

**ORGANIZATION OF MISO STATES, INC.**  
**ANNUAL MEETING MINUTES**  
**December 9, 2004**

**Draft**

Remarks from FERC Representatives Dan Larcamp and Chris Miller preceded the business portion of the OMS Annual Meeting.

Commissioner Susan Wefald, President of the Organization of MISO States, Inc. (OMS), called the 2004 Annual Meeting of the OMS to order in Carmel, IN at approximately 11:00 a.m. (EST) The following commissioners were present for the meeting:

Susan Wefald, North Dakota  
Kevin Wright, Illinois  
Steve Gaw, Missouri  
Laura Chappelle, Michigan  
Diane Munns, Iowa  
David Hadley, Indiana  
Mark David Goss, Kentucky  
Ken Nickolai, Minnesota  
Greg Jergeson, Montana  
Judy Jones, Ohio  
Glen Thomas, Pennsylvania  
Gary Hanson, South Dakota (participated by phone)  
David Sapper, proxy for Bert Garvin, Wisconsin (participated by phone)

Manitoba absent  
Nebraska absent

The directors and proxies listed above established the necessary quorum for the meeting of at least eight directors being present.

Other parties were also present at the Annual Meeting. (see attached list)

**Welcome from Jim Torgerson, MISO Chair**

Jim Torgerson, Chair of Midwest ISO Board of Directors, extended a welcome to the OMS participants and observers at the OMS Annual Meeting.

**Approval of Minutes of the November 10 OMS BOD Meeting**

David Sapper moved for approval of the November 10 OMS BOD Meeting minutes. The Directors voted to unanimously approve the minutes as distributed.

**Approval of Minutes of the November 23 OMS Special BOD Meeting**

David Sapper moved for approval of the November 23 OMS Special BOD Meeting minutes. The Directors voted to unanimously approve the minutes as distributed.

**Treasurer's Report**

Laura Chappelle presented the Treasurer's Report as distributed to OMS board members.

## **Cash on Hand**

To date, the OMS has received \$650,000 from the MISO and is holding the remaining balance in an account at Bank One. As of November 30, 2004, the balance in the Bank One account was \$353,853.61.

## **Expenditures to Date**

Total disbursements for November 2004 were \$21,218.28 Total disbursements for the 2004 calendar year are \$274,425.25.

## **OMS Audit and Tax Filing Update**

The OMS Audit process began this month. The auditors Ryun, Givens, & Wenthe & Co., PLC recommended that OMS file the Form 990 on a calendar year basis. Therefore, the OMS filing for the tax year 2003 was sent to the IRS on November 22, 2004. The auditors attached an explanation for the late filing and requested that any penalties for late filing be abated. The 2004 Form 990 will be filed timely in May of 2005.

## **Review of Actions of the Executive Committee on November 30**

President Wefald listed the following item from the November 30 Executive Committee Meeting:

- Attorney Solicitation Process - Five law firms were recommended from which OMS may select additional representation: Karegianes & Field, Gorak & Bay, William Mogel and Robert Gee, Eisen Law Offices and Law Offices of Scott Hempling. These firms will comprise the recommended counsel list for 2005.

## **Business Items**

### **1. Reports from OMS Work Groups on Current Issues**

- President Wefald asked each of the Work Group Chairs to present a brief report of their work groups' current issues. The following work group chairs gave presentations: Randy Rismiller, Pricing; Mike Proctor, Congestion Management and FTR Allocation; Margaret Barnabee, Demand Response; Don Neumeyer(for Jan Karlak), Resource Adequacy and Capacity Markets; David Hadley, Market Monitoring and Market Power Mitigation; Nancy Campbell, Market Rules and Implementation Timelines; Lisa Pappas (for Bob Nelson), Seams Issues; Bill Smith (for Klaus Lambeck), Transmission Planning and Siting
- The work group reports are attached to these minutes.
- Each of the current work group chairs announced the chairs elected for the 2005.  
Congestion Management and FTR Allocation - Mike Proctor and John Harvey (co-chairs)  
Demand Response - Lisa Pappas and TBA (co-chairs)  
Market Monitoring & Market Power Mitigation - David Hadley  
Market Rules and Implementation Timelines - Nancy Campbell  
Pricing Issues - Randy Rismiller and Mike Proctor (co-chairs)  
Resource Adequacy and Capacity Markets - Jan Karlak  
Seams Issues - Bob Nelson  
Transmission Planning and Siting - Amy Christensen and Jerry Lein (co-chairs)

### **2. Action Item. Nominating Committee Report - Greg Jergeson**

Greg Jergeson read the slate of 2005 Executive Committee Nominees to be ratified for 2005.

- President: Kevin Wright, Illinois
- Vice-President: Bert Garvin, Wisconsin
- Secretary: Ken Nickolai, Minnesota (replacing Leroy Koppendrayer as director for Minnesota)
- Treasurer: Steve Gaw, Missouri

At-Large: Judy Jones, Ohio

- Greg also presented the 2005 Nominating Committee.  
Susan Wefald, North Dakota  
Laura Chappelle, Michigan  
Greg Jergeson, Montana

Commissioner Wefald asked if there were any additional nominations for individuals to serve as OMS officers in 2005. Hearing none, Greg Jergeson moved and Laura Chappelle seconded that a unanimous ballot be cast for the candidates nominated for officers positions by the Nominating Committee in 2004. The motion was approved by a unanimous voice vote of the directors.

At this point in the meeting President-elect Kevin Wright presented a gift of appreciation to the outgoing OMS president, Susan Wefald. Vice President Steve Gaw presented plaques to outgoing executive committee members, Susan Wefald, Laura Chappelle and Diane Munns, for their leadership and service to OMS for the past two years.

### **3. Discussion. Status report of OMS outline of comments of Market Monitoring issues - David Hadley**

David Hadley circulated a written report to OMS board members with confidential information his work group has prepared in consultation with Scott Hempling, whose law firm was hired by OMS to assist in comment preparation for the MMWG. Part of what the work group is doing is to demonstrate to the FERC how the states will keep data confidential. The WG is in need of examples of how the states can do this. David indicated the states have compromised where they were able to do so, but have not compromised where the states have statutory obligations. David requested that OMS board members not discuss specifics at this meeting, but direct the discussion to process elements.

President Wefald stated that MMWG has been in negotiations with MISO about language MISO used in the MISO Tariff. Twenty days after the MISO tariff is filed OMS plans to file its comments. David Hadley indicated that the question about why states need the data will attempt to be answered in the comments. Several OMS board members stated their support of the process David Hadley's MMWG is doing to address this issue. Commissioner Munns asked if addressing the market readiness issue would be enough for FERC to realize that OMS and FERC have entered into a partnership and must treat each other as such.

### **4. Action Item. Shall OMS approve new Stage 2 Process for Approving Position Statements - Susan Wefald**

The Board has approved Stages 1 and 3 of the Process for Approving Position Statements. New language has been drafted for Stage 2, which was approved by the Executive Committee in November and is now ready for final discussion and voting. President Wefald stated that one suggestion was made and is underlined. President Wefald read the highlighted passage and asked for comments. After some discussion, Kevin Wright moved to retain the language as written in the document distributed to board members. Steve Gaw seconded the motion.

### **Roll Call Vote Taken: Do you favor retaining the language as written in the Process for Approving Position Statements document distributed to OMS board in Stage 2?**

#### **Yes**

Indiana  
Iowa  
Kentucky  
Michigan

#### **No**

Illinois  
Ohio  
North Dakota

Minnesota  
Missouri  
Montana  
Pennsylvania  
South Dakota  
Wisconsin

10 - yes

3 - no

2 - absent

Motion carries

OMS directors approved the Stage 2 Process for Approving Position Statements. The OMS Process for Approving Position Statements, Stages 1, 2 and 3 is now approved. The final document is attached to the minutes.

#### **5. Summary of OMS Accomplishments in 2004 - Susan Wefald**

President Wefald presented a list of accomplishments the OMS has achieved. The entire list is attached to the minutes.

#### **6. Action Item. Performance Review for Executive Director - Susan Wefald**

President Wefald requested and received authorization from board members to give her authority to conduct a performance review of Bill Smith, OMS Executive Director.

#### **Administrative Report - Bill Smith**

- Encouraged states to take advantage of the RTO 101 training.
- Presented the list of OMS WG chairs elected for 2005 (see Item 1)

#### **Announcements:**

- OMS Executive Committee Meeting - December 23 at 2:00 pm (central)
- Please send in expense vouchers for this meeting by January 10, 2005

#### **Business meeting adjourned at 1:15 pm EST**

At the conclusion of the OMS business meeting, two presentations followed:

- **Report from David Patton, MISO Market Monitor**
- **Report from Dan McCormick, MISO Readiness Advisor**

Highlights of these presentations are attached to these minutes.

## **OMS 2004 Annual Meeting**

### **Attendees**

**Illinois** – Margaret Barnabee, Christine Ericson, Randy Rismiller, Kevin Wright

**Indiana** - David Hadley, Robb Mork, Bob Pauley

**Iowa** – John Harvey, Diane Munns

**Kentucky** – Mark David Goss A.W. Turner, Jorge Valladares,

**Manitoba** - Absent

**Michigan** – Laura Chappelle, Wanda Jones, Lisa Pappas

**Minnesota** – Nancy Campbell, Ken Nickolai

**Missouri** - Steve Gaw, Mike Proctor

**Montana** – Greg Jergeson

**Nebraska** - Absent

**North Dakota** – Jerry Lein, Susan Wefald

**Ohio** - Judy Jones

**Pennsylvania** - Glen R. Thomas

**Wisconsin** – Don Neumeyer, Randel Pilo,

### **Participating by Phone:**

**South Dakota** – Gary Hanson, Greg Rislov

**Wisconsin** - David Sapper

### **Also Present:**

**OMS Staff** - Bill Smith, Julie Mitchell

**ATC** - Julie Voeck

**Svanda Consulting** - Dave Svanda

**ITC** - Gregory Ioanidis, Purvi Patel

**Detroit Edison** - Jim Musial

**FERC** - Bill Meroney, Chris Miller, Patrick Clarey, Dan Larcamp

**MISO** - Richard Doying, Michael Robinson, Alex DeBoissiere, Sherman Elliott, Bill Malcolm

**Coalition of Midwest Transmission Customers** - Kevin Murray

**Calpine** - Kris Zadlo

Organization of MISO States  
Report of the Treasurer  
Laura Chappelle, Michigan PSC  
to the  
Board of Directors  
December 09, 2004

**Report for November 2004**

**Cash on Hand**

To date, we have received \$650,000 from the MISO and are holding the remaining balance in our account at Bank One. As of November 30, 2004, our balance in the Bank One account was \$353,853.61.

**Expenditures to Date**

Total disbursements for November 2004 were \$21,218.28 Total disbursements for the 2004 calendar year are \$274,425.25.

