. Explain TEMT Section 69 in light of Paragraphs 573-4, and 576 of FERC's August 6, 2004 order approving MISO's Energy Markets Tariff. What is the minimum MW amount of designated resources that LG&E/KU must have in order to serve LG&E/KU native load from any LG&E/KU owned or controlled generation resource using network integration transmission service?

Dated: August 18, 2004

Respectfully submitted,

Kendrick R. Riggs

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Counsel for Louisville Gas and Electric Company and Kentucky Utilities Company

### **CERTIFICATE OF SERVICE**

I hereby certify that a true copy of the foregoing Initial Data Requests was served via first class U.S. mail, postage prepaid, this 18<sup>th</sup> day of August 2004, upon the following persons:

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