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# Letters

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We welcome letters from readers, particularly commentaries that reflect upon or take issue with material we have published. The writer's name, affiliation, address, and telephone number should be included. Because of space limitations, letters are subject to abridgment.

## Competing away the Obligation to Serve

TO THE EDITOR:

While the articles in the Winter 1992 issue on electric utility regulation (Vol. 15, No. 1) contain many valid points, they omit a rather important topic. Each concludes that some form of deregulation, competition, and restructuring in the industry would be beneficial. They neglect to discuss the significant benefits derived from the current system and how those benefits might be affected.

The U.S. electric system is the envy of the world. One article fleetingly acknowledges the remarkable reliability of our system, but none mentions that the level of economic coordination that takes place in America is unmatched worldwide. In the United States sales-for-resale currently account for over 18 percent of sales to end-users. Coordination among utilities, including the sharing of generation reserves, yields \$18 billion in savings for electric customers every year.

Those savings are only possible in an environment where utilities are willing to share planning and operation data that might not be available in the competitive market your writers envision. The articles fail to acknowledge that the efficiency embodied by the current system could be sacrificed should the changes proposed by your authors be implemented, especially if implemented without careful thought of

the obligation to serve and how such an obligation is incompatible in a competitive environment.

Several of the articles suffer from the aforementioned omission, the piece by Douglas Houston ("User-Ownership of Electric Transmission Grids") particularly so because he proposes the most far-reaching changes. He also fails to mention, much less resolve, the equity questions associated with spinning off the transmission grid to consumers. How much would utilities who built the lines, and their customers who paid for them, be reimbursed?

Mr. Houston mentions the ability of those who could establish ownership in local distribution—industrial accounts, municipalities, and others—as benefitting from being able to make market purchases. But what about small customers, such as families, small businesses, and individuals, who would inevitably witness higher rates in such an environment? The obligation-to-serve question becomes especially difficult whenever the subject turns to competition for retail customers. Would local utilities be required to provide service to customers who choose to leave and then come back? Could a local utility curtail service as a supplier in a truly competitive marketplace?

To conclude, the articles in the Winter 1992 edition of *Regulation*, while interesting, fail to offer a balanced assessment of the changes taking place in the electric utility industry and their potential effects. While the electric utility industry recognizes that change is inevitable, we want to ensure that such change does not result in losing the substantial economic and reliability benefits provided by the existing industry framework. Beneficial changes need to build on that framework and provide enhanced efficiency and reliability where possible.

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## Identifying Barriers to Voluntary Transactions

TO THE EDITOR:

The Winter 1992 issue of *Regulation* (Vol. 15, No. 1) helped clarify how much of the battle over electricity deregulation is really a battle over rents rather than efficiency. Everyone seems to want to expropriate the generation and transmission companies' right to determine whose power they will carry. Several commentators in the Winter 1992 issue of *Regulation* seem to prefer wheeling or common carriage, while Doug Houston's user-ownership option would make the transfer of property rights explicit.

However, if current arrangements in the electric power industry generate large inefficiencies, then there ought to be gains from trade between current transmission owners and those who would like to use their facilities. Of course, voluntary wheeling or voluntary sale of transmission lines will allow generation and transmission companies to keep some or all of their monopoly rents, but it ought to be possible to structure deals in ways that promote economic efficiency.

The voluntary option will still be distasteful to those who dislike the transfer of rents to the generation and transmission companies. But it is difficult to make statements about the equity of voluntary wheeling until we actually know the distributional effects, which will depend on factors such as the number of "widows and orphans" (and middle-class pension plans) who own utility stocks.

In short, the electricity debate desperately needs research identifying the barriers to voluntary transactions and their likely distributional consequences.