**OMS Audit & Tax Filing Update**

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TREASURER'S REPORT  
 Organization of MISO States (OMS)  
 November 30, 2004

11/30/2004

TOTALS

Commercial Checking with Interest			\$ 324,919.82
Beginning Balance as 11/1/04			\$ 324,919.82
11/15/04	Wire Transfer	50,000.00	
11/30/04	Interest Payment	<u>152.07</u>	
	Total Deposits		\$ 50,152.07

Checks and Charges

Date	Check #	Descriptions		
11/5/04	1502	Void	0.00	
11/5/04	1503	Wisconsin PSC-October MIG Task Force Mtg/WI	458.08	
11/5/04	1504	OMS Key Staff Meeting/IL	286.11	*
11/5/04	1505	Pennsylvania PUC/OMS Key Staff Meeting/PA	384.40	*
11/5/04	1506	Minnesota Dept. of Commerce/OMS Key Staff Meeting/MN	147.81	
11/5/04	1507	October Planning & Reliability Meeting/IA	89.40	
11/5/04	1508	November MISO Market Subcommittee Meeting/IA	208.16	
11/5/04	1509	OMS Key Staff Meeting/IA	185.23	
11/5/04	1510	Travel Adv. for November MISO A/C & BOD Mtgs, OMS WG Chair Mtg/IA	250.00	
11/5/04	1511	October MISO A/C & BOD Mtgs, OMS WG Chair Mtg/MI	177.76	
11/5/04	1512	October MISO A/C & BOD Mtgs, OMS WG Chair Mtg/ED	56.42	
11/5/04	1513	Triplett Office Essentials	30.63	
11/5/04	1514	Infomax Office Systems, Inc	170.66	*
11/5/04	1515	Heavenly Sweets, Inc. (Lunches for OMS Mtg 10/20)	149.46	*
11/5/04	1516	100 Court Investors LLC/OMS Rent & Parking for December	874.21	
11/5/04	1517	Double Tree Guest Suites	827.31	(1)
11/10/04		Paychex Inc.-Payroll/Taxpay Services	151.60	
11/10/04	1518	October MISO A/C & BOD Mtgs, OMS WG Chair Mtg/IA	248.23	
11/18/04	1519	Bank One-November Credit Card Payment	1,071.31	(2)
11/18/04	1520	DWX - Domain Name- 1 Year (11/24/04 -11/23/05)	30.00	*
11/18/04	1521	MISO & OMS Working Group Key Staff	87.29	*
11/18/04	1522	InterCall	1,142.49	(3)
11/22/04	1523	Travel Advance	250.00	*
11/22/04	1524	DWX - December Web Hosting	35.00	*
11/22/04	1525	CST-DLTVs Cleaning Tapes	161.12	
11/23/04	1526	November MISO Advisory & BOD Mtgs/IA	264.76	*
11/23/04	1527	Travel Advance for December MISO Mtgs & OMS Annual Meeting/IA	250.00	*
11/29/04		Miscellaneous Deposit to offset expenses	(53.15)	(4)
11/29-30/04		November Payroll (inc. Employer & Employee taxes)	13,283.99	
		Total Checks and Charges	<u>21,218.28</u>	
		Net Activity		<u>28,933.79</u>

CHECKING ACCOUNT BALANCE 11/30/04 \$ 353,853.61

- Notes: \* Indicates that check was still outstanding at the time the Bank Account was reconciled (month end).
- (1) Expenses for seven OMS Key Staff Members who stayed at the Double Tree Hotel. Four members stayed for two nights & three stayed for one night. OMS arranged in an advance for the Double Tree Hotel to bill OMS directly for all of its members that stayed.
  - (2) Credit Card charges incl. travel expenses totaling \$821.62 for the Exec. Dir. & Office Manager, Federal Express Shipping Fee of \$21.29, and the Qwest Communication Bill of \$228.40 ( Phone/fax charges).
  - (3) In addition to the regular Monthly OMS BOD Meeting & Executive Committee Calls, there were eight additional special conference calls or work group calls.
  - (4) This deposit consisted of three checks 1) Reimbursement of Travel Adv for \$30.04, 2) Reimb. of \$13.11 & 3) Pymt of \$10 for OMS Lunch at Annual Mtg for non-OMS Member.

# OMS Congestion Management and FTR Allocations Working Group

Report to the OMS Board of Directors  
December 9, 2004

# Activities from 2004

- The working group was instrumental in helping the Midwest ISO develop a compromise proposal for allocating FTRs.
- The working group was active in the MISO process for determining treatment of GFAs.
- The OMS asked for clarification on FTR eligibility by seasonal, designated resources. The FERC determined that these resources should be eligible for FTR allocations.

# Major Focus Areas for 2005

- **Initial Allocations - Two-Part**
  - Part 1: March 1 – August 31, 2005
  - Part 2: September 1 – May 31, 2006
- **Review Results from Part One**
  - a) Prorating of FTRs nominated
  - b) Coverage of congestion costs
- **Recommendations for Part Two**
  - a) Causes for Prorating of critical FTRs
  - b) Possible recommendations on changes in the FTR Allocation Process
  - c) Recommendations on upgrades needed to provide needed coverage of congestion costs.

# Inputs Needed from Each State

- What were the results of the initial FTR allocations for your utilities?
  - What nominated FTRs were prorated?
  - What was the cause of the prorating?
- What is the expected/actual coverage of congestion costs from the allocated FTRs?
  - Expected based on modeling of markets.
  - Actual based on results from March – May.

# Schedule for 2005

- Most of the activity directly related to FTR allocations will occur before the summer of 2005.
  - The second round of nominations will occur in June of 2005, and any changes to the FTR allocation process should be recommended prior to that date.
- The FTR working group will monitor emerging issues related to FTRs, and will participate with other working groups on FTR related questions.
- Mike Proctor will continue to serve as chairman of the working group for 2005.

Organization of MISO States  
**Demand Response Working Group**

**Report to the OMS Board of Directors**

December 9, 2004

# OMS DRWG

- Formed September 2004.
- Participants include: Illinois, Indiana, Iowa, Michigan, and Missouri.
- Leadership – Co-Chairs for 2005?

# OMS DRWG

## ISSUES:

- Relative to both Energy and Capacity Markets.
- Working with MISO DR Task Force; focus on MISO Business Practice Manuals.
- Working with OMS RAWG.
- Plan to develop list of state DR programs.

# OMS Market Rules and Implementation Timelines Workgroup

Report to the OMS Board of Directors  
December 9, 2004

# Market Rules and Implementation Timelines (MRIT)

## Workgroup Work Plan - Market Readiness

- October 26, 2004 OMS filed comments with the FERC on Market Readiness in response to p. 55 of FERC's Order on MISO's TEMT dated August 6, 2004 in Docket ER04-691 & EL04-104.
- December 3, 2004 MRIT & Seams Workgroups meeting on Metrics and Market Readiness Issues. Discussion of Market Readiness Issues for possible OMS Informational Filing on Market Readiness to the FERC.
- December 16, 2004 MRIT and Seams Workgroups meeting on Metrics and Market Readiness Issues. Assignments and discussion on the OMS Filing on Market Readiness to the FERC.

# OMS Market Rules and Implementation Timelines (MRIT) Workgroup Work Plan - Market Readiness

- January 6, 2005 Draft of Market Readiness Issues due to MRIT WG Chair.
- January 7-13, 2005 Review and editing by the MRIT & Seams Workgroups of the OMS Informational Filing on Market Readiness to the FERC.
- January 14, 2005 Draft OMS Informational Filing to the FERC on Market Readiness to the OMS Board.
- January 20, 2005 OMS Special Board Meeting (tentative).
- January 28, 2005 OMS make Informational Filing to the FERC on Market Readiness (if determined by the OMS Board that such filing should be made).

# OMS Outline for Informational Filing on Market Readiness to the FERC

- I. Issues Raised by the Metric Interpretive Guidance (MIG) Task Force
  - a. Financial Transmission Rights (FTR) modeling
  - b. Seams Issues
  - c. Market Participant Readiness Issues
  - d. Control Area Operator Training Modules
  
- II. Issues Raised by the Readiness Advisor's Reviews
  - a. Metrics
  - b. Mapping of Metrics
  - c. Overall Report on Readiness to the MISO Advisory Board
  
- III. Issues Raised by the Independent Market Monitor's Reviews
  - a. *Need more information, but IMM is tracking its own or certain of MISO's metrics and other issues related to market start-up.*

# OMS Outline for Informational Filing on Market Readiness to the FERC

## IV. Issues Identified During Parallel Operations

- a. Market Portal
- b. MISO Debriefing Meeting Issues

## V. Issues Regarding Mandatory Participation in Parallel Operations – not financially binding – MISO Staff

- a. Role of state commissions and/or OMS, for example, to encourage participation. Non-jurisdictionals may require FERC involvement.

## VI. Other Observations

- a. Data access as a readiness issue?
- b. “Miscellaneous”

**Report of the OMS Pricing Work Group**

**to the**

**OMS Board of Directors**

**OMS Annual Meeting**

**December 9, 2004**

## **I. Long Term Transmission Pricing—FERC Dkts. EL02-111, EL03-212, ER05-6, and EL04-135**

On October 1, 2004, two competing proposals for long term transmission pricing were filed at FERC.

- The Unified Plan (“UP”) was supported by a large number of transmission owning utilities in MISO and PJM as well as parties from various other stakeholder groups. The UP would largely retain zonal license plate pricing.
- The Regional Pricing Plan (“RPP”) was proposed by AEP, Ameren, Allegheny, Exelon, and LG&E. The RPP would allocate the bulk of transmission costs for zonal recovery, but would also allocate some costs to transmission users in zones outside of where the transmission facilities are actually located to model benefits.

Comments were filed by numerous parties on or around October 15, 2004.

- Some state commissions (e.g., Ohio and Illinois) expressed a preference for the RPP and some state commissions (e.g., Michigan and Pennsylvania) expressed a preference for the UP.

On November 18, 2004, FERC issued an Order finding that neither of the two proposals fully satisfied the Going Forward Principles that FERC had earlier adopted to guide the process. FERC conditionally accepted the UP and suspended it for a nominal period to go into effect on December 1, 2004 subject to filings by November 24, 2004 to put forth the SECA transition methodology that FERC described in a November 17, 2003 Order.

On November 24, 2004, separate filings were submitted by MISO and the MISO transmission owners and by PJM and the PJM transmission owners to comply with the Commission’s November 18, 2004 Order and to propose SECA transition rates. Also on November 24, AEP submitted a “compliance filing in the alternative.”

On November 30, 2004, FERC issued an Order clarifying that, because of the timing of their PJM integration, AEP, ComEd and Dayton will be permitted to submit a filing to recover lost revenues associated with the elimination of intro-RTO rate pancaking through the SECA transition methodology in Docket No. EL04-135-000. The proceeding will otherwise be limited to addressing inter-RTO rate pancaking between PJM and MISO.

On December 1, 2004, MISO and the MISO transmission owners submitted revisions to their November 24 compliance filing.

Comments on each of the three November 24 compliance filings are due December 15.

Requests for Rehearing of FERC’s November 18 Order are due on December 20, 2004.

## **II. MISO Regional Expansion Criteria and Benefits Task Force (RECB)**

On October 18, 2004, MISO Staff submitted a proposal for transmission cost allocation to the RECB task force.

On October 25, 2004, a majority of the voting RECB members rejected MISO Staff's proposal for transmission cost allocation. Some key areas of concern were with MISO Staff's proposal to use changes in generator production costs as a measure of new transmission benefits and MISO's proposal to treat transmission upgrades associated with generator interconnections as "reliability upgrades" for which no benefits test would be conducted.

On November 3, 2004, the RECB task force held a meeting to discuss the results of the October 25 vote. The group decided to seek an additional sixty days to continue their work, rather than for MISO to make a December 1, 2004 FERC filing.

On November 4, 2004, the OMS Pricing work group held a meeting to discuss the status of the RECB and to draft a resolution for OMS Board consideration.

On November 10, 2004, the OMS Board of Directors adopted a resolution recommending that the Midwest ISO "investigate and propose creative, workable and cost-effective methods for determining beneficiaries of reliability upgrades." The OMS resolution recommended that such proposals should undergo stakeholder review within the Regional Expansion Criteria and Benefits Task Force and stated OMS's willingness to assist.

On November 17, the RECB chairman provided a presentation and status report to the MISO Advisory Committee.

On November 18, 2004, FERC issued an Order in the Long Term Transmission Pricing docket that affects the work of the RECB. FERC directed the RTOs and their transmission utilities to submit a filing within 180 days to "allocate to the customers in each RTO the cost of new transmission facilities that are built in one RTO but provide benefits to customers in the other RTO."

On November 19, the RECB task force held a meeting to discuss the OMS resolution, the FERC Order, and other task force business. MISO Staff committed to providing a "White Paper" prior to the next RECB meeting.

The next RECB meeting is scheduled for December 17, 2004.

*Report of the OMS Resource Adequacy and Capacity  
Market Working Group (RAWG):*

**“MISO Capacity Market To Be Based  
on New PJM Design”**

by  
Jan Karlak, Ohio PUC and Re-elected Chair of the RAWG

***" The Market Subcommittee directs the SAWG [MISO Supply Adequacy Working Group] to develop a Resource Adequacy Construct that does not conflict with the proposed PJM Resource Adequacy Construct (Reliability Pricing Model). To this end, the SAWG shall start with the Reliability Pricing Model as a baseline construct and make modifications as necessary."***

---Motion before the Midwest ISO Market Subcommittee,  
November 30, 2004; adopted by a vote of 21-12.

