

Electric Utility Reform: The Free Market Alternative to Mandatory Open Access

There is no need for consumers to remain tied to local distribution monopolies by the artificial construct of the exclusive franchise, and no need for regulated open access. Competitors other than utility monopolies must be free to exploit delivery markets.

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"What I asked you about, Professor, was what you thought about the Equalization of Opportunity Bill."

"Oh, that? But I believe I made it clear that I am in favor of it, because I am in favor of a free economy. A free economy cannot exist without competition. Therefore, men must be forced to compete."

—Ayn Rand
Atlas Shrugged

Reformers are on the verge of adopting the wrong paradigm for electric utility restructuring. Forced open access to the grid, because of the heavy regulation it will almost certainly require, can actually be harmful to healthy electricity competition.

Nonutility power generators, separated from potential customers by monopoly utilities, need not open access but the legal right to bypass local utility exclusive franchises and offer delivery services themselves. Thus freed, they might form consortia to compete in numerous ways, such as by sharing rights of way owned by gas, telecommunications, Internet and railroad companies, and by partnering with real estate developers to reach customers.

Forced open access is not only unnecessary, but impractical and damaging. There are no stable regulatory solutions to any ques-

tion regarding the evolution of the power grid. Even the most basic questions—such as transmission pricing rules, how to keep an ISO “independent,” whether the power exchange must be separate from the ISO and how to manage upgrades and maintain reliability—remain hotly debated.

No variant of ISO regulation can satisfy all market participants for long. By preempting the profit motive as a driver of the evolution of transmission and distribution, forced open access will weaken incentives to adopt emerging technologies, such as those that allow precision control of the high voltage power grid, and micro-generation technologies that have little use for the grid at all. It makes little sense to bother with innovation if one can simply dump power into the grid for someone else to manage. The momentary “efficiency” and “competition” conferred by open access is hardly a plus if purchased at the expense of a marketplace that would otherwise be saturated with profit-driven technical innovations, which are crucial to the very “reliability” that regulators invoke to justify grid regulation. Energy company CEOs should be pondering unconventional cross-industry alliances across the country’s myriad rights of way rather than pining for a forced open access “deregulation” effort likely to fizzle in Congress precisely because its true regulatory nature is becoming so apparent.

I. Mandatory Open Access Short-Circuits Competitive Electricity

Free marketers are accustomed to setting out after Moby Dick with a rowboat and tartar sauce, but the electric utility restructuring debate presents an especially thorny challenge given the head start enjoyed by the advocates of mandatory open access. One could scarcely discern that there is

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an economic, moral and even practical case to be made against open access. Open access is an impediment to competition in the electricity business, if by competition one means voluntary and vibrant production and exchange, no legal barriers to entry, and no possibility of regulator-induced industry distortion.

Given the vital role electricity occupies in our economy, the mistake of this century, and perhaps the next, is about to be made over electric restructuring. Despite the fact that open access resembles central planning far more than it does deregulation, policymakers

are lining up in support because they can’t conceive of an alternative. After all, electricity’s real time, on demand nature is exceedingly complex. It is probably the only industry in which quantity of the core product is measured five ways: in volts, coulombs, amps, watts and joules. But policymakers must not so bow down to complexity that they lose sight of principle.

The indiscriminate calls for open access to utility-owned wires that competition supposedly requires are every bit flawed as are utility attempts to force customers to pay unverified stranded costs against their will. There is a superior approach to reform that is actually consistent with free market principles that can be a plus for all sides. The source of monopoly power is not the fact that the \$208 billion electricity industry is vertically integrated, or that open access does not now exist. Instead, the decades-old exclusive territorial franchise granted by state regulators—typically sustained by such restrictions as certificates of convenience and necessity—is the root of utility monopoly power.

Although open access embraces the flawed notion that the grid is and must remain regulated as a natural monopoly, exclusive local franchises represent *unnatural* monopoly power in the electricity industry. What is more, *retail open access leaves those delivery monopolies intact*—a fact that will haunt us in a few short years if we fail to own up to it now.

All a free society needs is a right of exit. Instead of pursuing open access, reformers should simply revoke all laws against taking or providing competitive electric service at the local level, thus ending the automatic presumption that every new mall, hospital, residential area and commercial strip is to be served by the local distribution utility wires. That done, the *threat of entry* will then bring rates down and protect the healthy development of markets, as will be described.

