JCM Initiatives Update



November 2007





Joint and Common Market Initiatives

Cost Complete 3 Year Gross Benefit

> Cost 3 Year Gross Benefit

Evaluation

Cost 3 Year Gross Benefit

Cost Not Recommended 3 Year Gross Benefit

	1	FTR Market Convergence	Alianment of FTD Timelines and Bradusts	\$600,000			Cross Border FTRs in the allocations	\$4,000,000 Analyzing
			Alignment of FTR Timelines and Products (Note: All MISO cost)	\$3,008,657			Cross border FTRs in auctions	\$8,000,000 \$4,374,524
	3	Price Rationalization and Convergence at the Border			PJM implementation of marginal losses	\$600,000 N/A		ψ 4 101-410E
					Alternative Border Pricing Point Calculation	\$200,000 N/A		
		Reduce Hurdle Rate	Alignment of PJM Operating Reserves and MISO Revenue Sufficiency Guarantee	\$600,000	Depancaking of PTP ancillary services (Control Area Services, T.O. Control Center	\$400,000		
			(Note: All MISO cost)	\$3,764,432	Services, Reactive, Black Start)	(\$2,505,757)		
	4	Broader Price Transparency and Common Reporting	Existing MISO & PJM Websites Linking of sites Data Available at Both Sites	\$500,000	Standard Data Exchange (Web Services) LMPs, Contingencies, Loads, Dispatch Signals, Outages, Emergency	\$3,000,000	Implementation of single MISO & PJM Website	\$750,000
			(LMPs, Tie Flows, Loads)	\$1,952,165	Event/Notifications	\$2,547,477	(Individual Websites go away)	N/A
Commercial			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	\$600,000			Create a single MISO & PJM Data and Report Portal	\$4,158,174
	5	Increased Market Opportunities	Documents and Reports Moving JOUs between markets	\$1,125,000 \$100,000			Shared Regulation Market	\$8,000,000
		Operational Consistency	Common Long Term Transmission Queue	\$156,851 \$200,000	Common Time Zones	\$5,000,000	Single Resource Adequacy Solution	Analyzing \$8,000,000
			3	\$1,091,108	(Note: All PJM cost)	N/A		N/A
	6		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 Black Start and Restoration			·		Super Regional Reserve Sharing	Analyzing Analyzing
	2			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		
			Common Deliverability Studies	\$100,000 Reliability		,		
Т	otal	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

Implementation





JCM Committed



Initiatives





FTR Alignment

Milestone Summary

- C Analyze Product
- Stakeholder Review
- Submit Filings to FERC
- C Develop Business Rules
- Finalize Functional Requirements
- G Design and Development
- Build and Test
- G Update Process and Procedures
- G Customer Training
- G Cutover to Production Phase 1
- G Cutover to Production Phase 2
- 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

- Midwest ISO:
 - Submitted multiple filings under FERC proceedings related to Midwest ISO Long Term Transmission Rights Order.
 - Continued to make progress in refinement of business rules and collection of initial ARR registration data.
- PJM:
 - FERC has approved intra-planning year transmission rights similar to the current Midwest ISO Process.
 - PJM Members Committee endorsed a long-term, three-year FTR auction process at its November meeting. The construct will be filed with FERC in the Spring.

UPCOMING ACTIVITIES

- Midwest ISO:
 - Launch ARR Registration through Markets Portal and commence testing of enhanced ARR Allocation Tool.
 - Finalize FTR Business Practice Manual with completion of stakeholder review.
 - · Continue with requisite filings under FERC proceedings.
- PJM:
 - Submit status report regarding continued stakeholder discussion on potential uplift mechanisms to FERC by November 30, 2007.
 - Stakeholders are actively discussing the possibility of implementing a seasonal ARR/FTR process similar to the Midwest ISO process.

