

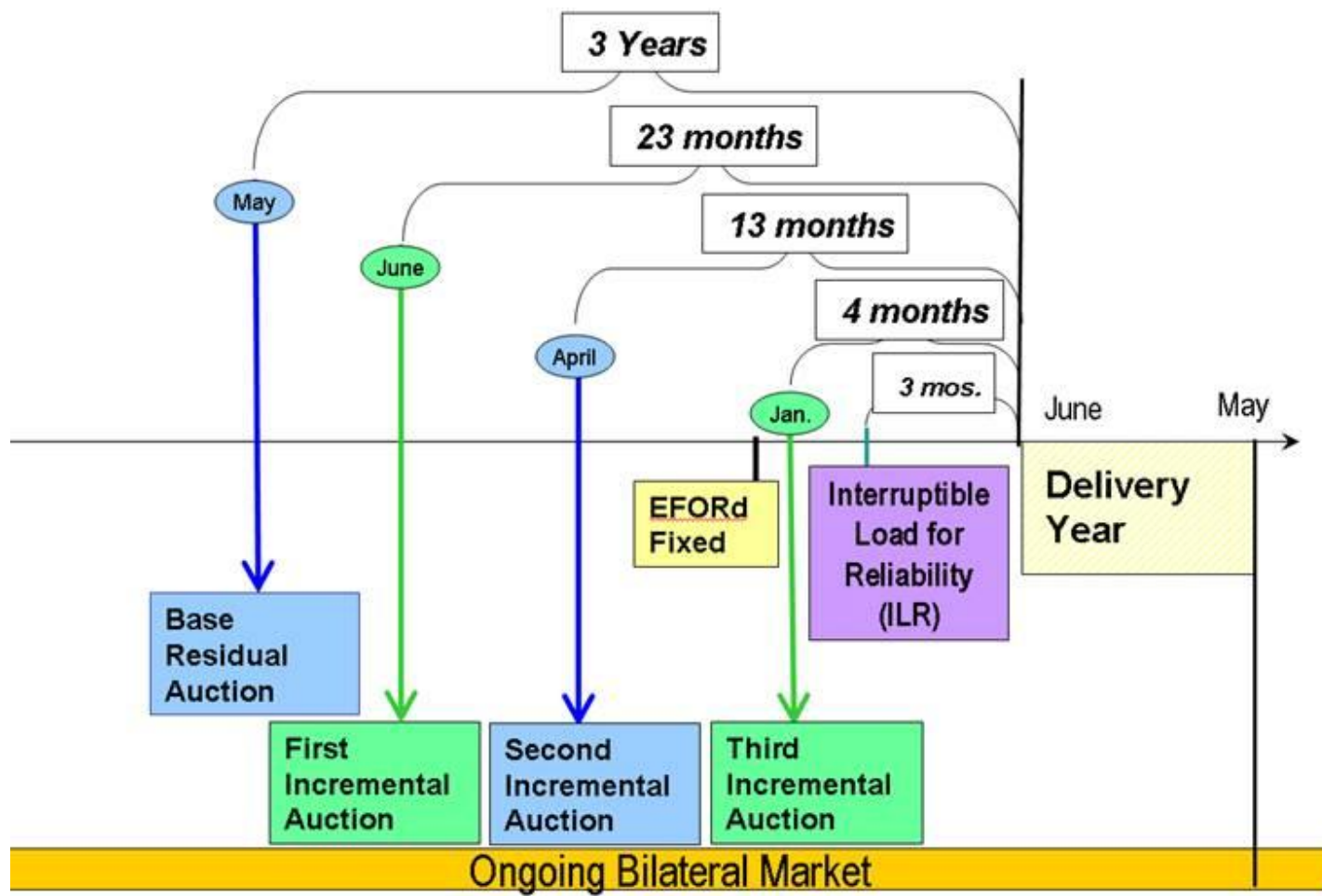
# PJM Capacity Construct: Reliability Pricing Model Basics and Process Update



