

PRD in BRA vs. Incremental Auction: Simple Example with 100 MW PRD in a Zone

Case 1: No PRD.

Case 2: PRD submitted for BRA.

Case 3: PRD submitted for BRA was cancelled prior to Third Incremental Auction.

Case 4: PRD not submitted for BRA, but submitted for Third Incremental Auction.

Assumed no other changes in data for incremental auctions and no short-term resource procurement.

Observations

Case 2 vs. Case 1: PRD submitted for BRA reduces BRA clearing price and benefits all LSEs.

Case 3 vs. Case 1: If PRD submitted for BRA is cancelled, additional resources procured in Incremental Auction may not increase the final load charges to a level without PRD in BRA.

Case 4 vs. Case 2: PRD submitted for Incremental Auction instead of BRA may require PJM selling the excess capacity. The final load charges may not reduce to a level with PRD in BRA. LSE with PRD will get reduction in load charges close to the case with PRD for BRA. Other LSEs may incur higher load charges.

Proposed PRD Business Rules

PRD is required to be submitted for BRA. Additional PRD may only be permitted in the Incremental Auction if there is an increase in the Zonal peak load forecast.

	Case 1	Case 2	Case 3	Case 4
BRA	No PRD	PRD in BRA	PRD in BRA Cancelled	PRD in IA, not BRA
Zonal peak load forecast before PRD	8000	8000	8000	8000
LSE Load Share (10%)	800	800	800	800
PRD registered by the LSE	0	100	100	0
Prelim Zonal Peak Load Forecast adjusted for PRD	8000	7900	7900	8000
LSE Load Share adjusted for PRD	800	700	700	800
BRA Resources Cleared (Preliminary Zonal UCAP Obligation)	8800	8690	8690	8800
Preliminary LSE UCAP Obligation	880	770	770	880
BRA Resource Clearing Price	\$136.00	\$133.00	\$133.00	\$136.00
Third Incremental Auction				
PRD registered by the LSE	0	0	-100	100
Excess sold by PJM	0	0	0	110
Additional resources procured	0	0	110	0
Clearing price	NA	NA	\$150.00	\$50.00
Delivery Year				
Final Zonal UCAP Obligation	8800	8690	8800	8690
LSE with PRD	880	770	880	770
Other LSEs in zone	7920	7920	7920	7920
Final Zonal Capacity Price	\$136.00	\$133.00	\$133.21	\$137.09
Load Charges and Savings				
LSE with PRD - Load charges	\$119,680	\$102,410	\$117,227	\$105,558
Savings from PRD	Base	\$17,270	\$2,453	\$14,122
% Savings	Base	14%	2%	12%
Other LSEs in Zone-Load charges	\$1,077,120	\$1,053,360	\$1,055,043	\$1,085,742
Savings from PRD	Base	\$23,760	\$22,077	-\$8,622
% Savings	Base	2.2%	2.0%	-0.8%
Final Zonal Capacity Price (Approximate, for Illustration only)				
Resources cleared in BRA	8,800	8,690	8,690	8,800
BRA Clearing Price	\$136.00	\$133.00	\$133.00	\$136.00
Resources procured in Third Incremental Auction	0	0	110	0
Resources sold in Third Incremental Auction	0	0	0	-110
Third Incremental Auction Clearing Price	NA	NA	\$150.00	\$50.00
Weighted Resource Clearing Price (used as Load Price)	\$136.00	\$133.00	\$133.21	\$137.09

Note: The calculation of obligations and prices above are approximate and for illustration only. Accurate calculations require modeling of all RTO and Zonal quantities and the Settlement equations.