The artificiality of both the exclusive franchise and the natural monopoly concept imply the proper paradigm for reform. These twin pillars of cardboard that bolster utility regulation should simply be respected no further. Today's danger is that years will be wasted debating electricity reform and that, despite "success," a decade from now, consumers will remain needlessly captive to local distribution monopolies in a world bursting with parallel rights of way, a world in which other industries such as cable and telecommunications are "tearing up streets" all the time and could benefit from cost-sharing partnerships with utilities and IPPs seeking to reach those very same customers. Further, far from being a necessity for competition, mandated open access approach will increasingly entrench government regulation of the power grid and distort emerging industry partnerships precisely when revolutionary developments—such as precision control of transmission and distri-

bution, parallel networks in non-electricity industries, smaller-scale generation and low-voltage delivery—are emerging.

When starting with a mixed economy, there is a simple gauge as to whether the impending reform is appropriate. *The size of the regulated segment has to decline rather than increase.*

Thus, the question of how to phase out government regulation from electricity should guide all

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reforms. Unfortunately, ejection of government regulation isn't even a serious consideration, since today's reformers advocate a managed variety of competition that requires increased central oversight, such as involuntary pooling. Jerry Taylor of the Cato Institute likens open access to a choice of Ira Magaziner (remember Clinton Health Care?) over Milton Friedman.¹ Unfortunately, former FERC Commissioner Donald Santa is far from alone in his sentiment that "a strong case can be made for enhancing, rather than diminishing, federal authority to rationalize the transmission grid."²

Much as free speech does not entail a right to someone else's microphone, the fact that one spins magnets to generate electricity does not create a right to force others to transport. But a free market *does* ensure that any producer has every right to sell his power through voluntary means, and that no incumbent utility has a right to stop anyone else who possesses the means from invading its local territory; those who have the means include rival utilities, IPPs and large industries concerns. In fact, recent competing bids of \$28 billion and \$30 billion by World Com. and GTE to acquire MCI Corp. hint at much larger things to come in electricity. The independent power producers' right to sell power to customers should impose no obligations on utilities, other than not to interfere.

Thus the crucial distinction between mandatory open access and a free market is that how the newcomer gets its power to final customers is the newcomer's problem. Newcomers can either team up with real estate developers on the fringes, bargain with incumbent utilities for access, or build their own infrastructure alone or in alliances with other industries that enjoy rights of way to consumers.

The fact that a federal restructuring bill will not pass this year, and probably not next year, provides a window of opportunity for a legislative champion of a genuine market approach to emerge and secure superior and permanent electricity reform that will not

need to be revisited. Incipient reaction against the "regulation in perpetuity" of open access may also present an opportunity for a principled coalition to emerge, drawn from the ranks of today's disparate utility, consumer, and independent power producer coalitions. Telecommunications reform took ten years yet remains incomplete. There is still time to turn the open access supertanker around and hasten competition.

II. Potential Avenues for Competition

These are at least five potential sources of competition for customers, beyond the obvious existing but inadequate competitive pressures of customers moving or adopting cogeneration or other, traditional self-generation options. They are: the threat of parallel or bypass delivery; microturbine technology; potential competition that could be unleashed by precision control of high voltage transmission; sale of federal grid assets; and user ownership of the grid. Even should all these options fail, less-intrusive options than universal forced open access exist.

A. Bypass and Parallel Transmission and Distribution

Limited parallel competition already exists in some areas. For example, unknown to most policymakers, Lubbock, Texas and 22 other towns have head-to-head competition in production and distribution. Often, such "curiosities" consist of competing IOUs and municipal utilities. Parallel sets of

wires run up and down the street and consumers pay less.³

Competition doesn't require that such fully parallel grids actually emerge everywhere: What matters is the *threat* of competing transmission. Absent franchises, that threat would come from potentially exploitable alternative rights of way, such as those owned by:

- Utilities that are amenable to competition (there are many) and

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who seek to enter distant markets themselves;

- Cable television companies;
- Phone companies and other telecommunications and Internet firms;
- Gas pipeline companies;
- Private railroads; and
- Water and sewer lines.

Under competition, these businesses could form cost-sharing alliances and joint ventures with new and existing electric power producers and compete with incumbent utilities for customers. Especially on the fringes of the grid, partnerships with real estate developers and power producers

could serve new malls, residential areas, commercial strips, business parks, factories and farms.

Thus even long range transmission could be provided competitively by auctioning off access to Interstate and state highways, to Amtrak rail lines and by selling federal grid assets. Even if distribution lines happened to be too expensive for a single new electric firm to install, potential alliances and joint ventures to share costs point to a solution. Even within urban areas, we're tearing up streets continuously and much of new line mileage is buried. These create partnership opportunities that help obviate the need for open access. For example:

- About 4,000 miles of fiber optic cable is installed every day.

- The need to upgrade Internet bandwidth—cable modem wiring, ISDN, ADSL—points to alliances. Information and electricity can flow through the same copper wires without interference, like ghosts through a wall. That implies myriad voice, data, and video alliances with power producers to enter homes and businesses.

