

# ***JCM Initiatives Review***



**Joint Stakeholder Meeting  
Wilmington, DE  
September 8, 2006**



# Joint and Common Market Initiatives

Complete	Cost 3 Year Gross Benefit	New Evaluation	Cost N/A
Implementation	Cost 3 Year Gross Benefit	Not Recommended	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			Cross Border FTRs in the allocations	\$4,000,000 Analyzing	
			\$3,008,657			Cross border FTRs in auctions	\$8,000,000 \$4,374,524		
	2	Price Rationalization and Convergence at the Border			PJM implementation of marginal losses	\$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 Data Available at Both Sites (LMPs, Tie Flows, Loads)	\$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	\$200,000				Standard Data Visualization and Reporting Portal	\$8,500,000
			Enhanced Joint Website to Host Joint meeting and Events Calendar, Joint Documents and	\$600,000				Create a single MISO & PJM Data and Report Portal	\$4,158,174
				\$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 N/A	Single Resource Adequacy Solution	\$8,000,000 N/A	
		MISO Ramp Viewer	\$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		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		Market to Market Relaxation of Constraints	\$80,000 Analyzing			
		Investigation of Loop Flow Across the Combined Footprint	Analyzing Analyzing		Dynamic Dispatchable Transactions and Schedules	Analyzing Analyzing			
		Market Flow Threshold and Netting in the IDC	Analyzing Analyzing						
7	Single Market	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	
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	Joint Expansion Planning (Coordinated System Plan)	\$20,000 Reliability					
	2		Common Deliverability Studies	\$100,000 Reliability					
	3		Cross Border Cost Sharing of Expansions	Reliability					
Total		Costs 3-Year Gross Benefit	2006 \$3,870,000 \$14,885,717	2007 \$1,200,000 \$2,463,405	2008 \$750,000 \$2,091,108				



## 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 Midwest ISO and PJM regions.*
- *Plan, build and operate the combined Midwest ISO 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.

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

## JCM 2006/2007 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 this is a 2007 initiative.*

### 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 (Complete)

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

### 5) Existing Midwest ISO 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) Enhanced 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).

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



## JCM 2006/2007 Initiatives (cont.)

### 7) Moving Joint Owned Units Between Markets (Complete)

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

### 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) Midwest ISO Ramp Viewer (Complete)

- Provide the Midwest ISO Market Participants with the ability to view ramp.

### 10) Central Location to View Both Ramp Viewers

- Develop a central location where both Midwest ISO and PJM ramp viewers can be accessed

Note: This is a 2007 initiative.

### 11) Alignment of OASIS Business Practices

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

### 12) 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.

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



## JCM 2006/2007 Initiatives (cont.)

### 13) Black Start and Restoration (Align Agreements and Practices)

- Coordinate system restoration plans and jointly evaluate critical black start resources.

Note: This is a 2007 initiative.

### 14) 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.

### 15) Joint Expansion Planning (Coordinated System Plan)

- Regional expansion plans will include coordinated planning to include evaluation of impacts on other RTO facilities and required facility upgrades.

### 16) Common Deliverability Studies

- 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.

### 17) Cross Border Cost Sharing of Expansions

- Cross-border allocation of cost sharing for reliability and for economic expansions.

**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 2006/2007 Initiatives (cont.)

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

- Perform a cost-benefit analysis to determine the benefits Midwest ISO 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 (Complete)

- Perform a cost-benefit analysis to determine the benefits Midwest ISO and PJM participants would receive from implementing the use of a common time zone across the entire footprint. Midwest ISO'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 Midwest ISO system.

### 3) Coordinated OASIS Cost-Benefit Analysis

- Perform a a cost-benefit analysis to determine the benefits Midwest ISO 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 (Complete)

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

### 5) Dynamic Dispatchable Transactions/Dynamic Dispatchable Schedules (New)

- Study to determine the viability of implementing dynamic dispatchable transactions or dynamic dispatchable schedules to further drive the convergence of proxy bus prices.

**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 2006/2007 Initiatives (cont.)

### 6) Market to Market Relaxation of Constraints (New)

- Further the convergence of shadow prices (under certain conditions) calculated on Reciprocal Coordinated Flowgates.

### 7) Market Flow Threshold and Netting in the IDC (New)

- Develop recommendation for the ORS on adjusting the market flow threshold and netting in the IDC to address concerns with NERC TLR standard.

