

# ***JCM Initiatives Review***

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**Joint Stakeholder Meeting  
Wilmington, DE  
March 3, 2006**



# Joint and Common Market Initiatives

Committed Initiatives	Initial Implementation Cost 3 Year Gross Benefit
Further Action Needed Initiatives	Initial Implementation Cost 3 Year Gross Benefit
No Action Initiatives	Initial Implementation Cost 3 Year Gross Benefit

		2006		2007		2008		
Commercial	1	FTR Market Convergence	Alignment of FTR Timelines and Products (Note: All MISO cost)	\$600,000 \$3,008,657			Cross Border FTRs in the allocations Analyzing	\$4,000,000 \$8,000,000 \$4,374,524
	2	Price Rationalization and Convergence at the Border			PJM implementation of marginal losses (Note: Voted to be removed from PJM tariff)	\$600,000 N/A		
					Alternative Border Pricing Point Calculation	\$200,000 Analyzing		
	3	Reduce Hurdle Rate	Alignment of PJM Operating Reserves and MISO Revenue Sufficiency Guarantee (Note: All MISO cost)	\$600,000 \$3,764,432	Depancaking of PTP ancillary services (Control Area Services, T.O. Control Center Services, Reactive, Black Start)	\$400,000 (\$2,505,757)		
	4	Broader Price Transparency and Common Reporting	Existing MISO & PJM Websites Linking of sites	\$500,000 \$1,952,165	Standard Data Exchange (Web Services) LMPs, Contingencies, Loads, Dispatch Signals, Outages, Emergency Event/Notifications	\$3,000,000 \$2,547,477	Implementation of single MISO & PJM Website (Individual Websites go away)	\$750,000 N/A
			Common Search Capabilities Data Available at Both Sites (LMPs, Tie Flows, Loads)	\$200,000 \$1,125,000			Standard Data Visualization and Reporting Portal Create a single MISO & PJM Data and Report Portal	\$8,500,000 \$4,158,174
			New Joint Website to Host Joint meeting and Events Calendar, Joint Documents and Reports	\$600,000 \$1,125,000				
	5	Increased Market Opportunities	Moving JOUs between markets	\$100,000 \$156,851			Shared Regulation Market	\$8,000,000 Analyzing
	6	Operational Consistency	Common Long Term Transmission Queue	\$200,000 \$1,091,108	Common Time Zones (Note: All PJM cost)	\$5,000,000 Analyzing	Single Resource Adequacy Solution	\$8,000,000 N/A
			MISO Ramp Viewer (under way)	\$150,000 \$913,703	Central location to view both ramp viewers	\$100,000 \$1,527,405	Common Ramp Portal	\$750,000 \$2,091,108
			Alignment of OASIS Business Practices	\$500,000 \$1,365,867	Coordinated OASIS	\$1,200,000 Analyzing		
			Single OASIS	\$8,000,000 \$6,168,760	Reserve Sharing	\$8,000,000 N/A		
			Common Treatment of Dynamic Schedules/Pseudo-Ties	\$200,000 \$382,934				
			Year 1 - Rule Alignment & Market Portal Design	\$15,000,000 \$5,000,000	Year 2 - Initial Market Portal Implementation	\$40,000,000 \$27,000,000	Year 3-5 - Implementation of Single Market	\$50,000,000 \$34,700,000
7	Single Market							
Reliability	1	Emergency Energy Agreement	Alignment of Agreements and Practices	\$100,000 Reliability				
	2	Black Start and Restoration			Alignment of Agreements and Practices	\$500,000 \$936,000		
Plan	1	Joint Expansion Planning and Common Deliverability Studies	Alignment of Agreements and Practices	\$120,000 Reliability				
Total		Costs	2006	2007		2008	\$750,000 \$2,091,108	
		3-Year Gross Benefit			\$1,200,000 \$2,463,405			

## JCM Overarching Objectives

A group of initiatives that are intended to result in achievement of the following objectives have been identified in a series of stakeholder sessions:

- *Provide the highest level of inter-regional reliability.*
- *Deliver the lowest cost energy and ancillary services to load across the combined MISO and PJM regions.*
- *Plan, build and operate the combined MISO and PJM transmission facilities for maximum joint benefit across the region.*

Initiatives have been, or will be, assessed in a cost / benefit analysis and the results presented back to stakeholders for implementation decisions.

