



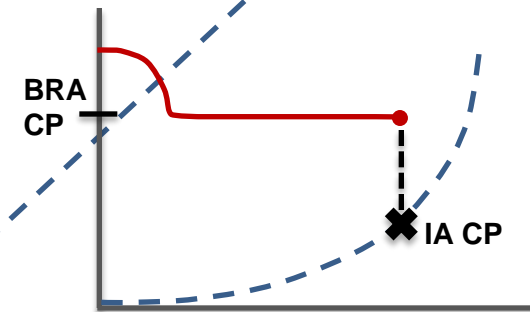
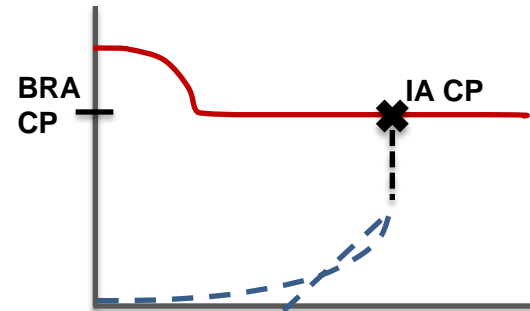
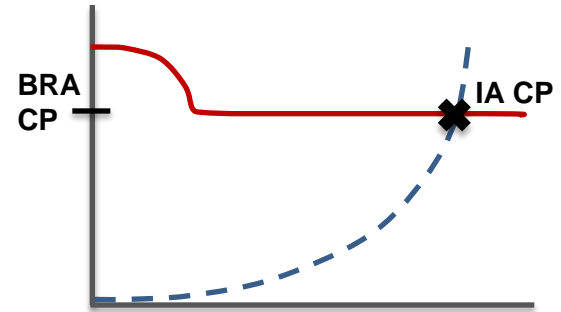
# PJM Proposal – Package 2 IA Clearing and Settlement Examples

CSTF

January 6, 2014

# IA Clearing Examples with Bids above or equal to BRA CP

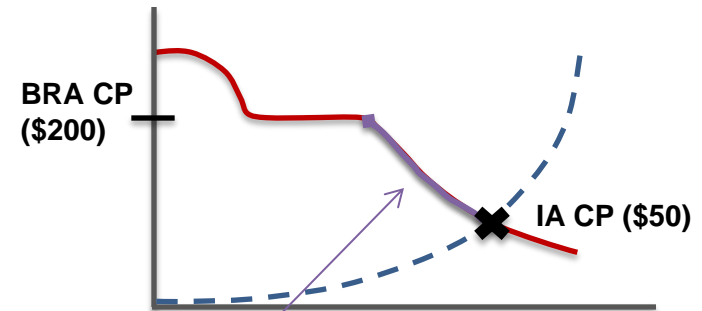
1. Supply curve intersects demand curve. IA clearing price set at intersection point.
2. Demand curve extends past supply curve with no intersection. IA clearing price set at marginal buy bid price.
3. Supply curve extends past demand curve with no intersection. IA clearing price set at marginal sell offer price.



# IA Clearing Example with Conditional Settlement Adjustment

Supply curve intersects demand curve below the BRA clearing price. IA clearing price set at intersection point.

- Demand that clears and is bid at a price equal to or greater than the BRA clearing price pays the cleared MW times IA clearing price.
  - Participant clears 50 MW Buy Bid
  - IA Charges: 50 MW x \$50 = **\$2500**
- Demand that clears and is bid at a price less than the BRA clearing price pays the cleared MW times IA clearing price, as well as the conditional settlement adjustment equal to the cleared MW times (BRA clearing price – IA clearing price)
  - Participant clears 50 MW Buy Bid
  - IA Charges: 50 MW x \$50 + [50 MW x (\$200 - \$50)] = **\$10,000**





# Concerns w/ Linking Settlement Adjustment to Attributes of Resource Being Replaced

## Example of Participant Clearing Results

Auction	Resource	Type	MW	Offer Price	Clearing Price	Credits
BASE	Resource 1	Sell Offer	100	\$ 200.00	\$ 200.00	\$ 20,000.00
FIRST	Resource 2	Sell Offer	50	\$ 80.00	\$ 80.00	\$ 4,000.00
THIRD	Buy Bid	Buy Bid	-100	\$ 100.00	\$ 100.00	\$ (10,000.00)
<b>Totals</b>						<b>\$ 14,000.00</b>

**Scenario:** Participant is unable to deliver Resource 1, and therefore buys replacement capacity in 3<sup>rd</sup> IA at \$100.

**Option 1:** Participant replaces Resource 1 with Buy Bid and pays settlement adjustment charge for the 100 MW.

- Sett. Adj. Charge = 100 MW x (\$200 BRA price - \$100 IA price) = \$10,000
- Net Credits = **\$4,000**

**Option 2:** Participant replaces Resource 2 with Buy Bid for 50 MW and avoids settlement adjustment. Resource 2 is then used to replace Resource 1 for 50 MW. This process is then repeated to completely remove the commitment from Resource 1 without paying any settlement adjustment charges.

- Sett. Adj. Charge = Not Applicable
- Net Credits = **\$14,000**