- Software firms like Microsoft already active in home appliance monitoring represent potential partnerships.

- Large railroads will sell off 30,000 miles of trackage to "shortliners" over the coming three to five years, largely in rural areas, that represent exploitable rights of way.⁴

- In one specific example, Columbia Gas is planning a 380-mile pipeline from Lake Erie to Long Island.⁵ There's no reason why

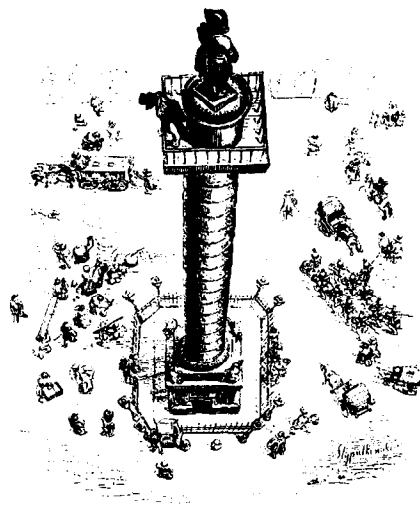
power producers couldn't piggyback on such projects.

These represent just a handful of conceivable alliances that eliminating franchises could foster. A high-price utility could thus find its customers bypassing it by purchasing distribution services from an independent power producer engaged in a venture with a phone or cable company getting into the appliance-monitoring and Internet business.

Routine upgrades within the industry itself also represent potential competition. The Energy Information Administration reports that over 10,000 miles of transmission are currently planned for the U.S., Canada, and Northern Baja California before 2005.⁶ Pro-competitive alliances between newcomers and existing utilities could emerge here in a number of ways. Newcomers could offer to foot the bill for the upgrade or extension in exchange for access to portions of the remainder of the principal's system. For example, American Electric Power is planning a new 765 kV line between Oceana, W.V. and Cloverdale, Va. In another example, New England Electric System plans a 500 MW, 25 mile cable underneath Long Island Sound, and is enlisting the support of expected users in securing permitting approval for the \$200 million project.⁷ Still further; wood poles are aging in many areas, and must be replaced or reinforced. Competitors can cut deals securing open access to wires in exchange for handling upgrade, reinforcement and line

maintenance. Or, a competitor contemplating a new line and desiring utility cooperation could offer capacity as well as offer to cover some of the incumbents' labor costs, in exchange for access to the incumbent utility's wooden poles.

The workability of parallel wires and partnerships shouldn't surprise us. Parallel competition thrived in the early years. As



economist Burton N. Behling noted:

There is scarcely a city in the country that has not experienced competition in one or more of the utility industries. Six electric light companies were organized in the one year of 1887 in New York City. Forty-five electric light enterprises had the legal right to operate in Chicago in 1907. Prior to 1895, Duluth, Minnesota was served by five electric lighting companies, and Scranton, Pennsylvania had four in 1906.⁸

Economist Harold Demsetz notes that parallel or overlapping service, rather than being a waste of resources, appeared profitable:

"In fact, producing competitors, not to mention unsuccessful bidders, were so plentiful that one begins to doubt that scale economies characterized the utility industry at the time when regulation replaced market competition."⁹

Ending franchises, but not mandating access, would create incentives to cooperate and reciprocate or face the consequences. In a national marketplace not characterized by exclusive delivery franchises, any utility that unreasonably restricts access to its own lines would face retaliation when seeking access to the wires of others. Absent the advantage of exclusive franchises, utilities attempting to gouge or block use of their lines could be thwarted by the right of others to provide supplemental or parallel transmission services along new avenues and existing rights of way. Potential competitor construction of alternate distribution will prevent utility abuse of market power. The *threat* of competition is competition. It can place as much downward pressure on price as actual entry.

On top of such potential competition, consider the fact that demands for open access to wires property are what primarily fuel utility demands for \$200 billion in stranded cost recovery. Yet if mandatory open access is not sought, there's far less basis for stranded cost recovery. Competitors not facing the stranded cost ball-and-chain could more easily finance alternative construction of transmission and distribution in conjunction with alterna-

tive power suppliers and other network owners. While utilities may still balk, the fact is many will probably accept an end to franchises as an alternative to forced open access if PUHCA and PURPA repeal are offered simultaneously. While a utility may indeed find its territory invaded, it has *gained* the right to invade the territory of the "transgressor." Meanwhile, it can charge full market price for access to its wires, and thus recover "strandings" in a more legitimate way.

