

# Price-based Offers > \$1,000/MWh

## Long-term Solution: M-11 Proposed Revisions

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- Short-term Approach – *Completed July 2018*
  - Aligned Manual 11 with Tariff/OA provisions
  - All price-based offers capped at \$1,000/MWh by default
  - If a cost-based offer is verified to be over \$1,000/MWh, price-based offers may:
    - Switch to Cost
    - Submit price-based offers above \$1,000/MWh in line with verified cost-offer, manual verification process
- Long-term Approach:
  - Implement more robust system controls to improve price-based offer validation (Target: December 1, 2018)
  - Memorialize Business Rules in M-11

- Estimated to be implemented by December 1, 2018
- Cost-based and price-based offers over \$1,000/MWh are automatically verified upon submission
  - Switch to Cost remains an available option
  - Allowing price-based offers > \$1,000/MWh maintains 2015 compromise from Cap Review Senior Task Force
- PJM believes this approach will ensure price-based offers above \$1,000/MWh will not exceed the reference cost-based offer on a segment level.

- In order to automate compliance of price-offers above \$1,000/MWh with cost-based offer, price-based offers must:
  - Specify “Reference Cost-based Schedule”
  - Have certain identical offer data to “Reference Cost-based Schedule”
    - MW Blocks
    - Use Bid Slope
    - Fuel Type
  - Have offer values less than or equal to “Reference Cost-based Schedule”
    - Startup and No-load offers
    - Incremental energy curve prices per segment

- First Read M-11 Proposed Updates:
  - MIC – August 8
  - MRC – September 27
- Endorsement: M-11 Proposed Updates:
  - MIC – September 12
    - Endorsed by Acclimation; 0 objections, 0 abstentions
  - MRC – October 25
- Planned System Implementation: By December 1, 2018

# Appendix



# Example 1 – MW Break Points do not Match

Cost-based Schedule (01)			Price-based Schedule (99)			Notes
<b>Fuel Type:</b>	Gas		<b>Fuel Type:</b>	Gas		Fuel Types Match - ✓
<b>Startup Cost</b>	\$100		<b>Startup Cost</b>	\$100		Startup on Price <= Cost - ✓
<b>No-Load Cost</b>	\$50		<b>No-Load Cost</b>	\$30		No-load on Price <= Cost - ✓
<b>Use Bid Slope</b>	Yes		<b>Use Bid Slope</b>	Yes		Use Bid Slope Match - ✓
<b>MW</b>	<b>Submitted Price</b>	<b>Verified Price</b>	<b>MW</b>	<b>Submitted Price</b>	<b>Capped Price</b>	MW Blocks Match - ✓
10	1200	1200	15	1200	1000	Price-based segment does not have same MW break points, Capped Price at \$1,000/MWh.
20	1400	1400	20	1400	1000	Price-based segment does not have same MW break points, Capped Price at \$1,000/MWh.

If requirements are not met, PJM will cap the offer price for unit commitment, dispatch and pricing at \$1,000/MW.



# Example 2 – Price Offer Verified Successfully

Cost-based Schedule (01)			Price-based Schedule (99)			Notes
<b>Fuel Type:</b>	Gas		<b>Fuel Type:</b>	Gas		Fuel Types Match - ✓
<b>Startup Cost</b>	\$100		<b>Startup Cost</b>	\$100		Startup on Price <= Cost ✓
<b>No-Load Cost</b>	\$50		<b>No-Load Cost</b>	\$30		No-load on Price <= Cost ✓
<b>Use Bid Slope</b>	Yes		<b>Use Bid Slope</b>	Yes		Use Bid Slope Match ✓
<b>MW</b>	<b>Submitted Price</b>	<b>Verified Price</b>	<b>MW</b>	<b>Submitted Price</b>	<b>Capped Price</b>	MW Blocks Match ✓
10	1200	1200	10	1200	1200	Price-based segment can be submitted up to cost-based segment verified price.
20	1400	1400	20	1400	1400	Price-based segment can be submitted up to cost-based segment verified price.





# Example 3 – Cost Offer Decreased After Price Offer Submitted > \$1,000

Cost-based Schedule (01)			Price-based Schedule (99)			Notes
<b>Fuel Type:</b>	Gas		<b>Fuel Type:</b>	Gas		Fuel Types Match - ✓
<b>Startup Cost</b>	\$100		<b>Startup Cost</b>	\$100		Startup on Price <= Cost - ✓
<p>If Price-based schedule is not updated when cost-based schedule is decreased, PJM will cap the price for unit commitment, dispatch and pricing</p>						
<b>MW</b>	<b>Submitted Price</b>	<b>Verified Price</b>	<b>MW</b>	<b>Submitted Price</b>	<b>Capped Price</b>	MW Blocks Match - ✓
10	<del>1200</del> 900	<del>1200</del> 900	10	1200	<del>1200</del> 1000	Price-based segment exceeds cost-based segment verified price, use Capped Price as verified price.
20	<del>1400</del> 1100	<del>1400</del> 1100	20	1400	<del>1400</del> 1000	Price-based segment exceeds cost-based segment verified price, use Capped Price as verified price.