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June 28, 2006

Honorable Magalie Roman Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E. Room 1A
Washington, D.C. 20426

Re: Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C., Dockets No. ER04-375-017, ER04-375-018

Dear Ms. Salas:

PJM Interconnection, L.L.C. (“PJM”) and the Midwest Independent Transmission System Operator, Inc. (“Midwest ISO”) hereby file, for informational purposes, a combined report on progress towards a joint and common market, and implementation of the Joint Operating Agreement (“JOA”) executed by the Midwest ISO and PJM, in accordance with the Federal Energy Regulatory Commission’s (“Commission”) March 18, 2004, August 5, 2004, and March 3, 2005 orders in Docket No. ER04-375¹ and July 31, 2002 order in Docket Nos. EL02-65, *et al.*² On December 30, 2005, and February 28, 2006, the RTOs filed the first and second informational reports respectively (the “December 30 Report” and the “February 28 Report”) on the progress of the joint and common market.³ This is the third such report.

¹ See 106 FERC ¶ 61,251 (2004) (“March 18 Order”), 108 FERC ¶ 61,143 at PP 58, 59 (2004) (“August 5 Order”), and 110 FERC ¶ 61,226 at PP 75 (2005) (“March 3 Order”).

² See 100 FERC ¶ 61,137 (2002) (“July 31 Order”).

³ WPS Companies filed a February 3, 2006 complaint in response to the December 30 Report, which was dismissed pursuant to a Commission order issued on March 16, 2006 (114 FERC ¶61,277).

I. Modifications to the JOA or Congestion Management Process

The Midwest ISO and PJM are continually reviewing the JOA and its detailed schedules for potential improvements. Since the start of the Midwest ISO energy markets, the RTOs have continued their regular meetings to discuss various aspects of the JOA and, particularly, Phase II implementation. The RTOs have not identified any necessary changes to the JOA at this stage, other than those that were the subject of previous Commission orders.⁴

II. Joint and Common Market Elements Achieved

In their December 30, 2004 filing in Docket Nos. ER04-375-000, *et al.* (the “Phase 2 Filing”), the Midwest ISO and PJM included an extensive discussion of the process and timeline to move beyond market-to-market coordination, towards the development of a joint and common market.

As discussed in the October 31 Filing, the Midwest ISO market was formed from 27 separate control areas with a total peak load of 112,000 MWs, using a security-constrained economic dispatch system and coordinated market settlements. Concurrently, PJM integrated six large companies into its energy market that now encompasses a 135,000 MW peak load region. Quantification studies in each RTO to measure the substantial benefits resulting from the larger coordinated operations under each of the single markets have been completed and published.⁵

⁴ For example, the RTOs are developing JOA amendments related to joint planning and transmission expansion pursuant to Commission orders. *Midwest Independent Transmission System Operator, Inc.*, 113 FERC ¶ 61,194 (2005). *Midwest Independent Transmission System Operator, Inc.*, 114 FERC ¶ 61,106 (2006).

⁵ The studies were discussed at length in the December 30 Report at pages 3 and 4, and links were provided to access the studies.

With regard to operating reliability across the border, during Phase 1 of the JOA, the Midwest ISO and PJM developed the Congestion Management Process (“CMP”) that required market-based operating entities to report their market flows to the IDC⁶ so that when TLRs were issued, both market entities and non-market entities would assist in reducing the congestion by reducing market flow. It also initiated a method to manage loops flows by allocating capacity on critical flowgates to each RTO based on historic flows. This was the first time that any RTO had successfully managed parallel path flows through regional coordination as required by Order No. 2000.

The congestion management obligations of the CMP were incorporated into the JOA, which also obligates the RTOs to exchange critical operating and planning data, to coordinate outages and voltage problems, improve communications, perform market-to-market redispatch and establish emergency procedures. The JOA between the Midwest ISO and PJM implemented many initiatives that are essential elements of the joint and common market.

⁶ The IDC is the NERC Interchange Distribution Calculator used to determine the reduction in transmission transactions necessary to relieve transmission congestion.

Phase 2 Market-to-Market

Phase 2 of the JOA continued the reliability aspects of Phase 1, but added a new facet to regional coordination by introducing the opportunity for one market-based RTO to request redispatch from the other market-based RTO when that option proved more economic than redispatching internally to solve a transmission constraint. Since the start of the Midwest ISO market in April 2005, this market-to-market coordination has satisfied many of the objectives which, in 2002, were identified as elements of a joint and common market.

While the benefits of Phase 1 were primarily reliability-related, Phase 2 has yielded considerable benefits from the standpoint of increasing the efficiency with which the combined market region operates. PJM and the Midwest ISO have estimated the total, annualized benefits of the enhanced coordination made possible by Phase 2 to be \$50.5 million dollars. These benefits have accrued due to the following impacts resulting from coordinated market operations over the combined area:

- Increased market efficiency as evidenced by reduced price separation between the PJM and Midwest ISO market areas;
- Avoided redispatch cost to PJM as a result of Midwest ISO redispatching for PJM constraints under market-to-market coordination; and
- Avoided redispatch cost to the Midwest ISO as a result of PJM redispatching for the Midwest ISO constraints under market-to-market coordination.

In summary, the PJM-Midwest ISO JOA established the framework for managing congestion seamlessly between the two markets (and with neighboring non-market systems), exchanging critical operating data, coordinating outages and reactive power requirements, performing market-to-market redispatch, and responding to emergency conditions in a coordinated manner. Moreover, significant benefits have been realized through the coordinated market operations of the Midwest ISO and PJM.

The next stage of the joint and common market, identified through the recent stakeholder process, consists of the various joint and common market elements discussed in the October 31 Filing, the December 30 Report and the February 28 Report. When implemented, these changes will build upon the JOA accomplishments to meet the objectives, goals and characteristics of a joint and common market.

III. Status Report on Additional Joint and Common Market Elements

In the October 31 Filing, the RTOs committed to initiate the processes and to take the steps necessary to implement the additional elements of a joint and common market identified in the October 31 Filing as “Committed Initiatives,” and to provide a timeline for each Committed Initiative.