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## Accommodating Beneficial Changes

TO THE EDITOR:

The most radical proposal in the *Regulation* issue focusing on electric power deregulation (Vol. 15, No. 1) is the plan Douglas Houston ("User-Ownership of Electric Transmission

Grids") puts forward to solve the transmission-as-a-barrier-to-entry problem through a system based on the "cooperative" model—consumers as owners. In effect, Professor Houston would finesse the access and pricing issue by deregulating transmission service after removing, in part, the middle link in the vertically integrated supply chain for electricity. Although radical, Houston's proposal might well be embraced by investor-owned utilities since it would permit current owners to capture the economic rent created by the essential role of existing facilities in power transactions. To some extent that may be denied them now by cost-of-service regulation of transmission pricing, although inventive utilities already capture some of that rent through purchase-resale arrangements.

In fact, it is just this last observation that leads one to believe that transmission access may not play the pivotal role suggested by some participants in the current debate in Congress and at Federal Energy Regulatory Commission. The current system captures production efficiencies. The issue is the capture of economic rents. Those promoting average embedded cost pricing believe that the rent should go to the parties to the purchase or sale of power. Robert Michaels ("Deregulating Electricity: What Stands in the Way") believes that pricing should reflect scarcity and reliability consequences. Professor Houston would shift rents to owners.

If pricing is the key, and I believe that it is, then developing proper pricing should be the focus in the transmission area. That appears to be the trend at FERC. Recent decisions have shown receptivity to marginal cost-related concepts such as opportunity costs. Fixing pricing, moreover, seems much simpler than Professor Houston's restructuring proposal—not raising the multitude of practical, operational issues inherent in that approach (for example, who will have control of the system, how will conflicts among owners be settled?).

Competition in generation is not a question of "if" or even "when" but of "how." How should regulatory and legal structures be revamped to best accommodate beneficial changes?

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### Accounting for Costs and Cost Biases

TO THE EDITOR:

Geoffrey Rothwell asks, "Can Nuclear Power Compete?" (*Regulation*, Winter 1992), but two sets of analytic flaws prevent his article from answering that question.

*Price-Anderson and the Coase Theorem.* Rothwell adopts the common view that the Price-Anderson liability limit constitutes an implicit subsidy for the nuclear industry, in that the industry in the event of an accident would not have to pay for damage above the limit. That conventional view is incorrect. Consider a train that generates sparks, which in turn damage corn adjacent to the railroad right-of-way. If the crop damage is, say, \$100, but the cost of spark suppression (either by installing equipment or discontinuing train service through the corn field) is \$150, the railroad will continue service and corn destruction if transactions costs are low, regardless of the allocation of property rights. If the farmer has property rights in the land adjacent to the right-of-way, the railroad will offer a payment between \$100 and \$150 for the right to continue operations. If the railroad has the property rights, the farmer will offer no more than \$100 to induce the railroad to avoid damaging the corn.

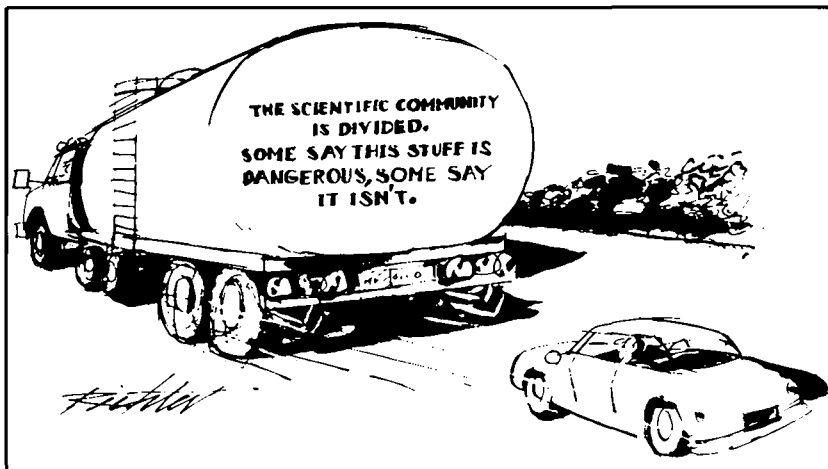
If the railroad can avoid \$90 of the crop damage at a cost less than \$90, it will do so (assuming that the farmer cannot avoid this damage even more cheaply), regardless of the allocation of property rights. If avoiding the remaining \$10 of crop damage would cost the railroad more than \$10, it will inflict that increment of damage, again regardless of the allocation of property rights. In the absence of transactions costs, the party that can avoid given damage most cheaply will be induced to do so, regardless of the allocation of property rights.