The \$200 billion saved by not paying open access strandings could buy a lot of transmission, conceptually speaking, if those dollars remained in the pockets of industrial, commercial, and residential customers. Conservatively assuming costs are \$1 million per circuit mile to install a new 230 kV line,¹⁰ it is interesting, solely as a thought experiment, to consider that the \$200 billion not spent on stranded costs would pay for 200,000 miles of transmission, exclusive of permitting costs. That's long enough to round the equator eight times. For comparison, the Interstate Highway system stretches some 45,000 miles.¹¹ Even the most expensive option, underground wires, could cover 54,000 new miles at \$3.7 million per circuit mile.

Interestingly, the Progress and Freedom Foundation's estimate for overhead transmission replacement is \$74 billion.¹² While that figure seems low, that leaves a lot of room for negotiating passage fees, permits, and for making passage rights a lucrative deal to

balky landowners. In the restructured marketplace, resources should go to hardware, know-how, innovation and whiz-bang deal-making—not to stranded costs.

Clearly under this scenario, deciding new construction shouldn't be a job for regulators. In a free market, we should get lines on a project-by-project, profit-oriented basis. Just as with other businesses, entrepreneurs



will determine acceptable pay-back periods and internal rates of return. We have the right to expect development of parallel networks in the \$200 billion electricity industry, because such development appears to be the norm in other network industries.

- Sprint laid its parallel cable network along railroad rights of way.
- Frontier Corp. and Qwest Communications are installing a \$2 billion fiber optic network connecting 100 U.S. cities.¹³
- AT&T's fixed-wireless local loop technology—dubbed "Angel"—converts long distance calls

to digital streams and bypasses the local Bell companies altogether. Beta testing happened in Chicago during summer 1997, and national rollout is planned in 1998.

- GTE is spending billions on a 13,000 mile data network.
- Craig McCaw's Teledesic project will place 288 satellites in low-earth orbit, at a cost of \$9 billion, to provide Internet and phone service. Teledesic has to negotiate with regulators worldwide, not just state PUCs and the FERC. Here's a real "natural monopoly" for those who speak that language, yet the entire risk is Teledesic's. And it's only one of several impending satellite networks.

- A gargantuan example of a parallel network is the Fiberoptic Link Around the Globe (FLAG). Connecting London and Japan, it is the longest fiber-optic cable of all, perhaps the longest engineering project in history. Participants include Nynex, Cable and Wireless, and Sprint.¹⁴

The Teledesic and FLAG consortia in particular make it hard to have patience with the natural monopoly argument. These projects required arduous negotiations with world governments and unheard-of technical innovation. For U.S. firms to argue that they can't figure out how to bury or erect a low voltage line and that they need forced open access is preposterous. When seen in this light, open access is a real menace. We need constant, vigorous competition in new kinds of transmission, not the lock-in of a

static, not-for-profit husk while the rest of the high tech world whizzes by.

B. Microturbine Technologies Could Collapse the Value of The Grid

Another potential source of competition derives from the fact that there already exists a parallel grid of sorts: the natural gas pipelines.

Tiny, modular, quietly running natural gas microturbines smaller than one MW in size, whose power can be distributed on short, low-voltage lines or consumed at the point of generation may be the technology that "strands" the entire grid. (Microgeneration is generally considered to encompass those units designed to power a solitary structure.) Capstone Turbine Corp. of California, for example, produces microturbines smaller than an office desk, weighing only 165 pounds, that run quietly at 55 percent efficiency (compared to 35 percent efficiency for coal-fired plants), thanks to high-pressure air bearings that dispense with the pumps and filters required in lubricated systems.¹⁵ Sporting only a single moving part, innovations like these promise far more than mere generation strandings in the future if they pan out. A 24 kilowatt microturbine now available can power a 7-Eleven or central air conditioning system of a large house, and they can be hooked together to provide up to 500 kW of power.

If mass production successfully brings microturbine costs down

to \$500 per kilowatt and under, that would put a 24 kilowatt machine at \$12,000, an amount that could even be tacked onto high-end home mortgages. Another firm in the microturbine business is Allison Engine, owned by Rolls Royce. Allison produces micro power plants ranging from 50 kW to 250 kW.

Smaller scale technology has its evangelists. Thomas Casten of Trigen Energy, discussing the loss

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of valuable heat energy that accompanies power generation, argues that "Central station generation ... is finished as an economically viable technology. In its place, widespread installation of smaller, more-efficient generation, close to heat loads, will come to predominate and will collapse the value of much of today's generation—and transmission—assets."¹⁶ Similarly, Colin Besant of the Imperial College of London believes "power generation will go very much like computers. In the past it was all mainframes, then the minis came along, and now we all have PCs on our

desks, on a network. We think the same thing will happen with power generation. Everybody will have their own power generation running off the gas."¹⁷