In addition, the RTOs discussed certain initiatives in the October 31 Filing that require further cost/benefit studies, investigation, or overcoming of obstacles that prevented the RTOs from committing at that time to a definitive implementation plan and schedule (“Further Action Needed Initiatives”).⁷ For these initiatives, the RTOs will present their findings to stakeholders for discussions according to the specified timeline.

The RTOs have started the coordination of activities and have developed project plans for the stakeholder processes and other activities necessary to pursue each of the Committed Initiatives. The timeline for most of the Committed Initiatives calls for such activities to begin in 2006.

A. Production Cost Study

PJM and the Midwest ISO have completed a comprehensive analysis of the expected annual production cost savings of a single unit commitment and dispatch over the combined Midwest ISO/PJM market footprint. On May 25, 2006, the final results of

⁷ The initiatives may also require RTO board level approval and/or FERC approval.

the production cost study were issued in preparation for the June 2, 2006, stakeholder meeting. The results of the production cost study were reviewed by the RTOs with their stakeholders at the June 2, 2006, meeting in Carmel, Indiana, and can be accessed at the following link:

<http://www.jointandcommon.com/working-groups/joint-and-common-wg.html>.

The production cost savings analysis was conducted using two separate but similar commercially available energy market simulation tools. PJM used General Electric's MAPS program and the Midwest ISO used New Energy's PROMOD IV to conduct the analysis. Both tools simulate an hourly security-constrained unit commitment and dispatch of generation over the entire Eastern Interconnection using detailed generation and transmission system models. In performing the production cost study, the RTOs used the same approach and methodologies as those used for all other production costs studies performed by the RTOs.

Although the analysis was conducted independently using two separate tools, PJM and the Midwest ISO exchanged key 2006 base case model information to ensure consistent input assumptions. Data that was exchanged by the RTOs' for input consideration into the respective models included base load flow data, fuel prices, unit capacities, transmission constraint modeling, area load representation, both simulated and real actual and scheduled interchange values, O&M costs, and environmental cost components. Each RTO used commonly available energy market simulation tools based on security-constrained commitment and economic dispatch algorithms. Both algorithms use detailed electrical models of the Eastern Interconnection, along with transmission and generator constraints to produce hourly production cost and bus level LMP results.

It is important to note that the base case on which the production cost savings are based is benchmarked against the actual market conditions experienced over the last year. Therefore, the production cost savings that result from the analysis are inclusive of the benefits that will be achieved through implementation of the various joint and common market initiatives already under development or investigation and those benefits achieved by market participants' more experience with the PJM and the Midwest ISO Markets, since the start of the Midwest ISO market. Specifically, the following joint and common market initiatives are expected to increase the convergence of the two markets and achieve a significant portion of these savings:

- PJM implementation of marginal losses;
- Alignment of PJM Operating Reserve and the Midwest ISO Revenue Sufficient Guarantee products;
- Moving Joint-Owned Units between markets;
- Alternative border pricing point mechanisms.

The other potential joint and common market initiatives which are also being considered could further enhance the convergence of the two markets. In addition, PJM and the Midwest ISO are and will be continuously analyzing and improving the operation of the Market-to-Market coordination that was implemented as Phase 2 of the JOA. The initiatives described above are expected to achieve a significant portion of the production cost savings estimated in the simulations, at substantially less cost than a single unit commitment and dispatch.

The market simulations in the production cost study were performed with an Eastern Interconnection model in which commitment and dispatch constraints create the regional market areas including PJM and the Midwest ISO. In this simulation mode, hurdle rates set the conditions in which economic transactions flow between the market areas. This simulation modeled operating conditions that are similar to current operations

in which each market area performs its own least-cost unit commitment and economic dispatch to meet the market area demand and reserve requirements.

The objective of this analysis was to estimate the expected annual production cost savings of a single unit commitment and dispatch over the combined Midwest ISO/PJM market footprint. In order to estimate the benefits of a combined market, two cases were needed for comparison. The first is a base case with the Eastern Interconnection market areas modeled as individual pools using hurdle rates between each market area. The hurdle rate establishes the criteria under which economy interchange can be transacted. The second case is created with the hurdle rate between the Midwest ISO and PJM removed. This effectively combines the Midwest ISO/PJM market areas into a single energy market with no hurdle impeding the transfer of economy interchange between the regions. The difference in production cost between these two cases represents the expected annual production cost savings of a single Midwest ISO/PJM unit commitment and dispatch.

The analysis results show a total annual production cost savings range of between \$15 million to \$99 million. Estimated production cost savings varied depending on assumptions made regarding fuel price disparity, initial base case hurdle rates, and methodology used to account for off-system purchases and sales. A best match between simulation results and historical 2005 interchange was achieved at a simulation hurdle rate of \$2.50 per MW hour. At this hurdle rate the range of savings narrowed between \$34 million and \$65 million.

The PJM and the Midwest ISO staff continue to have serious doubts that current technology could accommodate a single dispatch of the entire region. Based on the results of the production cost study, it is clear that the cost of implementing a single

dispatch could outweigh the achievable level of associated savings. PJM and the Midwest ISO believe that implementation of the significantly less-costly initiatives described above must be completed and be effective for a sufficient timeframe in order to judge the actual achievable level of savings still available through the much more costly development of a single dispatch.

B. Status of Committed Initiatives for the Joint and Common Market

The following is a status report on each of the “Committed Initiatives,” which the Midwest ISO and PJM described in the October 31 Filing:

1. Alignment of FTR Timelines and Products.

In order to achieve FTR market convergence between PJM and the Midwest ISO, the RTOs propose to align their FTR timelines and products. In order to accomplish this initiative, the Midwest ISO plans to align its FTR products with PJM’s FTR products and its FTR allocation and auction timeframes with PJM’s FTR allocation and auction timeframes.

The current PJM and Midwest ISO FTR processes are significantly different. In order to implement this initiative, the Midwest ISO must review the proposed changes to the Midwest ISO policies, procedures, applications and systems with its stakeholders and obtain stakeholder agreement on such changes.

