
Replacement Capacity Alternate Motion (Package 4 ‡)

Presented to MRC:

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Background / Observations

1. Does selling “high” in the BRA and buying back “low” in IAs represent a systematic opportunity to exploit?
 - a) If YES, all packages address the WRONG problem of how the load forecast and volumetric risk inputs are managed three years forward.
 - b) If NO, the nature of the problem is smaller and different.
2. Additionally, if some form of PJM’s proposal on DR clearing moves forward, potential DR volumes could be reduced by as much as 20-40%. Capacity import limits are also pending. How significant is the remaining replacement issue?
3. The original RPM settlement included a very high deficiency penalty rate and a collateral requirement not directly linked to the penalty rate. After being thoroughly vetted, the current lower deficiency penalty rate and collateral requirements directly linked to the penalty rate were established. Why?
4. IAs were modified to expand participation and adjust for system changes beyond only load forecast increases. Why?

Penalty Structure - Level

1. Goal – improve the penalty structure without creating burdens on new entry, especially with collateral requirements
2. Design Component
 - a) Establish nominally higher penalty “Weighted average Resource Clearing Price (RCP: BRA or IA) + (higher of 20% of RCP or \$40)”
3. Discussion
 - a) Directly address the concerns around today’s levels encouraging a low risk gamble with high rewards by addressing the fixed penalty level.
 - b) Avoid reestablishing very high penalty levels with even higher collateral requirements via the percentage.

Penalty Structure – Auction vs. Bilateral Market

1. Goal – avoid replacing market design with low risk / high reward with a worse market design of all risk / no reward (i.e. claw back)
2. Design Component
 - a) Eliminate proposed claw back provision
3. Discussion
 - a) At best, the provision will not work as intended and drive activity to the less efficient bilateral favoring large participants.
 - b) At worst, the provision will create unintended consequences that it will take some time to address.

PJM Sell Offer Price

1. Goal
 - a) Preserve the most economic value to load from excess purchases made on their behalf (20 cents on the dollar is better than nothing)
 - b) Recognize there is a lower limit to the price level where load should be allowed to keep the excess capacity if it elects (distributed as excess capacity credits)
2. Design Component
 - a) “Status Quo (upward sloping offer curve with starting price determined based on intersection of updated VRR curve and vertical line at current commitment level) **with non-zero offer floor at 10% of BRA Clearing Price**”
3. Discussion
 - a) PJM’s proposal to use the BRA price essentially makes excess bought on behalf of load the last to be sold rather than the first to be sold. This drives activity from the auction to the bilateral market.
 - b) Place a non-zero threshold below which excess capacity is not sold below and later transfers as excess capacity credits.

Other Topics

1. PJM's use of conditional IAs tied to only load forecast increases with limited participation is troubling
 - a) Forces virtually all adjustments to wait until just before the DY which appears inconsistent with the 3-yr forward commitment desires
 - b) Adjustments sooner rather than later can occur for a variety of reasons such as additional resources, fewer resources, fewer commitments with reduced load forecast, system changes (e.g. IRM, CETL)
2. PJM's change to require an executed Facility Studies Agreement for the BRA could unnecessarily restrict or delay market entry
3. Package 4 avoids both of these market design changes

