



MMU Analysis of Combined Regulation Market

MRC

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Joseph Bowring

Market Monitor

- PJM temporarily modified the regulation market on August 1, 2005
- PJM combined the PJM Regulation Market and the Western Region Regulation Market
- Final decision on combining markets is contingent on a report from the MMU and a decision by PJM members

- Combined market is better operationally than separate markets
- Combined market is more competitive than separate markets
- Separate markets were not structurally competitive
- Combined market is not structurally competitive
 - Combined market exhibits structural market power in a substantial number of hours
- Preferable to retain the combined market
- Structural market power is a significant issue that is not adequately addressed with current mitigation
- Structural market power can be addressed via proposed mitigation approach

- **Prior mitigation included:**
 - All cost based offers in Western Region (prior to Dominion integration)
 - Cost-based offers for dominant owners (following Dominion integration)
- **Proposed mitigation – flexible real time approach:**
 - Real time application of three pivotal supplier test
 - Apply test using the same logic applied in the energy market
 - Offer capping only in hours that fail test
 - Offer capping only for owners that fail test in hour; and that are needed to provide regulation in hour

- HHI results for 2006 (market structure)
 - Calendar year average HHI
 - Min: 816
 - Average: 1256
 - Max: 3763
- Three pivotal supplier results for 2006 (market structure)
 - TPS failed in 26 percent of hourly regulation markets.

- Mark up results for 2006 – estimate of market power impact
 - Regulation cost not provided by market participants
 - MMU estimated regulation costs based on Cost Development Guidelines (CDG) for both current and proposed definitions
 - Cost includes a margin of \$7.50
 - About 30 percent of marginal units had offers greater than cost
 - Based on the CDG definition of cost in 2006
 - About 24 percent of marginal units had offers greater than cost
 - Based on proposed CDG definition of costs
 - About 11 percent of marginal units had offers greater than cost
 - Based on proposed CDG definition of costs
 - Based on assumption that units move VOM costs from energy offers to regulation offers