

JCM Initiatives Update

January 2009

Joint and Common Market Initiatives 2006-2008

Complete	Cost 3 Year Gross Benefit
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Evaluation	Cost 3 Year Gross Benefit
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Implementation	Cost 3 Year Gross Benefit
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Not Recommended	Cost 3 Year Gross Benefit
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		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 Alternative Border Pricing Point Calculation	\$600,000 N/A \$200,000 N/A			
	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 \$1,125,000			Standard Data Visualization and Reporting Portal	\$8,500,000	
			Enhanced Joint Website to Host Joint meeting and Events Calendar, Joint Documents and Reports	\$600,000 \$1,125,000			Create a single MISO & PJM Data and Report Portal	\$4,158,174	
	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 \$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	Market to Market Relaxation of Constraints	\$80,000 \$1,000,000			
			Investigation of Loop Flow Across the Combined Footprint	N/A Analyzing	Dynamic Dispatchable Transactions and Schedules	Analyzing Analyzing	Loop Flow Study Phase II	Analyzing Analyzing	
			Market Flow Threshold Assessment	N/A Reliability	Market Flow Threshold Reported to IDC	\$300,000 Reliability	Netting in the IDC	Analyzing Analyzing	
					Outage Coordination	N/A Reliability			
	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			Super Regional Reserve Sharing	Analyzing Analyzing
		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	Cross Border Cost Sharing of Expansions	Reliability			
	2		Common Deliverability Studies	\$100,000 Reliability					
Total		Costs 3-Year Gross Benefit	2006 \$3,770,000 \$14,885,717	2007 \$1,580,000 \$3,463,405	2008 \$750,000 \$2,091,108				

Projects Remaining for Completion

Complete

Implementation

Evaluation

		Project		Completion Date
Commercial	1	FTR Market Convergence	Cross Border FTRs in the allocations	2010
	2	Reduce Hurdle Rate	Alignment of PJM Operating Reserves and MISO Revenue Sufficiency Guarantee (Note: All MISO cost)	2010
	3	Increased Market Opportunities	Shared Regulation Market	2010
	4	Operational Consistency	Market to Market Relaxation of Constraints	2009
			Common Ramp Portal	2009
			Coordinated OASIS	2010
			Netting in the IDC	2010
			Dynamic Dispatchable Transactions and Schedules	2010
Reliability	1	Black Start and Restoration	Alignment of Agreements and Practices	2009
Plan	1	Joint Expansion Planning and Common Deliverability Studies	Cross Border Cost Sharing of Expansions	2009

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 - 2008 Initiatives

1) Alignment of FTR Timelines and Products (Complete)

- 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 (Complete)

- Achieve a greater level of price convergence and rationalization at the RTO border.

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 (Complete)

- 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 (Complete)

- 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 - 2008 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 (Complete)

- 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 (Complete)

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

11) Alignment of OASIS Business Practices (Complete)

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

12) Common Treatment of Dynamic Schedules/Pseudo Ties (Complete)

- 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.

13) Market to Market Relaxation of Constraints (Complete)

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

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



JCM 2006 - 2008 Initiatives (cont.)

14) Black Start and Restoration - Align Agreements and Practices

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

15) Emergency Energy Agreement - Alignment of Agreements and Practices (Complete)

- 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.

16) Joint Expansion Planning - Coordinated System Plan (Complete)

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

17) Common Deliverability Studies (Complete)

- 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.

18) Cross Border Cost Sharing of Expansions

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

19) Common Ramp Portal

- Develop a common portal to allow market participants to view and reserve ramp in both RTOs simultaneously.

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 - 2008 Initiatives (cont.)

1) Alternative Border Pricing Cost-Benefit Analysis (No Action)

- Perform an analysis to determine whether alternate methods for calculating RTO Interface Pricing Points would more effectively indicate the impact of RTO to RTO transactions on transmission constraints impacting both RTOs.

2) Common Time Zones – PJM Move to EST (No Action)

- 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 (Hold)

- Perform a cost-benefit analysis to determine the benefits Midwest ISO and PJM participants would receive from coordinating the evaluation of short term transmission service on the RTO OASIS 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

- Perform a 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 - 2008 Initiatives (cont.)

6) Market Flow Threshold Analysis (Complete)

- Develop recommendation for the ORS on reporting a change in market flow threshold reported to the IDC to be used when assigning TLR relief obligation. The outcome of this analysis generated the Market Flow Threshold Reported to the IDC Initiative.