### 8) Investigation of Loop Flow Across the Combined Footprint (New)

- Analysis of loop flow impacts on the Midwest ISO and PJM Markets and Operations.

### 9) Cross Border FTRs in the Allocations

- Align the process by which FTRs/ARRs are allocated in the two markets.

*Note: This analysis will be conducted in 2007.*

### 10) Shared Regulation Market

- A larger market operated over both RTO footprints would result in more efficient procurement of the Regulation service by the RTOs.

*Note: This analysis will be conducted in 2007.*



# Committed Initiatives

# FTR Alignment

## Milestone Summary

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

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Completed product analysis.
- Midwest ISO stakeholders have approved alignment of some aspects of FTR products, i.e., adoption of ARR for annual allocation and continuance of annual and monthly FTR auctions.
- Midwest ISO Transmission Rights Task Force (TRTF) has formally approved changes for consideration by the Market Subcommittee.

## UPCOMING ACTIVITIES

- September 12, 2006, Market Subcommittee vote on TRTF proposal.
- Development of implementation timeline.
- Continued TRTF meetings to evaluate PJM Long-Term FTR proposal and develop Midwest ISO proposal.

## JCM Leads

- Midwest ISO: R. Doying
- PJM: S. Bresler

## 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

- Midwest ISO stakeholders have voted to maintain seasonal peak and off-peak nature of products.
- Further product and timeline alignment will require additional stakeholder efforts. Midwest ISO stakeholders recommended a new joint-stakeholder initiative after completion of current Midwest ISO effort.

# OR & RSG Alignment

## Milestone Summary

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

**R** Overall Status

## KEY ACCOMPLISHMENTS

- FERC issued tolling order granting request for rehearing and allowed the Commission more time to consider whether to modify the order.
- Midwest ISO cancelled July RSG Task Force Meeting pending further action by FERC.
- Significant reductions in PJM OR and the Midwest IOS RSG charges have occurred since in November 2005.

## UPCOMING ACTIVITIES

- Continued RSG Task Force meetings.
- Continued PJM Stakeholder meetings.
- Planned joint meeting of RSG Task Force and Reserves Market Working Group.

## JCM Leads

- Midwest ISO: R. Doying
- PJM: S. Bresler

## Legend

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

## ISSUES & CONCERNS

- FERC Order re: Midwest ISO RSG filing may impact timeline for RSG Task Force and subsequent filing of changes to EMT.
- 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. PJM stakeholders have not been able to reach consensus on changes considered to date within the PJM process.

# PJM Marginal Losses

## Milestone Summary

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

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: S. Bresler

## Legend

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

## KEY ACCOMPLISHMENTS

- June 2, 2006, PJM filed motion with FERC to postpone October 2, 2006 implement date.
- June 23, 2006, FERC issued an order granting delay of implementation to June 1, 2007.
- August 3, 2006, PJM filed with FERC agreement changes required to implement marginal losses.

## UPCOMING ACTIVITIES

- Potential order from FERC on PJM's August 3, 2006, compliance filing.

## ISSUES & CONCERNS

- No issues at this time.

# Price Transparency – Common Search

## Milestone Summary

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

**C** Overall Status

## KEY ACCOMPLISHMENTS

- Google search engine has been installed on the Joint Midwest ISO and PJM web site.

## UPCOMING ACTIVITIES

- Google search will be demonstrated at September 8, 2006, Stakeholder Meeting.

## JCM Leads

- Midwest ISO: E. Skiba
- 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

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

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Technical implementation alternatives have been evaluated and Preliminary Design is complete.
- Executed contract with vendor to develop contour map for the combined PJM/Midwest ISO footprint.

## UPCOMING ACTIVITIES

- Finalize detail design.
- Development is underway.
- Posting for review and commitment of the proposed LMP nodes.

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: C. Hendrzak

## Legend

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

## ISSUES & CONCERNS

- RTOs need to identify differences in the synchronization of data delivery timeframes and calculations and develop approaches for those differences.

# Price Transparency – Enhanced Joint Website

## Milestone Summary

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

**C** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: C. Hendrzak

## Legend

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

## KEY ACCOMPLISHMENTS

- The PJM calendar will be used as the platform for the joint calendar.
- Existing web site that is being hosted by PJM will continue as the JCM Web Site.
- Basic calendar functionality implemented.