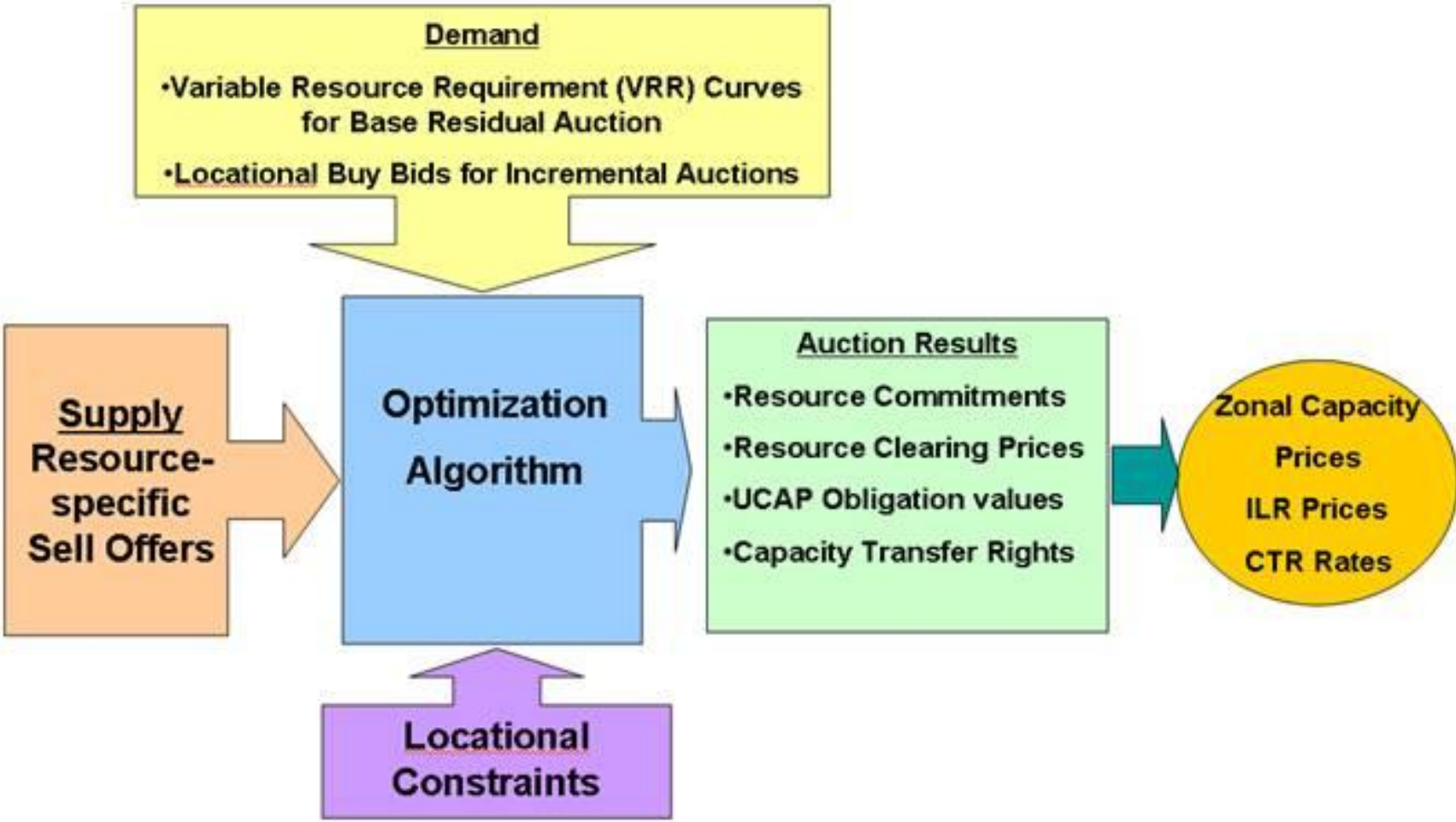
JCM Joint Stakeholder Meeting  
November 14, 2008



- Reliability Pricing Model (RPM) is PJM's resource adequacy construct
- RPM is part of an integrated approach to ensuring long-term resource adequacy and competitively priced delivered energy
- RPM aligns the price paid for capacity with overall system reliability requirements
- RPM includes locational capacity pricing to recognize and quantify the locational value of capacity
- RPM provides forward investment signals