7) Market Flow Threshold Reported to the IDC (Complete)

- The Midwest ISO and PJM will participate in a 12-month field test where the market flow threshold will be changed from down to zero percent to down to three percent for use by the IDC to request relief when a TLR is called.

8) Netting in the IDC (Hold)

- Develop recommendation for the ORS on netting in the IDC.

9) Investigation of Loop Flow Across the Combined Footprint Phase I (Complete)

- Analysis of loop flow impacts on the Midwest ISO and PJM Markets and Operations. The results of this initiative may create additional initiatives.

10) Super Regional Reserve Sharing (No Action)

- Create a Super-Regional Reserve Sharing (SRRS) arrangement consisting of existing Reserve Sharing Groups and/or Reserve Markets that would voluntarily participation in emergency energy transactions.

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 - 2008 Initiatives (cont.)

11) Cross Border FTRs in the Allocations (Hold)

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

12) Shared Regulation Market (Hold)

- A larger market operated over both RTO footprints would result in more efficient procurement of the Regulation service by the RTOs. PJM and Midwest ISO to evaluate feasibility.

13) Outage Coordination (Complete)

- Reliability Coordinators to develop enhanced process for sharing and coordination of planned outage information.

14) Loop Flow Study Phase II

- Develop mechanism to identify and gain a deeper understanding of loop flows on key flowgates; which are a result of transmission tags, market flows and generation-to-load flows.

JCM Committed Initiatives

OR & RSG Alignment

Milestone Summary

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

R Overall Status

JCM Leads

- Midwest ISO: M. Robinson
- PJM: S. Bresler

Legend

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

KEY ACCOMPLISHMENTS

- On August 21, 2008, the FERC issued an Order Commencing Paper Hearing regarding the allocation of RSG charges to Market Participants. Briefs were filed by Complainants on September 22, 2008, with Reply Briefs filed October 10, 2008. Waiting for a FERC decision.
- On October 7, 2008, the Midwest ISO Market Subcommittee passed motions recommending that the Midwest ISO make a 205 filing using the RSG Redesign Proposal, with additional approved changes.
- PJM Members Committee endorsed package of Balancing Operating Reserves credit and allocation changes at its November, 2007 meeting. The package of changes was implemented December 1, 2008.

UPCOMING ACTIVITIES

- The Midwest ISO RSG Task Force continues to meet monthly to review the data analysis to determine cost causation and has recommended to the MSC that the indicative tariff developed and filed before FERC on March 3, 2008, as part of the 206 filing be filed before FERC in a 205 filing, to become effective Midwest ISO tariff language.
- The Midwest ISO will move forward with a FERC 205 filing as soon as practical.

ISSUES & CONCERNS

- Clearly different camps in terms of causation versus predictability (unclear that we will get to common rules).

Relaxation of Constraints

Milestone Summary

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

C 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

- Implementation completed by Midwest ISO and PJM on January 6, 2009

UPCOMING ACTIVITIES

- None

ISSUES & CONCERNS

- None

Common Ramp Portal

Milestone Summary

G	Develop scope document
G	Review scope document with stakeholders
Y	Develop project plan
Y	Develop code test
Y	Implement Software

Y Overall Status

JCM Leads

- Midwest ISO: J. Marshall
- PJM: C. Advena

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 agreed to high-level detail design.

UPCOMING ACTIVITIES

- Develop detailed design.

ISSUES & CONCERNS

- Rather than impact the launch of the Midwest ISO Ancillary Services Market, this implementation of this initiative has been delayed to May 1, 2009.

Black Start and Restoration

Milestone Summary

C	Midwest ISO Technical Whitepaper
C	Determine Tariff, Regulatory, Reliability Issues
C	Obtain Midwest ISO Stakeholder Approval
C	Compare Midwest ISO & PJM Processes
C	Midwest ISO Develop Tariff Changes
C	Submit Regulatory Filings
Y	Modify Policies, Procedures, Applications, Systems
Y	Provide Training and Implement Changes

Y Overall Status

JCM Leads

- Midwest ISO: D. Subatki
- PJM: C. Advena

Legend

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

KEY ACCOMPLISHMENTS

- Midwest ISO made a compliance filing regarding Blackstart Service Compensation November 26, 2008.

UPCOMING ACTIVITIES

- Midwest ISO will draft and finalize BPM 19 for Blackstart and System Restoration Service in February 2009.

