Recommendations

In order to perform its role in PJM market design, the MMU evaluates existing and proposed PJM Market Rules and the design of the PJM Markets. The MMU initiates and proposes changes to the design of such markets or the PJM Market Rules in stakeholder or regulatory proceedings.² In support of this function, the MMU engages in discussions with stakeholders, State Commissions, PJM Management, and the PJM Board; participates in PJM stakeholder meetings or working groups regarding market design matters; publishes proposals, reports or studies on such market design issues; and makes filings with the Commission on market design issues.³ The MMU also recommends changes to the PJM Market Rules to the staff of the Commission's Office of Energy Market Regulation, State Commissions, and the PJM Board.⁴ The MMU may provide in its annual, quarterly and other reports "recommendations regarding any matter within its purview."5

Summary of New Recommendations

Table 2-1 includes a brief description and a priority ranking of the MMU's new recommendations for this quarterly report.

Priority rankings are relative. The creation of rankings recognizes that there are limited resources available to address market issues and that problems must be ranked in order to determine the order in which to address them. It does not mean that all the problems should not be addressed. Priority rankings are dynamic and as new issues are identified, priority rankings will change. The rankings reflect a number of factors including the significance of the issue for efficient markets, the difficulty of completion and the degree to which items are already in progress. A low ranking does not necessarily mean that an issue is not important, but could mean that the issue would be easy to resolve.

There are three priority rankings: High, Medium and Low. High priority indicates that the recommendation requires action because it addresses a market design issue that creates significant market inefficiencies and/ or long lasting negative market effects. Medium priority indicates that the recommendation addresses a market design issue that creates intermediate market inefficiencies and/or near term negative market effects. Low priority indicates that the recommendation addresses a market design issue that creates smaller market inefficiencies and/or more limited market effects.

Table 2-1 Prioritized summary of new recommendations: July through September 2013

Priority	Section	Description
Medium	4 - Operating Reserves	Reflect impact of all physical constraints in market prices.
High	5 - Capacity	Increase the Capacity Resource Deficiency Charge.
		Require PJM to sell excess capacity, if necessary, in Incremental
High	5 - Capacity	Auctions at the BRA clearing price.
High	5 - Capacity	Eliminate requirement for First and Second Incremental Auctions.
		Define Market Seller Offer Cap for First and Second Incremental
		Auctions, if held, as higher of 1.0 times the Base Residual Auction
High	5 - Capacity	clearing price or ACR.
		Enforce the rules governing the requirement to be a physical resource
High	5 - Capacity	for all resource types.
Low	6 - Demand Response	Adopt the ISO-NE demand response metering requirements.
		The MMU recommends that demand resources be required to provide
Low	6 - Demand Response	their nodal location.
Low	9 - Interchange Transactions	Align interface pricing definitions between PJM and MISO.
		Eliminate the IMO Interface Pricing Point, and assign the MISO
		Interface Pricing Point to transactions that originate or sink in the
Medium	9 - Interchange Transactions	IESO balancing authority.
Low	9 - Interchange Transactions	Eliminate the NIPSCO and Southeast interface pricing points.
		Eliminate rule paying for Tier 1 MW at Tier 2 clearing price when the
High	10 - Ancillary Services	non-synchronized reserve price is above \$0.
		Apply the FTR forfeiture rule to up to congestion transactions
		consistent with the application of the FTR forfeiture rule to increment
High	13 - FTRs and ARRs	offers and decrement bids.

¹ OATT Attachment M § IV.D.

⁵ OATT Attachment M § VI.A

New Recommendations

Consistent with its core function to "[e] valuate existing and proposed market rules, tariff provisions and market design elements and recommend proposed rule and tariff changes,"6 the MMU recommends specific enhancements to existing market rules and implementation of new rules that are required for competitive results in PJM markets and for continued improvements in the functioning of PJM markets. In this 2013 Quarterly State of the Market Report for PJM: January through September, the MMU makes the following new recommendations.

From Section 4, "Operating Reserves":

The MMU recommends that the impact of physical constraints of all types be reflected in market prices to the maximum extent possible, reducing the necessity for out of market operating reserve payments and improving the efficiency of market prices. The goal should be to reflect the impact of physical constraints in market prices to the maximum extent possible and thus to reduce the necessity for out of market operating reserve payments. When units receive substantial revenues through operating reserve payments, these payments are not transparent to the market and other market participants do not have the opportunity to compete for them. As a result, substantial operating reserve payments to a concentrated group of units and organizations persists.

From Section 5, "Capacity":

The MMU's review and analysis of replacement capacity activity is the issue source for the problem statement/issue charge which is currently being discussed in the PJM stakeholder process.^{7, 8} The MMU proposed a solution package at the Capacity Senior Task Force (CSTF) which includes the following:

• The MMU recommends that PJM increase the Capacity Resource Deficiency Charge, which is a penalty charge.

- The MMU recommends that if PJM releases capacity in Incremental Auctions, PJM should offer the capacity for sale at the BRA clearing price rather than at zero, which is the current practice, in order to avoid suppressing the price below the competitive level.
- The MMU recommends that PJM eliminate the requirement for First and Second Incremental Auctions and hold such auctions only if required based on increases in the Reliability Requirement above defined thresholds.
- The MMU recommends that PJM define the Market Seller Offer Cap for First and Second Incremental Auctions, if held, as the higher of the Base Residual Auction clearing price or the unit specific ACR in order to avoid suppressing the price below the competitive level.
- The MMU recommends that the rules governing the requirement that capacity resources be physical resources be enforced for all resource types.⁹

From Section 6, "Demand Response":

- The MMU recommends that PJM adopt the ISO-NE metering requirements in order to ensure that dispatchers have the necessary information for reliability and that market payments to DR resources are based on actual metered data. The provision of actual meter load data is critical in order to measure and verify actual demand resource behavior.
- The MMU recommends that demand resources be required to provide their nodal location. Nodal dispatch of demand resources would be consistent with the nodal dispatch of generation. More locational deployment of Load Management resources would improve efficiency.

