



2011/2012 & 2012/2013 ATSI FRR Integration Auction Results

Executive Summary

On August 17, 2009, FirstEnergy¹ submitted an application to the Federal Energy Regulatory Commission (FERC) in which it requested FERC approval to terminate its membership in the Midwest ISO and integrate into the PJM capacity markets through the submission of two, transitional Fixed Resource Requirement (FRR) capacity plans. Pursuant to FERC's conditional approval of the FirstEnergy application, as issued on December 17, 2009 and clarified on March 10, 2010, the ATSI Utilities'² FRR plans for the 2011/2012 and 2012/2013 Delivery Years³ are to be established through the execution of two Integration Auctions. The purpose of this document is to provide details regarding the results of those Integration Auctions.

The 2011/2012 Fixed Resource Requirement (FRR) Integration Auction cleared 12,583.2 MW of unforced capacity in the RTO at a Resource Clearing Price of \$108.89/MW-day. The capacity cleared in this auction will be committed by ATSI Utilities in their transition FRR Capacity Plan for the 2011/2012 Delivery Year. The participation in the auction included twenty seven market suppliers who collectively offered 14,236.8 MW (supply in UCAP terms) which was over 13% more supply than was required to meet the unforced capacity obligation required in the auction.

The 2012/2013 FRR Integration Auction cleared 13,038.7 MW of unforced capacity in the RTO at a Resource Clearing Price of \$20.46/MW-day. The capacity cleared in this auction will be committed by ATSI Utilities in their transition FRR Capacity Plan for the 2012/2013 Delivery Year. The participation in the auction included twenty eight market suppliers who collectively offered 18,648.5 MW (supply in UCAP terms) which was over 43% more supply than was required to meet the unforced capacity obligation required in the auction.

The FRR Integration Auctions for both the 2011/2012 and 2012/2013 Delivery Years had more than enough resource offers to successfully procure sufficient capacity to meet the ATSI zone's Preliminary Unforced Capacity Obligation less the amount of capacity obligation that was satisfied (outside of the FRR Integration Auction) by "opt-out" LSEs in the ATSI zone. Monitoring Analytics, LLC, acting in its capacity as the PJM Market Monitor, has certified that the Auction results are competitive, the Three Pivotal Supplier Test was correctly applied, the Market Clearing Prices were accurately calculated and the auction process was conducted with no undue preference for any participant.

¹ FirstEnergy Services Company, American Transmission Systems, Inc. (ATSI) and the ATSI Utilities are collectively referred to as FirstEnergy.

² Cleveland Electric Illuminating Company, Toledo Edison Company, Ohio Edison Company, and Pennsylvania Power Company are collectively referred to as the ATSI Utilities.

³ The 2011/2012 Delivery Year runs from June 1, 2011 through May 31, 2012 and the 2012/2013 Delivery Year runs from June 1, 2012 through May 31, 2013.



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Introduction

This document provides information for PJM stakeholders regarding the results of the 2011/2012 and 2012/2013 FRR Integration Auctions for the ATSI zone. The 2011/2012 and 2012/2013 FRR Integration Auction offer windows were open from March 15, 2010 to March 19, 2010. Results were posted on Friday, March 26, 2010.

FRR Integration Auction

Pursuant to the FERC's Realignment Order⁴, the ATSI load zone will be integrated into the PJM Balancing Authority effective as of June 1, 2011. FERC authorized the ATSI Utilities to procure capacity for the 2011/2012 and 2012/2013 Delivery Years by means of a transition FRR Capacity Plan. The ATSI Utilities were permitted to procure capacity for these Delivery Years for use in their FRR Capacity Plan by means of a competitive auction, the FRR Integration Auction. The ATSI Utilities conducted a separate Auction for each Delivery Year. Each Auction was administered and conducted by PJM, the Auction Manager.

The ATSI Utilities sought to procure one hundred percent (100%) of the ATSI zone's Preliminary Unforced Capacity Obligation less the amount of capacity to be procured by LSEs authorized to "opt-out" of the FRR Integration Auction. The ATSI zone's Preliminary Unforced Capacity Obligation was 13,497 MW for the 2011/2012 Delivery Year and 13,937.4 MW for the 2012/2013 Delivery Year. The amount of unforced capacity obligation that was to be procured by "opt-out" LSEs was 913.8 MW for the 2011/2012 Delivery Year and 898.7 MW for the 2012/2013 Delivery Year. The final amount of capacity sought for procurement in the FRR Integration Auctions was 12,583.2 MW for the 2011/2012 Delivery Year and 13,038.7 MW for the 2012/2013 Delivery Year.

The FRR Integration Auctions provided capacity suppliers with an additional opportunity to sell capacity for the 2011/2012 and 2012/2013 Delivery Year through a PJM-administered auction process. Resource-specific sell offers were submitted into this auction by suppliers with excess capacity beyond what is needed to satisfy their commitments from previous RPM Auctions or from previous FRR Capacity Plan submittals for the Delivery Year. All existing generation capacity resources physically located in the PJM Region and the ATSI zone had a must offer requirement of at least their Minimum Available ICAP position in the FRR Integration Auction,

⁴ FERC's Order Addressing RTO Realignment Request and Complaint (the "Realignment Order") is Docket No. ER09-1589, dated December 17, 2009.