The allocation of property rights determines the direction of payment, that is, the distribution of wealth; but it is not a "subsidy" in that it does not affect the marginal cost of either railroad operations or corn production, because the cost of, say, a payment to the farmer is the same as the opportunity cost of a forgone payment from the farmer.

If transactions costs are significant, the allocation of rights does affect the allocation of resources. Coase demonstrated that the efficient allocation of rights is that yielding the allocation of resources that would obtain were transactions costs zero. Thus, the efficient liability rule is one that minimizes the sum of the costs caused by accidents and the costs of avoiding accidents. In our example, if it is cheap for the farmer to forgo crop production near the right-of-way, but expensive for the railroad to suppress its sparks, it would be efficient to give the railroad the right to use the adjacent land. That is not a "subsidy" from the farmer to the railroad; it is the efficient allocation of a scarce resource under conditions of significant transactions costs.

The prospective costs of potential nuclear accidents are identical analytically. Individuals and businesses near a nuclear generating station want to use the area for myriad purposes, while the nuclear plant would like to "use" it, in the event of an accident, to deposit radioactivity. Were transactions costs zero, the plant would find it cheaper to install safety equipment and to make other damage-limiting investments than to induce many or most of those living near the plant to move or otherwise to reduce the damage caused by future accidents. But surely it is relatively cheap for some people and businesses to take actions limiting future damage; at some margin, the incremental cost of damage avoidance by nearby residents falls below the incremental cost of damage avoidance by the plant. The plant would, therefore, pay some people and businesses to leave or to take other actions limiting future damages. That is particularly true for those who for whatever reasons would bear especially high costs in the event of an accident.

Since transactions costs in reality are high, the efficient liability rule is the one yielding that efficient allocation of resources. The Price-Anderson liability limit, by reducing expected damage payments, induces those who can limit damage cheaply, perhaps by moving, or those who would suffer disproportionately in the event of a serious accident to leave the area or take other actions limiting future damage. Thus, Price-Anderson minimizes the sum of accident and accident-avoidance costs.



That is not to say that \$7 billion is the correct limit. But the limit conceptually is an efficient policy and is not a "subsidy" any more than full liability would be a subsidy for those living or moving near the plant.

The basic problem with the Rothwell view is its confusion of analytic and normative issues; neither the railroad nor the nuclear plant alone is the "cause" of the problem. The general problem of externality results instead from the competition for the use of scarce resources, in this case, the area surrounding the nuclear plant. Were there no other human activity near the power plant, no externality problem would exist. Any externality problem is dual in nature, regardless of the allocation of property rights. The nuclear plant and its neighbors impose costs upon each other in the form of externalities, explicit payments for rights, and opportunity costs borne in the pursuit of given activities.

The central issue is the most valuable use of the resource, and the liability limit is consistent with that end. Rothwell is confusing an assignment of property rights—which certainly affects the distribution of wealth—with a subsidy for particular activities. The \$7 billion damage limitation in effect bestows upon the inhabitants of the area surrounding the nuclear plant a property right not to be damaged in the event of an accident up to \$7 billion; and it gives to the plant a property right to impose damage above \$7 billion. That is not a subsidy, although it is a transfer of wealth; it is an allocation of property rights that attempts to achieve the same allocation of resources that would obtain in the absence of transactions costs, that is, a

minimization of the sum of accident and accident avoidance costs. A subsidy, properly defined, would change the allocation of resources from that prevailing in the absence of transactions costs. With significant transactions costs, the efficient allocation of rights yields the efficient allocation of resources; that is why it is not a "subsidy."

*Analytic Asymmetries.* Can anyone believe that regulated safety costs for nuclear generation stations are not far higher than those for coal-fired plants? Bernard Cohen's estimate of premature deaths caused by coal-fired generation is seventy-two per 1,000 megawatts per year, even with scrubbers and other mandated pollution equipment. That works out to about 38,000 premature deaths per year, most of which are among the elderly. Either nuclear plants are excessively safe or coal-fired plants are inordinately dangerous.

