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Electricity Restructuring is No License for





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CONOMISTS SOMETIMES GET CONFUSED— especially when the real world doesn't fit into their neat boxes.

Network industries like telephone and electricity are today's case in point. Economists have viewed these parts of the economy as requiring special attention from regulatory authorities. They're viewed as "natural" monopolies displaying "economies of scope" and characterized by risky "lock-in" or "path dependency" features. That supposedly makes them prone to abuse by their free-market owners, and therefore in need of impartial regulatory oversight.

Lost in the regulation-is-essential dogma is the reality that network industries have two major elements: the network itself, and the "stuff" that flows over it. Trains and tracks, oil and pipelines, electricity and wires. An efficient network depends upon wise investment and management of both elements. But, economists have focused almost exclusively on freeing up the "stuff," and then enacting regulations to mandate open access to the network itself.

That approach has meant that the regulatory problems are simply reshuffled to determining a "fair rate" for allowing use of the network. In practice, that determination will rarely provide the incentives needed to upgrade the network itself. And, often it is the network itself that offers the best prospects for greater efficiency.

Central Planning

RTOs will perpetuate regional monopolies and political rate regulation.

By C. Wayne Crews and Fred L. Smith Jr.

This error is particularly threatening with respect to deregulation of America's \$200-plus billion electricity industry. In every high-profile debate over electricity deregulation—from California's restructuring to Enron's call for creation of so-called Independent System Operators by the Federal Energy Regulatory Commission—policymakers have focused on freeing up the electricity generation part of the system (the "stuff") but have actually increased the restrictions on the network element by imposing an "open access" requirement to the power grid. The plan for this industry according to its "deregulators," is to impose open access to allow businesses and consumers to select the electricity generator of their choice.

But while proposed in the name of efficiency and adopting the market's promised benefits of "choice" and "competition," this policy openly proposes to force grid managers to carry power from the generator to the consumer, and ultimately destroy the real market choice that we need to establish. But there is an alternative.

The Difference between Restructuring and Deregulation

Deregulation of this sort is scarcely deregulation at all. Generators are freed to market their power to everyone, but the costs of transmitting that power to the customer are

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shifted to the grid managers. Of course, a charge is levied for that service, but the regulators, not the market, will determine that rate. Regulated rates are likely to fall below those needed to justify new investments. Moreover, the inability to charge freely will rule out the entrepreneurial profit opportunities necessary for technological improvements. Rather than removing regulations and paving the way for competitive entrepreneurship, mandatory open access policies actually increase political interference. The Federal Energy Regulatory Commission becomes the *de facto* manager of the national electricity grid. This makes no sense.

Central planning faces the age-old "agency" problem: no residual claimants, disparate interests, and no incentive to innovate. The proposed Regional Transmission Organizations effectively would perpetuate the current regional monopolies and the current system of political rate regulation. Regulatory rates are unlikely to encourage the kind of entrepreneurial thinking and investments that give us a chance to have a smart electricity grid. FERC will lock us into an inadequate electrical system forever.

Meddling With Networks: A Common Malady Today

Unfortunately, intervention to manage networks is part of a trend. Nearly every networked industry—telecommunications, railroads, cable TV, the Visa and MasterCard networks, and even America Online's Instant Messaging service—has been confronted by policymakers demanding the same wrongheaded "open access" concessions. Regulators mistakenly assume themselves indispensable to competitive markets, clinging to the illusion that capitalism generates harmful natural monopolies and that companies must therefore be "forced" to compete rather than simply allowed to.

The problem with mandatory open access for electricity—as well as the open access schemes—is their coercive character. The desire of any company to control its system or network is not compatible with the desire of others to hitch an uninvited ride. There is no regulatory solution to this problem.

The only solution is actual deregulation.

Forget Restructuring, Here's How to Deregulate

More substantial and robust competition in electricity will emerge if precious years aren't wasted trying to mandate it. Competition does not require granting all comers a right to dump their power into the grid for somebody else to manage. Instead, the artificial barriers that prohibit voluntary competition—in particular, the state-granted exclusive local service territories that protect incumbent utilities—should

be removed. Until then, it is against the law to compete with the power company.

Ending the monopoly franchise would grant to real estate, telecommunications, and other entrepreneurs (as well as adventurous electric utilities) the clout to cut voluntary access deals, and to develop infrastructure by forming consortia and sharing rights-of-way with network industry cousins such as telecommunications and railroad firms. Entrepreneurs could provide electricity and communications services to residential and business customers, not just one or the other.