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unless the existing generation resource qualified for a must-offer exemption. Planned generation capacity resources, existing/planned demand resources, and existing/planned energy efficiency resources were not subject to the must offer requirement.

All existing generation sell offers into a FRR Integration Auction were subject to market power mitigation through the application of the Market Structure Test (i.e., the Three-Pivotal Supplier Test). All suppliers failed the Market Structure Test conducted for both years, resulting in mitigation of any existing generation resources. Mitigation was applied to a supplier's existing generation resources resulting in utilizing the lesser of the supplier's approved offer cap for such resource or the supplier's submitted offer price for such resource in the FRR Integration Auction clearing.

The FRR Integration Auction was cleared using the supply curve formed by the suppliers' sell-offers and a vertical demand curve, subject to a price cap equal to 1.5 times Net CONE for the Delivery Year. The vertical demand curve is based on the final amount of capacity sought for procurement (12,583.2 MW for the 2011/2012 Delivery Year and 13,038.7 MW for the 2012/2013 Delivery Year.). The intersection of the supply and demand curve determined the resulting cleared MW and Resource Clearing Price for the FRR Integration Auction. The least expensive set of sell offers sufficient to fulfill the demand requirement was cleared which resulted in the least cost mix of resources committed to satisfy the requirement.

Capacity resources that clear in the 2011/2012 or 2012/2013 FRR Integration Auctions will enter into a bilateral unit-specific capacity contract (i.e., a Capacity Purchase and Sale Agreement⁵) with ATSI Utilities at the FRR Integration Auction Resource Clearing Price for the Delivery Year. The unit-specific capacity purchased by ATSI Utilities will be committed by ATSI Utilities in their transition FRR Capacity Plan for the 2011/2012 or 2012/2013 Delivery Year. Cleared capacity suppliers in an FRR Integration Auction will be paid by ATSI Utilities (not PJM) during the Delivery Year.

The applicable FRR Integration Auction Resource Clearing Price will be used in determining a weighted average cost of procurement⁶ in the ATSI Zone for the 2011/2012 and 2012/2013 Delivery Years. All LSEs⁷ in the ATSI zone will be assessed a Daily ATSI Zone Reliability Charge by PJM based on the weighted average cost of procurement (\$/MW-day) for the Delivery Year and their daily unforced capacity obligation during the 2011/2012 or 2012/2013 Delivery Year.

⁵ Capacity Purchase and Sale Agreements for 2011/2012 and 2012/2013 Delivery Years are available at <http://www.pjm.com/markets-and-operations/atsi-integration/rpm-frr-integration-auctions.aspx>.

⁶ If the FRR Integration Auction does not procure sufficient capacity to meet the Final Unforced Capacity Obligation for the ATSI zone, ATSI Utilities will be required to procure any shortfall through bilateral arrangements. The prices of these bilateral arrangements and the FRR Integration Auction Resource Clearing Price for the Delivery Year will factor into the weighted average cost of procurement in the ATSI zone.

⁷ Opt-out LSEs will receive a credit for the opt-out obligation times the weighted average cost of procurement during the delivery year.



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Since the purpose of the FRR Integration Auctions is to allow ATSI Utilities to procure capacity for use in their transition FRR Capacity Plan for the 2011/2012 and 2012/2013 Delivery Years, the results of these auctions do not impact the Zonal Capacity Prices of RPM LSEs for the 2011/2012 and 2012/2013 Delivery Years.

Table 1 – FRR Integration Auction Results*

| | 2011/2012 | 2012/2013 |
|----------------------------------|-----------------|----------------|
| Generation Offered (UCAP) | 12831.8 | 16548.1 |
| Demand Resources Offered (UCAP) | 1403.8 | 2087.8 |
| Energy Efficiency Offered (UCAP) | 1.2 | 12.6 |
| Total Offered (UCAP) | 14236.8 | 18648.5 |
| | | |
| Generation Cleared (UCAP) | 11603.4 | 12807.9 |
| Demand Resources Cleared (UCAP) | 978.6 | 218.2 |
| Energy Efficiency Cleared (UCAP) | 1.2 | 12.6 |
| Total Cleared (UCAP) | 12583.2 | 13038.7 |
| Resource Clearing Price | \$108.89 | \$20.46 |
| *All MW Values are in UCAP Terms | | |

Table 1 contains a summary of the offered capacity and clearing data for 2011/2012 and 2012/2013 FRR Integration Auctions.