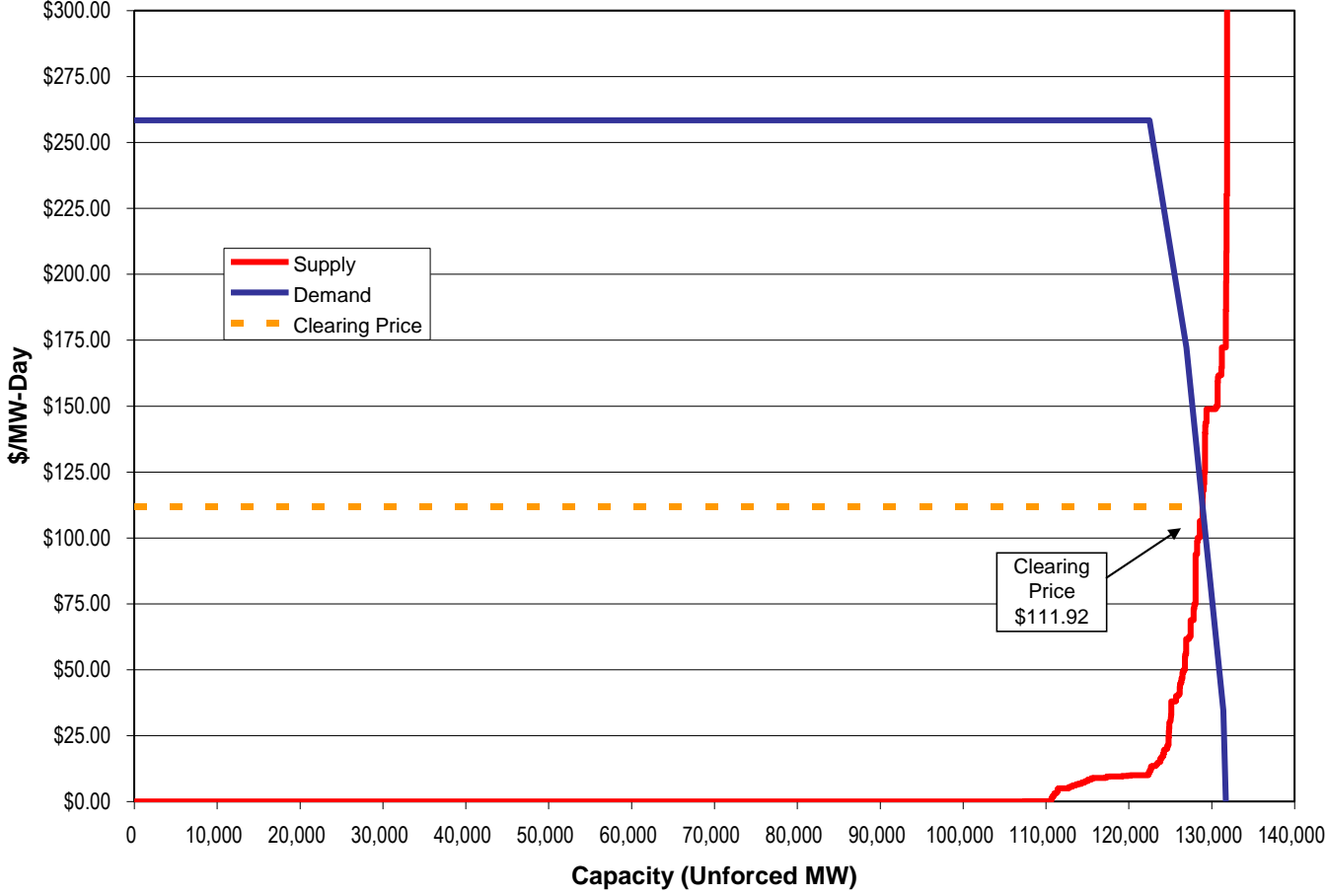


| Activity                                 | Purpose  | Cost of Procurement                                     |
|--|--|---|
| Base Residual Auction                    | Procurement of RTO Obligation less an amount reserved for ILR, less FRR Obligation                                 | Allocated to LSEs through Locational Reliability Charge |
| 1 <sup>st</sup> Incremental Auction      | For resource providers to adjust resource positions  | Buyers pay suppliers                                    |
| 2 <sup>nd</sup> Incremental Auction      | Considered only if there is an increase in the load forecast   | Allocated to LSEs through Locational Reliability Charge |
| 3 <sup>rd</sup> Incremental Auction      | For resource providers to adjust resource positions  | Buyers pay suppliers                                    |
| Interruptible Load for Reliability (ILR) | Portion of RTO Obligation is reserved to be served by load management resources certified three months prior to DY | Allocated to LSEs through Locational Reliability Charge |