## UPCOMING ACTIVITIES

- Enhanced Joint Website will be demonstrated at September 8, 2006, Joint Stakeholder Meeting.

## ISSUES & CONCERNS

- Additional clean-up work needs to be done on calendar functionality before this initiative is completed.

# Common Long Term Transmission Queue

## Milestone Summary

<b>C</b>	Identify Differences Between Midwest ISO & PJM
<b>C</b>	Develop Common LT Trans. Queue Process
<b>G</b>	Determine if FERC Filing is Required
<b>G</b>	Develop Business Practices and Manuals
<b>G</b>	Conduct Stakeholder Reviews
<b>G</b>	Roll Out Business Practices and Manuals

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- 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

## KEY ACCOMPLISHMENTS

- Midwest ISO and PJM have outlined a process flow for managing the work of a common study.
- RTOs have determined that a FERC filing will not be required for this initiative.
- Presentation provided to the Midwest ISO Advisory Committee on August 16, 2006.

## UPCOMING ACTIVITIES

- Revise/develop business practices and manuals.
- Conduct stakeholder review.

## ISSUES & CONCERNS

- PJM is investigating how the Ad Hoc Study group could be incorporated into the PJM process and if there would be any Tariff implications.

# Alignment of OASIS Business Practices

## Milestone Summary

<b>C</b>	Analyze Midwest ISO & PJM Business Practices Stakeholder Review
<b>G</b>	Develop Tariff Language Changes
<b>G</b>	Stakeholder Review – Tariff Language
<b>G</b>	Develop Business Practices
<b>G</b>	Stakeholder Review – Business Practices
<b>G</b>	Develop System Requirements
<b>G</b>	Modify Applications
<b>G</b>	Conduct Testing
<b>G</b>	Implement Changes

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- 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

## KEY ACCOMPLISHMENTS

- Reviewed timings with Midwest ISO Market Sub-Committee on June 6, 2006.
- PJM Markets Implementation Committee has approved tariff changes.
- Midwest ISO changes will be limited to configuration changes.

## UPCOMING ACTIVITIES

- Midwest ISO is developing tariff changes for review with Tariff Working Group.
- Complete PJM committee approvals including (Tariff Advisory Committee, Markets and Reliability Committee, and Members Committee).
- Midwest ISO and PJM file tariff changes by October 2, 2006.
- Revise business practices and take through stakeholder process.

## ISSUES & CONCERNS

- Time required to complete stakeholder review may impact completing this initiative.

# Common Treatment Dynamic Sched./Pseudo-Ties

## Milestone Summary

<b>C</b>	Develop System Requirements
<b>Y</b>	Modify Applications
<b>Y</b>	Conduct Testing
<b>Y</b>	Implement Changes

**Y** Overall Status

## KEY ACCOMPLISHMENTS

- Currently performing remote testing.

## UPCOMING ACTIVITIES

- Software to be delivered to Midwest ISO by mid-September.
- Midwest ISO testing to occur September/October.

## JCM Leads

- Midwest ISO: E. Skiba
- 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

- Software is being delivered later than originally planned.

# Emergency Energy – Align Agreements & Practices

## Milestone Summary

C	Identify Agreements to be Replaced
C	Doc. Legal, Regulatory, Corp. Structure Issues
Y	Draft Tariff Changes
Y	Review Tariff Changes with Tariff WG
Y	Review Tariff Changes with Market Sub-Comm.
Y	Review Tariff Changes with Advisory Comm.
Y	Make Appropriate Regulatory Filings
Y	Draft New Emergency Energy Agreements
Y	Implement New Emergency Energy Agreements

**Y** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

- Midwest ISO completed draft language for Schedule E: Emergency Energy Transactions, which is currently under review by PJM.
- Draft tariff changes have been reviewed by the Midwest ISO Tariff Working Group.
- Re-worked milestones to support additional Midwest ISO stakeholder reviews.

## UPCOMING ACTIVITIES

- Review tariff changes with the Midwest ISO Market Sub-Committee (September).
- Review tariff changes with the Midwest ISO Advisory Committee (October).
- Midwest ISO and PJM to complete Emergency Energy Transaction agreement.

## 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.

# Joint Expansion Planning (Coordinated System Plan)

## Milestone Summary

C	Develop Common Model
C	Initial Analysis
C	Stakeholder Appr. Interim Results (IPSAC)
G	Complete Analysis & Prelim. Report
G	Stakeholder Input on Draft Report (IPSAC)
G	Complete & Publish CSP Report

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

- IPSAC stakeholder meeting to review interim results July 25th.
- Completed initial analysis of N-2 Contingencies for 345kV and greater.