# JCM Candidate Evaluation Process

## 1) The RTOs employed an open and inclusive, stakeholder process to develop candidate JCM initiatives – joint meetings were held at the following times and locations:

June 2, 2005	Wilmington, Delaware
June 30, 2005	Carmel, Indiana
July 27, 2005	Wilmington, Delaware
August 25, 2005	Carmel, Indiana
September 21, 2005	Wilmington, Delaware

o In addition, separate stakeholder meetings were held by both PJM and the Midwest ISO.

## 2) The RTOs performed a cost benefit analysis on candidate JCM initiatives that included:

- o The forecasted costs to implement each initiative (spread across an assumed three year cost recovery period).
- o Any on-going operating costs associated with implementation of the initiative (hardware and software licensing and/or maintenance fees).
- o Market efficiency gains representing the overall market savings (estimated reduction in production cost used as a proxy) associated with the implementation of each initiative.
- o Market participant savings representing estimated cost savings to market participant organizations associated with the implementation of each initiative. Market participant cost savings were split between reductions in staff time required to perform specific tasks and reductions in training costs associated with learning to use multiple processes, procedures and technologies.

## 3) The RTOs committed to perform additional cost benefit analyses on those initiatives dependent on Committed initiatives and those initiatives lacking ample time to adequately evaluate prior to the October 31, 2005 filing.

## 4) The RTOs committed to hold quarterly JCM stakeholder meetings to update participants on all efforts.

**Committed Initiatives:** PJM and Midwest ISO have committed to initiating the stakeholder processes and other tasks necessary for implementing these initiative.

## JCM 2006 Initiatives

### 1) Alignment of FTR Timelines and Products

- Align Midwest ISO FTR products with PJM FTR products.
- Align Midwest ISO FTR allocation and auction timeframes with PJM FTR allocation and auction timeframes.

### 2) PJM Implementation of Marginal Losses

- To achieve a greater level of price convergence and rationalization at the RTO border.
- **Note: PJM stakeholders voted to remove the Marginal Losses requirement from the PJM tariff.**

### 3) Alignment of Operating Reserves/Revenue Sufficiency Guarantee Products

- Allocate Operating Reserves (OR) and Revenue Sufficiency Guarantee (RSG) charges similarly to reduce the hourly volatility of these charges in the Midwest ISO market.

### 4) Website Common Search Capabilities

- Implement one search engine that searches both the PJM and Midwest ISO public websites.

### 5) Existing MISO Price Transparency Portal and PJM eData Websites (Linking of Sites)

- Link the existing PJM eData and Midwest ISO Price Transparency Portal sites together.
- Exchange a subset of data (LMP, Instantaneous Load, Tie Flows) and make available for display and download.

### 6) New Joint Website

- Create one new joint website that hosts PJM and Midwest ISO common information (e.g. joint meeting and event calendars, joint documents and reports).

### 7) Moving Joint Owned Units Between Markets

- Allow selection of PJM or Midwest ISO Markets to sell output of certain Joint Owned Units.

**Committed Initiatives:** PJM and Midwest ISO have committed to initiating the stakeholder processes and other tasks necessary for implementing these initiatives.

## JCM 2006 Initiatives (cont.)

### 8) Common Long Term Transmission Queue

- Create a common long-term transmission queue that facilitates easier scheduling of annual, cross-border firm transmission service requests.

### 9) MISO Ramp Viewer

- Provide the MISO Market Participants with the ability to view ramp.

### 10) Alignment of OASIS Business Practices

- Align timing requirements between PJM and the Midwest ISO associated with transmission service requests.

### 11) Common Treatment of Dynamic Schedules/Pseudo Ties

- In general, participants desire the flexibility to allow their generating units to participate directly in the RTO of their primary interest, even if those units are not physically located in that RTO. Providing this flexibility means implementing dynamic schedules the same way in each RTO.