Four experts interviewed by *Wired* magazine were asked when microturbines would attain widespread use. Two projected by 1999 and 2000, which, interestingly enough, coincides with or precedes proposed legislative deadlines for open access.¹⁸

C. Precision Control of Power Flows

Another indirect toehold for competition is the emergence of silicon-based switches which allow more precise control of power flows on the grid, similar to the control of small electric currents in a computer chip like Intel's Pentium—itsself a tiny "grid." Called "thyristors," these switches drastically ramp up capacity of a given line and also fend off cascading power interruptions.¹⁹

A key rationale for the independent system operator is that power flows where it wants to, that it can't be readily controlled. But to the extent new technologies makes that claim false, the arguments for ISOs lose their luster. The mandatory open access paradigm is unlikely to fully exploit silicon switching technology, since no firm's profit will overwhelmingly depend upon precisely controlling power flows. After all, power will simply be dumped into the grid for a regulated fee.

On the other hand, new entrepreneurs developing parallel lines may better exploit this technology, because they will profit handsomely by boosting reliability to new levels and attracting customers away from utilities if they are able to prove their superiority in sensitive operations that can ill afford interruptions. Competition would allow those developing parallel lines to profit handsomely from taking advantage of this technology from now on, thus hastening the saturation of technical innovations. Since reliability would become a competitive feature, relentless market forces would likely make transmission more precise and error-proof than ever, and render the current grid progressively antiquated by comparison. Additionally, if applied to the existing grid, part of the \$3-\$5 billion now lost through voltage sags and interruptions could be recovered, and the need for upgrades would be reduced.²⁰ This is undoubtedly significant, but limiting proliferation of the technology merely to the regulated high-voltage grid would be a serious error. Entrepreneurs need to be free to perform experiments. The technology may be better deployed on subtransmission grids that smaller scale generation will foster, for example.

As with parallel transmission and microgeneration, innovations in controlling power flows change the nature of competitive alliances. Efficiency-oriented capitalism is not likely to be satisfied with the lack of control over elec-

trons (and heat) that exists now, and that would likely persist under the management of a non-profit independent system operator, a don't-rock-the-boat entity more likely to be passive and content with uncontrolled power flows. An important consideration for those who regard ISOs as the answer to reliability problems under competition is that without fostering grid control and self-contained microgeneration technolo-

Auctioning off the PMAs' capacity will expand access and increase efficiency of future investment in the network.

gies, the grid remains subject to wide-scale outages and indifferent to the loss of valuable heat.

D. Sale of Federal Grid Assets

Continued existence of the subsidized federal power marketing administrations threatens the future competitiveness of the energy market in two ways. One is the investor-owned utilities' customers' lack of access to power generated at PMA facilities. Only "preference customers" (rural co-ops and municipal utilities) now have access. The other impediment is that even though municipals and co-ops in any given

PMA region legally may purchase power generated outside the PMA region, they have little incentive to do so given their guarantee of at-cost purchase. Privatization with protection for preference customers like co-ops would remove the "speed bumps" that will otherwise plague the marketplace.

Auctioning off and setting up tradable rights in this capacity will expand access to competitors, improve the likelihood that transmission assets go to the highest valued use, and "provide strong incentives to use those assets more efficiently and to increase the efficiency of future investment in the network."²¹

E. User Ownership of Transmission Assets

If, as some believe, it is easy for utilities to collude and impede the market—a key argument heard against Puhca repeal—reformers should ascribe the same savvy to users of the transmission grid. There is no inherent reason why, for example, large industrial power users can't "collude" to offset the feared machinations of utilities. Once franchises are a thing of the past, if large users have any savvy at all, they could purchase critical portions of today's grid hardware. That would put authority directly in the hands of those with an interest in maintaining fluid transmission, and eliminate all chance of monopolization. We have parallel examples of joint-user ownership in such areas as shipping vessels, taxi dispatch service, and oil and gas pipelines.²²

These possibilities point to the fact that, beyond various seller alliances that can emerge to bring electricity to customers, buyer groups themselves can also ensure transmission competition. Market innovations like user ownership will emerge to take care of the very "problems" that regulators claim we need them for. Far better to take our chances with a bit of monopoly power, than to cede the entire grid to a guaranteed governmental monopoly under open access.

F. And If All Else Fails ...

Even if lower prices don't emerge or if parallel or other competition doesn't arise in certain bottleneck areas, and even if some utilities hold out and refuse to offer access where no competitors appear, that's still no cause for demanding *universal* open access. Rifle shot approaches can and should be used instead.