## UPCOMING ACTIVITIES

- Complete Joint Expansion Plan Analysis - joint generator deliverability, n-2 and common market analysis.

## ISSUES & CONCERNS

- No issues at this time.

# Common Deliverability Studies

## Milestone Summary

- G** Complete Initial Analysis in CSP
- G** Review Study Results with Stakeholders
- G** Obtain Stakeholder Approval (IPSAC)
- G** Modify Policies, Procedures, Applications
- G** Implement Changes to/ New Policies Procedures, Applications

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

- IPSAC stakeholder meeting held July 25, 2006.
- Development of 2011 joint planning base system model.

## UPCOMING ACTIVITIES

- RTOs review results of preliminary common deliverability study.

## ISSUES & CONCERNS

- No issues at this time.

# Cross Border Cost Sharing of Expansion

## Milestone Summary

C	File Policy Baseline Reliability Projects
C	Order on Reliability Filing
C	Compliance Filing on Reliability Filing
C	1. Develop Policy Concepts for Econ. Projects
C	1. Stakeholder input on Policy Econ Projects
C	2. Develop Policy Concepts for Econ. Projects
C	2. Stakeholder input on Policy Econ Projects
C	3. Develop Policy Concepts for Econ. Projects
C	3. Stakeholder input on Policy Econ Projects
C	File Extensions with FERC
Y	Continue Stakeholder discussions
Y	File Policy Cross Border Alloc. Econ. Project Costs
Y	<b>Overall Status</b>

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

- Develop and File policy for Baseline Reliability Projects.
- Compliance Filing on Reliability.
- Develop Policy Concepts for Economic Projects.
- Stakeholder Discussion on Policy for Economic Projects.
- Received December 1, 2006, extension from FERC.

## UPCOMING ACTIVITIES

- Develop Policy Concepts for Operational Performance Projects.
- File Policy for Cross Border Allocation of Economic Project Costs.

## ISSUES & CONCERNS

- Midwest ISO and PJM made separate filings for proposed changes to the JOA section “Cross-Border Allocation Share” in their April 20, 2006, compliance filings for Reliability Cost Sharing. Seeking FERC guidance on this issue. The RTOs expect a FERC order on this issue by year end.
- The RTOs expect to file proposal for sharing of Economic upgrades by December 1, 2006.
- Timeline requires FERC action on the April 20, 2006, compliance filings for Reliability Cost Sharing. Otherwise, the RTOs may not be able to file a single, comprehensive and complete proposal for sharing Economic upgrades on December 1, 2006.

# Black Start and Restoration

## Milestone Summary

- G** Compare Midwest ISO/PJM Processes
- G** Identify Tariff, Regulatory, Reliability Issues
- G** Obtain Stakeholder Approval to Proceed
- G** Make Regulatory Filings
- G** Modify Policies, Procedures, Applications, etc.
- G** Provide Training and Implement Changes

**G** Overall Status

## JCM Leads

- Midwest ISO: T. Mallinger
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

## UPCOMING ACTIVITIES

- Note: This initiative is scheduled to start in 2007

## ISSUES & CONCERNS

# Central Location to View Both Ramp Viewers

## Milestone Summary

<b>G</b>	Develop Business Requirements
<b>G</b>	Design Central Location & Select Appropriate Technology
<b>G</b>	Build and Test Central Location
<b>G</b>	Provide Training and Implement Changes

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- 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

## KEY ACCOMPLISHMENTS

## UPCOMING ACTIVITIES

- Note: This initiative is scheduled to start in 2007

## ISSUES & CONCERNS



# Further Analysis Initiatives

# Alt. Border Pricing Point Calculation

## Milestone Summary

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

**G** Overall Status

## JCM Leads

- Midwest ISO: T. Mallinger
- PJM: S. Bresler

## Legend

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

## KEY ACCOMPLISHMENTS

- PJM and the Midwest ISO are conducting internal review of options with the intent of producing a white paper.

## UPCOMING ACTIVITIES

- Continuing analysis of Alternative Border Pricing Point Calculation Options.

## ISSUES & CONCERNS

- No Issues at this time.