ID	Design Components	Status Quo	Old Package A2, but with an IA Settlement Adjustment. Increase CRDC to 1.5X, PJM Sell Offer floored at BRA CP, 1 unconditional IA / 2 conditional IA's if short capacity	Old Package 1, but with three IA's. Increase CRDC to 1.2X or \$40, PJM Sell Offer floored @ 10% of BRA CP
			Package 2	Package 4
1	Capacity Resource Deficiency Charge (tied to credit)	Weighted average Resource Clearing Price (RCP: BRA or IA) + (higher of 20% of RCP or \$20)	Weighted average Resource Clearing Price (RCP: BRA or IA) + (higher of 50% of RCP or \$50)	Weighted average Resource Clearing Price (RCP: BRA or IA) + (higher of 20% of RCP or \$40)
2	PJM release of committed capacity due to decrease in Reliability Requirement	PJM can release capacity due to decrease in rel req in all 3 IAs; reliability requirement reduction must be greater than 500 MW or 1% to be considered in 1st and 2nd IA; no threshold in 3rd IA	release capacity due to decrease in reliability requirement only in the final IA; do not release capacity in early IA; Capacity Market Buyer participation in Final IA only	Status Quo
3	PJM procurement of capacity due to increase in Reliability Requirement	PJM can procure capacity due to increase in rel req in all 3 IAs; reliability requirement increase must be greater than 500 MW or 1% to be considered in 1st and 2nd IA; no threshold in 3rd IA	PJM can procure capacity due to increase in rel req in all 3 IAs; 1st IA and 2nd IA are only conducted if RTO load forecast increase is greater than 2% for 1st IA and 1% for 2nd IA and are only conducted for purpose of satisfying this increase. No threshold in 3rd IA.	Status Quo
4	PJM Sell Offer Price	upward sloping offer curve with starting price determined based on intersection of updated VRR curve and vertical line at current commitment level	upward sloping offer curve with starting price determined based on intersection of updated VRR curve and vertical line at current commitment level but floored at BRA CP	Status Quo with non-zero offer floor at 10% of BRA Clearing Price.
6	Mitigation	Existing Generation Capacity is subject to same mitigation as in BRA; may elect Market Seller Offer Cap (MSOC) of 1.1 times BRA CP for 3rd IA	existing generation capacity may elect MSOC of greater of 1 times BRA CP or their MSOC in first and second IAs, may elect MSOC of 1.1 times BRA CP for Final IA. Planned generation capacity resources are not subject to any offer capping.	Same as Package 2: existing generation capacity may elect MSOC of greater of 1 times BRA CP or their MSOC in first and second IAs, may elect MSOC of 1.1 times BRA CP for Final IA. Planned generation capacity resources are not subject to any offer capping.
7	Number of IA's**	Three	One certain unconditional IA plus potential for up to two additional conditional IAs; Final IA is an unconditional IA conducted at same time as current 3rd IA (after EFORD lock-down). Final IA is the only IA in which Capacity Market Buyers may participate. Final IA is only IA in which PJM will release capacity; 1st and 2nd IAs are solely for PJM procurement of additional capacity for increases in Reliability Requirement and only conducted if thresholds are met or exceeded. Capacity Market Sellers may participate in all auctions (including 1st IA and 2nd IA if conducted)	Three (Status Quo)
7a	Allocation of 2.5% Short-term Resource Procurement Target (STRPT) to IA's	1st IA - 0.5%; 2nd IA - 0.5%; 3rd IA - 1.5%	1st IA (if conducted) - 0.5% (carry over to next IA if not conducted); 2nd IA (if conducted) - 0.5% plus carryover from 1st IA (carry over to Final IA if not conducted); 3rd IA - 1.5% (plus any carryover from prior IA)	Status Quo
8	Incremental Auction Settlement: Calculation	Cleared sell offers and buy bids settle against IA CP.	IA Settlement Adjustment: Cleared sell offers settle against IA CP. Cleared buy bids will settle against IA CP plus pay the difference between the BRA clearing price and the IA CP for cleared buy bid quantity. If the IA clearing price is greater than the BRA price, there is no settlement adjustment.	Status Quo
11	Implementation Timing	n/a	Applicable to all auctions associated with 17/18 DY and beyond, with exception of "PJM Sell Offer Price" and "Mitigation" components, which become effective immediately upon FERC approval. Executed Facilities Study Agreement for BRA participation effective for 2015 BRA (18/19 DY)	Same as Package 2: Applicable to all auctions associated with 17/18 DY and beyond, with exception of "PJM Sell Offer Price" and "Mitigation" components, which become effective immediately upon FERC approval.
12	BRA / IA Participation		<u>BRA participation requires:</u> <ul style="list-style-type: none"> • Non-Diversion Agreement (all resources) • Letter of Non-Recallability executed by host control area (Imports) • Executed Facilities Study Agreement (Planned Generation over 20 MW ICAP only) <u>IA Participation:</u> <ul style="list-style-type: none"> • Capacity Market Buyers participate only in Final IA 	Capacity Market Buyers and Sellers participate in all three IA's.
13	Resource Development Milestones associated with this Package	n/a	No	No
14	RPM offer represents an enforceable commitment to physically deliver - excused only by either 'qualifying events' or 'force		No	No

Questions?