The Midwest ISO Market Subcommittee voted to approve the general direction of this initiative, including the use of PJM’s ARR/FTR process as a starting point to develop a new allocation process for the Midwest ISO. Efforts by the Midwest ISO Transmission Rights Task Force (“TRTF”) to develop modified FTR market rules to align the Midwest ISO and PJM FTR markets revealed that significant differences will remain between the two markets even after adoption of the major elements of the PJM ARR/FTR allocation

and auction process. Specifically, differences in the product definitions (seasonal in the Midwest ISO and annual in PJM) will require additional effort and potentially further changes in both the Midwest ISO and PJM FTR markets. The Midwest ISO Market Subcommittee, has voted to continue development of the modified market rules, as previously approved, and to initiate a new process at the conclusion of the current effort, to consider further alignment of FTR products.

Following Midwest ISO stakeholder approval, Commission approval of the Midwest ISO changes to FTR timelines and products will be required.

Pending stakeholder and regulatory approvals, this effort is on schedule.

2. PJM Move to Marginal Losses.

The Midwest ISO presently includes the impact of marginal losses in its dispatch of energy and Locational Marginal Price calculations while PJM does not. This distinction has the potential to increase the level of price separation at the RTOs' borders. PJM's implementation of Marginal Losses has the potential to reduce this component of price divergence.

PJM has been in discussions through its stakeholder process regarding the implementation of Marginal Losses for some time. The PJM Tariff and Operating Agreement currently require PJM to implement Marginal Losses when it is technically feasible to do so. On January 26, 2006, the PJM Members' Committee voted to develop language to remove the requirement to implement Marginal Losses from the Tariff and Operating Agreement.

In an Order issued on May 1, 2006, however, the Commission required PJM to implement locational marginal loss method for allocating transmission line losses per section 3.2.5 of the PJM Operating Agreement and Attachment K of the PJM Tariff no

later than October 2, 2006. In order to provide the parties with additional time in which to resolve remaining issues, the Commission established October 2, 2006, as the date when PJM must implement the locational marginal loss method contained in its tariff.⁸

On Friday June 2, 2006, PJM filed with the Commission a Motion for Postponement of Effective Date and Request for Shortened Answer Time and Expedited Commission Ruling in the matter of Docket Number EL06-55 until June 1, 2006. On Friday, June 23, 2006, the Commission issued an order granting PJM's request for a delay in the implementation of marginal losses until June 1, 2007. PJM will implement marginal losses in its dispatch and pricing algorithms on that date. Therefore, pending regulatory approvals, this initiative is now scheduled for implementation by June 1, 2007.

3. Alignment of Operating Reserves/Revenue Sufficiency Guarantee ("RSG") Products.

In order to reduce the hurdle rates for through-and-out point-to-point transactions between PJM and the Midwest ISO, this initiative will align PJM's Operating Reserves and the Midwest ISO's RSG products so that charges are allocated similarly. The RTOs also note that the most direct way to reduce the hurdle rate represented by these charges is to reduce the magnitude of the charges themselves, and the RTOs are committed to doing so. In fact, PJM's Operating Reserves rates have decreased dramatically over the last 7 to 8 months.

Both the Midwest ISO and PJM provide payments to generators that are committed/scheduled by the RTO in the day-ahead and real-time markets when necessary

⁸ *Atlantic City Electric City, et. al. v. PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,132 (2006).

to cover as-offered costs. There are differences, however, in allocation details between PJM and the Midwest ISO in two major areas. First, PJM allocates Balancing Operating Reserve charges across an entire 24-hour period, while the Midwest ISO allocates its similar charges on an hourly basis. Second, PJM nets deviations from individual transactions to determine deviations from day-ahead schedules while Midwest ISO calculates deviations based on each individual schedule change.

Because hourly allocations increase RSG volatility and lack of netting increases the cost of scheduling transactions in real-time, the Midwest ISO proposed to its stakeholders the changes that better align these allocation rules. Based on that recommendation, the Midwest ISO Market Subcommittee voted on October 17, 2005, to form an RSG Task Force to consider changes to the Midwest ISO RSG cost allocation, including changes to better align the Midwest ISO RSG cost allocation and the PJM Operating Reserve cost allocation. The Midwest ISO RSG Task Force has since met eight times to discuss RSG-related issues and potential changes to the allocation of RSG costs.

Many of the issues under discussion at the RSG Task Force were included in the Commission's April 25, 2006 order ("April 25 Order") related to RSG cost allocation under the Midwest ISO Energy Market Tariff.⁹ The April 25 Order is the subject of several requests for rehearing in Docket No. ER04-691-065. The Midwest ISO RSG Task Force has determined that further development of changes to the Midwest ISO policies, procedures, applications and systems cannot move forward until there is more clarification on the substance of the April 25 Order.

⁹ Midwest Independent Transmission System Operator, Inc., 115 FERC ¶ 61,108 (2006).

PJM Reserve Markets Working Group is also considering Operating Reserves allocation changes that may have beneficial impacts for PJM/Midwest ISO transactions. PJM stakeholders have not come to resolution on changes to the PJM Operating Reserve allocation mechanism and stakeholder discussions are ongoing.

Following Midwest ISO stakeholder approval, Commission approval of the Midwest ISO changes will be required.

4. Common Search Capabilities.

This initiative will implement one search engine that searches both the PJM and the Midwest ISO's public websites and is accessible from either of their existing websites. This search engine will scan the contents of the PJM, Midwest ISO and joint websites and return results of queries as if only one site was in existence.

The RTOs will use an industry standard "Google" search engine for the joint site which is the same one that PJM has used on its web site with positive results. The technical feasibility analysis of using the search engine has been tested and put into service, with the capability of scanning the PJM and JCM document repositories. Work continues to open the RTOs' document repository to the search engine.

This effort is on schedule.