With respect to the waste issue, Rothwell claims that radioactive waste creates an "acute" negative externality, but the precise nature of that externality remains entirely obscure. The disposal of low-level waste—1 percent of the radioactivity, but 99 percent of the volume—is trivial, and only the most shrill and dishonest of the antinuclear activists make an issue of it. The disposal of high-level waste, from a purely technical standpoint, is a nonproblem, as the waste can be transformed and sealed into an inert glass and then buried in stable geologic formations. Cohen and Petr Beckmann estimate that radioactivity from such waste repositories at the earth's surface would be far below the natural background level and so would be unmeasurable.

Those technical conditions ought to be compared with the huge volume of toxic sludge that is engendered by coal-fired generation each year but that is hardly mentioned as a cost of such generation. That is one manifestation of the Alice-in-Wonderland politics of nuclear waste, in which the citizenry is misled by politicians and the media about the dangers of nuclear waste and then is asked to accept repositories in their backyards without pecuniary compensation.

Regulation creates other serious biases, of which I mention briefly only two here. Relative construction periods for nuclear and coal-fired plants affect relative costs crucially, but are heavily a function of regulatory politics. After all, how is it that kilowatt hours from, say, Commonwealth Edison's nuclear plants—completed on schedule—are so much cheaper than those of most coal-fired generation? Moreover, the steady erosion of electricity rate regulation into a tax-transfer game has increased the riskiness of all base-load investment. While difficult to measure, it is at least plausible that the effect has been more pronounced with respect to nuclear investment, precisely because of the political environment.

Rothwell's article simply does not examine the cost biases regulation inflicts on nuclear generation and so sheds little light on the issue of relative cost. That general problem is exacerbated by a series of narrower errors. Rothwell argues that cost-plus contracts be replaced with fixed-price contracts in plant construction, but nowhere does he demonstrate that the risk allocation inherent in the latter is superior to that of the former. He advocates standardized designs for plants but does not consider the ensuing effects over time for technical evolution and competition in plant engineering. He argues that an informational asymmetry exists between regulators and plant operators and advocates the use of incentive prices based on plant performance; but since the target performance must be negotiated, it is difficult to see how such a system would remove the informational problem. All in all, the Rothwell article is not a useful guide to the issue of relative cost.

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## Nuclear Power's Economic Problems

TO THE EDITOR:

Benjamin Zycher's letter raises several points, but they do not detract from my thesis: nuclear power's economic problems stem from the unhappy marriage between the industry and the government in response to inherent market failures. Zycher bases his criticisms on incomplete information and on an incomplete reading of my article. I discuss two of his points.

First, generating electricity with nuclear power is a dangerous activity. After a catastrophic accident (for example, one similar to Chernobyl) and without legislation to the contrary, the operating utility would be held strictly liable. That is, the public holds the property rights to live free from the fear of nuclear disaster. With complete insurance markets, utilities would pay premiums for full coverage. By limiting liability, the Price-Anderson Act reduces the utilities' premiums. In that way the act is a subsidy to the industry. The act solves the problem of incomplete insurance markets but creates a problem by distorting accident-avoidance behavior.

Second, a by-product of nuclear electricity generation is high-level radioactive waste. Spent fuel accounts for less than 1 percent of the volume—300,000 cubic feet—of all radioactive waste and 94 percent of the radioactivity (21 billion curies). The negative externality is acute because of its intergenerational effects. Theoretically, spent fuel can be vitrified, but that is not a cost-effective solution. Economically, spent fuel disposal remains a significant problem. Zycher does not give complete citations for his references, so I cannot respond to them.

In my article I identified the underlying economic problems associated with nuclear power, and I proposed solutions. Those problems will not be solved by assuming that they do not exist. Zycher does not propose any solutions. Until those problems are solved, nuclear power will be unable to compete.