- **OMS may want MISO Market Participants to keep in mind that resource adequacy is in many cases the legal responsibility of the States and should not be pre-empted by FERC via the MISO.**
- **This means that MISO must gain the States' trust to replace the kind of confidence that many States have had in MAPP, for example, to centrally manage a capacity construct.**

***“The MISO, in designing a capacity market, will provide resource suppliers an opportunity to recover a portion of their investment costs, as part of an available revenue stream.”*** ----Recommendation in Principle No. 1, OMS Resource Adequacy and Capacity

Market Principles, approved by the OMS Board, March 12, 2004

\* \* \*

**The new PJM Reliability Pricing Model (RPM) Construct for a capacity market consists of 3 major features:**

- 1. A “forward” commitment of capacity resources for a longer planning period to encourage a more diverse mix of generation resources,**
- 2. A variable resource requirement [adapted from the current NYISO capacity market “Demand Curve” concept designed by New York Commission Staff], supported by**
- 3. Centralized procurement through annual auctions, based on the use of an “optimization algorithm” to match supply and demand on a locational basis.**

**--Murty Bhavaraju, “A New PJM Capacity Construct Reliability Pricing Model (RPM),” (September 13, 2004) presentation to a Joint Meeting of the MISO SAWG/OMS RAWG**

*In its latest Order on MISO's energy market tariff (ER04-69-000 and EL04-104-003, Nov. 8, 2004), FERC stated the MISO plan "cannot directly conflict" with PJM's plan.\* To that end, the OMS RAWG--with the assistance of MISO and PJM Staff, will offer an educational internet/conference call Workshop series for OMS Commissioners to acquaint them with the details PJM RPM:*

- **January 12, 2005 - MISO, "Does MISO Need a Capacity Market?"**
- **January 26, 2005 - PJM "Introduction to RPM for State Commissioners"**
- **February 13, 2005 [at NARUC Winter Meetings 10:30-12:30 a.m.] Joint MISO/PJM "RPM Workshop for MISO, SPP, and PJM States' Commissioners"**

\* Section H(1.)(a.)(i.), ¶307.

# Seams Issues Work Group



# 2004

- Intervened in ER04-375
- Participated in filings in ER04-691
- Participated in comments on NIETB
- Filed reply brief in ER04-375
- Reviewed proposed staged market implementation; through and out rates; readiness metrics; draft seams agreements

# 2005

- Continue to monitor seams agreement development
- Review MISO/PJM filing on market to market JOA
- Participate in market readiness filing
- Prepare for possible end of work group

# Survey of Transmission Siting Practices In the Midwest

*Prepared by:*

The Brattle Group

*Prepared for:*

Edison Electric Institute

And

Organization of MISO States

November 2004

Prepared by:

The Brattle Group

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Research Assistants: Jenn Baka, David Azari, Monisha Shah

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# TABLE OF CONTENTS

Chapter 1: Introduction and Purpose.....	1
Chapter 2: MISO Profile and Planning Process.....	3
Chapter 3: Arrowhead-Westin Line .....	5
Introduction .....	5
Regulatory Approval Process.....	5
Conclusion.....	8
Chapter 4: Responses to Siting Questionnaire.....	9
Review of Questionnaire .....	9
Review of Responses.....	10
Chapter 5: Preliminary Findings and Conclusions.....	15
Recommendations .....	16



# CHAPTER 1: INTRODUCTION AND PURPOSE

There is widespread concern about the adequacy of the U.S. transmission grid. This concern was heightened by the August 14, 2003 blackout, which was the largest blackout ever in North America. This blackout disrupted service to over 50 million customers over an area extending from Michigan to Western Massachusetts and including such major cities as Detroit, Toronto, Cleveland, Ottawa, Buffalo, and New York City. While it subsequently was determined that the blackout was caused by operational failures, there is ample evidence to suggest that the high-voltage grid—at least in some regions—is overstressed. Such evidence includes the frequency and duration of Transmission Loading Relief (TLR) procedures called by reliability coordinators and the persistent transmission “congestion” cost experienced in some regions. Moreover, transmission investment clearly has lagged the growth in demand for a considerable period. In June 2004 the Edison Electric Institute (EEI) and U.S. Department of Energy (DOE) issued a report which showed that from 1982-2002 transmission capacity was added at a much slower rate than the growth in consumer demand.<sup>1</sup>

Of course, there is no consensus about how much additional transmission capacity is needed in the North American grid. The need for additional transmission capacity is addressed in the planning processes conducted by Regional Transmission Organizations (RTOs), Independent System Operators (ISOs), vertically integrated utilities and public power agencies. In the Midwest, the Midwestern Independent System Operator (MISO), a FERC-approved RTO, periodically prepares a comprehensive transmission plan for its geographic footprint. MISO issued its first transmission plan in June 2003. This plan included input from the transmission-owning members of MISO as well as other market participants. MISO noted that the plans prepared by transmission owners (TOs) generally focused on local needs. Few if any Midwestern TOs incorporated *regional* needs into their analysis. This is consistent with historical practice, where utilities built transmission primarily to deliver generation from their generating plants to their native load customers. However, with open access, the formation of MISO, and the establishment of a regional market for energy, such planning practices are expected to change. That is, transmission plans will start including regional considerations, such as mitigating transmission bottlenecks that constrain economical trade. This process already has begun, as the MISO’s June 2003 plan identified several potential regional upgrades to facilitate trade (and improve reliability) across the Midwest.

As transmission planning becomes more regional in scope, it follows that more interstate transmission lines will be proposed by RTOs, TOs, or other entities. However, in the Midwest, as in all other regions of the U.S., there is no regional entity with the authority to approve construction permits for interstate lines. Such permits must be obtained from state (and in some cases local and federal) government agencies. While there has been much discussion about creating “regional compacts” or “joint boards” or other regional entities to facilitate the review of interstate lines the fact remains that such lines ultimately will need to be reviewed and approved by state agencies. This, in turn, raises the question of whether and how the affected states could coordinate on the siting of a proposed interstate line. Siting a new line in a new corridor typically is difficult when one state is involved; siting a line that traverses more than one state is likely to be even more difficult and complicated. This is particularly true when such lines are intended, at least in part, to foster regional commerce rather than to serve purely local needs.

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<sup>1</sup> Eric Hirst. *U.S. Transmission Capacity: Present Status and Future Prospects*, June 2004.

EEI and the Organization of Midwest States (OMS)—a Regional State Committee formed last year by Midwestern state regulators with jurisdiction within the MISO footprint—agreed to conduct a survey of state siting processes in the MISO footprint. The primary purpose of the survey was to gain a detailed understanding of each state’s siting process and to identify similarities and differences in the respective siting processes. The survey also sought to determine how, if at all, states would or could coordinate on the siting of an interstate line. The survey did not address policy issues or seek policy recommendations; its goal was to elicit a detailed, factual description of the siting process.

A detailed questionnaire of siting authority and practices was prepared jointly by The Brattle Group and Robert Burns of the National Regulatory Research Institute (NRRI), with review and input from the OMS Transmission Planning and Siting Working Group. The questionnaire was circulated on May 14, 2004, to 14 states and the Province of Manitoba.<sup>2 3</sup> Responses were received from 13 of the 14 states and Manitoba. (All responses to the questionnaire are shown in Appendix B) This survey provides a basis for industry and regulators to assess the degree of commonality in state siting processes and the extent to which differences in such processes potentially raise obstacles to the siting of interstate/regional high-voltage lines.

Chapter 2 of the report provides an overview of the MISO geographic footprint (TOs, control areas, lines of transmission, states traversed, etc.) and a short summary of its planning process. Chapter 3 provides a short case study of the Arrowhead-Westin line, a lengthy new line that will be located in Minnesota and Wisconsin and which is expected to be in service by 2008. This line was chosen because it is the most significant new, multi-state line under construction in MISO and because the siting process appears to have worked reasonably well and in a reasonably timely fashion. Chapter 4 reviews and summarizes the responses to the siting questionnaire. This chapter includes a very concise summary of each state’s siting process and contrasts and compares state siting processes across several key parameters, such as one-stop shopping, timeline for making a decision, coordination between state and local agencies, determination of need, and ability to take regional considerations into account. Chapter 5 relates what was learned from the survey to the question of interstate siting. This chapter offers preliminary conclusions as to whether state siting practices create any significant barriers to the siting of interstate lines. Chapter 5 also identifies preliminary actions that states and/or the OMS could take, given existing statutory requirements, to facilitate the siting of interstate lines.

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<sup>2</sup> The questionnaire was sent to the following states: Illinois, Indiana, Iowa, Kentucky, Manitoba, Michigan, Missouri, Minnesota, Montana, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, and Wisconsin.

<sup>3</sup> Manitoba Hydro has a coordination agreement with MISO.

## CHAPTER 2: MISO PROFILE AND PLANNING PROCESS

Much of the Midwestern U.S. grid is under the operational control of MISO, which began to provide transmission service in February 2002. Unlike the Northeastern U.S. RTOs, which evolved from tight (centrally-dispatched) power pools, MISO is an entirely new transmission organization formed to provide open and non-discriminatory transmission access and other services to meet the needs of a competitive power market. The MISO transmission system spans 15 states and 1.2 million square miles from the Dakotas to Kentucky. This large area encompasses over 84,000 megawatts (MW) of generating capacity and over 100,000 miles of high-voltage transmission lines. MISO members include 23 TOs and 3 Independent Transmission Companies.

Another key distinction between MISO and the Northeastern U.S. RTOs is that the former—while responsible for the safe and reliable operation of the grid under its functional control—is not the control area operator. Instead, MISO shares operational responsibilities with approximately thirty existing control areas operated by transmission-owning utilities within its footprint. Under this shared approach to operational authority, MISO has the exclusive authority to receive, implement, and confirm all interchange schedules (schedules between control areas). Moreover, MISO has the authority to order the redispatch of any generator connected to transmission facilities it operates if necessary for the reliable operation of these facilities. Local control area operators within MISO are responsible for managing localized congestion within their metered boundaries, performing real-time energy balancing, and regulating resources internal to their control areas.

MISO currently does not operate any spot markets for energy or ancillary services but has filed a proposal at FERC to establish a centralized day-ahead and real-time energy market with locational marginal pricing (LMP) to reflect the cost of congestion. This proposed market, which has been conditionally approved by FERC, would go into effect March 1, 2005.<sup>4</sup> Overall, MISO's proposed market design is very similar to the market design in the Northeast U.S. RTOs.

The MISO transmission planning process is new and evolving. MISO prepares a regional transmission plan on a biennial basis (or more frequently if needed) for the portion of the grid (facilities above 100 kV) under its operational control. TOs prepare plans for lower voltage transmission facilities as well as all distribution facilities, subject to MISO's review. Transmission plans are developed by the MISO's planning staff in collaboration with TOs, transmission customers, state regulators and other interested parties. The regional plan developed by MISO relies extensively on the local, "bottom-up" plans prepared by TOs. Not surprisingly, MISO found that the TO plans are driven primarily by projected load growth and interconnection requests from new generating plants. Such plans rarely included upgrades for expanded trade or "regional" needs.

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<sup>4</sup> There currently isn't a centralized spot market for energy in the Midwest, which traditionally has relied on bilateral transactions.

MISO issued its first transmission plan (MTEP-03) in June 2003. This plan covered the 5-year period 2002 through 2007. In total, MISO TOs plan to have 3,500 miles of new or enhanced transmission capacity in service by 2007 at a projected cost (total investment) of \$1.83 billion. This total includes lines that went into service in 2002, as well as lines planned or proposed through 2007.<sup>5</sup> The majority of these line additions represent improvements to existing facilities in the 161 kV class and below.

The MISO plan also reviewed regional expansions that could be commercially beneficial. Specifically, MISO studied the costs and benefits of transmission expansions that would permit additional imports of coal-fired power from both the Northern Lignite Basin in North Dakota and Montana (the northwestern portion of MISO) and the Illinois Basin to load centers in the Midwest. MISO also studied the costs and benefits of expansions that would enable more wind power to reach Midwestern load centers. These studies were developed in consultation with coal and wind power developers. MISO found that, under certain scenarios, the energy price savings (resulting from the additional supply of coal-fired and wind power) exceeded the cost of the transmission upgrades. However, such benefits depend on the development of additional coal-fired and wind capacity and on other critical assumptions, such as the price of natural gas.

These studies are preliminary but they suggest that the Midwest region could benefit from additional transmission capacity designed to permit the import of power from relatively remote coal and wind resources. They are precisely the type of “big-picture” studies that FERC expects RTOs to perform. Moreover, these studies ultimately could provide the impetus and economic justification for the siting of interstate transmission lines in MISO’s footprint.

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<sup>5</sup> “Planned” lines are new lines that TOs believe should be built. Proposed projects, in contrast, are ones which are still being evaluated.