Just as thousands of miles in fiber networks, and even buried, redundant empty plastic conduits for rapid installation of next-generation fiber have been installed over the past few years, growth ought to be a feature of the power industry. Indeed, barring a breakthrough in wireless data transmission, a multi-billion dollar effort to rewire the "last mile" to household consumers with optical fiber may emerge—so sharing costs with power entrepreneurs could prove crucial. (Downloading a feature film on today's so-called "broadband" cable or DSL would still take an hour. Barring breakthroughs in wireless technologies, for tomorrow's heavily multimedia-dependent home, today's infrastructure is still inadequate.)

Other potential avenues for network competition and bottleneck competition include: private transmission companies; relatively new computer-controlled horizontal drilling technology that allows oil and gas companies to flexibly snake under streets with no disturbance above-ground; silicon-based switches that improve technological control over power flows, making it less true that electrons won't respect borders; innovations in direct-current and other low-impact facilities that lessen siting problems, such as the advances proposed by American Superconductor; the possible advent of technologies that allow data transmission across power lines; and user ownership of portions of the grid.

Incumbent utilities threatened with such constant threats of entry will likely be induced to offer open access voluntarily; thus the aims of the forced open access advocates will yet emerge, but in a market-driven manner. The central planning approach would be properly shelved. Of course, if franchises are removed and competition doesn't start to emerge in some places due to the stickiness of long-ago government grants of monopoly power, policymakers may then consider temporary forced access, but only on a rifle-shot basis, and certainly not as the defining structure of the entire industry. No one will invest in network upgrades if they will have to share them. And making it worse, innovations like power flow technology merely sit on the shelf.

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People get really confused about network systems. Both the grid itself and the stuff that flows over it are important incentives are necessary to ensure that we invest and manage the grid, as well as to ensure that the flows are also rational.

Newt Gingrich pointed out that the regulated air travel infrastructure (the air traffic control system) is the major user of 1950s-era vacuum tubes. Do we want late in the 21st century to be using 20th century grid technology? The full range of technological options can only be exploited when prohibitions on competition are eliminated, to the benefit not only of the power industry but other network industries too. Replacing regulatory quarantines with free markets will mean that network industries can get the same punch out of the same wires and conduits.

We've done it right in the past: rail deregulation was real. The railroads were truly deregulated (save for a very small fraction—the "captive shippers"). Railroads were free to decide whether to allow a rival railroad to use its track. Reformers recognized that it was critical to free up both the tracks and the trains. The fear that control over tracks would suppress competition was proven illusory. Rates dropped dramatically as firms found creative ways to share moving stock while still retaining control over the tracks. The result has been that railroads have found ways to increase tonmileage while still reducing total track miles. A similar result can be expected if we truly deregulate electricity.

Entrepreneurs instead need the chance to pursue overlapping networks and cross-industry infrastructure deals that we can't envision today, regardless of what the "natural monopoly" theorists have been telling us.

If Congress will only scrap the central planning, seizethe-wires model, it would set in motion an electric industry restructuring that is as fully efficient and entrepreneurial as possible. Years would be saved and the need to revisit the industry to have its distortions legislatively ironed out, as is seemingly required for telecommunications, would be minimized.

A freed system would offer a range of service quality and options. Some utilities would remain vertically integrated, others would not. Some open access, some partial. New companies who focus entirely on the transmission side of the

business could be expected to emerge. Other power entrepreneurs will seek out partnerships with other network business. Ownership of stodgy companies will change, new deals will be made, and a dynamic, evolving industry will be fully capable of meeting consumer demands.

The Benefits to Critical Infrastructure, Security, and the Environment

Regulators must understand and care deeply that innovation in the transmission and distribution networks—and their reliability—is as important as other kinds of innovation like generation technology. Market-driven innovation is even more critical in an age in which many in government and business alike are concerned about the care and feeding of critical infrastructure. Yet the ability to make and execute such market strategies depends crucially on owners and operators who directly profit or lose from decisions, not on FERC-managed reliability panels and armor-plated regulators.

Environmentalists should champion grid deregulation also. So-called "green power" does not find its way easily onto a dumb grid like that of today. The quality of such small scale generation varies widely and is often of a voltage and amperage that cannot readily flow "uphill" into the much higher powered mainlines of most utilities. The creative electronic elements that a smart grid would involve would make it

much easier to use such decentralized power sources.

Entrepreneurs instead need the chance to pursue overlapping networks and cross-industry infrastructure deals that we can't envision today, regardless of what the "natural monopoly" theorists have been telling us. The simple fact is that inefficiencies created by a deliberate government policy of central-planning the national electricity grid will outweigh any potential but

unlikely abuses by the private owners of transmission and distribution. At the very least, those can be dealt with without a policy of nationwide forced access.

It ought to be an axiom: competitive pressures to bypass incumbent businesses with entirely new infrastructure must always be maintained in free markets, and that means steering clear of any regulated forced access regime.

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