# Coordinated OASIS

## Milestone Summary

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

**G** Overall Status

## JCM Leads

- Midwest ISO: E. Skiba
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

- PJM reviewed multiple alternatives for hosting of their OASIS node, including the Midwest ISO hosting their OASIS node.
- PJM has completed the OASIS move back to PJM.
- Reset Milestones upon completion of OASIS move back to PJM.

## UPCOMING ACTIVITIES

- The Midwest ISO and PJM will look at additional alternatives for a coordinated OASIS.
- The Midwest ISO and PJM will conduct analysis on linking the Midwest ISO OASIS and PJM OASIS nodes so there is a single simultaneous logon to both nodes.

## ISSUES & CONCERNS

- No issues at this time.

# Dynamic Dispatch. Sched/Dispatch. Trans

**Milestone Summary**

- G** Review Analysis with Stakeholders
- G** Determine Next Steps

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Refer to the next two slides.

## UPCOMING ACTIVITIES

- Refer to the next two slides.

## JCM Leads

- Midwest ISO: T. Mallinger
- PJM: S. Bresler

## ISSUES & CONCERNS

- No issues at this time.

**Legend**

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

# Dynamic Dispatch. Sched/Dispatch. Trans

- ▶ Evidence suggests that large deviations in PJM and the Midwest ISO market prices are reduced quickly via market participant actions.
- ▶ The RTOs are investigating whether smaller deviations persist for extended periods of time.
- ▶ In parallel with the ongoing analysis, PJM and the Midwest ISO staffs are discussing potential, cost-effective remedies to smaller, extended price differentials.

# Dynamic Dispatch. Sched/Dispatch. Trans

- ▶ Definitive conclusions have not yet been reached.
- ▶ The RTOs request stakeholder input on potential options, including but not limited to:
  - Dispatchable, participant transactions that would be loaded based on expected price differentials between the RTOs
  - An RTO-determined, dynamic schedule that would change with each dispatch cycle based on anticipated market price differentials.
- ▶ The RTOs anticipate concluding the ongoing analysis and discussing alternatives at the next joint stakeholder meeting.

# Relaxation of Constraints

## Milestone Summary

C	Tech. Software Design Document
C	Obtain Estimates from Vendor
G	Modify Applications
G	Conduct Testing
G	Implement Changes

**G** Overall Status

## KEY ACCOMPLISHMENTS

- Technical software design document developed.
- Midwest ISO and PJM have received estimates from vendor.

## UPCOMING ACTIVITIES

- Establish implementation timeline.
- Prioritize initiative and obtain funding for effort.

## JCM Leads

- Midwest ISO: T. Mallinger
- 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 coordinate with the Independent Market Monitor.

# Relaxation of Constraints

## ▶ Current implementation

- The monitoring RTO determines the shadow price that results from enforcing the RCF constraint on its system and the level of relief that it will request from the non-monitoring RTO.
- The non-monitoring RTO modifies the flow limit on the RCF in its dispatch, and binds the constraint up to the shadow price calculated by the monitoring RTO.
- If the non-monitoring RTO does not have sufficient relief available to redispatch up to the monitoring RTO's shadow price, the non-monitoring RTO dispatches as much as possible.
- The non-monitoring RTO calculates the shadow price for the RCF using the available redispatch.

# Relaxation of Constraints

## ▶ Proposed Change

- If the non-monitoring RTO cannot provide sufficient relief to reach the monitoring RTOs shadow price, the shadow price set by the monitoring RTO will be automatically used as the shadow price on the RCF in the non-monitoring RTO.

## ▶ Committed Initiative

- Initiative was recommended by the Midwest ISO IMM.
- This initiative will be moved from a “further analysis required” to a “committed” initiative.

# Investigate Loop Flow Across Combined Footprint

## Milestone Summary

Y	Obtain Tag Data
C	Obtain Midwest ISO/PJM Market Flow Data
G	Obtain Non-Market Gen-to Load Data
G	Conduct Analysis – Tag Data
G	Conduct Analysis Market Flow Data
G	Conduct Additional Analysis
G	Produce Loop Flow Final Report

**G** Overall Status

## JCM Leads

- Midwest ISO: Tom Mallinger
- PJM: M. Bryson

## Legend

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

## KEY ACCOMPLISHMENTS

- Midwest ISO and PJM have exchanged tag data.
- IESO and TVA tag data received from OATI.
- Received approval to obtain New York ISO tag data.
- Obtained market flow data for Midwest ISO and PJM.