For example, rather than being granted open access, newcomers could add their own wires to utilities' distribution poles by paying compensation to the local utility, especially if a newcomer generously sweetens a deal by paying for maintenance and taking over an irresistible chunk of the incumbent's labor costs. This procedure avoids the problem of mingling uninvited electricity into wires that must then be managed by an independent system operator. Arrangements will vary by local circumstances and self-interest. For example, new wires owners might gain access in exchange for paying for pole rein-

forcements and conducting line maintenance on both sets of wires. The additional wires a pole can support will vary, since some already support many wires from power, phone, and cable companies, some only a few. In my neighborhood, for example, six overhead wires run up some streets while others carry 11. The most likely scenario, though, is that a utility will sell access long before things deteriorate to the



point that a competitor installs its own wire.

III. How Open Access Harms Markets

A. Open Access Distorts Market Innovation

The requirement that utilities turn operation of their transmission assets over to nonprofit independent system operators, and the locking in of FERC and state PUC regulation of transmission and distribution pricing, will distort evolution of the electricity marketplace. Open access seeks to solve ever-changing problems

through force rather than through markets. Unfortunately, little thought is given to transcending this model. A utility's desire to protect its wires property is simply incompatible with the desire of others to hitch an uninvited ride. The ISO paradigm ignores the fact that there are no stable regulatory solutions to any problem regarding transmission grid development. For example, even now there is no agreement on how to price transmission. Some like Ipalco and Elcon advocate an approach that prices transmission independently of distance at regulated rates. Others favor replacement cost pricing of wires. There are also fundamental debates over whether or not the ISO and power exchanges should be independent of one another.

Anticipation of open access is already distorting the marketplace, tilting the field toward central-station production and long-distance transport as opposed to smaller scale generation and short-distance delivery. For example, one energy consultant convinced that "retail access, particularly for industrials, is coming fast," advises his industrial clients, "Don't build cogen[eration] now."²³ Another firm notes that its "gas-turbine and cogen equipment work has been flat because customers are waiting to see how deregulation falls out."²⁴

For efficiency's sake, *competing transmission owners must own the rights to future profits from innovation*. The ability to profit handsomely from transmission must be protected to foster en-

trepreneurialism and spur partnerships in power delivery and attract new entry. Turning control of transmission assets to regulators will effectively quash those rights. Grid development must be fueled by the engine of private enterprise, not relegated to the status of passive common resource. As the saying goes, "No one washes a rental car."

A regulated-grid regime will be less able to recognize instances when central generation is less, or more, appropriate. Regulation will be unlikely to distinguish between the polar extremes of whether thyristor technology should be universally exploited on the one hand, or whether distributed and stand-alone micro-generation is a better option. Regulation may force or promote the adoption of new technologies, but perhaps the wrong ones. But free market approach locks in no one's assumptions, allowing many experiments to proceed in parallel, including experiments in voluntary open access. Open access may also delay market incentives to recapture heat losses from generation, stifle private incentives to recapture transmission line losses, and needlessly allow incumbent utilities to dominate both the appliance/home monitoring business and the microturbine business thanks to their head start on preferential access to the customers junction box.

Open access also creates new distortionary obligations, such as the "expansion obligation" placed on transmission companies by FERC's wholesale

open access rule. There is a lesson to be learned from last year's telecommunications bill. Replete with interconnection obligations, these have prevented long distance and local phone companies from entering each other's markets.²⁵

The ISO-open access paradigm assumes away the problem of ignorance, and relies on government force to solve problems about which there can be no agreement. Policymakers haven't



the vaguest idea how the grid should develop; certainly they should not presume that the existing grid is the correct paradigm and worthy of being locked in by regulation. Economists at the FERC and the PUCs are not this smart!

Also, there may be more than one way to optimize a dispatch system, so the ISO may end up picking winners as well. The entire notion of a transmission monopoly is the epitome of the "lock-in" that the Federal Trade Commission claims to abhor. Heavy ISO regulation will create an inefficient interest in maintain-

ing the status quo, and entrench powerful new interest groups whose self-interest will depend upon impeding transmission and distribution deregulation in the future.

B. Open Access Embraces the Fallacy that Price Regulation Works

Reformers believing that continued regulation of the transmission grid is a recipe for competition forget that regulatory pricing helped deliver today's generation inefficiencies and stranded costs. Along with the well-known incentives to overcapitalize caused by cost-plus utility regulation, costs of environmental and social programs get misleadingly hidden in rates.

As economist Harold Demsetz, the critic of natural monopoly, has noted, even the existence of monopoly can't justify a conclusion that prices will be monopolistic. "To the extent that utility regulation is based on the fear of monopoly price, merely because one firm will serve each market, it is not based on any deducible economic theorem [E]conomic theory does not, at present, provide a justification for [regulatory] commissions insofar as they are based on the belief that observed concentration and monopoly price bear any necessary relationship."²⁶ Economists George Stigler and Claire Friedland found that regulated prices do not differ significantly from unregulated prices.²⁷ Such should be the case for transmission regulation as well.