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## Liberal Trade and Antitrust in Developing Nations

TO THE EDITOR:

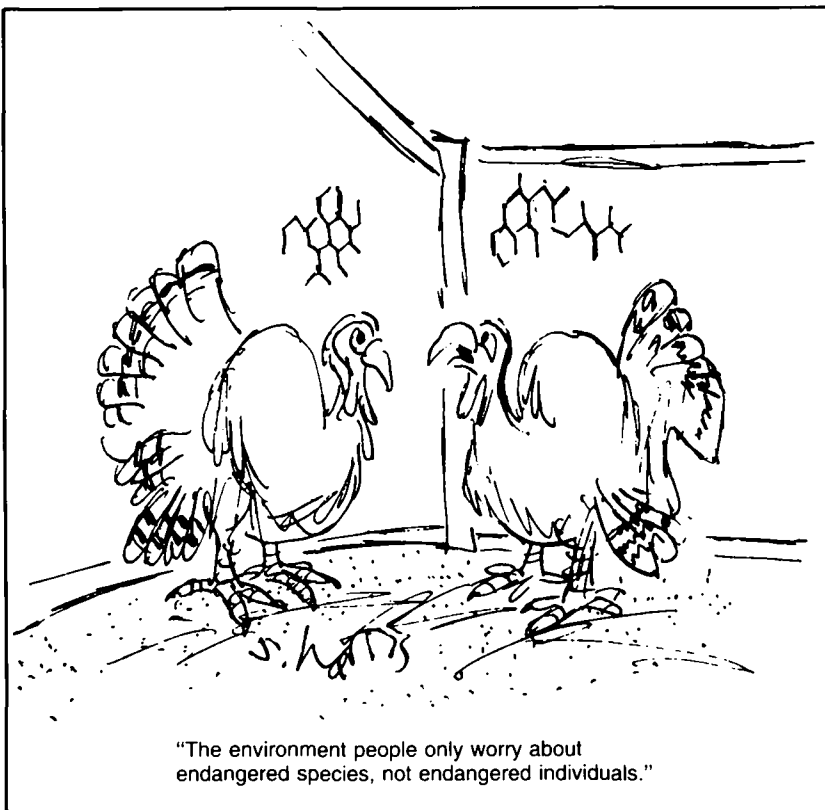
In "One U.S. Export Eastern Europe Does Not Need" (*Regulation*, Vol. 15, No. 1) Paul Godek states that in studying and instituting antitrust policies, the East European and other developing nations are wasting their efforts on a policy that will impede their development. He recommends reliance on a liberal trade policy as a means of correcting most of the concerns addressed by antitrust policy. We strongly disagree with the principal conclusions of Mr. Godek. The Federal Trade Commission under the initiation of Chairman Janet Steiger along with the Antitrust Division of the Department of Justice has been given a grant by AID to provide technical assistance to those newly developing market economies if they believe such assistance is useful. Those countries know their own situation quite well and believe that such help is critically important. Countries such as Poland and the Czech and Slovak Federal Republic have asked for and received long-term advisors, because they want their competition laws to enhance the free market, rather than act as road blocks to development.

In many ways we agree with Mr. Godek's insights into the reform process. The public statements and enforcement actions of the Federal Trade Commission have repeatedly affirmed that unimpeded trade among nations can enhance economic efficiency and raise consumer welfare. Certainly, liberal trade does not conflict with antitrust, but instead enhances it and can eliminate the need for certain antitrust actions in many industries. Yet liberal trade, though often touted, is seldom applied fully, and the fast-growing Asian nations have been very selective in applying liberal trade policies. In fact, if the examples of Hong Kong, Singapore, and Taiwan provide a lesson, it is that liberal trade policies in export markets strongly promote economic development. Thus, from a development perspective, the best place for liberal trade policies may well be the developed nations rather than the developing ones.

