2010/2011 RPM Third Incremental Auction Results

Introduction

This document provides information for PJM stakeholders regarding the results of the 2010/2011 Reliability Pricing Model (RPM) Third Incremental Auction. The 2010/2011 Third Incremental Auction was held from January 4, 2010 to January 8, 2010.

The Third Incremental Auction

RPM Third Incremental Auctions provide capacity suppliers with a final opportunity to sell or purchase capacity for the Delivery Year through a PJM-administered auction process. Resource-specific sell offers are submitted into this auction by suppliers with excess capacity beyond what is needed to satisfy their commitments from previous auctions for the Delivery Year. All resource-specific sell offers into a Third Incremental Auction are subject to market power mitigation through the application of the Three-Pivotal Supplier Test.

Any party that desires to purchase LDA-specific replacement capacity for the Delivery Year may do so by submitting a buy bid into the Third Incremental Auction. Cleared Buy Bids purchased in a Third Incremental Auction may be used as replacement capacity to cover Delivery Year commitment and compliance shortfalls. Those parties that do not clear buy bids in a Third Incremental Auction but still desire to purchase capacity for the Delivery Year may do so bilaterally.

A Third Incremental Auction is cleared in a similar fashion to that of a Base Residual Auction with the exception that no Variable Resource Requirement curve is utilized. The demand in a Third Incremental Auction is composed of the LDA-specific buy bids submitted by participants who wish to purchase replacement capacity. The relative positions of supply and demand in each region will determine the resulting cleared MW and price quantities.

Since the purpose of the Third Incremental Auction is to allow resource owners to purchase replacement capacity, PJM does not procure additional capacity on behalf of load and the zonal capacity prices that LSEs in PJM pay for capacity are not affected by the results of this auction. Zonal capacity prices are only affected by the Base Residual and Second Incremental Auctions. Those prices are then finalized after the ILR Certification Period and Withdraw Period.

Table 1 - 2010/2011 Third Incremental Auction Results

LDA	Total Sell Offers (MW ICAP)	Total Sell Offers (MW UCAP***)	Total Buy Bids (MW UCAP)	Cleared Buy Bids (MW UCAP)	Cleared Sell Offers (MW UCAP)	Clearing Price ($/MW-Day)
SWMAAC	291.1	281.7	150.1	102.5	127.9	$50.00
DPL-SOUTH	58.6	56.8	25.9	21.7	31.2	$50.00
MAAC**	1892.9	1829.8	2189.3	1095	532.7	$50.00
RTO*	4677.2	4553.9	5221	1845.8	1845.8	$50.00

* RTO supply and demand values include MAAC

**MAAC supply and demand values include SWMAAC and DPL-SOUTH

***Resource offers converted to UCAP using Delivery Year EFORd for generation resources or applicable FPR and DR Factor for Demand Resources

Table 1 contains a summary of the offer, bid and clearing data for 2010/2011 Third Incremental Auction. The summary includes all resources located in the RTO (including all LDAs within the RTO) and each modeled LDA separately. Each column in this table is explained in more detail in the upcoming sections of this report.

Supply in the 2010/2011 Third Incremental Auction

The 4677.2 MW of sell offers (supply) offered into the Third Incremental Auction is composed of uncleared capacity from the 2010/2011 Base Residual Auction, new capacity in the form of uprates or resources that were not previously capacity resources in PJM, and additional capacity that resulted from an improvement in resource forced outage rates (EFORd) between the Base Residual and Third Incremental Auctions. All supply offers provided by sellers are quoted in Installed Capacity (ICAP) terms.

Each generation resource sell offer was converted to UCAP using the Delivery Year EFORd and each demand resource sell offer was converted to UCAP using the Delivery Year Forecast Pool Requirement (FPR) and Demand Resource (DR) Factor. As a result, 4553.9 MW of UCAP was offered into this auction, 281.7 MW from the SWMAAC LDA, 56.8 MW from the DPL-SOUTH LDA, and 1829.8 MW from the MAAC LDA (includes values for SWMAAC and DPL-SOUTH).