5. Link Existing eData/Price Transparency Portal Sites.

This initiative will link the existing PJM eData and Midwest ISO Price Transparency Portal sites together allowing for the exchange of data between the two sites (*e.g.*, LMP, Instantaneous Load, Tie Flows, etc.) and make it available for display and download. The RTOs will need to identify differences in the synchronization of data delivery timeframes and calculations and develop approaches for those differences.

The RTOs have formulated a vision for the data display, and will be moving next to conceptual design development and an evaluation of technical implementation alternatives. Stakeholder approvals will be required to implement this initiative. On April 21, 2006, the RTOs reviewed the conceptual design with stakeholders in order to allow the stakeholders the opportunity to specify key data (LMPs, Tie flows, etc.) for the initial release.

This effort is on schedule.

6. Joint Web Site.

Under this initiative, the Midwest ISO and PJM will enhance the joint web site that hosts PJM's and the Midwest ISO's common information (*e.g.*, joint meetings, event calendars, joint documents and reports, etc.). In order to complete this initiative, PJM and the Midwest ISO must develop a process to maintain the joint website in order to keep it current and determine what information must be included, changed, added or deleted and by whom. Moreover, PJM and the Midwest ISO must modify the existing joint website by implementing: (i) a joint meetings notifications capability; (ii) a joint events calendar capability; (iii) a more robust joint document storage, retrieval, and retention capability; and (iv) a more robust joint reporting capability.

The RTOs conducted an evaluation of the Events Calendar that PJM uses on the PJM website site for use on the joint website, and concluded that it can be used as the platform for the joint calendar. The necessary modifications are being tested and this effort is on schedule.

7. Moving Joint-Owned Units ("JOUs") Between Markets.

The RTOs will develop a joint approach using best practices to provide market participants who own joint-owned units (JOUs are generation assets jointly owned by PJM

and Midwest ISO market participants) with the ability to sell their share of generation into the day-ahead and real-time market in either the market where the JOU owner is a market participant, or the market where the JOU physically exists. In order to pursue this approach, there may be issues that need to be resolved to provide the ultimate flexibility that this initiative is designed to address and which stakeholders have requested.

Both the Midwest ISO and PJM will need to make other changes based on the analysis of treatment of these units. These include changes to procedures, manuals, and systems to accommodate the modifications found in the analysis and include items such as accommodating treatment of JOUs in the calculation of ramp, reserves, etc.

This initiative was previously introduced by the RTOs' stakeholders because aligning the treatment of JOUs between RTOs makes sense, regardless of the joint and common market stakeholder process, and the costs are not significant. The ability of market participants to choose in which markets the output of their units is sold and take advantage of price differentials that may exist at these units' buses will benefit both the participants and the markets as a whole.¹⁰

The initial step in this initiative is to allow owners of JOUs, where individual shares of those units are already pseudo-tied into the RTO and the owner of such share is a market participant, to adjust the pseudo-tie value. This would leave that share of the output of the unit in the RTO where the unit is physically located. The RTOs completed the final test on March 31, 2006.

¹⁰ As the prices at the RTOs' borders converge, this value to the market participants and the market will decrease.

In order to implement this initiative, individual stakeholders need to complete changes on their systems. This initiative is complete and the functionality is currently being utilized.

8. Common Long-Term Transmission Queue.

Under this initiative, the Midwest ISO and PJM will create a common long-term transmission service queue. This initiative will impact only annual cross-border Firm Transmission Service requests. Through this initiative, the Midwest ISO and PJM will eliminate the potential for customers obtaining long-term “useless” partial path service reservations through a joint study of matched partial paths and will provide a single response to cross-border Long-Term Transmission Service requests. These studies will be performed either by the Midwest ISO or PJM and will evaluate the request on behalf of both Transmission Providers. The customer will be given the flexibility of selecting a joint study for a cross-border request or have two separate studies, as is done today.

In order to complete this initiative, it will be necessary to determine differences in existing PJM and the Midwest ISO processes and define a common long-term transmission queue process. Moreover, PJM and the Midwest ISO will need to obtain agreement among their respective stakeholders if there are changes to the long-term transmission queue process. Regulatory approvals may also be required to implement this initiative.

The PJM Tariff and the Midwest ISO Tariff may need modifications to allow either RTO to take action on a request for service based on evaluation made by the other RTO. Business practice documentation, including the PJM Manual for Transmission Service (M-2), the PJM Regional practices, and Midwest ISO Tariff Business Practices, Module B, would be updated to describe (a) the process by which transmission customers could elect a joint study and (b) the revised process for the study of long-term service.

The RTOs have identified business rule differences that affect long-term reservations. The RTOs have developed a first draft of a business process, and are working on revisions to this document. A staff meeting was held February 14, 2006, to map out future activities, which includes the continued development of a joint process and stakeholder review opportunities. PJM and the Midwest ISO presented the interim results of the plan for queue coordination at a stakeholder meeting on April 21, 2006. The RTOs will continue to develop the detailed plan to implement this initiative.

Pending stakeholder and regulatory approvals, this effort is on schedule.

9. Midwest ISO Ramp Viewer.

The Midwest ISO has already initiated a project to give its market participants the ability to reserve ramp and view available ramp in the Midwest ISO region. This will give participants the ability to reserve ramp prior to purchasing transmission and arranging energy deals, and allow them to view information on changes in net interchange needed to make economic decisions. Infrastructure hardware has been installed, development is complete and testing is being conducted.

This initiative was completed on May 15, 2006, and is currently being utilized by market participants.

10. Central Location to View Both Ramp Viewers.

For this initiative, the Midwest ISO and PJM will develop a central location where both the Midwest ISO and PJM ramp reservations can be viewed and accessed. The Midwest ISO and PJM will need to make system changes to display both RTOs' ramp data in a common area. The system changes will create a common data area and establish data interfaces to keep the ramp data current. The Midwest ISO and PJM will

also coordinate to bring the RTOs' business rules in alignment and make the appropriate manual changes.

There may be security issues associated with posting dynamic information to a common website. PJM and the Midwest ISO's security teams will need to develop a strategy to address this concern.