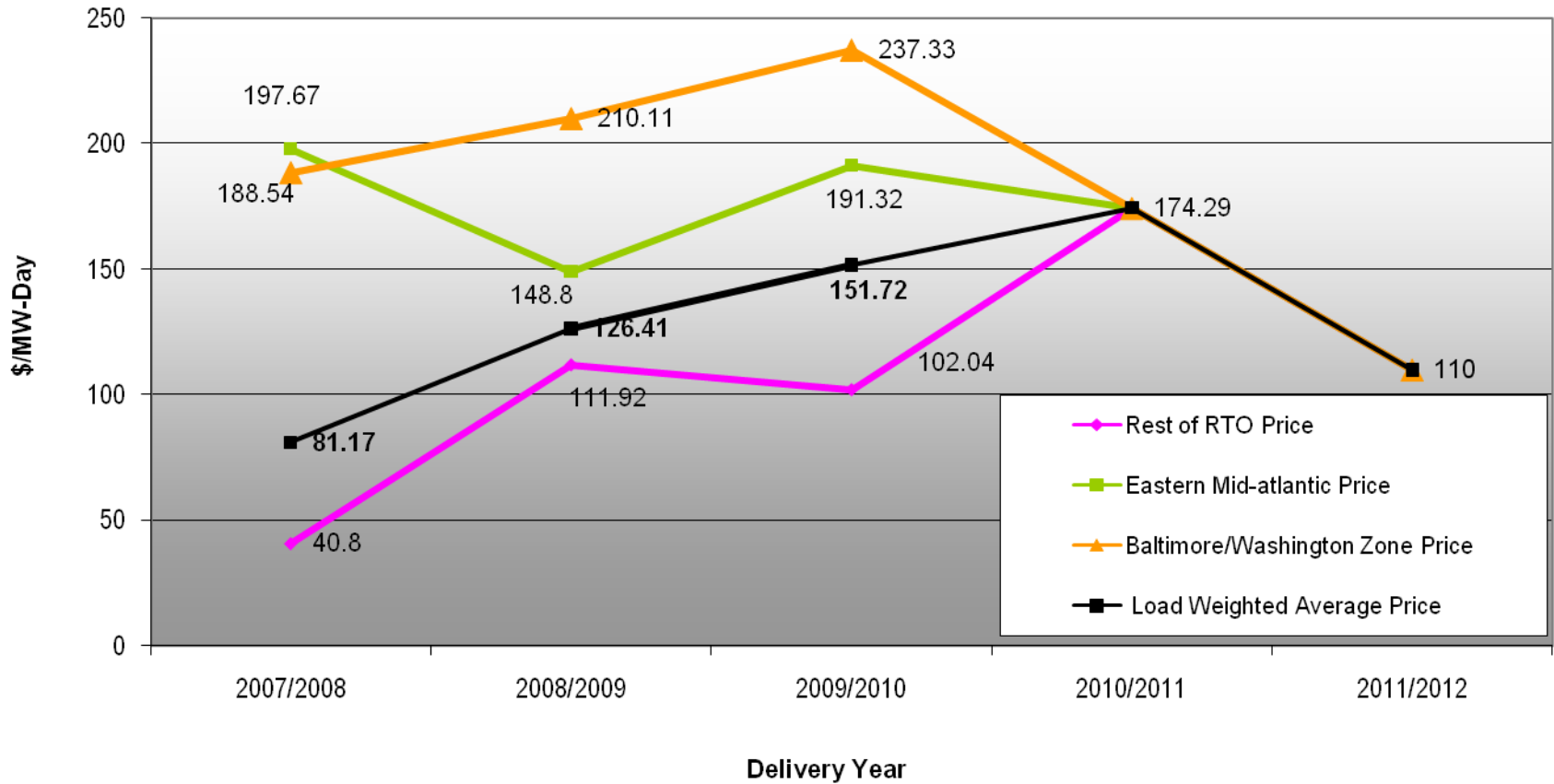
- RPM Auctions use an optimization-based market clearing algorithm.
- This algorithm has the objective of minimizing capacity procurement costs given
  - Supply Offers
  - Demand Curves
  - Locational Constraints
- The clearing price for each Locational Deliverability Area (LDA) is determined by the optimization algorithm.

# Graphical Illustration of Auction Clearing 2008/09 BRA



Clearing determined by the intersection of the supply and the demand curves.

## RPM Base Residual Auction Prices



- Following the independent Brattle Group evaluation of RPM's effectiveness, PJM has initiated a stakeholder process to examine enhancements to the RPM construct
- In addition, on September 19, 2008, FERC issued an order on RPM Buyers Motion for Technical conference listing issues to be analyzed
- The goal of the process is to have changes filed with FERC relative to the May 2009 auction for the 2012/2013 Delivery Year by mid-December

# FERC Issues Compared to CMEC Short Term Action Plan

| Issue highlighted in FERC order   | CMEC Action plan      |
|---|-----------------------|
| use of historical averages of energy and ancillary services revenue offsets to determine Net CONE   | Yes                   |
| rules for the participation of energy efficiency and demand-side resources in the RPM auctions  | Yes                   |
| market power and mitigation rules   | Partial               |
| Reliability requirements/criteria and defining Locational Delivery Areas  | No, Longer term issue |
| must-offer rules relating to the exclusion of capacity due to (i) the sales cap imposed on Fixed Resource Requirement entities and (ii) partial-year ownership and availability | Yes                   |
| performance penalties   | Yes                   |
| incremental auctions  | Yes                   |
| length of forward commitment for new capacity resources   | No, Longer term issue |

- Cost of New Entry (CONE) update
- Energy and Ancillary Service Offset
- Incorporation of energy efficiency
- Market power mitigation
- LDA modeling
- Increasing resource eligibility
- Incremental auction redesign
- Interruptible Load for Reliability (ILR)
- Penalties
- Day-Ahead Market offer obligations