Demand in the 2010/2011 Third Incremental Auction

The demand in a Third Incremental Auction is composed of LDA-specific buy bids submitted by participants. The buy bids are specified in UCAP terms and, if cleared, are binding commitments to purchase capacity for the entire Delivery Year. There was a total of 5221 MW of buy bids submitted into this auction where 150.1 MW were for capacity in the SWMAAC LDA, 25.9 MW were for capacity in the DPL-SOUTH LDA, and 2189.3 MW were for capacity in the MAAC LDA. The remaining 3031.7 MW of buy bids were to purchase capacity in the unconstrained portion of the RTO.

Mitigation in the 2010/2011 Third Incremental Auction

All regions of the RTO, including the RTO as a whole, failed the Market Structure Test. As a result, mitigation was applied to all existing generation resources in the execution of the RPM auction clearing. Therefore in the event a generator's price-based offer exceeded the calculated offer cap, cost-based offers were utilized in the RPM auction clearing. Demand Resources are not subject to market mitigation as a result of the recent FERC Order issued on October 29, 2009.

2010/2011 Third Incremental Auction Clearing Results

In the 2010/2011 Third Incremental Auction, a total of 1845.8 MW of UCAP was cleared at a single clearing price of $50. Of the cleared amount, 532.7 MW of supply cleared in the MAAC LDA. Included in the 532.7 MW of cleared supply in the MAAC LDA are 127.9 MW of cleared supply in SWMAAC and 31.2MW of cleared supply in DPL-SOUTH.

Though MAAC, SWMAAC and DPL-SOUTH were modeled as separate LDAs in the Third Incremental Auction, there was no price separation between these LDAs and the RTO LDA. The prices for two nested LDAs will separate in an RPM Auction if the defined import limit into the nested LDA (CETL) is fully utilized. In the 2010/2011 Base Residual Auction, the DPL-SOUTH LDA had a higher price than the MAAC LDA indicating that the import capability was fully utilized. Therefore no residual CETL was modeled for the 2010/2011 Third Incremental Auction for the DPL-SOUTH LDA. The MAAC and SWMAAC LDAs were not constrained as a result of the Base Residual Auction and therefore were modeled in the Third Incremental Auction with the remaining unused import capability. Similar to the Base Residual Auction, the import capability into the MAAC and SWMAAC LDAs allow capacity outside of those specific regions to meet the demand in those regions up to the amount of the import capability limit. If the import capability

limit is reached, only capacity physically existing within that LDA can meet additional demand in that LDA, resulting in price separation.

In the case of the 2010/2011 Third Incremental Auction, the amount of capacity transferred from the RTO LDA into the MAAC LDA, and the MAAC LDA into the SWMAAC LDA, did not meet the residual import limits resulting in the uniform RTO-wide clearing price. The DPL-SOUTH LDA did not individually constrain because it had a larger quantity of available local supply relative to the quantity of local demand and was able to satisfy local demand and export additional capacity to the higher level MAAC LDA.

