



APPROACHES TO MARKET POWER ANALYSIS

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Market Monitor

- Approach to market analysis
 - Structure
 - Conduct/Behavior
 - Performance

- Structure/conduct/performance
 - Structural measures
 - HHI – Concentration of ownership
 - MS - Individual company Market Share
 - RSI – Pivotal supplier(s)
 - Conduct/behavior measures
 - Mark up (unit)
 - Offer behavior
 - Performance measures
 - Mark up (clearing price)

- Ability to increase/decrease market clearing price above/below competitive price level
 - Focus is on performance component of definition
- “Competitive price level” defined by marginal cost of unit setting market clearing price
 - Risk
 - Opportunity costs
 - Scarcity pricing

- FERC definitions
 - Rules for **Market Based Rates**
 - **Behavioral rules**
 - **RTO tariff** (approved by FERC)

- FERC definitions
 - Rules for **Market Based Rates** focus on structural definitions
 - **Behavioral rules** focus on conduct/behavior definitions
 - **RTO tariff** (approved by FERC)
 - Conduct/behavior
 - Defines local market power
 - Defines other specific behaviors

- Market Based Rates (MBR)
 - AEP Order
 - AEP Order on Rehearing

- Market power tests in “Market Based Rates”
 - Indicative screens
 - Market power tests

- Context
 - Non-RTO:
 - Single utility company or merchant
 - Historical monopoly utility position in service area
 - RTO:
 - Multiple utility company service areas
 - All market participants

- Market power indicative screens
 - Market share
 - Pivotal supplier
- Market power tests (delivered price test)
 - Market share
 - Market concentration
 - Pivotal supplier
- Issues
 - Definition of market (geography/product)
 - Definition of supply (net of current demand or total supply)
 - Definition of competitive supply (1.05 times clearing price)
 - Definition of competitors (transmission)
 - Relevance of existing market conditions (current contractual or regulatory status)
 - Relevance of state goals for retail competition



Failure of FERC MBR Market Power Test

- Goal is competitive wholesale power rates
- If market power exists – FERC mitigation requires cost-based rates
- Transactions less than a week
 - Marginal cost plus 10 percent
- Transactions more than a week, less than a year
 - Cost of units expected to provide service
- Transactions more than a year
 - Embedded cost of service rates



Impact of FERC MBR Market Power Definitions

- Competitive wholesale power markets
 - Performance measure
- Basis for retail competition
- Relevance of actual and anticipated market conditions
- Is all load contestable under retail competition?

- Market based rate market power screens/tests applicable to RTOs
 - Not an issue
 - Relevance to local markets (transmission defined)
 - Relevance to capacity markets
 - Relevance to ancillary services markets
- RTO companies pass MBR tests – energy
 - Regional markets
 - Multiple significant market participants



FERC Behavioral Rules Market Power Definitions

- Rule 1 – Follow the market rules
- Rule 2 – No manipulation of market prices, market conditions or market rules
 - Rule 2(a) – No wash trades
 - Rule 2(b) – No transactions based on false information
 - Rule 2(c) – No artificial congestion and relief
 - Rule 2(d) – No collusion
- Rule 3 – Accurate information to FERC/RTO/MMU
- Rule 4 – Accurate trade reporting
- Rule 5 – Record retention
- Rule 6 – No violation of conduct standards
- “The potential for market abuse will continue to exist even in a structurally competitive market.”

- Continuous and real time evaluation
- Account for RTO detailed market rules
- Day-ahead and real-time markets
- Account for actual network details
 - Transmission constraints
 - Detailed unit characteristics
- Markets evaluated for competitive conditions
 - Energy
 - Capacity
 - Regulation
 - Spinning
- Merger analyses
- Local market power

- More complex approach to local market power
 - Structure/Conduct/Performance
 - Local markets defined by network properties
 - Local markets can be stable and can be dynamic
 - Relevant suppliers are a function of actual market conditions
 - Real time analysis
 - Three pivotal supplier analysis
- Energy market
 - Overall offer cap
 - No explicit aggregate market power rules
- Ancillary services markets
 - Structure/conduct/performance

- Tariff based rules
- Economic dispatch; security constrained
- Nodal pricing
- Day ahead financial market
- Real time balancing market
- Local market power
- Overall offer cap
- One offer per day
- Capacity market construct
- Deliverability
- Cost-based rates for non-competitive markets
- Transmission planning – economic and reliability

- Ex parte rules
- California Order re expedited tariff modifications
- Policy Statement on Market Monitoring
 - May 27, 2005
- Referrals
 - Process
- Enforcement
 - FERC has enforcement authority
 - FERC approved tariffs include market rules
 - Violation of RTO market rules
 - Violation of FERC behavioral rules

- Need clear definition of MMU authority
- Need clear definition of MMU independence
 - Roles of FERC, the RTO Board and RTO management
 - Budget
- Need clear definition of reporting responsibilities
 - FERC
 - Board
 - Management
 - States
- Need clear definition of obligation/ability to provide reports and analysis
 - For FERC
 - For PJM Board
 - For PJM Members
 - For States