## UPCOMING ACTIVITIES

- Determine whether non-market gen-to-load data is available from OATI.
- Quantify contributors to loop flows on selected interfaces (MECS-PJM, TVA-PJM, & Michigan-Ontario).
- Next steps to be determined after study is complete.

## ISSUES & CONCERNS

- New York ISO data release will also require approval from New England ISO.

# Netting IDC/Market Flow Threshold

## Milestone Summary

C	Conduct Analysis
C	Develop Draft Recommendation
C	Review Recommendation with CMPWG
G	Review Recommendation with CMPC
G	Finalize Recommendation to ORS
G	Present Recommendation to ORS
G	ORS Action on Recommendation

**G** Overall Status

## JCM Leads

- Midwest ISO: T. Mallinger
- PJM: J. Burlew

## Legend

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

## KEY ACCOMPLISHMENTS

- CMPWG/ORS task force met on August 8, 2006, and in a split vote approved recommendation to take to the ORS which requests a temporary change in market flow threshold from 0% to 3% for a period of 12 months.
- CMPWG/ORS Task Force tabled the netting issue.
- Met with FERC to concerns with existing TLR Standard.
- Reviewed recommendation with the CMPWG on August 23, 2006.

## UPCOMING ACTIVITIES

- Meeting with SIWG on August 30, 2006, to review data to support recommendation.
- Recommendation is to be presented to the ORS at their September meeting.
- Determine if recommendation will be endorsed by the CMPWG and CMPC prior to the ORS September meeting.
- Seek ORS approval September 19, 2006.
- Expect FERC will issue NOPR on Standards in September.

## ISSUES & CONCERNS

- Participation in task force of people who express concern about the netting in the IDC and changing the market flow threshold.
- Though Midwest ISO and PJM support these changes and some task force members understand the reliability issue, it is unlikely that the CMPC will receive unanimous approval on the change in threshold recommendation prior to the September ORS. Therefore, the CMPC may not be in a position to endorse the recommendation.

# Shared Regulation Market

## Milestone Summary

G	Resolve CA Consolidation Issues
G	Analyze Options Shared Reg. Mkt.
G	Perform Detail Study
G	Identify Changes Policies, Procedures, applications, etc.
G	Review Results with Stakeholders
G	Go/No Go Decision

**G** Overall Status

## JCM Lead

- Midwest ISO: D. Taylor
- PJM: S. Bresler

## Legend

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

## KEY ACCOMPLISHMENTS

- Midwest ISO version 1 Ancillary Services Market Business Rules were completed and released to stakeholders.
- Midwest ISO Contingency Reserve Sharing Agreement, Schedules and Operating Protocols were filed with the FERC on August 25, 2006.

## UPCOMING ACTIVITIES

- Note: The analysis for this initiative is to be completed in 2007.
- Expand scope to include ancillary services market.
- Midwest ISO proofs of concepts are in progress to confirm ability of current and future environments to meet business requirements.
- Midwest ISO white paper on demand curves, scarcity pricing, contingency reserve deliverability clearing and pricing issues to supplement the Market Rules is under development.
- Midwest ISO Contingency Reserve Sharing Business Rules are being defined.

## ISSUES & CONCERNS

- Before this initiative can be evaluated and implemented, it is necessary for control area consolidation and reserve market issues in the Midwest ISO need to be resolved.

# Cross Border FTRs in the Allocations

## Milestone Summary

- G** Determine allocation process changes to create alignment
- G** Define business rules for resolving differences
- G** Perform Detail Cost/Benefit Analysis
- G** Review Results with Stakeholders
- G** Go/No Go Decision

**G** Overall Status

## JCM Lead

- Midwest ISO: R. Doying
- PJM: S. Bresler

## Legend

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

## KEY ACCOMPLISHMENTS

## UPCOMING ACTIVITIES

- Note: This analysis is to start in 2007.

## ISSUES & CONCERNS

- Additional effort on allocation timeline and product alignment must occur prior to initiation of Cross Border FTR Analysis.



# Completed Initiatives

# Completed Initiatives

## Committed Initiatives

- Midwest ISO Ramp Viewer
- Moving JOUs Between Markets
- Price Transparency – Common Search Capabilities
- Price Transparency – Enhanced Joint Website

## Require Further Analysis

- Production Cost Study
- Common Time Zones – PJM Move to EST (Decision not to proceed with initiative)