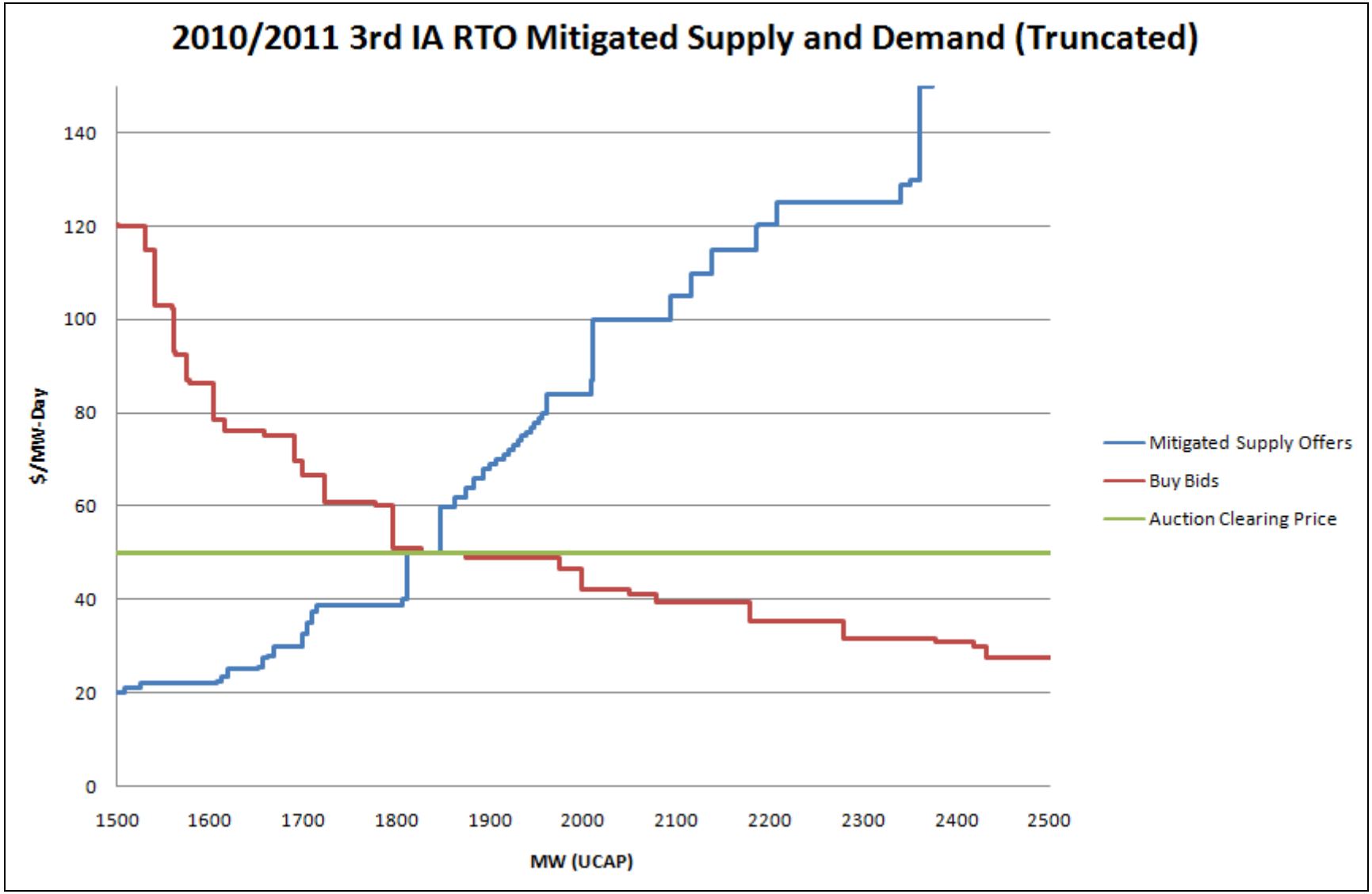
RTO Results

Because the export limit of 6645.0 MW (CETL) from the RTO to the MAAC LDA was not reached during the 2010/2011 Base Residual Auction, RTO capacity that is not located in a constrained LDA can be imported into the MAAC LDA up to the difference between CETL and the imported RTO capacity into MAAC in the Base Residual Auction. The difference between CETL and the imported RTO capacity into MAAC in the Base Residual Auction is 901.9 MW.

The 1313.1 MW (RTO Cleared Sell Offers – MAAC Cleared Sell Offers) of cleared UCAP supply in the unconstrained region of the RTO LDA exceeds the 750.8 MW of cleared demand (RTO Cleared Buy Bids – MAAC Cleared Buy Bids). This is a result of the larger quantity of less expensive supply offers available from the unconstrained region of the RTO LDA and the relatively small demand for replacement capacity from that region. Because remaining import capability into MAAC is available, MAAC buy bids can also be cleared by supply resources in the unconstrained region of the RTO if they are economic, but only up to the residual import capability of 901.9 MW. In the case of the 2010/2011 Third Incremental Auction, the excess capacity cleared in the unconstrained region of the RTO LDA, 562.3 MW (1313.1 – 750.8), is used to clear MAAC buy bids as it provides a lower cost solution than committing higher priced MAAC supply. This clearing result causes the price convergence between MAAC and the unconstrained region of the RTO LDA.

