Manipulation of Electricity Markets: What is the State of the Economics?

HARVARD ELECTRICITY POLICY GROUP

Roy J. Shanker

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Disclaimer

• These are my own observations are not necessarily representative of the positions of any of my clients.

• I participate and have participated in a number of enforcement related actions in both the electric and gas markets. While obviously indirectly related, no comments are intended to specifically represent the facts of these engagements.
GENERAL COMPLICATION

• MOST OF THE INFORMATION IS ANECDOTAL
• MOST OF THE INFORMATION IS EMBEDDED IN CONFIDENTIAL EXCHANGES
• MAKES DISCUSSION DETAIL DIFFICULT
• GENERAL THEME THAT CAME OUT WAS REGARDLESS OF WHAT YOU AGREE OR DISAGREE WITH ON PRINCIPLE AND THEORY WE NEED CLEAR GUIDELINES AND SAFE HARBORS OR THE MARKET INCURS ENOURMOUS INEFFICIENCIES
Basics: Law

• Hopefully Covered this morning
• -SEC (10b-5) “fraud”; CFTC CEA “artificial price”
• FERC Market Behavior Rules (2) mix of SEC and CFTC and Market Power Criteria
• Energy Policy Act 2005 and Order 670 supplants Market Behavior Rules with 1(c)(1 and 2)
• Dodd Frank may result in joint CFTC/FERC jurisdiction on manipulation
Basics: Law

• 18 C.F.R. Part 1c (1 gas/2electric). prohibits:
• (a) It shall be unlawful for any entity, directly or indirectly, in connection with the purchase or sale of natural gas or the purchase or sale of transportation services subject to the jurisdiction of the Commission, (in connection with the purchase or sale of electric energy or the purchase or sale of transmission services subject to the jurisdiction of the Commission)
  – (1) To use or employ any device, scheme, or artifice to defraud,
  – (2) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or
  – (3) To engage in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity.
• (b) Nothing in this section shall be construed to create a private right of action.
• I.e. use of fraud in jurisdictional transaction with requisite scienter
• CEA consideration of creation or attempt to create an artificial price
Basics: Electric Markets

• Bid based security constrained economic commitment and dispatch for LMP, day ahead/real time
• Centrally coordinated network
• Continuous balance, no storage
• Financial equivalents of firm transmission
• Integration of virtual bids into market solutions
• Material uplift credits and charges
• Material seams issues, e.g. modeling external prices, flows/schedules etc. that may not mesh
• Overall more complex than non networked commodities
Complications

• For participants/advisors:
  – Lack of clear rules/overlap of jurisdictions
  – High level of confidentiality at FERC, RTO, CFTC
  – High frequency of opaque settlement
  – Lack of explicit safe harbors (although intellectually there should be)
  – Mostly anecdotal precedent, case specific and generally opaque to market participants
  – Differing perspectives on market rules and properties at RTO level and FERC
  – Seeming “creep” of scienter
Must Have Clean Demarcations

• Market Participant Versus Market Fiduciary
  • What responsibility does anyone have beyond following the rules
  • Ability to rely on rules and associated incentive
  • What level of responsibility exists to second guess the rules?
  • Does this make ignorance a competitive advantage?
  • Should following rules be a safe harbor?
  • Should remedies be limited to modification of rules or possibly disgorgement, if one complies with rules?

• Should pursuit of anticipated profitable transaction be safe harbor, what else should be included?
  – If not, why?
Consequences Without Clear Rules

• Impossible to give advice or conduct due diligence
• Simply telling someone to “follow the rules” is inadequate, particularly when different guidance from different market monitors and ambiguous precedent
• Huge increase in transactions costs
  – Particularly with inherent interaction of most positions and lack of safe harbor on profitability-potentially responsible for unknowable level of interactions by simply contemplating existence of interactions
  – What does RTO or IMM opinion mean even if available, and how long does it take to get such an opinion
• Decrease in efficiency as profitable transactions forgone
Consequences of Unclear Rules
No Safe Harbors

• Potentially segments industry in unnatural way given integrated/networked nature of electric markets, ignoring OTC type products: e.g.
  – risk of both physical and financial positions
  – limited hedging if FTR’s deemed financial
  – Combined “books” of multiple affiliates with simultaneous positions across multiple products and markets
Right Versus Wrong

• Can it be wrong to pursue clearly expressed incentives under rules
• Can it be wrong to engage in incremental profit seeking behavior
• Why can’t general policies be developed to guide or at least delimit behavior
Example: What We Know is “Wrong”?

- General Agreement on Certain Behaviors as problematic:
  - Leveraged trading against interest, assuming you can prove what against interest means, and distinguish from hedges
  - Exercise of Market Power to gain non-competitive advantage (portfolio v discrete trades) (Probably area of most concern (or should be) for electric markets)
  - Misrepresentation of facts/fraud to gain non-competitive advantage, assuming again we can agree what constitutes a fraud versus ???
But What Is “Right” Seems To Be A Moving Target

• Example
  – Spread trade has 10% chance of earning $100 and 90% chance of $0, and costs $11 per attempt. All actions allowed by rules. Is this legitimate trade? If not why?
  – Same trade has transaction costs lowered to $8 per attempt. Is it a legitimate trade, should it be attempted more frequently? If not why? Does the source of the $3 credit matter (lower transmission, lower uplift, marginal loss rebate etc.)
  – What guidance can you give someone contemplating the trade in either situation? Is change in frequency relevant to underlying probabilities?
But What Is “Right” Seems To Be A Moving Target

• Example:
  – Supplier considering retiring unit. Evaluates portfolio impact and concludes that total capacity revenues will increase with retirement.
  – Also concludes that it is profitable/rational to retire the unit regardless of portfolio impact
  – Does recognition of market power impact “taint” any subsequent decision? If so why? If not, why isn’t this a safe harbor? How do you give advice?
  – Does it matter if one factor is “more important” on had greater financial advantage?
But What Is “Right” Seems To Be A Moving Target

• Trader identifies profitable physical trade from A to B.
• Trade interacts with myriad of other positions, e.g. swaps, FTR’s, other physical trades. All interactions are positive, e.g. the A to B trade increases profitability of all others.
• Is profitability a safe harbor?
• Does interaction with total day 2 paradigm matter (e.g. link between transmission rights and congestion)
• Does knowing the interactions make a difference?
• Is ignorance better than due diligence?
• Given complexity of market, what level of “search” for interactions is sufficient, or even necessary
But What Is “Right” Seems To Be A Moving Target

• The examples are endless
• The consequences are pretty much all the same, for advisors you can not realistically advise exhaustively from a technical perspective, perhaps only legally?
• Huge transaction costs
• Huge inefficiency from forgone transactions.
F.I.X?

• Regardless of position taken, agree or not, we have to create an open, transparent, enforceable process with clean/clear rules, safe harbors, that is accessible to all participants.