### 12) Emergency Energy Agreement (Alignment of Agreements and Practices)

- Former Control Area Operators of PJM and Midwest ISO had emergency energy agreements in place to facilitate the sale of energy during emergency conditions. While these agreements existed prior to RTO development, Midwest ISO and PJM may not be a legal party to the agreement. Midwest ISO and PJM would need to replace these existing agreements with emergency energy agreements between the RTOs.

### 13) Joint Expansion Planning and Common Deliverability Studies

- Regional expansion plans will include coordinated planning to include evaluation of impacts on other RTO facilities and required facility upgrades. Generation deliverability studies will include common criteria and study to obtain results, which demonstrate if units are deliverable in both RTOs and if they are not deliverable in both RTOs what system constraints limit the deliverability.

**Further Action Needed Initiatives:** Certain initiatives have been identified as potential additional elements to the joint and common market; however, further evaluation of these initiatives is required to determine if they will be recommended for implementation.

## JCM 2006 Initiatives (cont.)

### 1) Alternative Border Pricing Cost-Benefit Analysis

- Perform a cost-benefit analysis to determine the benefits MISO participants would receive from allowing participants to submit transactions based on physical flow effects on localized transactions.

### 2) Common Time Zones – PJM Move to EST

- Perform a cost-benefit analysis to determine the benefits MISO and PJM participants would receive from implementing the use of a common time zone across the entire footprint. MISO's systems are currently on EST. PJM currently operates on EPT. The recommendation would be to move PJM's system to EST to align with the MISO system.

### 3) Coordinated OASIS Cost-Benefit Analysis

- Perform a a cost-benefit analysis to determine the benefits MISO participants would receive from linking the two OASIS nodes, so there is a single logon (to two individual nodes)

### 4) Single Market Production Cost Study

- Perform a production cost study to determine the benefits to the participants of MISO and PJM becoming a single market.



# Committed Initiatives

# FTR Alignment

## Milestone Summary

G	Analyze Product
G	Stakeholder Review
G	Develop System Requirements
G	Modify Applications
G	Conduct Testing
G	Implement Changes

**G** Overall Status

## JCM Leads

- MISO: A. Adams
- PJM: S. Bresler

## Legend

C	Completed
G	On Target – No Issues
Y	Need to watch – Some Issues
R	In Jeopardy – Significant Issues

## KEY ACCOMPLISHMENTS

- MISO Market Subcommittee voted to approve general direction including use of PJM ARR/FTR process as a starting point to develop new allocation process for Midwest ISO.
- Transmission Rights Task Force has met twice to develop proposal for MISO Market Subcommittee. PJM has participated in MISO TRTF to ensure close coordination.

## UPCOMING ACTIVITIES

- Monthly Transmission Rights Task Force Meetings.

## ISSUES & CONCERNS

- Alignment of timelines important for cross border products.
- Differences in instrument terms may make alignment difficult (e.g., seasonal peak and off-peak for allocation).

# PJM Marginal Losses

## Milestone Summary

C	Stakeholder Review
G	Complete FERC Filings
R	Develop System Requirements
R	Modify Applications
R	Conduct Testing
R	Implement Changes

**R** Overall Status

## KEY ACCOMPLISHMENTS

- PJM met with stakeholders to review.
- PJM stakeholders voted to remove requirement to implement marginal losses from the PJM Tariff and Operating Agreement.
- Reviewed PJM Stakeholder vote with JCM Executive Team.

## UPCOMING ACTIVITIES

- Prepare required agreement language for PJM stakeholder review and approval and eventual filing with FERC.

## JCM Leads

- MISO: A. Adams
- PJM: S. Bresler

## Legend

C	Completed
G	On Target – No Issues
Y	Need to watch – Some Issues
R	In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- Uncertainty of FERC response to PJM filing.

# OR & RSG Alignment

## Milestone Summary

G	Analyze Product
G	Stakeholder Review
G	Develop System Requirements
G	Modify Applications
G	Conduct Testing
G	Implement Changes

**G** Overall Status

## KEY ACCOMPLISHMENTS

- MISO RSG Task Force has begun consideration of charge distribution alternatives.
- PJM Reserve Markets Working Group also considering OR allocation changes that may have beneficial impacts for PJM/MISO transactions.