Figure 1 shows the intersection of the RTO mitigated supply and demand curves. The curves include all Sell Offers and Buy Bids submitted in Rest of RTO, MAAC, SWMAAC, and DPL-SOUTH. The plot below is truncated to show the intersection at $50.00/MW-Day. The full RTO supply and demand curves are shown in Figure 5 of the Appendix.

Figure 1 –Truncated RTO Mitigated Supply and Demand Curves

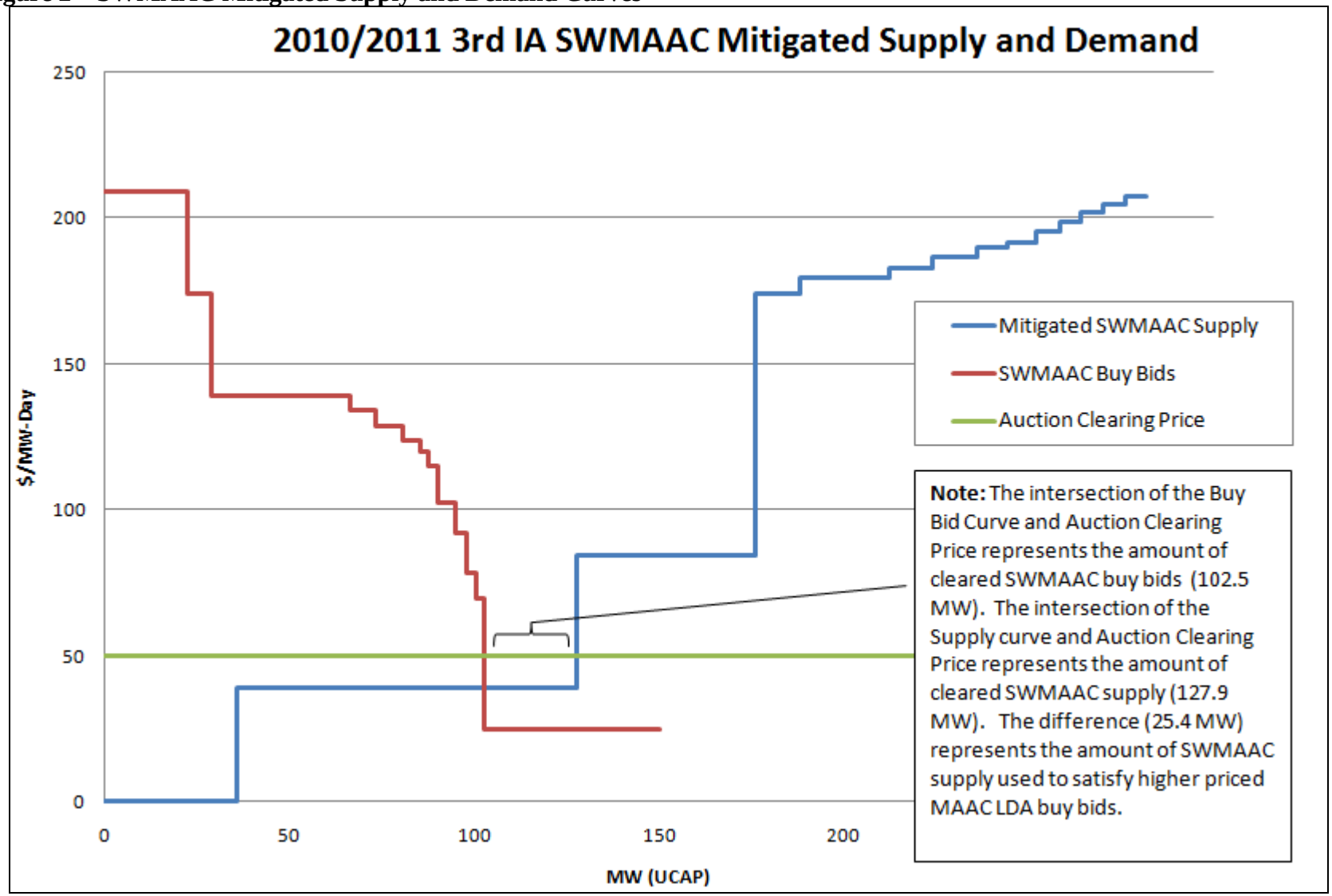


SWMAAC Results

As illustrated in Table 1, the 127.9 MW of cleared unforced capacity (UCAP) supply in SWMAAC exceeds the 102.5 MW of cleared demand. This is a result of the larger quantity of supply available within SWMAAC and the relatively small demand for higher priced replacement capacity from that region. Because SWMAAC is an LDA within MAAC, MAAC buy bids can also be cleared with incremental supply offers from SWMAAC resources if they are economic. In the case of the 2010/2011 Third Incremental Auction, the excess capacity cleared in SWMAAC, 25.4 MW (127.9 MW – 102.5 MW), is used to satisfy the MAAC buy bids as it provides a lower cost solution than committing MAAC supply with higher price offers. This market clearing result causes the price convergence between MAAC and SWMAAC.

Figure 2 shows the intersection of the SWMAAC LDA mitigated supply and demand curves.