ISSUES & CONCERNS

- None

Cross Border Cost Sharing of Expansion

Milestone Summary

C	FERC Issues Order Reliability Cost Sharing
C	Reset Milestones
C	Compliance Filing on Reliability Cost Sharing
C	Develop Proposal for Economic Cost Sharing
C	Submit Economic Cost Sharing Proposal to FERC
C	FERC Issues Order on Economic Cost Sharing

C Overall Status

JCM Leads

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

Legend

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

KEY ACCOMPLISHMENTS

- On January 28, 2009 Midwest ISO and PJM submitted revisions to the Joint Operating Agreement to address cross border cost allocation for economic projects.

UPCOMING ACTIVITIES

- Order from FERC on Midwest ISO and PJM revisions to the Joint Operating Agreement and responses to comments if needed.

ISSUES & CONCERNS

- None

JCM Hold

Initiatives

Dynamic Dispatch. Sched./Dispatch. Trans.

Milestone Summary



Review Analysis with Stakeholders
Determine Next Steps



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

- Midwest ISO and PJM have completed initial analysis on proxy bus prices. When differences occur in proxy bus prices the differences generally converged within relatively short time frames.

UPCOMING ACTIVITIES

- RTOs are continuing analysis of border price differentials given various JCM-related implementations, including PJM implementation of marginal losses, Midwest ISO implementation of its Ancillary Service Markets, and the joint implementation of the Constraint Relaxation initiative.

ISSUES & CONCERNS

- None at this time.

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: 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

- Midwest ISO commenced its Ancillary Services Market January 6, 2009.

UPCOMING ACTIVITIES

- Analysis on this initiative is dependent on having a period of approximately six to nine months to collect data after the Midwest ISO Ancillary Services Market start up.

ISSUES & CONCERNS

- None at this time.

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

- The 2008-2010 FTR Projects Survey results were discussed at the March 4, 2008, Midwest ISO Market Subcommittee Meeting. The Cross Border FTRs in the Allocations Project was ranked as the third priority and will not be targeted for completion in 2009.

UPCOMING ACTIVITIES

- Commencement date for this project is to be determined.

ISSUES & CONCERNS

- None at this time.

Coordinated OASIS

Milestone Summary

C	Perform Analysis
C	Stakeholder Review
G	Re-evaluate Initiative based on NAESB 890 work

G Overall Status

JCM Leads

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

Legend

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

KEY ACCOMPLISHMENTS

- At the June 1, 2007, JCM Joint Stakeholder meeting it was agreed to place this initiative on hold pending definition of NAESB OASIS changes resulting from FERC Order Number 890.

UPCOMING ACTIVITIES

- NAESB 890 work plan can be found at:
http://www.naesb.org/weq/weq_order890.asp

ISSUES & CONCERNS

- NAESB FERC Order Group 5 items which includes “NAESB will develop business practice standards to facilitate coordination across multiple transmission systems” may address this initiative. Group 5 items currently scheduled for subcommittee approval by end of fourth quarter 2009.

Netting in the IDC

Milestone Summary

G	Conduct Analysis
G	Develop Draft Recommendation
G	Review Preliminary Recommendation with ORS
G	Conduct Detail Analysis/Cost Estimates
G	Prepare Final 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

UPCOMING ACTIVITIES

- Initiative on hold pending outcome of Parallel Visualization SAR.

ISSUES & CONCERNS

- No issues at this time.

Completed Initiatives



Completed Initiatives

Committed Initiatives

- Midwest ISO Ramp Viewer
- Moving JOUs Between Markets
- Broader Price Transparency – Common Search Engine
- Broader Price Transparency – Enhanced Joint Website
- Broader Price Transparency – Link Midwest ISO PTP and PJM eData sites
- Common Long-Term Transmission Queue
- Alignment of OASIS Business Practices
- Emergency Energy Agreements – Alignment of Agreements and Practices
- Joint Expansion Planning (Coordinated System Plan)
- Common Deliverability Studies
- Common Treatment of Dynamic Schedules and Pseudo Ties
- PJM Marginal Losses
- Central Location to View Both Ramp Viewers
- Alignment of FTR Timelines and Products
- Market to Market Relaxation of Constraints

Require Further Analysis

- Production Cost Study
- Common Time Zones – PJM Move to EST (Decision not to proceed with initiative)
- Market Flow Threshold Assessment (Decision to move forward with 12-month field test)
- Super Regional Reserve Sharing (Decision not to proceed with this initiative)
- Investigation of Loop Flow Across the Combined Footprint Phase I
- Investigation of Loop Flow Across the Combined Footprint Phase II
- Outage Coordination
- Alternative Border Pricing Point Calculation (Decision not to proceed based on Midwest ISO and PJM analysis of proxy bus prices)
- Market Flow Threshold Reported to the IDC