## CHAPTER 3: ARROWHEAD-WESTIN LINE

### Introduction

The Arrowhead-Westin (AW) project is a new, 220-mile 345 kV line linking the Arrowhead substation near Duluth, Minnesota with the Westin substation near Wausau, Wisconsin. The line is expected to be in service by June 2008 at a projected cost of \$420 million. Construction of the line started in Minnesota in February 2004 and is expected to start in Wisconsin later this year.

The AW project will help relieve the highly-constrained interface in western Wisconsin between the northern portion of the Mid-American Power Pool (MAPP) and the Wisconsin-Upper Michigan System (WUMS). Indeed, the June 2003 MISO Transmission Plan identified the Eau Claire-Arpin 345 kV line, which connects Northern MAPP and WUMS, as one of the nineteen most constrained lines or “flowgates” in the MISO footprint. The constrained MAPP-WUMS interface creates reliability issues and inhibits generation competition within WUMS and trade between WUMS and surrounding regions. The Arrowhead-Westin line will relieve this constraint significantly and thus provide both reliability and economic benefits to WUMS and surrounding areas.

### Regulatory Approval Process

The AW project falls mostly in Wisconsin, so that portion of the line has received the most focus and regulatory scrutiny. A review of the Wisconsin record suggests that state regulators and policymakers were convinced of the need for such a line prior to the siting application filed with the Public Service Commission of Wisconsin (PSCW) in November 1999.<sup>6</sup> Two incidents in the late 1990s demonstrated the limitations and vulnerabilities of the MAPP-WUMS interface. On June 11, 1997, WUMS was importing a large amount of power, in part, because seven nuclear generating units located in Wisconsin, Illinois and Minnesota were all off-line at the same time. TLR procedures were initiated but in spite of this the Eau Claire-Arpin line tripped and created a system disturbance. This disturbance caused an upper voltage collapse in eastern Iowa and northwestern Illinois. The second incident occurred on June 25, 1998. Lightning caused a 345 kV line connecting Minnesota to Iowa and Missouri to trip out of service as well as an internal Wisconsin line. The loss of these two lines caused other lines to trip, with the result that the MAPP system separated into parts. After this separation, the level of northern MAPP generation exceeded the area’s load requirements, which resulted in voltage instability and a blackout in the western part of Ontario.

Shortly after these incidents occurred, former Wisconsin Governor Thompson requested that the state’s electric utilities convene a task force to make recommendations on new generation and transmission measures necessary to avoid reliability issues in the future. In response to this request, the Wisconsin Reliability Assessment Organization (WRAO) was formed in 1998 by several Wisconsin electric utilities. The WRAO formed a transmission task force to study regional constraints affecting Wisconsin’s ability to import electricity and to investigate system reinforcement alternatives to alleviate those constraints. The task force included participation from electric utilities in Illinois, Iowa, Minnesota, Michigan, Manitoba and

<sup>6</sup> The primary source for the discussion about the genesis of the Arrowhead-Westin line and the regulatory review process in Wisconsin is the Final Decision of the Public Service Commission of Wisconsin, Docket No. 05-CE-113, October 30, 2001.

Wisconsin. On June 14, 1999, the WRAO filed a report with the Wisconsin Public Service Commission (WPSC) that recommended construction of a 345 kV line from the Arrowhead substation to the Weston substation as one possible solution for alleviating the constraints identified in the study.

On November 10, 1999, Wisconsin Public Service Corporation (WPSC) and Minnesota Power Company (MP) jointly filed an application for the issuance of a certificate of public convenience and necessity (CPCN) for authority to construct the Arrowhead-Westin project as recommended in the WRAO report.<sup>7</sup> In addition, WPSC proposed to construct a 345/115 kV substation near Tripoli, Wisconsin and a 115 kV line from the proposed Tripoli substation to the Highway 8 substation in Rhinelander, Wisconsin. The applicants' proposed routes for the new 345 kV line were approximately 210 miles in length and the routes for the new 115 kV line were approximately 42 miles long.

The PSCW must rule on the completeness of a CPCN application no more than 30 days after it is filed. On December 9, 1999, the PSCW ruled that the WPSC-MP application was in fact complete. At least 60 days before filing a CPCN application with the PSCW, the sponsor of a project also must submit an engineering plan to the Wisconsin Department of Natural Resources (DNR) that describes the project and its anticipated impact on air and water quality. On June 2, 2000, the DNR verified to the PSCW that WPSC and MP had provided sufficient information during the summer of 1999 to fulfill their statutory requirement to file an engineering plan.

On April 14, 2000, the PSCW issued a Notice setting a pre-hearing conference and enabling interested parties to submit discovery. An initial pre-hearing conference was held on May 15, 2000, at which time a list of issues was developed to guide the hearing. On July 5, 2000, a Party and Status Order was issued which determined that 36 persons or organizations were entitled to participate in the proceeding. A second pre-hearing conference was held on September 22, 2000, to finalize the issues list and the procedures to be followed at the hearing.

Wisconsin law requires the PSCW to prepare a detailed Environmental Impact Statement (EIS) for any "major action" it is considering that would significantly affect the quality of the human environment. On May 5, 2000, the PSCW released a two-volume draft EIS on the proposed AW project, including both the 345 kV line and the 115 kV line. The public was encouraged to provide written or oral comments during a 45-day comment period. In addition, Commission staff hosted public meetings in six locations within the project area during the weeks of June 5 and 12, 2000, to solicit comments on the project and the draft EIS. On October 3, 2000, the PSCW released its final EIS (an 850-page document). The final EIS evaluated the need for the project, alternatives to the 345 kV and 115 kV lines, and the costs and potential environmental effects of the proposed routes for these lines. The final EIS analyzed four alternative routes.

The PSCW held lengthy public hearings on the AW project, both in northern Wisconsin and in Madison (the state capitol). From January 3, 2001 to February 23, 2001, the PSCW held further hearings in Madison to receive testimony from technical witnesses of the parties and from Commission staff. In all, the PSCW held nine days of hearings at which members of the public could testify and 22 days of hearings at which technical witnesses testified.

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<sup>7</sup> On April 13, 2001, the American Transmission Company (ATC) took over responsibility for the AW project through an agreement with WPSC and MP and became the applicant in the PSCW proceeding.

At its open meeting on August 17, 2001, the PSCW approved the issuance of a CPCN for the construction of the AW project and declined to issue a CPCN for the Tripoli substation and the 115 kV line from Tripoli to Rhinelander. On October 30, 2001, the PSCW issued a Final Decision approving the issuance of a CPCN for the construction of the AW project. The route approved by the PSCW differed somewhat from the route proposed by the applicants.

Thus, it took just under 2 years for the state of Wisconsin to review and issue a final decision granting a CPCN for the AW project. However, issuance of a CPCN was not a license to immediately begin construction of the line. Before construction could begin, the PSCW ordered ATC to prepare a comprehensive Construction and Mitigation Plan. This plan had to include very specific information about environmentally sensitive resources on the route and how they are to be protected. However, to not unduly delay construction of the line, the PSCW decided to sub-divide the Plan into two elements: Part A, concerning construction and mitigation practices of general applicability, and Part B, concerning site-specific construction and mitigation measures, which ATC had to prepare after project route is specifically identified. Construction was permitted to occur once the PSCW approved Part A of the plan.

Construction of the line was delayed, however, for reasons totally unrelated to local siting and mitigation issues. After taking over management of the project, ATC examined the approved cost and schedule and concluded that both needed extensive modification. ATC re-filed the project with the PSCW, requesting approval for a project budget of \$420 million. This projected budget was a 150 percent increase over the original \$165 million budget. The increased costs were due in part to estimated costs for farm disease mitigation, substation improvements, increased costs for building materials and higher prices for land acquisition. The PSCW reopened the case in December 2002 to review the revised cost estimate and retained a consultant to evaluate ATC's projected budget. On December 15, 2003, the PSCW issued a decision finding that the 1) the increased costs were reasonable; 2) there continues to be a clear need for the line to solve congestion problems and to ensure reliability; and 3) any further delays in construction would have significant impacts on the reliability of Wisconsin's transmission grid.

MP faced a simpler process in Minnesota, as it received approval to construct the Minnesota portion of the AW project without receiving a CPCN or otherwise having to go through a formal hearing process.<sup>8</sup> Under Minnesota's then applicable law, the line was deemed to be "exempt" from the requirement to obtain a CPCN. The AW project was granted an exemption because 1) it was less than 25 miles (in Minnesota) and 2) it used an existing corridor and thus was viewed as not having significant potential for causing an adverse environmental impact. The AW project otherwise would have had to go through the formal siting process and acquire a CPCN. Under current Minnesota law, the AW line would not have been exempt because all lines—regardless of their length or whether they utilize an existing corridor—must obtain a CPCN and a routing permit. (Local authorities certify the routing for low voltage law.)

Minnesota did not formally (or informally) coordinate with Wisconsin on the siting of the AW line. However, there might have been some form of interstate coordination if the Minnesota portion of the AW line had required a CPCN. We were informed by Mr. Cupit of the Minnesota Department of Commerce that there is precedent for inter-state coordination between Minnesota and Wisconsin. Minnesota and Wisconsin held joint hearings on a line proposed in the 1980s. One of the primary purposes of the joint hearings was to settle on a crossing point between the states. (Internal routing issues were addressed in state proceedings.)

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<sup>8</sup> Information on the siting of the AW project in Minnesota was gained from a July 27, 2004 phone conversation with Bob Cupit, Director, Office of Energy Reliability, Minnesota Department of Commerce.

## **Conclusion**

While acquiring a CPCN for the AW project was far from a quick or painless process, it is encouraging that a line that the PSCW called “the most complex transmission project ever proposed in Wisconsin” could be sited. Underlying the Wisconsin process was the fact that regulators and policymakers appeared to be sold on the need for the project from the beginning. This project was viewed as critical to maintaining reliability in WUMS and to expanding trade between WUMS and surrounding regions. Being sold on the need for the project, the issue then became one of finding a route and mitigation plan that minimized potential adverse environmental impacts and other adverse impacts on landowners. The experience of the AW project suggests that when there is strong political support for a project, local routing issues, difficult as they may be, can be dealt with in a reasonable (and reasonably timely) manner.

# CHAPTER 4: RESPONSES TO SITING QUESTIONNAIRE

## Review of Questionnaire

A detailed questionnaire of siting authority and practices was prepared jointly by The Brattle Group and Robert Burns of NRRI, with review and input from the OMS Transmission Planning and Siting Working Group. The questionnaire was circulated on May 14, 2004, to 14 states and the Province of Manitoba.<sup>9</sup> Responses were received from every state (except for Indiana) and from Manitoba. (All responses to the questionnaire are shown in Appendix B) Responses to the survey were, with a few exceptions, complete and comprehensive. Where necessary, we had follow-up discussions with state commission personnel to clarify the survey responses.

The purpose of the questionnaire was to gain a detailed understanding of how the siting *process* works today in each of the queried states.<sup>10</sup> Other reports have compiled and summarized state siting laws and regulations<sup>11</sup> but our objective was to gain a thorough and common-sense understanding of how the overall siting process works in the states within MISO's footprint. The survey also asked the states how they would coordinate, if at all, on the siting of a multi-state line. In addition, the survey requested data on the number of high-voltage lines that were sited in each state over the last ten years. The questionnaire did not address policy issues or seek policy recommendations, with two partial exceptions.

There were a total of 21 questions in the survey, many with sub-parts. The survey's initial questions asked the state to clarify its authority over the siting of transmission lines and the agency or agencies that exercise this authority. For example, we asked the state (question 4) if there was one agency with "one-stop" permitting authority to issue or deny construction permits. We then asked the state to describe the findings that the relevant agency must make to issue a permit. Of particular interest, as will be explained below, is whether a state's determination of "need" (if there is one) is separate from the routing/siting process (question 7). The survey also explored the relationship between state and local jurisdictions and the extent to which state agencies coordinated with local agencies on siting analyses and whether state agencies could preempt decisions made by local agencies. We asked the state whether regional determinations could be taken into account in the siting process (question 8b). We asked about the need for and elements of the environmental review (questions 9 and 10). We asked if permits typically were set for hearing and, when they were set for hearing, whether the decision-making authority was required to make a determination after a specified period of time (question 12). We asked if there were processes in place to streamline transmission siting (question 15). As noted above, the questionnaire requested data on the number of transmission lines sited in the last ten years and whether any proposed line was denied a construction permit (question 19). Only two questions sought an opinion from the respondent: one (question 16) identified several proposals for regional collaboration and asked if any of these might lead to effective collaboration on

<sup>9</sup> The questionnaire was sent to the following states: Illinois, Indiana, Iowa, Kentucky, Manitoba, Michigan, Missouri, Minnesota, Montana, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, and Wisconsin. All of the U.S. States have jurisdictional utilities within the MISO footprint. Manitoba Hydro has a coordination agreement with MISO.

