

Regulation Three-Pivotal Supplier Test Implementation:
Cost-Based Regulation Offer Submission and Calculation Guideline

Background:

As of December 1, 2008 every resource that participates in the regulation market must submit a cost-based offer for regulation in addition to any market-based offer and the relevant data for that resource to support the cost-based offer¹. The additional required data submitted along with the cost-based regulation offer and the method of calculating the maximum cost-based offer is detailed below and is consistent with Manual M-15: Cost Development Guidelines. Any resource that does not have an accepted cost-based regulation offer will be ineligible to provide regulation until such offer is validated.

Additional Required Data:

- Fuel Cost [\$ / MBtu]: The fuel cost increase associated with operating the unit at lower loads than otherwise optimal and the unit specific heat rate degradation from operating at a reduced output.
- Heat Rate at Economic Max [Btu / KWh]: The heat rate at the unit's default economic maximum output.
- Heat Rate at Regulation Minimum [Btu / KWh]: The heat rate at the unit's regulation minimum (regulation low limit) output.
- Variable Operating and Maintenance (VOM) [\$ / MW of Regulation]: The cost increase in VOM resulting from operating the unit at an output that is lower than economic. **NOTE:** The VOM rate must comply with the specifications in Section 9 of Manual M-15.

Based on this information, the applicable margin adder, and the calculations in Manual M-15, eMarket will calculate the maximum cost-based offer for regulation and verify that the cost-based offer submitted is less than or equal to the maximum allowed. If the cost-based offer exceeds the maximum allowed, the offer will be rejected, otherwise the offer will be accepted.

NOTE: If none of the additional cost information mentioned above is supplied to calculate the maximum cost-based regulation offer, the cost-based regulation offer of the unit can not exceed the applicable margin adder.

Additional Information:

Additional information on the calculation and input data used to determine a unit's regulation cost can be found in Section 9 of Manual M-15: Cost Development Guidelines (<http://www.pjm.com/contributions/pjm-manuals/pdf/m15.pdf>). PJM has also provided an example of this calculation on PJM.com: <http://www.pjm.com/markets/ancillary/regulation.html>

If there are any issues regarding offer entry or general questions about cost-based regulation offers, please contact the Markets Hotline by emailing markets_hotline@pjm.com or calling 610-666-8998.

¹ Cost-based regulation offer and data submissions and implementation of the Three Pivotal Supplier Test in the PJM Regulation Market as of December 1st, 2008 will be required assuming approval of PJM's October 1st, 2008 filing (<http://www.pjm.com/documents/ferc/documents/2008/20081001-er09-xxx-000.pdf>).