## UPCOMING ACTIVITIES

- Continued monthly RSG Task Force meetings.
- Continued PJM Stakeholder meetings.

## JCM Leads

- MISO: A. Adams
- PJM: S. Bresler

## Legend

C	Completed
G	On Target – No Issues
Y	Need to watch – Some Issues
R	In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- Clearly different camps in terms of causation versus predictability (unclear that we will get to common rules)
- PJM is also considering changes (moving targets for both organizations) making close coordination imperative.

# Price Transparency – Common Search

## Milestone Summary

- G** Evaluate Search Engine
- G** Modify System
- G** Conduct Testing
- G** Implement Common Search Engine

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Exploring use of Google search engine for the joint site (PJM has had a positive experience using it).

## UPCOMING ACTIVITIES

- Google search engine technical feasibility analysis (scanning PJM and MISO document repositories).

## JCM Leads

- MISO: D. Taylor
- PJM: C. Hendrzak

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.

# Price Transparency – Link PTP & eData

## Milestone Summary

- G** Identify Data for Display / Download
- G** Evaluate Technical Alternatives
- G** Modify System
- G** Conduct Testing
- G** Implement Changes to Link eData & PTP

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Formulated vision for data display.

## UPCOMING ACTIVITIES

- Conceptual design development.
- Evaluation of technical implementation alternatives.

## JCM Leads

- MISO: D. Taylor
- PJM: C. Hendrzak

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- Technical feasibility of implementing vision and associated costs.

# Price Transparency – New Joint Website

## Milestone Summary

- G** Define Joint Website Requirements
- G** Modify System
- G** Conduct Testing
- G** Implement Joint Website Enhancements

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Draft of vision for Joint Website created.

## UPCOMING ACTIVITIES

- Evaluation of Events Calendar PJM is presently utilizing (use on joint site).
- Evaluation of site hosting alternatives.

## JCM Leads

- MISO: D. Taylor
- PJM: C. Hendrzak

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.

# Coordination of Broader Price Transparency Initiatives

## Overall Joint Website Enhancement Objectives

- To enhance PJM's & MISO's **relationship with participants** and other stakeholders by providing a trusted, robust, consolidated source for the RTO's joint efforts, documentation and information.
- To enable PJM & MISO to satisfy its **obligations of publishing joint public information** about market results.
- Not transactional, does not encompass the market participant interface or similar PJM and MISO sites for entry of bids, offers or related information.
- To **establish the technical foundation** and user interface framework upon which the joint website can continue to be expanded.

