



Market Power Tests

Gross Positions and Net Positions

Physical and Financial Dimensions

HEPG
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- Internal PJM Market Monitoring Unit will become external PJM Market Monitoring Unit
- Pursuant to a FERC approved settlement
- Formed a new company – Monitoring Analytics, LLC
- Expect to begin separate operations in July
- Available to provide other monitoring services subject to strict conflict of interest policies

- Competition is used as a tool of regulation
- Laissez faire will never be adequate for wholesale power markets
- FERC – perfect competition is the goal
- Clear market power rules required
- Clear and effective market power mitigation required

- Goal is sustainable, competitive market design
- Competitive markets that result in investment incentives
- Market design cannot rely upon market power

- FERC's Market Based Rates define competitive participant
- Derived from FERC's Delivered Price Test
 - 107 FERC ¶ 61,018 (2004) (AEP Order)
- Market power screens
- Market power tests
- Definition of the relevant market – supply available at 1.05 times clearing price
- HHI test
- Market share test
- Pivotal supplier test

- Three pivotal supplier test for local market power mitigation in energy market
- Definition of competitive local market structure
- Replaces offer capping of all units for local markets created by constraints
- Real-time analysis of market structure
- Offer caps based on cost data from each unit

- Based on FERC delivered price test logic
- TPS is a dynamic, real-time application that measures market structure based on PJM's market logic and rules
- Market structure
- Market behavior or conduct
- Market performance or outcomes

- PJM's real-time market power tests and mitigation may satisfy MBR requirements
- PJM tests only for local market power
- Incidence of mitigation in PJM is low

- Market structure tests are a measure of ability
- Market structure tests are not a measure of incentives
- Tests of efficacy
 - Mitigate when there is no market power
 - Do not mitigate when there is market power
- Outcomes
 - Competitive behavior and market outcomes
 - Non-competitive behavior and market outcomes

- Market structure test based on gross position uses total asset ownership
- Market structure test based on net position uses total asset ownership net of offsetting positions, either physical or financial
- Examples
 - Obligation to serve load
 - Contract to sell power
 - Financial positions
- Net position is designed to be an incentive measure

- Net position analysis must be dynamic
- Net position analysis requires detailed real-time data
- Even management unlikely to have this data
- Net position analysis is complex
 - Analysis of regulatory risk
 - Analysis of retail competition
 - Dynamic financial positions
- Virtually impossible to fully reflect complete net position

- Market Based Rates (MBR) test results apply for three years, based on historical data
- MBR is static
- MBR cannot address dynamic hedging
 - Changes in ownership
 - Changes in retail competition
 - Financial hedges
- Structural test based on gross position is reasonable for MBR test

- Goal of net position analysis is to better reflect incentives
- Incentives are complex
- Net position unlikely to fully measure incentives
- Advantage to increased information about incentives?
- Related markets

- Goal is to ensure competitive behavior and competitive market outcomes
- If net position increase incentives to behave competitively, not a concern
- If net position increase incentives to exercise market power, potential issue.
 - Structural test for ability to exercise market power
 - Direct tests of market power

- Do increased incentives to exercise market power create an issue?
- Net position does not measure ability to exercise market power in PJM markets
- Ability to exercise market power in PJM markets
 - Actual unit offers in day ahead and real time markets
 - Virtual offers
 - Complex strategies

- Accurate and complete information on ownership
- Accurate and complete information on affiliate relationships
- Accurate and complete information on positions in related markets – role of each market

- Comprehensive market power rules
 - Must offer
 - One offer per day
- Robust structural test for market power - TPS
- Detailed evaluation of actual exercise of market power in all forms
- Clear scarcity pricing rules
- Robust credit policy