This initiative is on track and scheduled for implementation in 2007.

11. Common Ramp Portal.

This initiative builds upon the previous initiative. The Midwest ISO and PJM will develop a common portal to allow market participants to view and reserve ramp in both RTOs simultaneously. In order to pursue this project, additional security concerns with transferring information from a central location must be addressed. PJM and the Midwest ISO's security teams will need to develop a strategy to address this concern. Also, the RTOs' stakeholders will need to approve the development of this moderately expensive tool.

The Midwest ISO and PJM also will need to make significant system changes to allow for the reserving of ramp in both RTOs from the same interface. The system changes will enhance the common ramp viewer and establish data interfaces to keep the ramp data current.

This initiative is on track and scheduled for implementation in 2008.

12. Alignment of OASIS Business Practices.

This project aligns the timing requirements associated with transmission service requests on each node. By aligning the timing requirements associated with submitting transmission service requests; this will accommodate the near simultaneous submission of cross-border transmission requests on both the Midwest ISO and PJM OASIS. The

common long-term transmission service queue initiative aligns the timing requirements for long-term firm requests. This initiative aligns the timing requirements for other transmission service requests. This project will require identification of the policies, procedures and terminology which comprise the Midwest ISO's and PJM's OASIS Business Practices and, to the extent possible, aligns such policies, procedures and business practices.

It will be necessary to obtain the RTOs' stakeholders' approvals and file for Commission approval of necessary PJM and Midwest ISO Tariff revisions. Moreover, it will be necessary to modify applications and systems to implement this initiative.

PJM and the Midwest ISO will seek stakeholder consensus on best practices. Section 1.6, "Table Summary: Transmission Service Submittals," of the PJM Regional Practices (posted at <http://oasis.pjm.com/rpd.html>) and Appendix A of the Midwest ISO Tariff Business Practices, Module B of the EMT, must be updated to reflect the revised timing requirements for the submittal of Transmission Service Requests. The Midwest ISO and PJM manuals may also require updates. Tariff changes are anticipated for both RTOs.

On April 21, 2006 PJM and the Midwest ISO conducted a review of the proposed timing changes with the joint stakeholders in Carmel, Indiana. The Midwest ISO reviewed the proposed timing changes that will be required for this initiative with its stakeholders at the Market Sub-Committee meeting on June 6, 2006. PJM reviewed the proposed timing changes with the PJM Market Implementation Committee on June 27, 2006.

Pending stakeholder and regulatory approvals, this project is on schedule.

13. Common Treatment of Dynamic Schedules/Pseudo-ties.

This initiative will provide market participants with flexibility to allow their existing dynamically scheduled generating units to participate in their current market configuration and to align the treatment of these entities identically in each region.

This initiative will require the RTOs to determine the efforts required by stakeholders to modify their systems to accommodate the changes to PJM and the Midwest ISO's procedures, applications and systems which are related to dynamic schedules. Moreover, the Midwest ISO and PJM will need to make business rule and procedural changes to accommodate a common treatment of Dynamic Schedules/Pseudo-ties and make the appropriate manual changes to reflect the updated procedures for market participants. The Midwest ISO and PJM also will need to make some minor system changes to accommodate this treatment in ramp, interchange, etc.

Project specifications have been submitted to the software vendor, and the RTOs are awaiting a proposal establishing time requirements and cost estimates.

The RTOs are on schedule for this proposal.

14. Emergency Energy Agreement.

Under this initiative, the Midwest ISO and PJM need to replace existing emergency energy agreements between former control area operators of PJM and the Midwest ISO with an emergency energy agreement between the RTOs. These agreements were in place to facilitate the sale of energy during emergency conditions. While these agreements existed prior to RTO development, PJM and the Midwest ISO may not be parties to them. The new emergency energy agreements will be closely aligned with existing PJM agreements and with former control area to control area agreements.

Legal, regulatory and corporate structure issues associated with replacing the prior emergency energy agreements with new RTO agreements may be an obstacle to complete these agreements in the short term. The Midwest ISO has developed a template proposal which it plans to discuss with stakeholder groups. These template agreements would require tariff changes to clarify the allocation of revenues when selling emergency energy.

Pending stakeholder and regulatory approvals, this project is now 30 days behind schedule.

15. Black Start and Restoration.

Under this initiative, the Midwest ISO is developing a cost-based structure very similar to the current PJM cost-based black start procurement process included in Schedule 6A of the PJM Tariff. Future coordination could potentially include joint restoration system plans leading to joint evaluation of critical black start resources.

An obstacle to this initiative is the potentially low number of actual units which may reasonably qualify for black start in both PJM and Midwest ISO. The RTOs will need to determine the actual number of units which reasonably qualify for black start in both regions.

A new Tariff schedule will be proposed for the Midwest ISO Tariff to compensate generators for black start services. The PJM Tariff will need to be changed to reflect black start units identified in both RTOs. These changes would reflect black start compensation and other related matters. In addition, the Midwest ISO and PJM systems will need to change to reflect this coordination as well as make the appropriate manual changes to reflect the updated procedures for market participants.

Pending stakeholder and regulatory approvals, this project is on schedule for a 2007 implementation.

16. Joint Expansion Planning (Coordinated System Plan).

This initiative consists of the joint expansion planning process through which the RTOs will develop the Coordinated System Plan (“CSP”) (as provided for in the JOA) to evaluate impacts on the other RTO’s facilities and identify any needed system upgrades.

The RTOs have developed a scope document and reviewed the scope with the stakeholders through an IPSAC meeting. Development of a year 2011 joint planning base system model has been completed. The RTOs plan to complete joint generator deliverability, N-2 and common market analysis by October 2006. A joint PJM/Midwest ISO IPSAC stakeholder meeting is scheduled for July 25, 2006, to review preliminary results.

Pending stakeholder and regulatory approvals, this proposal is on schedule.

17. Common Deliverability Studies.

This initiative addresses the use of common generation deliverability studies to determine if units are deliverable in both RTOs, and if they are not deliverable in both RTOs what system constraints limit the deliverability.