Figure 2 – SWMAAC Mitigated Supply and Demand Curves

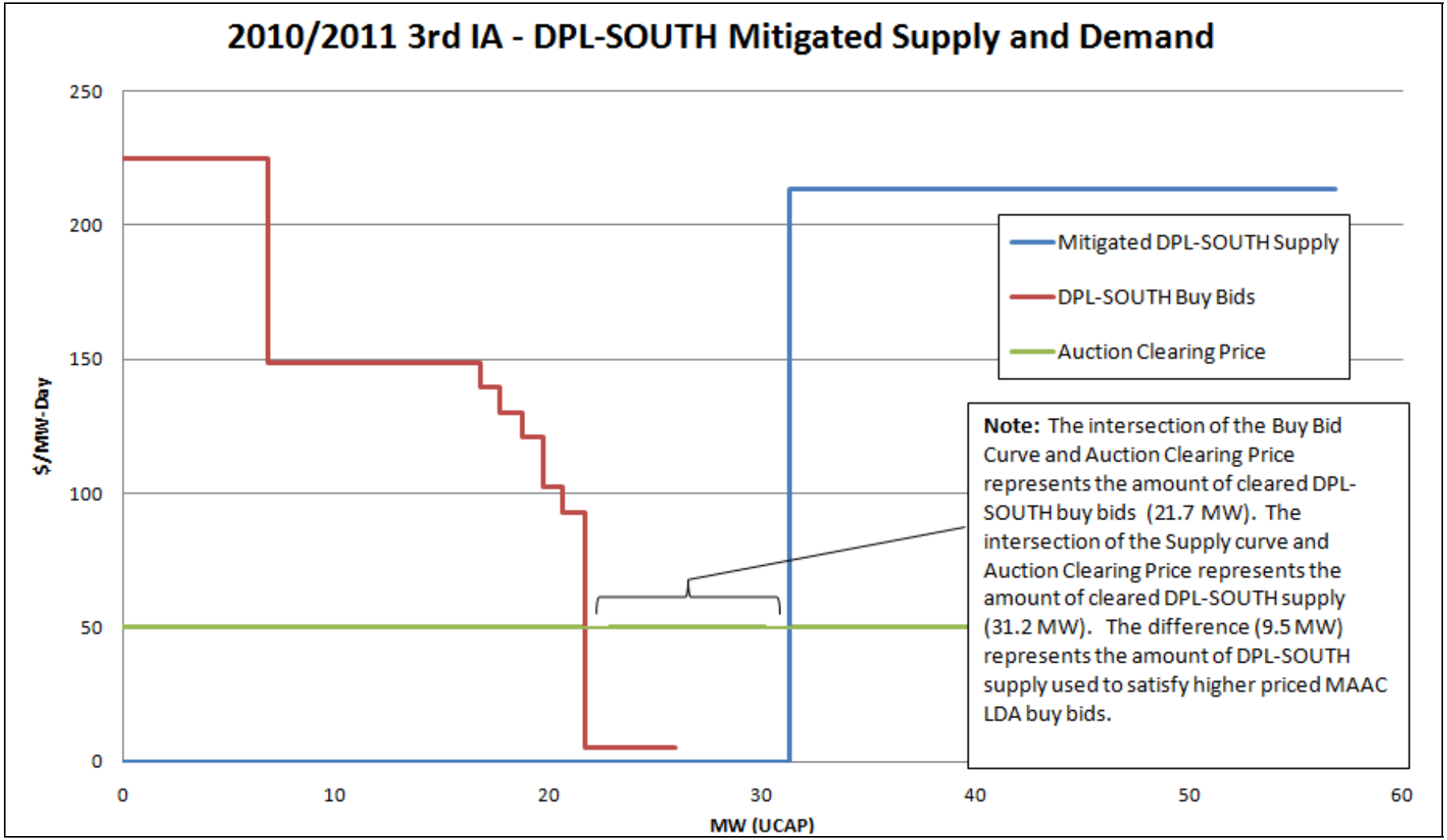


DPL-SOUTH Results

As illustrated in Table 1, the 31.2 MW of cleared UCAP supply in DPL-SOUTH exceeds the 21.7 MW of cleared demand. This is a result of the larger quantity of less expensive supply offers available from the DPL-SOUTH LDA and the relatively small demand for replacement capacity from that region. Because DPL-SOUTH is an LDA within MAAC, MAAC buy bids can also be cleared against DPL-SOUTH supply resources if they are economic. In the case of the 2010/2011 Third Incremental Auction, the excess capacity cleared in the DPL-SOUTH LDA, 9.5 MW (31.2 MW – 21.7 MW), is used to clear MAAC buy bids as it provides a lower cost solution than committing higher priced MAAC supply. This clearing result causes the price convergence between MAAC and DPL-SOUTH.

Figure 3 shows the intersection of the DPL-SOUTH LDA mitigated supply and demand curves.