ISSUES & CONCERNS





OR & RSG Alignment



Milestone Summary

С

Analyze Product
Stakeholder Review

R Deve

Develop System Requirements

P

Modify Applications
Conduct Testing

<u>K</u>

Implement Changes

R

Overall Status

JCM Leads

• Midwest ISO: M. Robinson

• PJM: S. Bresler

Legend

C Co

Completed

G

On Target – No Issues

Y

Need to watch - Some Issues

R

In Jeopardy - Significant Issues

KEY ACCOMPLISHMENTS

- Midwest ISO has developed strawman Revenue Sufficiency Guarantee (RSG) Redesign Whitepaper.
- Midwest ISO filed comments at FERC with regards to RSG complaint.
- PJM Members Committee endorsed package of Balancing Operating Reserves credit and allocation changes at its November meeting. The package of changes will be filed with FERC and if approved, implemented in the Fall of 2008.

UPCOMING ACTIVITIES

• Midwest ISO ongoing review of RSG Redesign with Stakeholders.

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 C

Tech. Software Design Document

V

Obtain Estimates from Vendor

Y

Modify Applications
Conduct Testing

Υ

Implement Changes



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 Markets and Reliability Committee endorsed the PJM Tariff change required for a June 1, 2008, implementation date at their September 26, 2007, meeting. The PJM Members Committee will vote on the change in January 2008.
- Finalized functional specifications and detail design.

UPCOMING ACTIVITIES

- Identify JOA changes which will be taken through the RTOs stakeholder processes.
- Finalize vendor software delivery schedule.
- Midwest ISO having internal discussions on possibility of total elimination of constraint relaxation and will have future discussions with PJM.

ISSUES & CONCERNS

 Based on Midwest ISO's software priority and to avoid duplicative effort required to implement this initiative in the current production environment and the new ASM software, the project has been scheduled for Spring 2008.





Central Location to View Both Ramp Viewers

Milestone Summary C Develop Business Requirements Design Central Location & Select Appropriate Technology Build and Test Central Location Provide Training and Implement Changes 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

- Display for dual data complete.
- Display is working in Development using test data.

UPCOMING ACTIVITIES

- Establish a Midwest ISO Staging environment to exchange Ramp data with PJM. (target completion November 30, 2007)
- Test Midwest ISO/PJM data exchange.
- Fine tune the 2-day query once data exchange is established.
- Migrate code to Production through the normal change control process.

ISSUES & CONCERNS

· No issues at this time.





Black Start and Restoration



Milestone Summary

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



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

• Working group met on November 2, 2007, to develop tariff language.

UPCOMING ACTIVITIES

- Present black start and restoration to Midwest ISO Market Subcommittee at their January 8, 2008, meeting.
- Develop draft tariff language for option A (Basic Framework approach) and Option B which addresses the potential concerns identified by the Midwest ISO and submit to the Market Subcommittee and Reliability Subcommittee for review prior to their November meetings.

ISSUES & CONCERNS

 Midwest ISO Market Subcommittee requested this item be moved to their January agenda so they could focus on Resource Adequacy Module E tariff language during their December meeting.





Cross Border Cost Sharing of Expansion

Milestone Summary

- File Policy Baseline Reliability Projects
- C Order on Reliability Filing
- C Compliance Filing on Reliability Filing
- File Extensions with FERC
- FERC issues Order for Technical Conference
- C Conduct Technical Conference
- File 2nd Extension for Econ X Border Allocation
- R FERC Staff submit findings to Commission
- R FERC Issues Order
- R Continue Stakeholder discussions
- File Policy Cross Border Alloc. Econ. Project Costs

R

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

- FERC granted indefinite extension for economic cross border cost allocation sharing compliance filing.
- FERC issued order on PJM rate design on April 19, 2007 (Docket EL05-121-000).

UPCOMING ACTIVITIES

- FERC decisions on Midwest ISO and PJM latest filings, on the methodology for reliability project cross-border cost allocation methodology.
- FERC Order establishing a schedule for completing stakeholder processes and filing proposed economic project cross-border cost allocation methodology.