The common deliverability studies to be completed in 2006 will be for informational purposes. If the Midwest ISO and PJM decide to implement a common deliverability process, modification would be required of the Midwest ISO Tariff (Attachment X), the PJM Tariff and the PJM Operating Agreement, as well as internal Midwest ISO and PJM deliverability study procedures.

Pending stakeholder and regulatory approvals, this proposal is on schedule.

18. Cross Border Cost Sharing of Expansions.

The Midwest ISO and PJM have made previous filings with the Commission to reflect the Joint Expansion Planning. On May 17, 2005, in compliance with the Commission's November 18, 2004 Order in separate but related proceedings,¹¹ PJM and the Midwest ISO filed with the Commission revisions to the JOA, the Midwest ISO Tariff, the PJM Tariff and the PJM Operating Agreement. These revisions complied with the Commission's directive to file a proposal for allocating to the customers in each RTO the cost of new transmission facilities that are built in one RTO but which provide benefits to customers in the other RTO.¹² The Midwest ISO and PJM will need to make business rules and procedural changes as well as appropriate manual changes to reflect the updated planning coordination.

Under the JOA CSP, the RTOs have filed cross-border cost allocation methodologies for reliability projects which allocates to customers in each RTO the cost of new transmission facilities built in one RTO but that provide benefits to customers in the other RTO. In an order dated November 21, 2004, the Commission conditionally accepted that filing but also directed the RTOs to begin a stakeholder process to develop a cross-border cost allocation proposal to be filed by December 1, 2006,¹³ for economic transmission projects.¹⁴

¹¹ *Midwest Independent Transmission System Operator, Inc., et al.*, 109 FERC ¶ 61,168 (2004) ("November 18 Order").

¹² November 18 Order at P 60.

¹³ This filing was originally due on June 1 2006, but the Commission granted the RTOs' request for a 6 month extension to time to file.

¹⁴ In advance of final JOA amendments, the RTOs were nonetheless able to jointly study and resolve the NIPSCO complaint regarding West to East flows by recommending a cost allocation methodology and alternative engineering solutions to the affected transmission owners. *See* Final Report and Recommendations of Transmission Study - *Northern Indiana Public Service Co. v. Midwest Independent Transmission System Operator, Inc.*, January 17, 2006, Docket No. EL05-103-000.

Stakeholder meetings were held on March 8, 2006, and May 9, 2006. Additional meetings will be scheduled to continue to discuss economic planning cross border cost allocations following the RTOs completion of additional evaluations to assist stakeholders in evaluating the various options under consideration.

Pending stakeholder and regulatory approvals, this proposal is on schedule.

C. Status of Further Action Needed Initiatives

As discussed above and in the October 31 Filing, in addition to Committed Initiatives, while under consideration for possible implementation, additional proposals require further cost/benefit studies, investigation, or overcoming of obstacles that prevented the RTOs from committing to a definitive implementation plan and schedule (“Further Action Needed Initiatives”) at the time of the October 31 Filing. The RTOs have committed to report back to the stakeholders regarding each of the Further Action Needed Initiatives on the specified timeline set forth in the October 31 Filing. In keeping with their commitment to consider and evaluate new joint and common market initiatives, the RTOs have included in this report 4 new joint and common market “Further Action Needed Initiatives” which the RTOs believe warrant further evaluation. These new initiatives have potential to bring additional benefits to the joint and common market. Accordingly, the RTOs will report back to the stakeholders regarding each of these new Further Action Needed Initiatives identified below. The following is a status report on each of the “Further Action Needed Initiatives” which the Midwest ISO and PJM continue to investigate:

1. Cross-Border FTRs in the Allocations.

As a potential additional step to converge the PJM and Midwest ISO FTR markets, the Midwest ISO and PJM are studying an initiative to align the processes by which

FTRs/ARRs are allocated in the two markets. This initiative is dependent upon the implementation of the initiative to align PJM and Midwest ISO FTR timelines and products (*See* section III.B.1. above). The RTOs are on schedule to begin analysis on this initiative in 2007.

2. Alternative Border Pricing Point Calculations.

PJM and the Midwest ISO are evaluating the suggestion to add additional pricing point options for transactions between PJM and the Midwest ISO by allowing market participants to submit transactions based on physical flow effects on localized transactions. Stakeholders believe that this would provide greater flexibility and a greater opportunity to trade between PJM and the Midwest ISO than only one proxy for each RTO.

PJM and the Midwest ISO are concerned that this proposal may create gaming opportunities because of the difficulty (if not impossibility) in verifying that the physical MWs associated with a particular transaction are actually source/sinking in the physical location represented by more specific pricing points. An alternative still under consideration would be to weight the individual nodes that are combined to constitute the single interface pricing point currently used by each RTO (*i.e.*, real time weighing of proxy bus components). Such an approach would provide a better indication of the impact of transmission constraints on trade between the two RTOs, and would achieve the greatest level of price transparency between PJM and the Midwest ISO, as well as the greatest level of price transparency possible with regard to trade between the regions.

The RTOs are on schedule for reporting back to stakeholders on this initiative.

3. Shared Regulation Market.

PJM and the Midwest ISO recognize that this proposal would create a larger area over which a market is operated and thus, a more efficient market. The implementation of a shared regulation market between PJM and the Midwest ISO would require real time, two-second exchange of energy between the two regions. Before this initiative can be evaluated and implemented, however, it is necessary for control area consolidation and reserve market issues in the Midwest ISO to be resolved.

The RTOs are on schedule for reporting back to stakeholders on this initiative. The analysis for this initiative is scheduled to begin in 2007.

4. Common Time Zones (Modify PJM Systems to Eastern Standard Time).

This proposal would have moved PJM's systems to Eastern Standard Time ("EST") to align with the Midwest ISO. Assumed benefits of such a change were reduced ongoing IT costs (for both RTOs and market participants), reduced confusion when scheduling and interacting with both RTOs, and increased efficiency between market and system operators.