Mr. Godek suggests that economic reform in developing nations should focus on the commercial infrastructure and rely on liberal trade policies to promote competition and economic efficiency. That approach—sometimes called "shock therapy"—has most recently been tried in Poland. However, unlike some of the Pacific Rim nations, the East European nations have adopted political reforms in advance of economic reforms. As a result, politically enfranchised publics can express their disenchantment by voting. In similar situations, well-intended but sudden reforms have caused such dislocation that they were partially withdrawn, and, more important, ongoing reforms are cast in doubt. In Poland, some aggressive reforms—such as virtually free trade—have been subsequently withdrawn as a result of domestic opposition. That should be expected, for state-controlled or highly regulated economies accumulate a variety of economic distortions that are swept away when shock therapy is applied. The resulting sudden (but efficient) "reallocation" of resources often translates into closed factories, rampant unemployment, and rising economic misery.

Alternatively, a developing nation can pursue economic reform—without fully liberalized trade—by establishing its commercial infrastructure, defining the scope of private property rights, privatizing state-owned assets and enterprises, and instituting an effective antitrust policy. Although theoretically imperfect, such a "gradual" approach may provide a more stable means of pursuing reform because it addresses internal economic distortions before subjecting the domestic economy to the massive shocks that would accompany fully liberalized trade. Insisting on sudden and complete trade reform can make the perfect the enemy of the good and shows little sympathy for the adjustment costs imposed on a reforming nation. Alexis de Tocqueville once said, "The major concern of a government ought to be to teach the people to *gradually* do without it" (our emphasis).

Whichever approach is adopted, correctly defined competition policy should be a part of the reforms. Mr. Godek rightly points to mistakes made in the name of U.S. antitrust enforcement. Yet we think he would



agree that great strides were made during the past ten years in U.S. antitrust policy. Based on sound principles, it can play a role in helping to create a freely competitive marketplace in formerly socialist countries, as long as the changes take place alongside a variety of other institutions supporting private commerce, such as well-established private property rights and an orderly withdrawal by the state from many forms of commercial activity. In fact, the experiences of Taiwan, Singapore, and Hong Kong do not necessarily suggest that antitrust impedes innovation, for those nations have tended to be less innovative than South Korea, Japan, the United States, Germany, Britain, and France, all of which have had antitrust laws for many years.

Enactment and enforcement of antitrust law should not await the full development of the private commercial sector in developing nations. The transition from a state-controlled to a market economy represents a radical and perhaps

frightening change for the citizens of the East European and other developing nations, and antitrust policy provides a means of directly addressing the entirely valid concern that state-sponsored monopolies might evolve into private monopolies that have the will and the means to restrict output, raise price, and impede development. By attacking restraints of trade, antitrust ensures that commercial opportunities, and the fruits thereof, are available to the many rather than to a select few. Setting up and consistently enforcing reasonable "rules of competition" sooner, rather than later, can also stabilize the legal environment, reduce uncertainty, and thereby encourage investment growth. If those and related concerns were not addressed so that the people in the streets could benefit directly from competitively low prices and increased consumer choice, then domestic opposition to the broad spectrum of market-based reforms might be considerably stronger and necessary reforms further delayed.

In those ways, antitrust policy broadly supports the variety of reforms that facilitate the transition to a market economy.

Moreover, it is naive to believe that liberal trade obviates the need for and undermines the usefulness of antitrust policy in the face of those barriers to creating a free market economy. Although liberal trade can enlarge the commercial options available to buyers and sellers, that does not always occur in practice. In regional or local markets, liberal trade policies do little to enhance competition. Even for ostensibly international markets, the domestic benefits of international competition can be delayed, sometimes for years, and the antitrust cases involving price-fixing in international markets suggest that antitrust enforcement can promote efficiency and consumer welfare in ways that liberal trade policies alone do not.

Finally, virtually all of those countries have decided on their own that they need competition laws. In fact, some, such as Poland, had rudimentary competition laws on the books while operating under a communist system that presumably outlawed competition. Those laws often empower the competition agencies to set prices when they believe prices are monopolistically high (or low). Enforcing competition laws under such circumstances could return a developing market economy back to centrally controlled prices, which would obviously be a major impediment for market reforms. U.S. competition policy does not advocate these, and other potentially disastrous applications of competition law. Since those nations will have some form of competition policy, we believe that sharing our experiences enforcing our law, one that is designed to ensure buyer and seller choice, will help those countries avoid the potential problems raised by Mr. Godek and enhance—rather than discourage—growth.

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