<sup>10</sup> Throughout the report, the term "state" should be understood to include the Province of Manitoba.

<sup>11</sup> See, for example, *Electric Transmission Line Siting Regulations*, Prepared for EEI by Resource Strategies, Inc., 2001.

the siting of multi-state lines. The other question (question 19c) asked the state to identify what worked well in its siting process and what could be improved.

## Review of Responses

A brief summary of each state's siting process is set forth in Appendix A. Following is a summary of the key findings gleaned from the survey responses. One must be careful about drawing sweeping conclusions about similarities and differences in siting processes among Midwestern states because each state's process tends to be somewhat idiosyncratic. However, given those caveats, some interesting findings and patterns emerged from the survey.

**Siting Authority and One-Stop Permitting:** Each respondent indicated that the state had authority to issue or deny permits for transmission lines. In the majority of cases, this authority is vested with the state's public utility commission. Montana, however, vests this authority in its Department of Environmental Quality. Nebraska places this authority with the Nebraska Power Review Board. In Wisconsin, applicants must receive permits from two state agencies; the Public Service Commission and the Department of Natural Resources. These two agencies generally review transmission line applications in parallel. In Ohio, permits are issued or denied by the Power Siting Board, which is a type of joint agency. The Board has seven voting members consisting of the Chairman of the state Public Utilities Commission and the directors of the:

- Ohio Environmental Protection Agency
- Ohio Department of Agriculture
- Ohio Department of Development
- Ohio Department of Health
- Ohio Department of Natural Resources

and a public member (who must be a licensed engineer) appointed by the Governor. Kentucky also has a Siting Board, which issues permits solely for non-regulated electric generating facilities and transmission lines (i.e., merchant facilities). Permits for regulated lines of 138 kV and above are issued by the state's Public Service Commission.

States typically have permitting authority over a subset of transmission lines rather than all lines and this subset varies widely by state. The exception is Illinois, which has the authority to issue or deny permits for all lines that leave a utility's certificated area. Michigan requires certificates for all lines 345 kV and above and at least 5 miles long. Exempt lines more typically are those below 100-115 kV. For example, Minnesota requires all lines over 100 kV and 10 miles in length to obtain a certificate of need. (Minnesota requires all lines over 230 kV to obtain a certificate regardless of their length). Similarly, Pennsylvania has permitting authority over all lines above 100 kV while in Kentucky all regulated lines of 138 kV or more must receive a permit. Manitoba has permitting authority over all intra-provincial lines of 115 kV and higher. The MISO defines high voltage lines (the lines over which it has operational control and whose cost is recovered in the MISO tariff) as those above 100 kV so the MISO's definition is consistent with that used by many MISO-member states in their siting processes.

Six of the respondents characterized themselves as having a "one-stop" permitting process. However, having a "one-stop" permitting process does not necessarily mean that an applicant need only file with a single (lead) state agency. For example, in Pennsylvania the Public Utility Commission (PAPUC) is the primary agency for transmission siting. Construction permit applications filed at the PAPUC must list the

local, State and Federal governmental agencies which have requirements that must be met in connection with the construction of a proposed line. In addition, Pennsylvania requires that each application be filed at the Department of Transportation, the Historical and Museum Commission, and persons, corporations, and other entities of record owning property within the proposed right-of-way. Iowa identified itself as having a one-stop process outside of city limits but notes that the state's Department of Transportation approves transmission lines on highway rights-of-way and bridges. Ohio's process, with its Siting Board being the lead agency, may be the closest to what some would view as "one-stop" permitting. In Ohio, a siting permit need only be filed at the Board which, as noted, already is comprised of senior officials from all other state agencies with an interest in transmission siting.

Many states indicated that state preemption of local agency decisions is a non-issue because local agencies cannot issue or deny construction permits. Where conflicts occur, states indicated that they can override contradictory local decisions. For example, Michigan pointed out that a certificate issued by the Public Service Commission takes precedence over a conflicting local ordinance, law, rule, regulation, policy or practice that prohibits or regulates the location or construction of a transmission line. In an eminent domain or other related proceeding, a certificate issued by the Michigan Public Service Commission is conclusive and binding as to public convenience and necessity. Similarly, South Dakota indicated that a state permit for construction of a transmission facility could supersede or preempt any county or municipal rule or regulation if the Public Utilities Commission found that the rule or regulation was unreasonably restrictive. (Without such a finding by the South Dakota commission, no route may be designated which violates local land-use zoning rules, regulation or ordinances.) Wisconsin indicated that a local ordinance cannot block construction of a line that has received a certificate of public convenience and necessity. Ohio stated that its Siting Board jurisdiction preempts that of local agencies. However, there is a "chicken and egg" aspect to the question of local preemption because, as noted above, some state commissions cannot act on a siting application until the applicant secures all necessary approvals from local (and other state) agencies. Michigan, for example, explains that permits may be required from municipal and county agencies, with the latter potentially requiring permits for items such as soil erosion and sedimentation control. North Dakota responded that the Public Service Commission is the ultimate permitting authority but there are often other state, federal or local permits or requirements for crossing roads, railways, waterways and wetlands. Thus, while no state apparently can have its siting decisions explicitly preempted by local agencies the latter have a critical role in determining where (and possibly whether) a line is sited.

**Hearings:** As one would expect, the responses suggest that a formal hearing process would be needed to acquire a siting permit and/or certificate of need for a new high-voltage line. Five states, Minnesota, Ohio, Michigan, Wisconsin and Illinois indicated that a permit application must be set for hearing. Most of the remaining states indicated that a permit application likely would be set for hearing, particularly if any objections were filed to the siting permit. For example, Iowa responded that a hearing is mandatory if objections to a project are filed. In South Dakota, public input hearings are mandatory but a formal evidentiary hearing may be waived if all parties agree to a negotiated "Terms and Conditions" for a permit and the agreement is accepted by the Commission. Pennsylvania responded that applications typically are set for hearing. The sole exception is Nebraska, where applications for transmission lines are *rarely* set for hearing. Of course, Nebraska is a unique state in that it is served entirely by municipal utilities, public power districts and cooperatives. There are no IOUs in Nebraska. However, even Nebraska normally will hold a hearing for controversial or very large transmission projects.

**Issues Covered in the Siting Process:** Before granting a construction permit for a line, most states must find 1) that the line is needed (determination of need) and 2) analyze the line's potential environmental impacts. South Dakota was the only state that did not require a determination of need for a new transmission facility. In North Dakota, only investor-owned utilities (IOUs) are required to obtain a need certificate for a new transmission facility.<sup>12</sup> Kentucky performs a need determination for regulated transmission lines but not for unregulated (merchant) lines. Every state except Iowa and Nebraska expressly requires an environmental review; however, environmental issues can be raised in Iowa's siting proceedings. In Nebraska, conducting an environmental review is not part of the Power Review Board's mandate though the state's utilities, if they wish to, can include environmental impacts in their assessment of where a line should be sited.<sup>13</sup>

We found that, in general, the determination of need is not decoupled from the siting/routing process. Minnesota is a major exception—the Minnesota Public Utilities Commission makes the need determination and the Minnesota Environmental Quality Board (EQB) makes the routing decision. Need is not an issue in the siting/routing process conducted by the EQB. The hearing on the routing process can occur either after or in parallel with the PUC's need hearing; indeed, the PUC and EQB can elect to hold a joint hearing. However, an applicant must receive a need certificate to receive a routing permit from the EQB. North Dakota also decouples the need proceeding from the routing permit though, as noted above, only IOUs are required to get a need certificate. The typical practice, however, is for need and routing issues to be addressed jointly by the state agency with decision authority.

**Timeline and Schedule:** The siting-related issue that probably is of most concern to industry is the *time* needed to obtain the necessary permits to build a new transmission line. Of course, the time needed to bring a new line into service involves more than the acquisition of the necessary permits. Sometimes, lines can be delayed for years by litigation undertaken after permits have been received. Nevertheless, having a reasonable, definitive schedule for issuing or denying permits often is viewed as one of the primary reforms needed in the siting process.

The following states indicated that the Commission (or other state decision-making authority) had to issue a decision within a specified period of time: Michigan, Minnesota, Montana, North Dakota, South Dakota and Wisconsin. In these states, decision typically must be rendered from six months to one year after an application is filed (or deemed to be complete). For example, in Minnesota, the Commission has six months to approve or reject a certificate of need application and the Environmental Quality Board has one year to issue a permit for a transmission line over 200 kV and six months for a transmission line between 100 kV and 200 kV. In North Dakota, the Commission has six months to act on a Route Permit application. The Wisconsin Commission has six months to approve or reject a certificate of need application and the state's Department of Natural Resources must act within 30 days after the Commission issues a certificate. Some of the remaining states indicated that their decision-making process would require a comparable amount of time. For example, Illinois said that its review process could take between three and eighteen months but is typically completed in twelve months. Iowa explained that if there are objections, eminent domain requests, or issues in dispute, the decision process could take over a year. Pennsylvania said its siting process could take anywhere from six months to three years and noted that the length of the process is positively correlated with the length of the line.

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<sup>12</sup> August 4, 2004 phone communication between Greg Basheda and Jerry Lein, North Dakota Public Service Commission

<sup>13</sup> August 6, 2004 phone communication between Greg Basheda and Tim Trexel, Executive Director, Nebraska Power Review Board

In considering these timelines one must keep in mind that applicants may be required to obtain permits from other state or local agencies before filing at the state commission, as explained above. In such states, the time needed to obtain those approvals therefore must be added to the one year (or longer) hearing process before the lead state permitting agency.

**Regional Considerations/Interstate Lines:** An interesting and perhaps surprising result was that eight of the states, as well as Manitoba, indicated that regional needs could or probably could be taken into consideration in their determination of need. Four of the five remaining states indicated that they were unsure as to whether regional needs could be taken into account. Only Kentucky stated that regional needs could not be taken into consideration in their determination of need.

However, not surprisingly, no state said that its need determination would either be met or waived if a RTO identified the need for a line. Only one state, South Dakota, indicated that it had additional requirements for lines that crossed state or provincial boundaries. Minnesota explained that while it had no additional requirements for interstate lines there would be an attempt to reach agreement with the neighboring state on a crossing point. Manitoba indicated that lines crossing the U.S.-Canadian border required the approval of Canada's National Energy Board.

**New Lines Built in Last Ten Years:** A significant number of new lines have been sited over this period, though most of these are short lines built for local system reinforcement or to interconnect new generators to the grid. Iowa and Ohio have been among the more active states in terms of new line sitings while Michigan stated that it has had no new line sitings in the past ten years. Only three interstate lines were identified, and the application for one of these lines, the Chisago line, a 28 mile, 230-kV line traversing Illinois and Wisconsin, has been withdrawn. The remaining two interstate lines include the Arrowhead-Westin line discussed in Chapter 3 and a 21-mile line connecting a substation in South Dakota to a substation at a power plant in Wyoming.



## CHAPTER 5: PRELIMINARY FINDINGS AND CONCLUSIONS

The survey responses provide a reasonably thorough understanding of each state's current siting process. Of course, any specific transmission proposal, particularly a long line on a new right-of-way, will have its own unique issues that need to be addressed and which may cause the process to veer from its "normal" track. But the survey responses provide a good basis to compare and contrast the siting processes of thirteen states within the MISO footprint.

As noted in Chapter 4, the siting processes tend to be similar in some respects. Most states conduct formal hearings (even if they are not necessarily required) to review permit applications for most new high-voltage lines, particularly lines that are at least 10 miles long. Most states must perform a need determination and an environmental review before approving a new line. In most states, the public utility commission (i.e., the agency that sets rates for jurisdictional utilities) is the agency with authority to issue or deny permits for new lines. Most states apparently also can take regional needs into account in their determination of need.