This proposal would move PJM's systems to Eastern Standard Time for the entire year to align with the Midwest ISO time standard. The PJM Market and Reliability Committee, the PJM Market Implementation Committee, the PJM Operating Committee, the PJM System Operations Subcommittee, the PJM System Information Subcommittee and the PJM Dispatchers have all assessed the impact on operations personnel and on PJM and stakeholder systems and recommended that PJM remain on Eastern prevailing time. The primary issues were the cost of implementation, and the creation of a new "time zone" seam with other PJM borders (NYISO, Progress Energy, etc.) Based on this analysis, PJM does not have plans to further pursue this initiative and it will not be included in future reports.

5. Coordinated OASIS.

This proposal would link the PJM OASIS and the Midwest ISO OASIS nodes so there is single logon to both nodes simultaneously, thus allowing a single request to be submitted. The Midwest ISO and PJM recognize that there are user advantages created by this recommendation in that market participants would not need to use two separate nodes and it would allow Transmission Service Requests to be submitted once. There are, however, significant obstacles which require further evaluation. The obstacles include the limitation of OASIS Standards and Communications Protocol templates that will limit the functionality of the approach. Also, the benefits of this initiative will not allow requests to be linked for evaluation purposes.

This initiative was introduced after a cost/benefit analysis moved the Single OASIS initiative to a No Action category. The late introduction of this option did not permit time for the completion of a strong cost/benefit analysis or sufficient stakeholder input. Further investigation is required. In addition, the initiative to align OASIS business practices (*See* section III.B.12. above) may result in enough significant benefits which may negate the value of this initiative.

In late 2005, PJM made the decision to move the OASIS system from an outsourced, off-site vendor supplied system, back to an in-house system. PJM and the Midwest ISO used this opportunity to analyze the cost-benefit of co-locating the PJM and the Midwest ISO OASIS systems as a coordinated or single OASIS. This analysis was completed in May 2006 with the decision to complete the move of the PJM OASIS back to PJM largely due to cost issues. This cost benefit analysis for this initiative will start from the work completed from the PJM OASIS re-location and the align OASIS business practices. This analysis is expected to be complete by the end of 2006.

6. Dynamic Dispatchable Schedules/Real-Time Dynamic Schedules.

These two alternative “Further Action Needed Initiatives” are currently under evaluation by the RTOs as potential joint and common market initiatives. These initiatives were identified by the Midwest ISO’s Independent Market Monitor in his State of the Market Report which was presented to the Midwest ISO Advisory Committee of the Midwest ISO Board of Directors.

In Attachment 3 to the JOA, “Interregional Coordination Process (“ICP”) provides a description of the market-to-market coordination process that was implemented concurrently with the implementation of side-by-side LMP-based energy markets in the PJM and the Midwest ISO regions.¹⁵ As more fully described in the ICP,¹⁶ the Midwest ISO and PJM price the value of imports and exports at each others’ borders through the use of proxy prices. These proxy prices are utilized to represent the movement of generators in the RTO in response to imports or exports and value them based upon an average of a selection of generators. This price is then used to calculate the value of purchases and sales Market Participants transact at the border. During the initial year of operation of the Midwest ISO Energy Market, there has been improving convergence on the prices at the Midwest ISO and PJM proxy busses. There is, however, still some volatility and the RTOs have identified this area as a potential improvement in the joint and common market.

In order to achieve potential further convergence of these proxy prices, the Midwest ISO and PJM have added two alternative “Further Action Needed Initiatives” to the joint and common market efforts; an RTO managed economic Dynamic Schedule and

¹⁵ JOA, Attachment 3, Sheet Nos. 254 – 266.

¹⁶ A description of the current proxy bus modeling process used by PJM and the Midwest ISO is posted on each RTO’s OASIS.

Dynamic Dispatchable transactions between RTOs which are more fully described as follows:

(i) RTO Managed Dynamic Schedule

An RTO managed Dynamic Schedule would allow the Midwest ISO and PJM to construct a mechanism that would permit the transfer of economic energy during times of significant price deltas between the Midwest ISO and PJM proxy busses. The amount of economic energy transfer between the two RTOs would be driven by the difference in price between the two proxy busses. The larger the delta between the proxy busses, the more energy that will directed to flow between the two RTOs.

(ii) Dynamic Dispatchable Transactions

Dynamic Dispatchable Transactions are already an established tool in both RTO systems. These have been used very sparingly by market participants up to this point. The investigation into utilizing these types of vehicles, for driving the convergence of the proxy busses, will center around the use of Market Participant' offers, to price these transactions, in each RTO. The corresponding markets would then utilize these offers very similarly to the way a generation offer is utilized in the dispatch.

The schedule for evaluating and reporting back to the RTOs' stakeholders on this initiative is still under development. PJM and the Midwest ISO will develop the schedule and include it in the subsequent 120 day reports.

7. Investigation of Loop Flows Across the Combined Footprint.

This new "Further Action Needed Initiatives" is currently under evaluation by the RTOs as a potential joint and common market initiative. Unscheduled energy flow or "loop flow" is the result of the difference between the amount of energy scheduled to flow across an interface versus the amount of energy that actually flows across the

interface between two control areas. This difference in energy flow is created as a result of energy schedules being made on a “contract path” basis between directly connected control areas. The actual energy flows across interfaces based on Ohm’s Law which states that electricity takes the path of least resistance in a parallel circuit.

The Midwest ISO and PJM have observed increases in loop flows through their systems. These unscheduled flows have generally increased around 1,000 MW (about 200%) on the TVA-PJM and MECS-PJM interfaces, approximately 500 MW (about 100%) on the NY-PJM interface and 600 MW (about 60%) on the Michigan-Ontario interface. The Midwest ISO and PJM staff believe that these loop flows are contributing to FTR revenue deficiency as these flows take up space on flowgates. Additionally, the 2006/2007 annual Auction Revenue Rights allocation was negatively impacted by the increasing loop flow trend.