Certification of the Auction Results

Pursuant to section IX.5 of the FRR Integration Auction Rules, Monitoring Analytics, LLC, acting in its capacity as the PJM Market Monitor, has certified that the Auction results are competitive, the Three Pivotal Supplier Test was correctly applied, the Market Clearing Prices were accurately calculated and the process was conducted with no undue preference for any participant. In support of this certification, the PJM Market Monitor further affirmed that all MW of unoffered capacity located in the PJM Region or the ATSI Load Zone were for documented and acceptable reasons or otherwise satisfied the applicable rules, that the auction results correctly reflect the application of offer caps, that no market violations have occurred requiring action under 18 C.F.R. § 35.28(g)(iv) of the regulations of the Federal Energy Regulatory Commission or the requirements of Attachment M to the PJM Open Access



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Transmission Tariff, and that the Auction Manager has ensured the general independent, non-discriminatory and transparent management of the Auction.

Supply in the 2011/2012 FRR Integration Auction

Twenty seven market suppliers offered 15,257.7 MW of sell offers (supply in ICAP terms) into the 2011/2012 FRR Integration Auction. The offered capacity was composed of uncleared capacity from the 2011/2012 Base Residual Auction and 2011/2012 First Incremental Auction, new capacity in the form of uprates or resources that were not previously capacity resources in PJM, and new capacity located in the ATSI zone that did not previously participate in RPM Auctions.

Each generation resource sell offer was converted to UCAP using the specified Sell Offer EFORD and each demand resource and energy efficiency sell offer was converted to UCAP using the Delivery Year Forecast Pool Requirement (FPR) and Demand Resource (DR) Factor. As a result, 14,236.8 MW of UCAP was offered into this auction, 12,831.8 MW from generation resources, 1,403.8 MW from demand resources, and 1.2 MW from energy efficiency resources.

Demand in the 2011/2012 FRR Integration Auction

The demand in the 2011/2012 FRR Integration Auction is a vertical demand curve, subject to a price cap equal to 1.5 times Net CONE for the Delivery Year (i.e., \$257.11/MW-day). The vertical demand curve is based on the ATSI zone's Preliminary Unforced Capacity Obligation less the amount of capacity to be procured by LSEs authorized to "opt-out" of the FRR Integration Auction, equal to 12,583.2 MW for the 2011/2012 Delivery Year.

Mitigation in the 2011/2012 FRR Integration Auction

All suppliers failed the Market Structure Test. As a result, mitigation was applied to all existing generation resources in the execution of the FRR Integration Auction clearing. Therefore in the event a generator's submitted sell offer price exceeded the approved offer cap, the approved offer cap was utilized in the FRR Integration Auction clearing. Demand Resources and Energy Efficiency resources are not subject to market mitigation as a result of the recent FERC Order issued on October 29, 2009.



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2011/2012 FRR Integration Auction Clearing Results

In the 2011/2012 FRR Integration Auction, a total of 12,583.2 MW of UCAP was cleared at a clearing price of \$108.89/MW-day. Of the cleared amount, 11,603.4 MW of generation cleared, 978.6 MW of demand resources cleared, and 1.2 MW of energy efficiency resources cleared.

Supply in the 2012/2013 FRR Integration Auction

Twenty eight market suppliers offered 20,064 MW of sell offers (supply in ICAP terms) into the 2012/2013 FRR Integration Auction. The offered capacity was composed of uncleared capacity from the 2012/2013 Base Residual Auction, new capacity in the form of uprates or resources that were not previously capacity resources in PJM, and new capacity located in the ATSI zone that did not previously participate in RPM Auctions.

Each generation resource sell offer was converted to UCAP using the specified Sell Offer EFORd and each demand resource and energy efficiency sell offer was converted to UCAP using the Delivery Year Forecast Pool Requirement (FPR) and Demand Resource (DR) Factor. As a result, 18,648.5 MW of UCAP was offered into this auction, 16,548.1 MW from generation resources, 2,087.8 MW from demand resources, and 12.6 MW from energy efficiency resources.

Demand in the 2012/2013 FRR Integration Auction

The demand in the 2012/2013 FRR Integration Auction is a vertical demand curve, subject to a price cap equal to 1.5 times Net CONE for the Delivery Year (\$414.14/MW-day). The vertical demand curve is based on the ATSI zone's Preliminary Unforced Capacity Obligation less the amount of capacity to be procured by LSEs authorized to "opt-out" of the FRR Integration Auction, equal to 13,038.7 MW for the 2012/2013 Delivery Year.

Mitigation in the 2012/2013 FRR Integration Auction

All suppliers failed the Market Structure Test. As a result, mitigation was applied to all existing generation resources in the execution of the FRR Integration Auction clearing. Therefore in the event a generator's submitted sell offer price exceeded the approved offer cap, the approved offer cap was utilized in the FRR Integration Auction clearing. Demand Resources and Energy Efficiency resources are not subject to market mitigation as a result of the recent FERC Order issued on October 29, 2009.



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2012/2013 FRR Integration Auction Clearing Results

In the 2012/2013 FRR Integration Auction, a total of 13,038.7 MW of UCAP was cleared at a clearing price of \$20.46/MW-Day. Of the cleared amount, 12,807.9 MW of generation cleared, 218.2 MW of demand resources cleared, and 12.6 MW of energy efficiency resources cleared.