The survey also revealed some notable differences. There appears to be a wide range on the extent to which the Commission (or lead permitting agency) provides "one-stop" permitting. Ohio's process, with the Siting Board as the lead agency, appears to be the closest to the one-stop approach. Wisconsin has a "two-stop" process in which the two lead state agencies—the PSC and DNR—process and review an application in parallel. Other states, such as Illinois and Michigan, make it plain that they do not have a one-stop approach and that an applicant potentially would need to receive the approval of several other state and local agencies before receiving a permit from the Commission. Indeed, Illinois points out that a utility will typically have secured all necessary permits *prior* to submitting its application to the ICC. Other states, like Iowa, explain that other state agencies become involved under certain circumstances (e.g., bridge crossings). Thus, the extent to which an applicant will have "one-stop" shopping may be dependent, in part, on the route and characteristics of the terrain traversed by the proposed line.

Another notable difference is on timelines and schedules. The respondents are about evenly split between those who have to issue a decision by a time certain and those who do not. This does not necessarily mean that those states without statutory deadlines take longer on average to make a decision than states with statutory deadlines—further research would be needed to answer that question. In addition, statutory deadlines need to be looked at in combination with the one-stop permitting issue because a statutory deadline on the state commission's hearing process is less meaningful if the state requires applicants to receive approvals from several other state and local agencies before applying to the Commission. But having a statutory deadline does make the length of the process somewhat less uncertain for the applicant (and intervenors) and provides somewhat greater assurance that new transmission projects can be approved within a reasonable amount of time.

The survey also showed that, in general, states do not have specific procedures or separate requirements for inter-state lines and have not given high priority to interstate coordination. This is not surprising because, historically, most transmission lines have been planned and built by local, vertically-integrated utilities to

serve local (native load) customers. Although there are exceptions, lines have not been built primarily to foster the trading of power between control areas. However, as indicated by the MISO plan, transmission planning and the kinds of transmission expansion under consideration is changing as a result of the establishment of a large Midwestern wholesale power market. Siting processes may need to adjust or evolve in some manner to reflect transmission planners' greater focus on regional needs.

Nonetheless, it was encouraging to learn that there is some precedent for interstate coordination in the Midwest. Minnesota indicated that it has coordinated with neighboring states (e.g., Wisconsin) in the past on the siting of interstate lines and would expect to do so in the future to establish a mutually-agreed on crossing point. It also was encouraging to learn that a majority of states believe that they can take regional considerations into account in a determination of need. Moreover, only one state said that it could not take regional needs into account; with the remaining states simply unsure whether they could or could not.

Nor has the survey revealed any intractable barriers to the siting of lines primarily designed to foster regional trade. The differences in siting practices that we have noted—different schedules, different degrees of “one-stop” permitting, different scope (need and/or environmental review)—do not appear to create any insurmountable obstacles to the siting of interstate lines. Different procedures and different information requirements create additional costs for the applicant but that presumably would be taken into account by the applicant in its evaluation of the economics of a proposed line.

## Recommendations

The siting of interstate lines in the MISO footprint obviously would be facilitated if all Midwestern states had identical or virtually identical siting processes, particularly one with one-stop permitting and mandatory decision-making deadlines. In addition, the siting of such lines would be greatly facilitated if a MISO endorsement would meet or waive a state's need determination. Neither of these things is going to happen. It is entirely unrealistic to expect states to pass the legislation needed to synchronize their siting process to a “standard” regional process and/or to cede their authority on need determination to a RTO. However, there are some modest, reasonable steps that states, working through the OMS and with industry, could take under existing statutes to facilitate interstate siting. To that effect, we offer six recommendations.

1. **Each state should agree to take regional considerations/MISO plans into account in their determination of need.** Eight states already have indicated that they can do this. OMS should seek to have all of its' member states agree to take regional needs into consideration when considering the need for an interstate line designed, at least in part, to foster regional trade. MISO's endorsement obviously would not cause a state to waive its need requirement, but a state should accept (and welcome) MISO's participation and give appropriate consideration to MISO's findings regarding the need for the proposed transmission facility. States that are unsure of their authority to consider regional needs should seek to have this aspect of their authority clarified.
2. **OMS should consider developing a standard application form for proposed interstate lines.** Once developed this standard application form would then be used by an applicant seeking to site a line that would traverse two or more MISO states. A common application form would, over time, reduce the regulatory cost associated with the permitting of interstate lines.
- 3.

**Have a systematic and ongoing dialogue between OMS and MISO on transmission planning.**

OMS had made it clear that it cannot approve transmission lines because it does not have the legal authority to do so. Lines must be approved by the applicable state agencies. However, OMS can provide input and guidance to the MISO's planning process and "flag" any proposed lines or routes that would be problematic. An ongoing dialogue would prevent MISO from spending too much time evaluating lines that are not likely to be sited and also would prevent state regulators from being "surprised" by an application for an interstate line of which they were totally unaware.

In addition, we believe that OMS should encourage its members to explore their statutory authority to:

4. **Hold joint hearings.** Joint hearings would reduce regulatory costs and establish a common record for all affected states.
5. **Conduct a single joint study.** Conducting a single joint study for proposed interstate lines would, much like joint hearings, reduce regulatory costs and establish a common record for all affected states.
6. **Coordinate schedules and deadlines.** Coordinating schedules and deadlines among all affected states would reduce regulatory uncertainty and regulatory costs.

This by no means is a definitive list of all the actions that OMS could take to help coordinate the siting of interstate lines in the MISO footprint but it would be a very good start.

## **Organization of MISO States Process for Approving Position Statements for FERC and MISO**

### **Goals:**

Approved 10/14/04

- 1) Help states form positions on issues
  - a. Perform thorough analysis of issues
  - b. Test differences and sharpen analysis through discussion of differences in order to gain better understanding of the issues
- 2) Express collective position of states to decision maker
  - a. Build consensus when possible
  - b. Allow parallel presentation of contrasting viewpoints

### **Stage 1 – Working Group Preparation of an Issues Document**

Approved 10/14/04

#### Section 1- Assignment of topics to a Working group, or Working groups:

The OMS Executive Committee assigns all new topics to either an existing working group or to a new working group when needed. When a topic in an active docket has already been assigned to a working group, the Executive Director (ED) is authorized to make follow-up assignments. As time is of the essence in such cases, the ED shall timely make such assignments and shall immediately inform the Executive Committee. The ED may delegate this responsibility as necessary.

#### Section 2 - Review of OMS Work Plan by Executive Committee:

The ED shall include in his/her monthly report, or as necessary, a list of FERC and MISO (or other) actions expected in the coming 60 days that may require Working Group assignment. The Executive Committee shall review the list of action items provided by the ED each month and shall direct the ED to give early warning of possible assignments to OMS working groups. The ED shall inform the Executive Committee, via electronic mail, of the completion of such notifications.

#### Section 3 - Approving the Timetable for Issues Documents:

Providing the greatest possible lead time, the ED, in consultation with the president, will prepare a schedule which outlines a time line of when document issues must come to the OMS Board's attention. The schedule shall include the date that the Board decides issues that will be included in the document, the date that first (and second drafts when possible) will be shared with the membership, and the date that the board will be taking final action on the document.

The Board of Directors will approve the time line of when document issues must come to the OMS Board's attention. Board members are encouraged to note key dates and work to facilitate appropriate action by their Commission so that Board members can vote on the document.

The Board schedule will include a board meeting when Commissioners determine what issues will be included in the document, and give general policy direction to the working groups. Working groups are encouraged to develop "principles" or a short outline that the Board can consider as it advises on policy direction. *Exceptions: Sometimes proceedings that OMS wishes to comment on may have a very short timeline. In these situations, the board may not have time to take these all the above steps. In those situations, the board will determine how it wishes to proceed.*

Section 4 - Preparation of the Issues Document:

Working groups, which are involved in the document, will encourage members to volunteer to write sections of the issues document. Assignments should be reported to the ED of OMS.

Working groups shall promptly set up their own internal schedule to review all sections of an issues document. The working group's internal schedule must coordinate with the Board's approved time line of when document issues must come to the OMS Board's attention. (see above) The ED shall track Working Group progress and, in the event he/she becomes concerned that progress is inadequate, shall first consult with the working group chair. If such consultation fails to resolve the problem, the Executive Committee shall be informed immediately.

*Working groups shall strive for consensus.* When working groups know there are strong differences that should be expressed on a specific issue in the document, comments reflecting two or more positions may be developed by the working groups.

All members of a working group shall have the opportunity to read a "draft" section of an issues document, and offer suggestions and changes at least once prior to submittal to the Executive Director for inclusion in an OMS document. If more than one work group is assigned to work on an issue, each working group must have an opportunity to read a "draft" section and offer suggestions and changes at least once prior to submittal to the Executive Director for inclusion in the OMS document.

When two or more working groups have provided sections of the draft documents, the ED shall assure the internal consistency of the completed document, whether draft or final.

The chair or chairs of the working groups involved shall submit the document to the ED in a timely manner.

The ED will only include information in issues documents that follows the procedure outlined in this section "Preparation of the Issues Document." *Exceptions: There may be situations when short timelines, or other factors, do not allow all steps of this process to take place. The ED should then note, in an attachment to the draft document, which steps have not taken place in preparation of the document.*

**Stage 2– Board Discussion of the Document, Including Proposed Changes**

Approved 12/9/04

Section 1

The Executive Director will submit to the Board, in a timely manner, the final version of a working group issues document. If all of the steps of the process outlined in Stage 1 have not been able to be followed, the ED should then note, in an attachment to the issues document, which steps have not taken place in preparation of the document.

Section 2

Board members or associate members may suggest language changes to the document at the Board meeting, and are encouraged to circulate them to membership, before the meeting, to facilitate good understanding of the language changes proposed. Since the Executive Director has the most up to

date e-mail list, Board members are encouraged to send proposed changes to the ED for circulation, and are also encouraged to “track” all changes to a final working group issues document.

### Section 3

The Board will decide how it wishes to discuss proposed changes to the document. For example, does it wish to proceed page by page or section by section through the document and have the presiding officer ask if there are any questions or suggested changes and discuss and vote upon suggested changes individually? Or does the Board wish to start with a “new” revised version of the document, which includes several changes?

## **Stage 3 - Voting Process**

Approved 8/12/04

### Section 1

All members are encouraged to vote on the final document rather than to abstain. If procedural reasons preclude a member from voting, members are encouraged to state this at the beginning of the discussion of the document.

### Section 2

Members who have to abstain in the vote on the final document are encouraged to share their thoughts in the discussion of the issues, so that OMS members have as complete an understanding of the issues as possible prior to voting.

### Section 3 - Voting on different points of view within a document

If discussion and study of issues documents brings forward more than one point of view on a specific issue *within the document*, board members may be asked to indicate which position they favor. The first priority will be to work to develop consensus language on these specific issues *within the document*. If consensus language can not be adopted, varying positions would be fully explained including the basis for any differences. The document will indicate which states favor specific positions. The goal of the document is to reflect differences in a positive manner in order to provide as much information as possible to the recipient of the final document.

### Section 4

Only members present at the meeting, by proxy or in person, may vote on an issue document. States not present at the meeting may choose to sign on to the final document within a reasonable period of time, but may not propose any changes to the document.

### Section 5

Some members may need time after the board meeting for procedural reasons to confirm their vote. The Board may grant members up to 24 hours to confirm their vote with the Secretary and the Executive Director, depending on the filing schedule. Members who are granted up to 24 hours, may confirm or change their vote within that timeframe but may not propose any changes to the document. The final vote will not be determined until the members who have been granted up to 24 hours have confirmed their vote.

## **Stage 3 - Filing of Comments**

If the final vote reflects that a majority of members wish to file the comments, the comments will be filed.