The Midwest ISO and PJM staffs are currently investigating the impact of loop flows on FTR revenue adequacy. Once this relationship is better understood, the Midwest ISO and PJM will be able to use tools such as interregional market coordination and NERC TLR to limit the amount of unscheduled flow observed on their transmission systems. In addition, PJM and the Midwest ISO have exchanged energy tag information with each other and have requested energy tag information from the IESO, NYISO and TVA. This information is presently being analyzed in an attempt to identify major sources of circulation in the Eastern Interconnection. Additional tag information from neighboring utilities will be requested as needed. The schedule for evaluating and reporting back to the RTOs’ stakeholders on this initiative is still under development. PJM and the Midwest ISO will develop the schedule and include it in subsequent 120 day reports.

8. Constraint Relaxation in Market-to-Market Process.

This new “Further Action Needed Initiatives” is currently under evaluation by the RTOs as a potential joint and common market initiative. For this initiative, the RTOs are evaluating initial steps to improve the coordination of congestion management on a reciprocal coordinated flowgate (“RCF”) between the Midwest ISO and PJM markets and improve the convergence of shadow prices calculated on the RCF in the separate markets that is set forth in the ICP.¹⁷

The market-to-market process for managing real-time congestion on a RCF coordinates the use of RCFs between RTOs and seeks to achieve the convergence of the shadow prices on RCFs in the RTOs’ real-time markets. The monitoring and non-monitoring RTOs manage congestion on an RCF through an iterative process:

- 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 UDS to provide the requested level of relief. It also sets the penalty for violating the revised flow limit to the shadow price calculated by the monitoring RTO.

The use of the monitoring RTO’s shadow price as the penalty for violating the flow limit in the non-monitoring RTO’s dispatch ensures that the non-monitoring RTO only provides relief if the cost is less than the marginal cost to the monitoring RTO of adjusting its flow to enforce the limit on the RCF. If the non-monitoring RTO cannot reduce its flow on the RCF to satisfy the revised flow limit as set above, the monitoring RTO will further reduce its flow on the RCF to the extent needed to enforce the limit. As such, its marginal cost of enforcing the flow should be reflected in the LMPs calculated

¹⁷ JOA, Attachment 3, “Interregional Coordination Process,” Sheet Nos. 254 – 266.

in the non-monitoring RTO. The RTOs are investigating mechanisms by which greater shadow price convergence may be achieved in these circumstances.

The schedule for evaluating and reporting back to the RTOs' stakeholders on this initiative is still under development. PJM and the Midwest ISO will develop the schedule and include it in subsequent 120 day reports.

9. Reporting Market Flow Thresholds and Netting in the IDC.

This new "Further Action Needed Initiatives" is currently under evaluation by the RTOs as a potential joint and common market initiative. PJM and the Midwest ISO raised two TLR process issues with the NERC Operating Reliability Subcommittee ("ORS") in the spring of 2006. One issue involves the netting of impacts when determining relief requirements during TLR. The other issue involves the market flow threshold used in the IDC. These two issues were originally discussed as part of revisions to NERC Standard IRO-006 that would remove the use of waivers by the market areas (Midwest ISO, PJM and SPP). The NERC ORS agreed to participate in a Congestion Management Process Working Group ("CMPWG") Task Force that will analyze the impacts and make recommendations on these two initiatives.

The netting of impacts used in the IDC has been discussed previously with the NERC ORS and the NERC ORS has given its support for netting. Netting has not been pursued in the past because of extensive IDC changes that are required. Up until recently, there was no good mechanism to net tags. A proposal was made at a recent NERC ORS meeting to provide a credit for non-firm redispatch made prior to calling TLR. This crediting mechanism can be applied to counter-flow tags to implement netting of impacts in the IDC. By considering netting in the IDC, relief obligations will be assigned to entities that are actually contributing to the loading problem.

The threshold being used in the IDC to report market flows to the IDC is not consistent with the threshold being used to set TLR relief on tags and gen-to-load impacts from non-market entities. Also, the threshold differences between transactions and market flow puts more of a financial burden PJM's and the Midwest ISO's market participants to redispatch generation to control congestion on flow gates at a higher threshold than scheduled transactions. A threshold change was requested by PJM and the Midwest ISO Reliability Coordinators because they have experienced difficulty accomplishing relief on flowgates where PJM and the Midwest ISO generators have a very small market flow impact and either do not have any generation that can be redispatched or would need to redispatch a large amount of generation in order to accomplish a small amount of relief. PJM and the Midwest ISO must address this situation. To ignore it, PJM and the Midwest ISO will receive relief assignments they cannot accomplish and this will require multiple calls for TLR by other Reliability Coordinators when PJM and the Midwest ISO do not accomplish the relief they were assigned. If PJM and the Midwest ISO attempt to accomplish relief on flowgates using generators that have a very small flow impact, they will incur large redispatch costs for small amounts of relief.

The CMPWG/ORS Task Force was formed to perform an analysis of these two initiatives and report their findings to the CMP Council and NERC ORS. The analysis will be completed and recommendations will be ready for the September 20-21, 2006, NERC ORS meeting. If agreement is reached on one or both of these initiatives, this will lead to proposed revisions to NERC Standard IRO-006 that will go through the NERC standard review process.

The schedule for evaluating and reporting back to the RTOs' stakeholders on this initiative is still under development. PJM and the Midwest ISO will develop the schedule and include it in subsequent 120 day reports.

D. No Action Initiatives

In the October 31 Filing, the RTOs reported that they and their stakeholders evaluated certain "No Action Initiatives." Those initiatives could not be justified on a cost/benefit basis and lacked sufficient stakeholder support to pursue at this time. As a result, those initiatives were not recommended for further consideration at the time of the October 31 Filing. The No Action Initiatives are more fully described in the October 31 Filing (pages 45-49 and Attachment D). The RTOs have not identified any changes to the status of the No Action Initiatives at this stage.

V. Conclusion

PJM and the Midwest ISO respectfully request that the Commission accept the foregoing Status Report.

Respectfully Submitted,



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Submitted on behalf of the Midwest
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Inc. and PJM Interconnection, L.L.C.

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