Electricity Market Monitoring and Market Power Mitigation

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What are Market Monitors Supposed to do?

- Monitor markets for transmission services and the behavior of transmission owners
- monitor ancillary services and bulk power markets
- assess how markets operated by others affect those markets
- provide regular reports on market power abuses and design flaws

What is Market Power?

- Market power is the ability to effect prices through output or pricing (bidding) decisions
  - "market power abuse?
  - How much is too much?
  - What are the costs of eliminating or mitigating market power?
  - How does market power differ across industries?
  - Is it illegal? (un) just and (un) reasonable?
    - » Unilateral, collusion, tacit collusion

The Electricity Industry is more vulnerable to market power:

why we need more monitoring than the wheat market

- Lack of economic storage
- Binding Capacity Constraints on Production
- Limited Transmission Capacity
- Inelastic Demand
- Frequently repeated market interactions

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Questions about Market Monitors

- Can ISOs monitor themselves?
  - What is an independent market monitor?
- Who are the monitors?
  - The move from theory to data
- What markets do they monitor?
  - The cold reality of market interaction
- Who should have access to data?
  - Who checks the data?
- Enforcement Powers

Policy Tools for the Mitigation of Market Power

- Structural
  - Supply concentration
  - Transmission Capacity
  - Demand Elasticity
- Regulatory
  - Directed at Incentives
  - Directed at Behaviors
    - » enforcement and punishment regimes
- Market Rules
  - Trade-offs between revealing costs and exercising market power

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Market Structure Solutions

- Divestiture
  - needs to accomplish a decrease in concentration
  - supply concentration needs to be far below that of other industries
- Transmission
  - Capacity required to support competition is greater than that needed to support a regulation
- Demand Elasticity
  - The infrastructure needs to be in place
  - real-time meters
  - default provider responsibilities must be clarified

Regulatory Solutions

- Incentive (economic) regulation
  - Status quo regulation:
    - » if the structure will not be competitive, may be the best option
  - Wholesale (market-wide) price caps
  - vesting contracts
- Behavioral regulation
  - unit-specific bid caps
  - Bid readjustment
  - behavioral rules/ codes of conduct
- Behavioral rules are a poor substitute for a truly competitive market structure

Market Rules

- Can't eliminate market power, but can exacerbate it
- Flexibility in the form of supply offers
  - can allow generators to better fit offers to costs
    - » bidding start-up costs, ramp rates, etc
  - can also allow firms to tailor their offers to the market conditions and to thereby exercise market power
    - » once a day vs. once an hour supply offers
- Uniform price auctions
  - not the source of the problem

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Summary

- Market power is serious problem in electricity markets
- Structural changes are needed
  - transmission, demand, supply
  - efficiency through competition, not coercion
- ISO's are becoming regulators of their markets
  - the question now is how and through what process?

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