**2004 Accomplishments of the Organization of MISO States**  
**Report of the President**  
**December 9, 2004**  
**Carmel Indiana**

**States Working Together – *Board members have demonstrated that 14 states and one Canadian province can work together on challenging electric wholesale market issues and can reach consensus on many issues.***

**OMS Principles –**

- Feb – Restoration of Prorated FTR's and Uplifting Potential Revenue Shortages Related to FTR Allocations
- March – Resource Adequacy Principles

**Filings with FERC**

- Feb. – Comments on FERC Order 2003 Large Generator Interconnection Issues
- May – Comments on MISO Market Tariff
- May – Requested FERC to Hold a Technical Conference on the March 24 MISO informational filing on MISO Costs and Estimates for its Future Costs
- June – Comments to the FERC regarding Treatment of Grandfathered Agreements
- July - Comments to the FERC regarding Reactive Power
- September – Comments to August 6, 2004 FERC Order Conditionally Accepting MISO Tariff Sheets to Start Energy Markets and Establishing Settlement Judge Procedures
- October - Brief on Joint Operating Agreements
- October – Comments to the FERC regarding MISO's October 5 Compliance Filing (FTR and Market Readiness Issues)
- November – Comments on the FERC's Notice of Inquiry on Financial Accounting Standards for Regional Transmission

**Filings with MISO**

- Jan – Notification to MISO regarding New Generator Interconnection Pricing Recommendations
- March – Comments to MISO on MISO Market Tariff
- May – Determined not to endorse or approve MISO transmission siting plans such as MTEP - 03
- November – Resolution on Pricing Issues that are Before the MISO RECB Working Group

**Filing with DOE**

- September – Comments on National Interest Electric Transmission Bottlenecks

**Guidelines for work of the Organization**

- June - OMS Consultant Process
- Dec – OMS Process for Approving Position Statements

**Training Opportunities Provided**

- April - Offered 15 scholarships to attend Transmission Siting Workshop at Michigan State University
- November – RTO 101 offered to all State and Manitoba Commissions

**State Siting Survey completed****Financial**

- Audit initiated
- IRS granted 501C4 status
- Budget - stayed well within budget

**OMS office established****Improved state regulatory participation in MISO stakeholder process**

- Advisory committee participation is more effective and better coordinated
- Participation in MISO committees and task forces has increased

**Support to state commissions**

- Developed additional commissioner and staff expertise on wholesale market and transmission issues through work group activity and participation
- Provides more effective communication path for utilities and other market stakeholders to reach state regulators
- Assisted states to make better individual comments when no OMS consensus could be reached



# Update on Market Monitoring of the MISO Electricity Markets

Presented to:

Organization of MISO States

David B. Patton, Ph.D.  
Potomac Economics

December 9, 2004

**POTOMAC  
ECONOMICS**



## The Role of Market Monitoring

- Deregulation is premised on the benefits of replacing regulation with competition to guide generation and transmission usage and investment.
- In deregulating the wholesale markets, FERC has relied on market monitoring and mitigation to address potential market power concerns.
- The monitoring function includes:
  - ✓ Real-time screening and analysis to identify circumstances that require further investigation – we generally receive data every 15 minutes from the RTOs.
  - ✓ Investigations of market operations or conduct identified through the daily screening or complaint processes.
  - ✓ Periodic analysis and reporting;
- The IMM is also primarily responsible for triggering the mitigation measures to prevent market power abuses.



## The Focus of Market Monitoring

- Consistent with the Commission's SMD requirements, the Market Monitor identifies:
  - ✓ Flaws in market rules that create inefficiencies or gaming opportunities;
  - ✓ Efficiency improvements;
  - ✓ Market power abuses;
- Market efficiency and market power generally receive equal monitoring attention – contrary to the assumption of most that market power is the primary focus.



## Independent Market Monitoring

- Independence of the Market Monitor from the RTO is important due in part to its role in monitoring the RTO's operations.
- The Midwest ISO maintains this independence by retaining an Independent Market Monitor ("IMM") to perform the monitoring.
  - ✓ Potomac Economics serves as the Midwest ISO's IMM.
  - ✓ We report to FERC and the MISO Board of Directors.
- We have been monitoring the current markets in the Midwest while preparing to monitor and mitigate the Day 2 markets.



## Status of Market Monitoring

- Continuing to Monitor current wholesale markets and transmission patterns, including:
  - ✓ Tracking trends in transmission reservation requests;
  - ✓ Evaluating TLR patterns in the MISO region; and
  - ✓ Monitoring transmission hoarding through abuses in the request and confirmation process.
- Interdisciplinary team of professionals is in place for monitoring the Day 2 markets, including electrical engineers, economists, other analysts and programmers.
- Monitoring software is being developed for Day 2 that will:
  - ✓ Continuously receive market and operations data,
  - ✓ Conduct screens and perform other analyses, and
  - ✓ Produce automated market monitoring reports.



## Status of Market Mitigation

- We have worked closely with participants and MISO to finalize mitigation measures, including:
  - ✓ Producing a market power analysis supporting the definition of certain mitigation parameters; and
  - ✓ Responding to FERC Orders related to the mitigation measures.
- Production software for Day 2 monitoring and mitigation has been developed and testing is underway.
  - ✓ Mitigation software will run as part of the real-time Day 2 market software on MISO servers.
  - ✓ Data interfaces were developed to query the MISO systems and transfer the data to IMM.



## FERC Rulings on Monitoring and Mitigation

- Approved the proposed mitigation measures implemented within the “Conduct and Impact” framework, although an important component of the mitigation was only approved for one year.
- Required cost-based offers during the first 60 days of the Day 2 markets.
  - ✓ We are currently in the process of collecting the data from participants.
  - ✓ Once received, we will be validating the data and it will be used under the mitigation measures after the first 60 days.
- Rescinded its prior requirement that an automated mitigation procedure be implemented in the Day Ahead Market initially.
- Rejected proposed information sharing provisions.



## Market Monitoring and the States

- The State Commissions and FERC are both primary customers and strategic partners for the market monitor.
- In both of these roles active and open communication and information-sharing is important.
  - ✓ We have worked with the OMS market monitoring and mitigation working group in the development of the MISO tariff.
  - ✓ We are committed to continuing to work with OMS to resolve the remaining tariff issues regarding information sharing and confidentiality.
- Under the Day 2 markets, we will be establishing regular meetings with OMS to share our observations and market monitoring results.
  - ✓ Additional communications, including alerts or notifications, will occur when significant market issues arise.



## **Additional Information Regarding Market Monitoring**



## Role of Market Monitoring in Improving Market Performance

- The market flaws and efficiency improvements to be identified include:
  - ✓ Distorted Market Outcomes. Modeling procedures, system operations, and pricing rules can lead to inefficient prices and outcomes, even when participants behave competitively.
  - ✓ Inefficient Conduct. The market rules may impose unintended costs/risks on participants that cause their conduct to depart from competitive expectations.
  - ✓ Strategic Conduct. Flaws in the market rules can create opportunities for participants to profit by departing from competitive conduct.
- It is sometimes difficult to differentiate inefficient or strategic conduct from market power – however, this is critical since the preferred response is to remedy the market flaw and restore efficient incentives.



## What is Market Power and When is it a Problem?

- Market power is the ability of a firm to profitably raise the price of a product;
  - ✓ Market power exists in nearly every product market, the most of which are not regulated -- only perfectly competitive markets exhibit no market power;
  - ✓ Market power is not always bad -- Market power provides incentives for firms to innovate and is the basis for the patent laws;
- In general, it is far more costly to eliminate all market power than to allow the some market power to exist.
  - ✓ For this reason, perfect competition is not the appropriate standard – economist generally refer to “workable competition” as a competitive standard with an acceptable level of market power.
  - ✓ References to market power by economists and policymakers generally pertain to unacceptable levels of market power.



## Nature of Market Power in Electric Markets

- Market power in electric markets is generally caused by one of two factors:
  - ✓ Transmission constraints that create locational market power.
  - ✓ Peak demand conditions.
- Locational Market Power
  - ✓ Transmission constraints can create isolated geographic markets subject to substantial market power -- must-run units are an extreme example.
  - ✓ Such constraints may occur naturally or by manipulation of transmission facilities or generator dispatch patterns.
  - ✓ *Every operating ISO has some form of real-time mitigation to address this form of market power*



## Nature of Market Power in Electric Markets

- Peak Demand
  - ✓ Market power can exist under peak demand conditions in a market area with many apparent competitors.
  - ✓ A large supplier can become a monopoly over a portion of the demand – when competitors resources are operating at full output with no ability to respond to withholding by the supplier.
  - ✓ Market power is enhanced by the fact that current electric markets lack meaningful demand participation.
- These two conditions are generally transitory -- thus, mitigation to limit abuses of market power during a small number of hours to allow unfettered market-based pricing in all other hours is appropriate.



## What Conduct May Indicate an Attempt to Exercise Market Power?

- Price fluctuations are not the primary indicator.
- The key to differentiating between market power and scarcity is to determine whether resources are being withheld from the market:
  - ✓ Physical withholding – withdrawing or derating an economic unit.
  - ✓ Economic withholding – raising a generator bid so as not to run or raise the clearing price.
- Focusing on withholding from the spot market is the appropriate focus for monitoring since the spot market will discipline the forward markets.
- Other forms of strategic conduct include:
  - ✓ Creating congestion through a) outages of transmission; b) understating transmission ratings/capacity; or c) uneconomic dispatch of generation.
  - ✓ Conduct by utilities or transmission owners to depress prices (e.g., unjustified out-of-merit dispatch).



## Mitigating Market Power

- Market power is the ability to profitably raise the price of a product;
- The first and best form of mitigation is to address the structural characteristics of the market:
  - ✓ Promoting transmission investments to reduce congestion and associated locational market power;
  - ✓ Remove barriers to investment in new generation;
  - ✓ Facilitating demand-side participation in the market; and
  - ✓ Divestiture – reducing concentration of supply ownership.
- Even with the structural mitigation, market power concerns may still justify “behavioral” mitigation.
- Behavior mitigation includes measures that restricts a supplier from exercising market power.



## Market Monitoring Activities

- The monitoring function includes:
  - ✓ Real-time screening and analysis to identify circumstances that require further investigation.
  - ✓ Investigations of market operations or conduct identified through the daily screening or complaint processes.
  - ✓ Periodic analysis and reporting;
- The screening and investigations rely primarily on data from the RTO.
- The market monitor also has the authority to obtain confidential data from participants.



## Real-Time Market Monitoring

- Effective real-time market monitoring requires that data be received and analyzed continuously (we receive data every 15 minutes).
- This form of monitoring will be much more active under the centralized Day 2 markets – software is being developed now.
- The key to differentiating between market power and scarcity is to determine whether resources are being withheld from the market:
  - ✓ Physical withholding – withdrawing or derating an economic unit.
  - ✓ Economic withholding – raising a generator bid so as not to run or raise the clearing price.
- The real-time monitoring also seeks to identify market design flaws that can create inefficient or perverse incentives.



## Analysis of Market Performance

- This periodic analysis would include an annual report filed with the FERC that would contain:
  - ✓ An assessment of the overall performance of the RTO markets;
  - ✓ Recommendations for changes in the market rules or other provisions to improve the efficiency of the market; and
  - ✓ An evaluation of the conduct of market participants and recommendations regarding modifications to the mitigation measures.
- The monitoring process would also include the receipt of complaints from market participants, government agencies, and the RTOs.



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David B. Patton is the President of Potomac Economics, which specializes in economic consulting to clients in the electricity and natural gas industries. Potomac Economics has been engaged by the Midwest ISO to be its Independent Market Monitor, responsible for identifying and remedy flaws in the market design or attempts to exercise market power. He also serves as a Market Advisor for the New York ISO, ISO New England, and ERCOT.

In addition to monitoring electricity markets, Dr. Patton provides strategic advice, analysis and expert testimony on deregulation, transmission pricing, asset valuation, market design, and competitive issues. He has provided expert testimony or analysis in a number of horizontal and vertical utility mergers, antitrust cases, wholesale market design matters, and rate proceedings before the FERC, state regulatory agencies, the Department of Justice, and the Federal Trade Commission.

Prior to consulting, Dr. Patton served in the Office of Economic Policy at the FERC where he advised the Commission on policy issues ranging from transmission pricing and open access to mergers and market power. He has published and spoken on a broad array of topics related to emerging competitive electric markets, including transmission congestion and pricing, risk management and market power.