A real and unfortunately ubiquitous danger is that continued regulation will make consumers worse off than no regulation. Regulation, like taxation, transfers wealth. That means regulation will produce winners and losers. Economist Greg Jarrell concluded that electricity regulation actually increased prices when the industry was first subjected to state regulation.²⁸ Similarly, the most recent research into economic deregulatory initiatives by Jerry Ellig and Robert Crandall has also shown that prices in regulated industries fell upon deregulation.²⁹

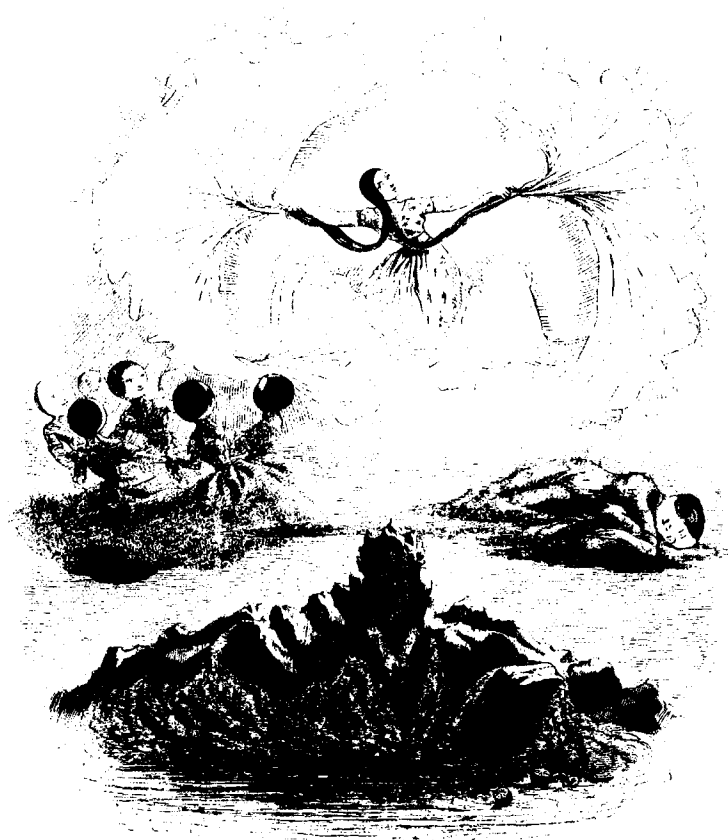
We might not be incorrect in expecting transmission and distribution prices to fall as well upon deregulation.

IV. Avoiding Open Access Means Quicker Competition

Avoiding open access and instead targeting delivery franchises will lead to more rapid and complete competition. There is no need to wait until the next century, as all federal open access legislation proposes: ending franchises now would allow experimentation to begin immediately. Moreover, even upon the arrival of open access deadlines, one must expect utilities to sue on the grounds that they aren't being compensated enough for the use of their networks, precisely as the nation's largest local phone company, GTE, did in the telecommunications arena. Avoiding mandatory open access will also help bypass the state vs. fed-

eral jurisdiction conflict in the restructuring debate: franchises that prohibit *voluntary* trade are clearly unjustified under the interstate commerce clause, and the federal government has a role in ending them. On the other hand, abusing the interstate commerce clause to justify *forced* open access to private property is a harder sell, as today's debate proves.

Avoiding open access can even help us escape the stranded cost debate, the chief stumbling block to reform. Stranded costs are going to be paid primarily *because of* mandatory access: *our use of the utility's lines is the means by which it extracts such fees from us.* Without open access, that toll collection point is less potent, although utilities will and should have the right to charge full market price for voluntary access. Moreover, paying stranded costs yet still remaining captive to distribution monopoly under open access will have repercussions down the road. If consumers succumb to generation strandings now, they likely will be forced to pay additional strandings ten years from now to bail out the incumbent *wires* owners as new technologies emerge. After all, the distribution portion of the industry today collects about \$50 billion in revenues annually, and also accounts for one-third of utility assets, and half of utility employment.³⁰ These represent huge amounts that utilities will try to recover later if the wrong political precedent is set now. But they also represent "strandings" that can be wholly avoided under a proper



Opening franchises to competition could be liberating in its simplicity.

philosophy of deregulation that avoids revisiting the issue.

V. Conclusion

A restructuring that delivers to consumers armor-plated transmission and distribution monopolies, fattened PUCs and a healthy FERC is not a victory. Given the technology that exists, and that which lies within reach, creating a future where regulators run the show and where cascading power failures remain part of the scene will amount to a failure. There is no need for consumers to remain tied to local distribution monopolies by the artificial construct of the exclusive franchise, and no need for regulated open access. Competitors other than utility monopolies must be free to exploit delivery markets.