# Coordination of Broader Price Transparency Initiatives

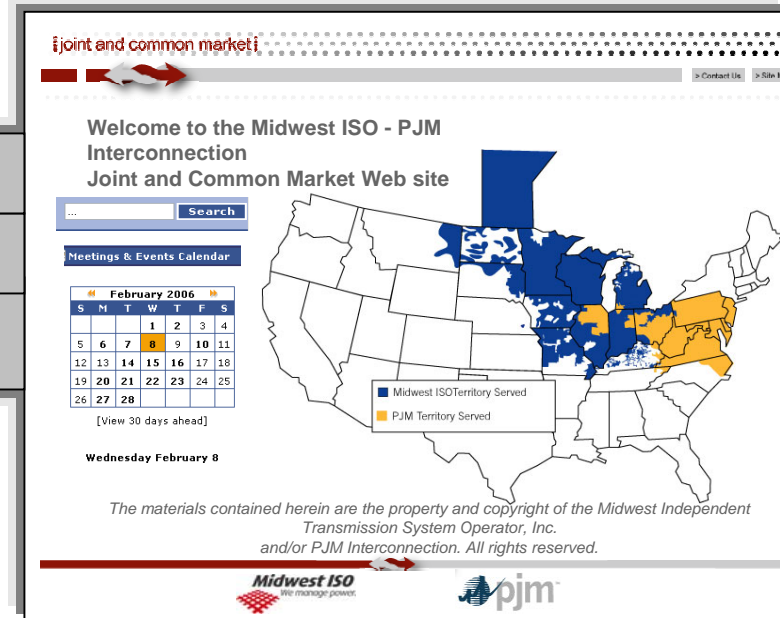
## Enhancement of Joint Website

### Corporate Information

Joint Events Calendar

Joint Documents

Joint Document Search Capability



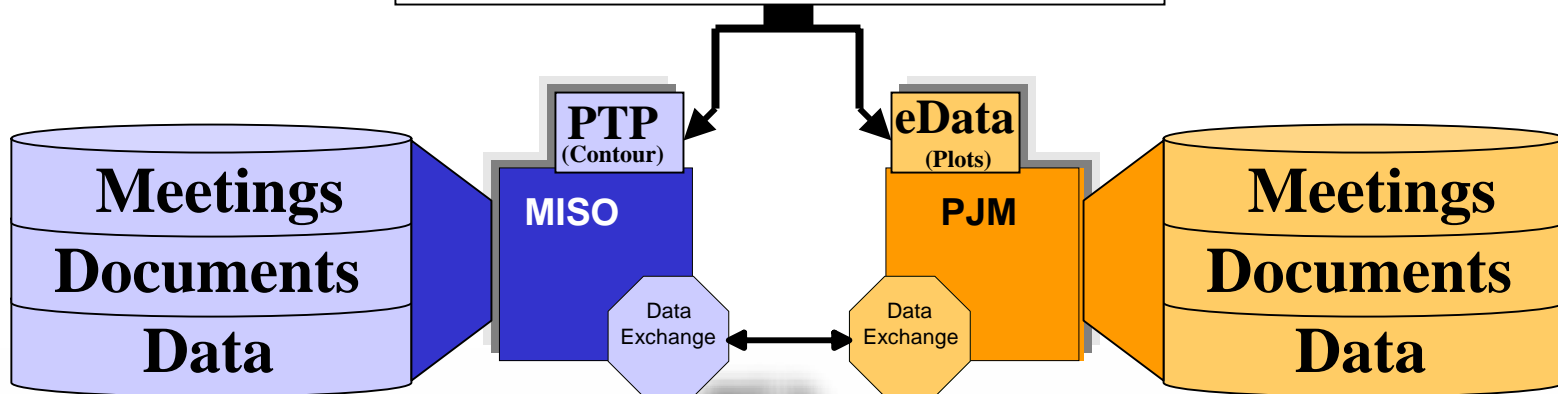
### Real-Time Information

Joint Data Display Capability

LMPs

Loads

Net Scheduled Interchange



# Coordination of Broader Price Transparency Initiatives

## Release 1: Operational Information

<b>Group - Category</b>	<b>Notes</b>	<b>Update Frequency</b>
<b>LMPs by pnode</b>	<ul style="list-style-type: none"><li>▶ Prices for ~300 preselected pnodes</li><li>▶ Plotting of RT, DA and Integrated LMPs for preselected pnodes</li></ul>	5 minutes and Hourly
<b>LMP Contour Map</b>	<ul style="list-style-type: none"><li>▶ RT LMP only covering PJM and MISO</li></ul>	5 minutes
<b>Total Load Graph</b>	<ul style="list-style-type: none"><li>▶ Graph over time</li><li>▶ DA projected, RT actual</li><li>▶ Text of current load</li></ul>	5 minutes (RT) and Daily (DA)
<b>Net Scheduled Interchange</b>	<ul style="list-style-type: none"><li>▶ Plotting of Tie Flows and Schedules</li></ul>	5 minutes

# MISO Ramp Viewer

## Milestone Summary

- G** Build MISO Ramp Viewer
- G** Test MISO Ramp Viewer
- G** Implement MISO Ramp Viewer

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Updated project plan – Implementation date set for May 1, 2006.
- Infrastructure hardware has been ordered.
- Additional resources have been assigned to project.

## UPCOMING ACTIVITIES

- Build out of production environment.
- Complete development effort.

## JCM Leads

- MISO: T. Mallinger
- PJM: M. Bryson

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.