From Section 9, "Interchange Transactions":

• The MMU recommends that PJM and MISO work together to align interface pricing definitions, using the same number of external buses and selecting buses in close proximity on either side of the border with comparable bus weights. PJM and MISO use network models to determine interface prices and to attempt to ensure that the prices are consistent with

6 18 CFR § 35.28(g)(3)(ii)(A); see also OATT Attachment M § IV.D.

See "Analysis of Replacement Capacity for RPM Commitments: June 1, 2007 to June 1, 2012," https://www.monitoringanalytics.com/reports/Reports/2012/IMM_Report_Replacement_Capacity_Activity_20121211.pdf [December 18, 2012].

The Replacement Capacity Issue Charge and Problem Statement were presented at the March 6, 2013 MIC meeting. See "Item 04B -

⁸ The Replacement Capacity Issue Charge and Problem Statement were presented at the March 6, 2013 MIC meeting. See "Item 04B – Replacement Capacity Issue Charge," < http://www.pjm.com/~/media/committees-groups/committees/mic/20130306/20130306-item 04b-replacement-capacity-issue-charge.ashx>.

⁹ See "Analysis of Replacement Capacity for RPM Commitments: June 1, 2007 to June 1, 2013" http://www.monitoringanalytics.com/reports/2013/IMM_Report_on_Capacity_Replacemen_Activity_2_20130913.pdf (September 13, 2013).

the underlying electrical flows. PJM uses the LMP at nine buses within MISO to calculate the PJM/MISO Interface price, while MISO uses prices at all of the PJM generator buses to calculate the MISO/PJM Interface price. Differences in interface price calculations between PJM and MISO limit the ability for price convergence. The use of a common interface price definition including similarly located buses and comparable weights for those buses would help to converge the prices by eliminating artificial limits to that convergence.

- The MMU recommends that PJM eliminate the IMO Interface Pricing Point, and assign the MISO Interface Pricing Point to transactions that originate or sink in the IESO balancing authority. The non-contiguous nature of the Ontario Interface Pricing Point creates double payments or double credits for congestion across MISO and the NYISO and does not reflect how an LMP market should operate. During the first nine months of 2013, 5,000 GWh of the 5,023 GWh of net scheduled transactions between PJM and IESO wheeled through MISO.
- The MMU recommends that PJM no longer accept long term positions of any kind at the NIPSCO and Southeast interface pricing points and to eliminate these interface pricing points from the Day-Ahead and Real-Time Energy Markets. These two interface pricing points are currently eligible for day-ahead transaction scheduling only because they were replaced as interfaces in the Real-time Energy Market and are no longer actual interface pricing points in PJM markets. The NIPSCO interface pricing point was created prior to the integration of all balancing authorities into MISO. After the MISO integration, all real-time transactions sourcing or sinking in NIPSCO receive the MISO interface pricing point in the Real-time Energy Market, PJM consolidated the Southeast and Southwest interface pricing points to a single interface with separate import and export prices (SouthIMP and SouthEXP) on October 31, 2006.

From Section 10, "Ancillary Services":

• The MMU recommends that the rule requiring the payment of Tier 1 synchronized reserve resources when the non-synchronized reserve price is above zero be eliminated immediately. Tier 1 synchronized reserve has

always been available to respond optionally to spinning events, and Tier 1 synchronized reserve that responds to a spinning event is compensated at the average of the 5-minute energy LMPs plus \$50/MWh. This rule significantly increases the cost of Tier 1 synchronized reserves with no operational or economic reason to do so. PJM is not actually reserving any Tier 1, but simply paying substantially more for the same product without any additional performance requirements. Although Tier 1 synchronized reserve adds no cost in most hours, the change to the shortage pricing rule resulted in extremely large charges for Tier 1 reserves for a small number of hours. The rule change requires the payment of all Tier 1 reserves the full Tier 2 synchronized reserve clearing price in the hours when the non synchronized reserve market has a price greater than zero. More credits were paid to Tier 1 reserves during the 206 hours when the non-synchronized reserve price was above zero (\$11.8M) than was paid to Tier 2 synchronized reserve (\$10.8M) (Table 10-18) for the entire first three quarters of 2013. This is a windfall payment to Tier 1 reserves without any logical rationale.

From Section 13, "FTRs and ARRs":

• The MMU recommends that the FTR forfeiture rule be applied to UTCs in the same way it is applied to INCs and DECs. Currently there is no FTR forfeiture rule implemented for Up-to-Congestion Transactions (UTCs). A proposed tariff change that would apply the FTR forfeiture rule to UTCs is pending at FERC. The FTR forfeiture rule should be applied to UTCs in the same way it is applied to INCs and DECs. The goal of the rule is to prevent the use of virtual bids (generally unprofitable virtual bids) to increase Day-Ahead congestion on an FTR path in order to increase the value of the FTRs. The proposed penalty should be the same as it is for the INC and DEC rule, the forfeiture of any profits from FTRs whose value is affected by a UTC with the same owner.

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