Deregulators must deal squarely with the exclusive franchise delivery model that now threatens to shut the door on genuine competition. It is important for reformers to recognize the richness of potential relationships and consumer benefits achievable by leaving the door open to those who may be willing to go beyond the offerings of the distribution monopoly they intend to entrench through open access. ■

Endnotes:

1. Jerry Taylor, *Electric Utility Reform: Shock Therapy or Managed Competition?*, REGULATION, 1996, no. 3, at 70.
2. *Santa Skeptical on Regional Deregulation*, ELEC. DAILY, April 18, 1997, at 1.
3. Jan Bellamy, *Two Utilities are Better Than One*, FREE MINDS AND FREE MARKETS 32 (Robert W. Poole and Virginia I. Postrel, eds., Pacific Research Institute for Public Policy, 1993).
4. Eric S. Hardy, *The Little Engine That Could*, FORBES, March 10, 1997, at 188.
5. *Columbia Gas, Partners to Build 380-Mile Pipeline*, WASHINGTON POST, April 4, 1997, at G1.
6. Arthur H. Fuldner, *Upgrading Transmission Capacity for Wholesale Electric Power Trade*, ELEC. POWER MONTHLY xi (Energy Info. Admin., June 1996).
7. *What Natural Monopoly? NEES Unveils ITP to Serve Long Island*, ELEC. DAILY, Dec. 13, 1996, at 1.
8. Cited in Harold Demsetz, *Why Regulate Utilities?* J. LAW AND ECON., April 1968, at 59.
9. *Id.*
10. Costs for an overhead 230 kV transmission line are approximately \$840,000. See Arthur H. Fuldner, *Upgrading Transmission Capacity for Wholesale Electric Power Trade*, ELEC. POWER MONTHLY xi (Energy Info. Admin., June 1996).
11. GABRIEL ROTH, ROADS IN A MARKET ECONOMY 14 (Avebury Technical, 1996).
12. MICHAEL K. BLOCK AND THOMAS M. LEONARD, CREATING COMPETITIVE MARKETS IN ELECTRIC ENERGY: A COMPREHENSIVE PROPOSAL app. VIII-A (Progress and Freedom Foundation, March 17, 1997).
13. *Frontier Plans \$2 Billion Network*, CNNfn, The Financial Network, Cable News Network, Inc. (Oct. 21, 1996) (from Reuters).
14. Neal Stephenson, *Mother Earth, Motherboard*, WIRED, Dec. 1996, at 97.
15. Stuart F. Brown, *Here Come the Pint-Size Power Plants*, FORTUNE, April 1, 1996, at 64C.
16. Thomas R. Casten, *Electricity Generation: Smaller is Better*, ELEC. J., Dec. 1995, at 65.
17. *Gas Turbines in Your Home?* ELEC. DAILY, Sept. 9, 1996, at 2.
18. David Pescovitz, *Reality Check: The Future of Electricity*, WIRED, Oct. 1996, at 80.
19. Narain G. Hingorani and Karl E. Stahlkopf, *High Power Electronics*, SCI. AM., Nov. 1993, at 78.
20. Philip H. Abelson, *A Changing Electric Power Industry*, SCIENCE (Jan. 19, 1996) (editorial).
21. Remarks of Jeffrey Dasovich, Managing Consultant, Law & Economics Consulting Group, Inc. The Energy Daily's Third Annual Retail Wheeling Conference, Washington DC, Sept. 20, 1996, at 5.
22. Taylor, *supra* note 1, at 68.
23. Joseph F. Schuler Jr., *Generation: Big or Small?*, PUB. UTIL. FORT., Sept. 15, 1996, at 32.
24. *Id.*
25. Lawrence Gasman and Solveig Bernstein, *A 'Firewall' to Protect Telecom*, WALL STREET J., March 27, 1997.
26. Demsetz, *supra* note 4, at 59, 61.
27. George Stigler and Claire Friedland, *What Can Regulators Regulate? The Case of Electricity*, 5 J. LAW AND ECON. 1 (1962).
28. Greg Jarrell, *The Demand for State Regulation of the Electric Utility Industry*, 21 J. LAW AND ECON. 269 (1978).
29. JERRY ELLIG AND ROBERT CRANDALL, ECONOMIC DEREGULATION AND CUSTOMER CHOICE: LESSONS FOR THE ELECTRIC INDUSTRY (Center for Market Processes, George Mason Univ., 1997).
30. Corey Stone, *Whither Distribution?*, PUB. UTIL. FORT., Dec. 1996, at 20.

