

Some Economic Questions About Restructuring

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- I. Do ICAP requirements essentially return us to the world before restructuring? If excess generation investment was the problem how can ICAP be the solution?
- II. Of what importance is wholesale market restructuring without marginal cost pricing at the retail level? What is LMP without a demand response?
- III. Why are regulated low-cost states low-cost? Could they be even lower cost if they restructured? -- Only if they switched from weighted-average to marginal-cost pricing
- IV. Is the resistance of traditional states and vertically integrated utilities a resistance to efficiency gains or wealth redistribution?
 - A. Are there unexploited gains to trade in the traditional balkanized vertically integrated monopoly franchise world and through what changes could we achieve them?
 1. Price discrepancies between states?
 - a. Cheap inframarginal coal generation vs. marginal natural gas.
 - b. If gas is marginal everywhere, then prices would not vary across states in unregulated market because the price of gas-fired output would set the market price everywhere.
 - c. Thus efficiency gains from eliminating the balkanization of the U.S. electricity market would be smaller than many believe.
 - d. Low-cost states do not want inframarginal rents to go to the highest bidders rather than current customers.
 - e. This explains **state** political resistance but not **utility** resistance because in a free market the latter's inframarginal generation would be more valuable.
 - f. Are utility managers shirking from utility shareholders' interests?

- IV. B. Public good nature of transmission system - gains (and losses) from transmission investment cannot be restricted to those who invest.
1. Similar to unitization issues in petroleum reservoirs
 2. Historically "commons" nature of the grid was managed through vertical integration and very limited trade
 3. If we started with a laissez-faire world of independent generation, transmission, and distribution would vertical integration have arisen as the transaction-cost minimizing industrial organization because of the public-good nature of transmission investment and the difficulty contractually of managing welfare gains and losses among independent generators in an AC network?
 4. Do we even know how to manage the tradeoffs between more transmission and more local generation? - via either centralized or decentralized decision process? (Andrew Haughwout Fed Reserve Bank New York Dec 2001 paper about joint decision about road and firm expansion)
- V. How different would a laissez faire world of electricity be from a regulated world given asset specificity and the holdup problem?
- VI. Can electricity have the equivalent of vertically integrated telecom rivalry? Are natural gas pipelines and railroads the rivals of electricity transmission?