Figure 3 – DPL-SOUTH Mitigated Supply and Demand Curves



MAAC Results

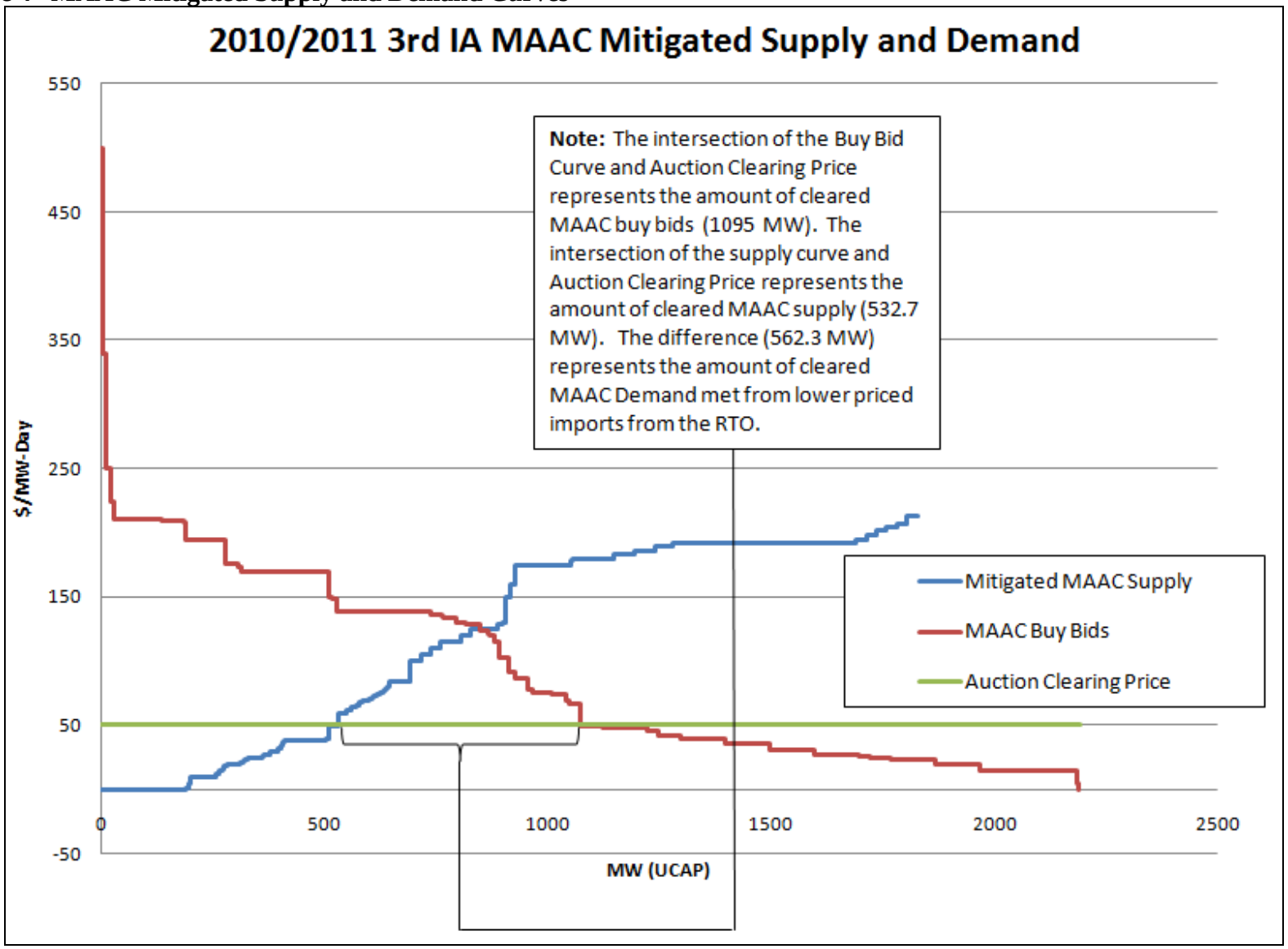
In clearing the 2010/2011 Base Residual Auction, the MAAC LDA did not require imports from the RTO LDA equal to the calculated import capability (see the 2010/2011 Base Residual Auction Report for more information). As a result, the remaining import capability, 901.9 MW, was available to be used in clearing of the 2010/2011 Third Incremental Auction allowing lower cost RTO capacity to be imported into MAAC, if economic.

In addition to the remaining available import capability from the RTO, the total cleared supply exceeded the amount of cleared demand in the SWMAAC and DPL-SOUTH LDAs. Because SWMAAC and DPL-SOUTH are LDAs within MAAC, MAAC buy bids can also be cleared by SWMAAC and DPL-SOUTH supply resources if they are economic. In the case of the 2010/2011 Third Incremental Auction, the excess capacity cleared in the SWMAAC LDA, 25.4 MW, the excess capacity cleared in the DPL-SOUTH LDA, 9.5 MW, and the excess capacity cleared in the RTO LDA, 562.3 MW, is used to clear MAAC buy bids as it provides a lower cost solution than committing higher priced MAAC supply.

This clearing result causes the price convergence between all four modeled LDAs, RTO, MAAC, SWAAC, and DPL-SOUTH. In addition to the 597.2 MW of excess cleared supply in the RTO, SWMAAC, and DPL-SOUTH LDAs, there was an additional 373.6 MW of cleared supply in the MAAC region that is not part of the other LDAs.

Figure 4 shows the intersection of the combined MAAC (including SWMAAC and DPL-SOUTH) mitigated supply and demand curves.

Figure 4 –MAAC Mitigated Supply and Demand Curves



Appendix - Complete Mitigated Supply and Demand Curves

Figure 5 – Complete RTO Mitigated Supply and Demand Curves