# Readiness Advisor Briefing For The Organization of MISO States

December 9, 2004

Don McCormick



# Readiness Advisor Report To OMS

## Readiness Advisor Team

### SAIC is:

- Large and Robust
  - Over 43,000 employees, 70% of professional staff hold technical degrees
  - Key global vertical markets: Federal Government, Energy, Telecom, Healthcare, State/Local Government
- Financially Stable
  - \$6.7 billion in revenue
  - Steady growth over 35 years
  - \$2 billion in cash and marketable securities
  - 19.9% compound annual stock price growth over last 20 years
- Global
  - Over 150 offices around the world
  - North America, Latin America, European focus
- Entrepreneurial
  - Employee owned
  - Agile and innovative

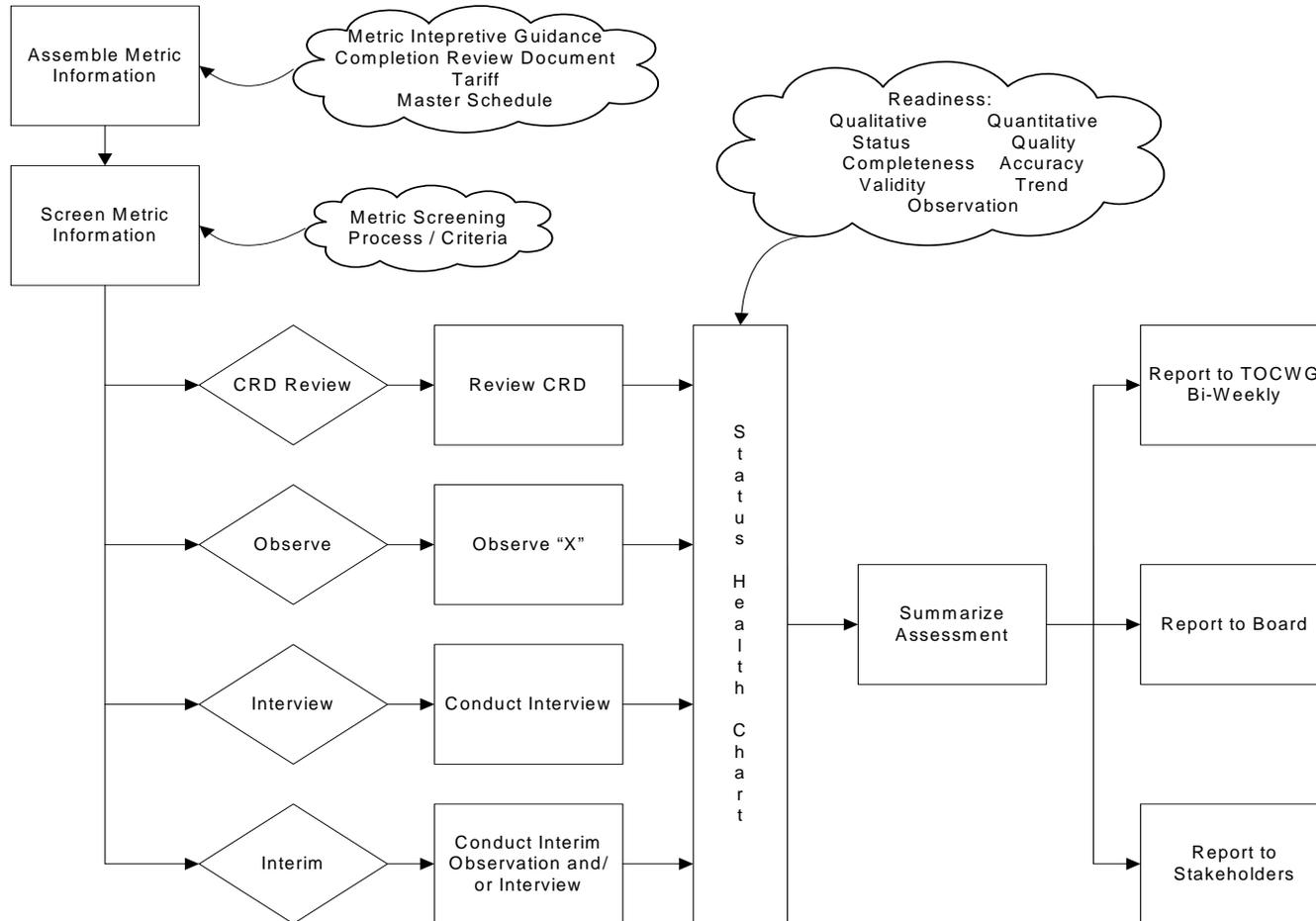
### SAIC Serves:

- 18 of the Top 20 Utilities in the U.S.
  - Entergy, Exelon, TVA, FPL Group, SCE, ConEd, and FirstEnergy
- 4 of the 6 Independent System Operators
  - ISO New England, Midwest ISO, California ISO
- Dozens of Major Utilities Worldwide
  - ScottishPower, British Energy, and Magnox Electric
- Major Energy Service Companies
  - Halliburton and Schlumberger
- 5 of the Top 10 Oil Companies in the World
  - BP, ChevronTexaco, and PDVSA
- Many Public Sector Clients
  - State of New York, State of Wisconsin, Lower Colorado River Authority, and the U.S. Department of Energy

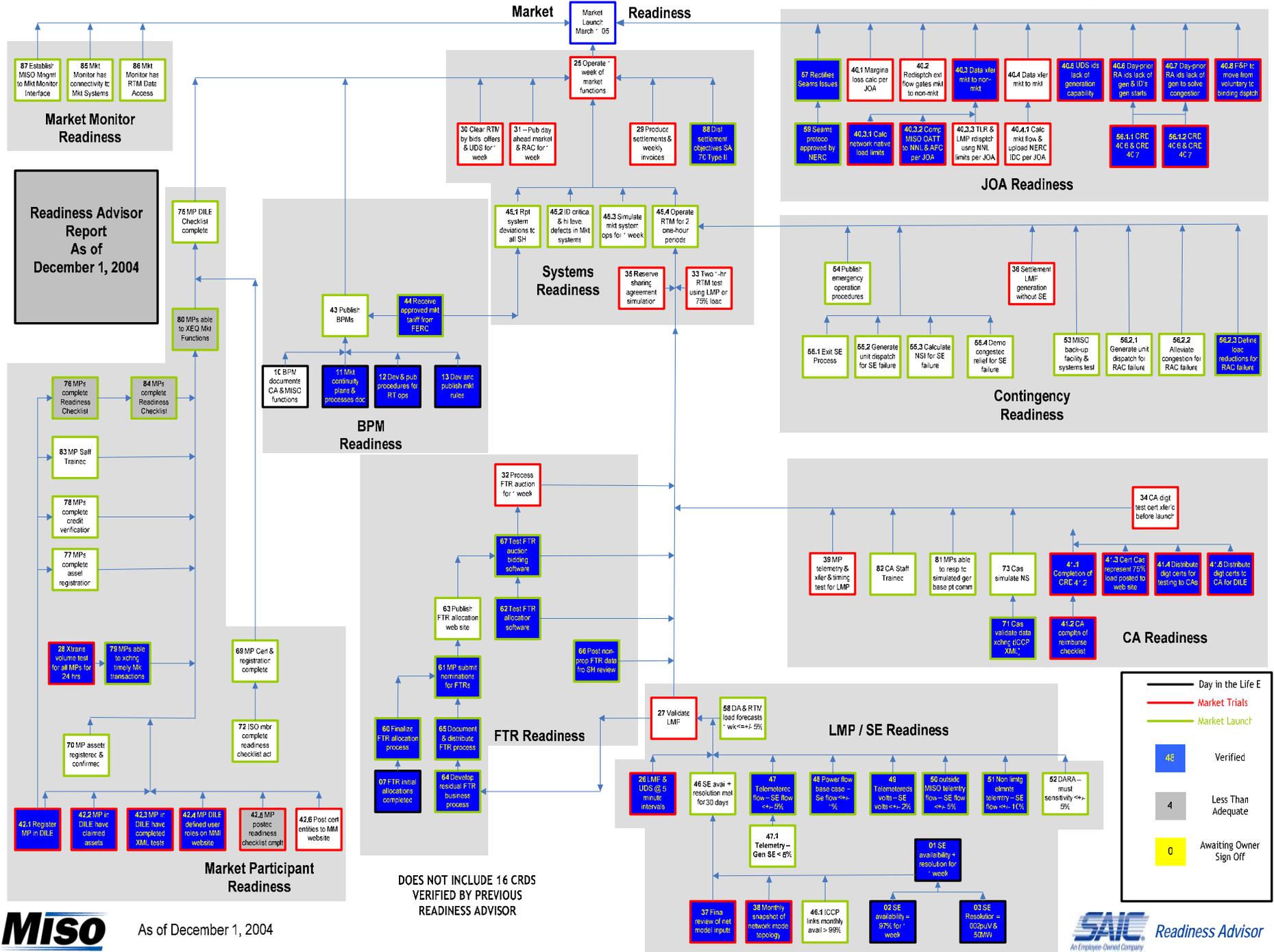


# Readiness Advisor Report To OMS

## Metric Verification Process



# MISO METRIC MAP



As of December 1, 2004





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## Metric / CRD Status as of December 1, 2004

CRD Status Dashboard:



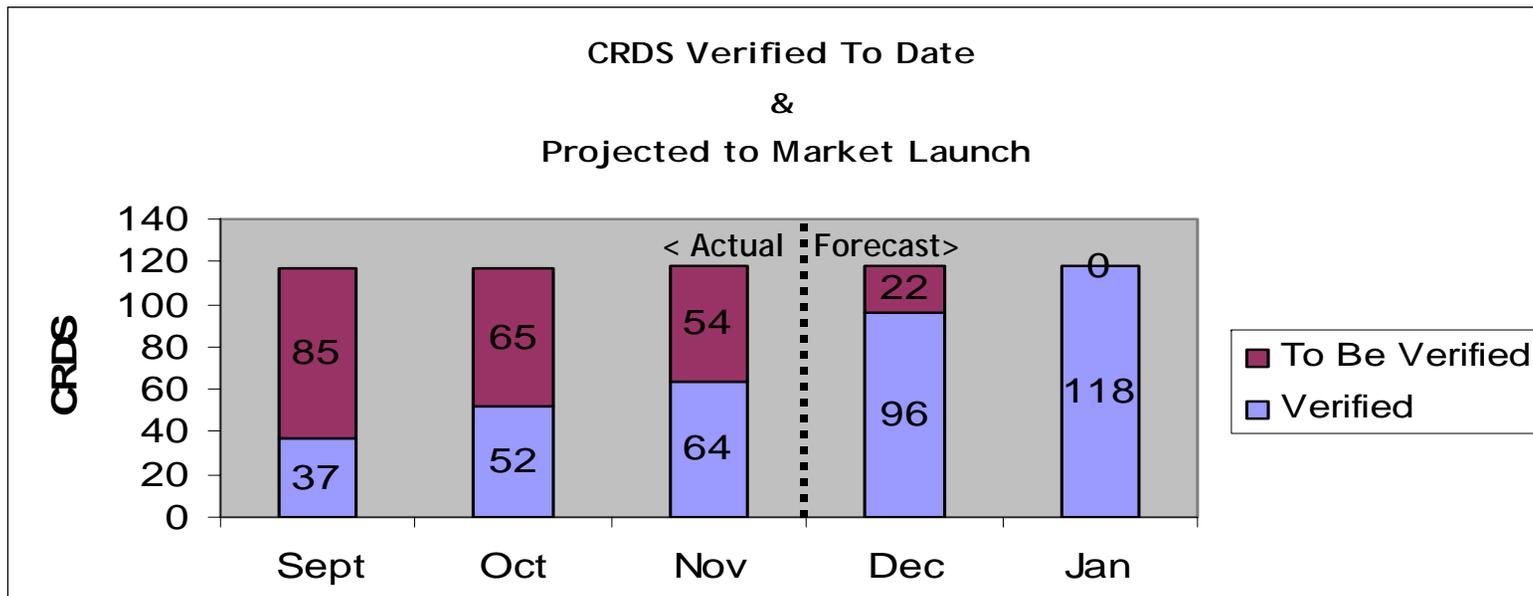
- 64 Verified by RA
- 2 To RA For Final Verification
- 25 To RA For Draft Review
- 27 To Go

Statistics	Metrics	CRDs
Verified this reporting period **	12	12
Total verified by current Readiness Advisor	34	48
Verified by previous Readiness Advisor	16	16
Grand Total verified	50	64
Remaining to be verified	38	54
Currently being verified	2	2
Currently being reviewed as DRAFT	25	25



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## Anticipated Schedule for CRD Verification



There are 16 CRDS currently scheduled for receipt by the RA during the week of 12/27. These, combined with the 6 CRDS scheduled for early and mid-January, will not be RA verified until January 05.



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## Statement of General Readiness

As of this report date, and from the metric perspective, we see no specific obstacles to MISO beginning market operations on the scheduled date of March 1, 2005. This being said, and with the high level of system activity in parallel operations, there are several areas within MISO that require continued stringent program management and monitoring to manage unforeseen risk.



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