

THE WALL STREET JOURNAL

Power to the People

By VERNON L. SMITH
Wall Street Journal
August 12, 2005; Page A8

Telecom deregulation has been judged successful. Long-distance rates have declined and innovation has dramatically improved service. The deregulation of natural gas, airlines, trucking and the railroads during the Carter and Reagan administrations are successful experiments in institutional change. But restructuring electricity has a tarnished image, and many hold that market liberalization was a mistake.

The wholesale market has been volatile when seasonal energy supplies are tight. California served up an economic disaster when growth in demand and hot weather coincided with low water in the Pacific Northwest reservoirs that would have strained the old regulated regime. Finally, the Midwest-Eastern blackout happened, two years ago this Sunday.

Why? Is it because electricity cannot be stored for peak demand? Is electricity inherently different from the other targets of reform, and impervious to liberalization? Is it an aging and inadequate transmission grid?

It is none of the above. Hotel and transportation accommodations also cannot be stored, but competition in these industries has led firms to discover ways to dynamically price their products to respond efficiently to variations in daily, weekly or seasonal demand. Every industry is different, and this requires attention to the details of how they are restructured for governance by market property-right rules. And finally, the grid is inadequate only if you are wedded to the belief that it must never be bypassed by local energy sources or conservation from peak pricing to relieve congestion.

Many foreign countries—the U.K., Chile, Australia and New Zealand—have managed to liberalize electricity systems. There are no regrets in spite of mistakes, backsliding and learning bumps. Liberalization occurred because both U.S.-style regulation and foreign nationalization programs were judged serious failures.

From the beginning many foreign countries saw that restructuring must honor the technical difference between the wires business and the energy business. They severed that long enforced tie-in sale of energy with the wires monopoly, and alternative energy suppliers were allowed entry to compete with the distributors. In the U.S., we made the costly error of not embracing upfront the principle that the local monopoly wires business must be distinct and separate from the sale and provision of energy to retail accounts. Only in this way can you hope to see retail energy competition, and the unleashing of a trial-and-error discovery process in which firms search for the best means of matching dynamic pricing and monitoring technologies with consumer preferences.

Although some countries made the right decision, the devil is in the details, and we have all learned that implementing it successfully has not been easy. In New Zealand, exclusive energy-supply obligations were incrementally removed from the existing local wires companies to permit free entry of competitors, but in practice, entry penetration was agonizingly slow. It is not too hard to see why: The local wires companies, still supplying energy, are not motivated to make it easy for an entrant to compete away their customer accounts. To implement their menu of technologies, entrants must gain access to household wires—historically

accessed only by the distributor—to install the switching or metering devices preferred by individual customers, and accounts must be transferred from the incumbent distributor to the new merchant supplier. The distributors have incentive to resist, delay and impede customer changeover.

At home we have attempted to deregulate the provision of energy to retail customers by altering the regulation of local utilities to distinguish competitive (energy) components of the rate structure from noncompetitive (wires infrastructure) components, and to apply new rules for allocating costs to each. But there are complaints by retail energy suppliers that the wires companies and their regulators have used creative accounting to shift energy costs to the regulated price of wires in order to undercut energy competitors without sacrificing overall profit.

The Federal Energy Regulatory Commission got it right at wholesale level: They moved to require generation companies to be separated from the transmission grid. They understood that you cannot have a competitive wholesale market if generators also own transmission. This would allow energy production to be combined with the more limited contestability of the transmission grid and unnecessarily restrain energy competition in the wholesale market.

So why don't we just extend the FERC principle to the local wires and energy purchased by retail customers? The political and regulatory structure stands in the way. It would infringe states rights: FERC has jurisdiction over the interstate energy transmission system, but no authority over the local wires or retail energy competition on those wires. Each state long ago granted a franchised local monopoly to your utility company. This legally restricted service to one set of wires, but implicitly was interpreted to

mean that each utility could tie customer purchases of energy to the rental of the wires—a right they are loath to give up.

In the deregulation of telephones we had a preview of how a wires legal monopoly can be used to impede local competition in the use of the wires. Recall the time when no one except a serviceman from Ma Bell was allowed in your house to service the wires, and you were not permitted to install phones that had not been produced by Bell. The industry argument was that the “integrity and quality of the network” needed to be protected, but this was just an excuse for limiting competition for products and services that were separable from the regulated activity. This also impeded innovation, an unseen cost of limiting choice and entry.

The failure to liberalize the provision of retail energy is the fundamental reason that there has been so little technical innovation in the local distribution of energy to the end-use customers. The electronic age of switching, metering and monitoring has found little application between the end-use customer and the energy supply system. The dead hand of historical cost pricing is hostile to innovation. Without the free entry/exit trial-and-error discovery process there is no way to know how technology, pricing and differential customer preferences can be matched.

No state has yet tried a mandate to separate electricity from the wires monopoly to allow competition in energy sales. In the

natural gas industry, however, one state has separated the customer’s commodity purchases from the utility’s delivery system. Georgia voted to separate the local pipes business from the sale of the natural gas that comes through the pipes. The rental rate for the pipes continues to be regulated as a monopoly, but there are now a dozen competing companies that supply the end-use customer with gas: Each pumps gas vapor into the distribution pool in response to its customers’ decisions to burn gas. The gas is metered at the household and the company bills only its own customers. The same model applied to electricity could yield great benefits since over half of total retail cost is the energy component and that is likely to grow.

Since peaking energy is much more costly to produce than base-load off-peak energy, competition would be expected to lower off-peak prices and raise peak energy prices to reflect their differential costs. But peak-energy pricing is only part of the story. The capacity of the grid is determined entirely by peak-energy demand. Reduce peak consumption and you relieve transmission congestion and increase reliability and security. Hence, regulatory reform needs to address how we price the wires infrastructure.

Suppose half the wires capacity cost is due to only six hours of peak demand—the peak capacity being idle for 18 hours. Then those consuming power during one-quarter of the day should be charged for half of the capital cost of the wires. Such pricing is not only

“fair,” it conveys the right incentives for capital utilization. This principle is why hotel rates are so much higher at seasonal peaks. It’s the peak renters that have required investors to build all the extra room capacity. Off-season renters are not the ones straining capacity and are charged less. Competition naturally discovers this and prices reflect the opportunity cost of new capacity, not the irrelevant historical cost of the infrastructure.

It could pay a high-rise office-building owner to install a gas micro turbine for peaking energy, or install motion-sensitive light switches in all the offices, if in addition to the energy savings he could get a wires-charge rebate due to his reduced dependence on the grid which would accommodate growth without new investment. The fact that he cannot benefit tells you how regulation blocks innovation. We badly need changes in the local regulation of the wires that reward customers if they reduce their dependence on the grid. As for retail energy prices, why regulate them at all? Is there a state out there willing to mandate separation of the wires monopoly from energy provision, and allow free entry by retail energy merchants?

Mr. Smith, a professor at George Mason and the Rasmuson Chair at the University of Alaska, Anchorage, is a 2002 Nobel laureate in economics.