# Common Long Term Transmission Queue

## Milestone Summary

- G** Identify Differences Between MISO & PJM
- G** Develop Common LT Trans. Queue Process
- G** Develop System Requirements
- G** Modify Applications
- G** Conduct Testing
- G** Implement Changes

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Identified business rules differences.
- Completed first draft of business process.
- RTOs met to develop roadmap for future activities.

## UPCOMING ACTIVITIES

- Develop second draft of business process for stakeholder comments.
- Develop process for a single transmission service reservation evaluation.

## JCM Leads

- MISO: T. Mallinger
- PJM: M. Bryson

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- PJM is also updating internal processes.

# Alignment of OASIS Business Practices

## Milestone Summary

G	Analyze MISO & PJM Business Practices
G	Stakeholder Review
G	Develop System Requirements
G	Modify Applications
G	Conduct Testing
G	Implement Changes

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Initiative started ahead of schedule.
- Initiative is being coordinated with Coordinate OASIS initiative cost benefit analysis.
- Project team formalized.
- Completed high-level gap analysis.
- Completed conceptual design.

## UPCOMING ACTIVITIES

- Complete detail business rule gap analysis.
- Provide business rule changes to stakeholder for comments.

## JCM Leads

- MISO: T. Mallinger
- PJM: M. Bryson

## Legend

C	Completed
G	On Target – No Issues
Y	Need to watch – Some Issues
R	In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.

# Joint Planning & Common Deliverability Studies

## Milestone Summary

- G** Complete Study
- G** Review Study Results with Stakeholders
- G** Obtain Stakeholder Approval to Proceed
- G** Modify Policies, Procedures, Applications
- G** Implement Changes to/ New Policies Procedures, Applications

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Development of scope document.
- IPSAC stakeholder meeting for input to scope.
- Development of 2011 joint planning base system model.

## UPCOMING ACTIVITIES

- Complete joint generator deliverability, n-2 and common market analysis.
- Joint Stakeholder meeting scheduled for March 8.

## JCM Leads

- MISO: T. Mallinger
- PJM: M. Bryson

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.

# Common Treatment Dynamic Sched./Pseudo-Ties

## Milestone Summary

<b>C</b>	Develop System Requirements
<b>G</b>	Stakeholder Review
<b>G</b>	Modify Applications
<b>G</b>	Conduct Testing
<b>G</b>	Implement Changes

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Submitted requirements to AREVA to perform estimate.

## UPCOMING ACTIVITIES

- AREVA to provide estimates and proposed timeframe for software development.

## JCM Leads

- MISO: T. Mallinger
- PJM: M. Bryson

## Legend

<b>C</b>	Completed
<b>G</b>	On Target – No Issues
<b>Y</b>	Need to watch – Some Issues
<b>R</b>	In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- Possible delay of MISO implementation due to availability of resources.

# Moving JOUs Between Markets

## Milestone Summary

- C** Define Moving JOU Requirements
- G** Modify System
- G** Conduct Testing
- G** Implement Moving JOUs Between Markets

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Testing to move units, with existing pseudo ties, between markets is continuing.
- Preliminary discussion of scope for next step in development of this initiative.
- Model updates – modeling of the units to allow movement via a pseudo tie.

## UPCOMING ACTIVITIES

- Ongoing testing after model update (MISO).
- PJM and MISO owners to discuss final implementation date after testing is completed.

## JCM Leads

- MISO: A. Adams
- PJM: M. Bryson

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.

# Emergency Energy – Align Agreements & Practices

## Milestone Summary

C	Identify Agreements to be Replaced
G	Doc. Legal, Regulatory, Corp. Structure Issues
G	Conduct Stakeholder Reviews
G	Make Appropriate Regulatory Filings
G	Draft New Emergency Energy Agreements
G	Implement New Emergency Energy Agreements

**G** Overall Status

## JCM Leads

- MISO: A. Adams
- PJM: M. Bryson

## Legend

C	Completed
G	On Target – No Issues
Y	Need to watch – Some Issues
R	In Jeopardy – Significant Issues

## KEY ACCOMPLISHMENTS

- Draft Emergency Energy Agreement has been developed based on existing agreements between PJM and NYISO, IESO.
- Temporary Operating Guide has been developed between IESO and MISO which can be adapted for temporary use with PJM if desired. Under this agreement Emergency Energy is facilitated between MISO generators individually, and a neighboring market.