ISSUES & CONCERNS





Common Ramp Portal



Milestone Summary Develop scope document Review scope document with stakeholders Develop project plan 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

UPCOMING ACTIVITIES

• Note: This initiative is scheduled to start in 2008.

ISSUES & CONCERNS





JCM Further Analysis



Initiatives





Market Flow Threshold Reported to IDC

Milestone Summary

0 0 0

Develop Detail Project Plan

Vendor Requirement Specifications

System Development

Test System Changes

Mock Production Run

Cutover to Production

С

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

• Midwest ISO began its field test on November 1, 2007.

UPCOMING ACTIVITIES

• This activity is complete.

ISSUES & CONCERNS





Loop Flow Study Phase II



Milestone Summary C Define Scope C Finalize Scope G Develop Flowgate Analysis Approach G Conduct Analysis G Quantify Contributors G Identify Mitigating Actions G Finalize Report G Present Findings to Stakeholders

JCM Lead

Overall Status

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

Legend

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

KEY ACCOMPLISHMENTS

• Reviewed Scope document with JCM Stakeholders.

UPCOMING ACTIVITIES

- Review data access requirements to obtain tag data, NNL data, and market flows.
- Identify flowgates to be included in the study.

ISSUES & CONCERNS





Dynamic Dispatch. Sched./Dispatch. Trans.

Milestone Summary Review Analysis with Stakeholders Determine Next Steps G Overall Status

JCM Leads

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

Legend Completed On Target – No Issues Need to watch – Some Issues 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.
- Results of analysis on proxy bus prices were presented at the June 1, 2007, Joint Stakeholder Meeting.

UPCOMING ACTIVITIES

- RTOs are continuing analysis of border price differentials since the PJM Marginal Losses initiative was implemented.
- RTOs are conducting preliminary analysis to determine if initiative should be taken off "hold" status.

ISSUES & CONCERNS





JCM Hold



Initiatives





Coordinated OASIS



Milestone Summary

Perform Analysis

Stakeholder Review

Develop Cost Benefits/Estimate

Conduct Internal Stakeholder Reviews

Review Results at Joint Stakeholder Meetings

Overall Status

JCM Leads

· Midwest ISO: E. Skiba

• PJM: C. Advena

Legend

Completed

On Target - No Issues

Need to watch - Some Issues

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.
- NAESB posted their Group 1 changes for FERC Order 890 for 30day member ratification on November 19, 2007. Group 1 changes include: Posting of ETC, Annotation for ATC, Load Forecast and Actual Load, Re-bid of Partial Service, Pre-confirmation, and Conditional Firm.

UPCOMING ACTIVITIES

• NAESB to post Group 2 changes (Posting of Performance Metrics) for 30-day formal comment period.

ISSUES & CONCERNS





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
 - 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

 Work to determine if this can be included as a component under the NAESB Annual Plan Item "Prepare recommendation for future path for TLR in concert with NERC, which may include alternative congestion management procedures."

ISSUES & CONCERNS

No issues at this time.





Shared Regulation Market



Milestone Summary

G Analyze Options Shared Reg. Mkt.

Resolve CA Consolidation Issues

G

Perform Detail Study

G

Identify Changes Policies, Procedures,

applications, etc.

Review Results with Stakeholders

Go/No Go Decision

Overall Status

JCM Lead

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

Legend

Completed

On Target - No Issues

Need to watch - Some Issues

In Jeopardy - Significant Issues

KEY ACCOMPLISHMENTS

UPCOMING ACTIVITIES

• Analysis on this initiative will begin in 2008 after Midwest ISO opens its Ancillary Services Market.

ISSUES & CONCERNS





Cross Border FTRs in the Allocations

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

• Analysis on this initiative will begin in first quarter 2008.

ISSUES & CONCERNS





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 (Decision not to proceed with initiative)
- Joint Expansion Planning (Coordinated System Plan)
- Common Deliverability Studies
- Common Treatment of Dynamic Schedules and Pseudo Ties
- PJM Marginal Losses

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
- 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