## UPCOMING ACTIVITIES

- MISO tariff language to address cost allocation (when purchasing Emergency Energy) and revenue distribution (when selling Emergency Energy) to be reviewed with stakeholders.
- FERC filing to obtain approval of tariff changes.

## ISSUES & CONCERNS

- RTOs cannot take title to energy, so agreements must state RTOs will buy on behalf of market participants.
- Outcome must accommodate differences in resource adequacy constructs.



# Further Analysis Initiatives

# Alt. Border Pricing Point Calculation

## Milestone Summary

- G** Perform Analysis
- G** Identify Changes
- G** Stakeholder Review
- G** Decision Point on Cost Benefit Analysis

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Initial discussion between RTOs staff has occurred.
- Initiative has started ahead of schedule.

## UPCOMING ACTIVITIES

- Detailed proposal to be drafted and submitted for stakeholder comments.

## JCM Leads

- MISO: A. Adams
- PJM: S. Bresler

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- Need to formalize methodology to be used in analysis and identify resources to be used.



# Coordinated OASIS

## Milestone Summary

- G** Perform Analysis
- G** Stakeholder Review
- G** Decision Point on Cost Benefit Analysis

**G** Overall Status

## KEY ACCOMPLISHMENTS

- RTOs met to discuss issues.
- Initiative is being coordinated with Alignment of OASIS Business Practices.
- Project team formalized.
- Completed high-level gap analysis.
- Completed conceptual design.

## UPCOMING ACTIVITIES

- Complete detail business rule gap analysis.
- Provide business rule changes to stakeholder for comments.

## JCM Leads

- MISO: T. Mallinger
- PJM: M. Bryson

## Legend

- C** Completed
- G** On Target – No Issues
- Y** Need to watch – Some Issues
- R** In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- No issues at this time.



# Single Economic Dispatch Production Cost Study

# Single Market Production Cost Study

## Milestone Summary

C	Complete Study Approach
G	Perform Analysis
G	Produce Final Report
G	Decision Point on Cost Study

**G** Overall Status

## KEY ACCOMPLISHMENTS

- RTO staff met to develop joint process for performing required analysis.
- Produced schedule for meeting an end of March deadline.
- Preliminary benchmarking of PJM and MISO models accomplished during February.

## UPCOMING ACTIVITIES

- Complete PJM and MISO model benchmarking.
- Complete development of required 2006 models.
- Produce preliminary results during first week in March.

## JCM Leads

- MISO: A. Adams
- PJM: S. Bresler

## Legend

C	Completed
G	On Target – No Issues
Y	Need to watch – Some Issues
R	In Jeopardy – Significant Issues

## ISSUES & CONCERNS

- PJM and MISO are utilizing two different simulation applications to perform this analysis, which should allow for a more robust analysis. However, significant model benchmarking is required.

# Study Description Overview

- ▶ Study conducted using commercially available production cost/power flow analysis tools.
- ▶ Annual simulation using security-constrained commitment and economic dispatch algorithm with full transmission modeling.
- ▶ Base Case: each market area separated by inter-market hurdle rates, re-dispatch for market-to-market constraints possible.
- ▶ Change Case: Remove hurdle rates between MISO and PJM.
- ▶ Single Market Benefit: Reduction in production cost between Base Case and Change Case.

# Study Description Overview

- ▶ MISO/PJM coordinated effort.
- ▶ MISO using New Energy's PROMOD, PJM using GE-MAPS.
- ▶ Exchange of publicly available base case input assumptions to ensure data consistency.
- ▶ Review of tie-flow data to identify market to market economy interchange.
- ▶ Model development continues.
- ▶ Final results expected by the end of March.



# Additional Potential JCM Initiatives



# Next Steps

# Joint Stakeholder Meetings

## Future Meetings

- June 2, 2006 – Carmel, IN
- September 8, 2006 – Wilmington DE
- December 1, 2006 – Carmel, IN