
The Public Utility Holding Company Act

The Easy Step in Electric Utility Regulatory Reform

Richard L. Gordon

Despite at least two decades of severe problems, reform of electric utility regulation remains an inadequately publicized issue. Because regulatory difficulties did not include enough disasters to attract public attention, grappling with the travails was left to the industry and to those who study it. Indeed, few have even conjectured that deregulation should extend to electricity.

The effort of Congress to enact new energy legislation, however, includes initiatives at the fringe of electric power problems. Congress is considering changes in the Public Utility Holding Company Act of 1935 (PUHCA). That is a curious choice. The act was passed to effect a restructuring of the electric utility industry that took until the 1960s to complete. Subsequent applications of the act affected a few mergers covered by the act's limited scope.

The residual role of the act is to transfer responsibility for some public utility mergers from one regulatory agency to another. Even many supporters of electric utility regulation admit that this is at

least one regulator too many. PUHCA is an act of questionable original value and clear current redundancy. It should be totally repealed.

The PUHCA alterations Congress is considering only lessen the scope of the law by providing limited exemptions. The focus is eliminating barriers to entry into independent power production, which involves the construction and ownership of the plant by a firm other than the local electric company. Past failures at total repeal of the act and the search for a least-common-denominator consensus inspired that timid approach to dealing with the act. Repeal is preferable to amendment.

Behind the debate over PUHCA is concern over what the optimal structure of the electric power industry should be. The usual urge to intervene prevails despite the lack of acceptable information to guide the effort. Defects in initial regulation generally do not lead to constructive reform, however. Instead they generate additional controls to counteract the original errors. Indeed, an often neglected drawback of all regulation is resistance to changes.

The electric power industry has been deformed by decades of massive, ill-advised government

Richard L. Gordon is a professor of mineral economics at Pennsylvania State University.

intervention. Freedom from those fetters is needed to allow the evolution of a more efficient structure. Every level of regulation interferes, for example, with company organization and efforts to alter it. An elaborate federal and state regulatory system prevails. So do direct operation of electric utilities by all levels of government, favoritism towards cooperatively owned operations, and many policies distorting the choices of electric utilities. Such a network of established participants and the dependencies that they engender make substantial regulatory reform difficult. The need for reorganization of the operating firms is a key reason to advocate substantial reform, and probably elimination, of electric utility regulation.

The History and Legacy of PUHCA

In 1928 Congress directed the Federal Trade Commission to investigate electric and gas utilities. The commission's final report in 1935, which alleged holding company abuses during the late 1920s and early 1930s, and the ruin, bankruptcy, and default of some of the largest holding companies as well as the loss of investors' savings led to passage of the Public Utility Act of 1935. Title I of the act was the Public Utility Holding Company Act.

PUHCA requires interstate holding companies that are engaged through their subsidiaries in the electric utility business or in the retail distribution of natural or manufactured gas to register with the Securities and Exchange Commission (SEC) and to file reports containing detailed information about their organization, financial structure, and operations. The act requires the companies to operate as coordinated, integrated systems, confined to a single area or region. In general, PUHCA regulates the functions, activities, expansion, and operations of utility holding companies.

PUHCA gave the SEC the responsibility to break up the corporate empires that typically controlled a great number of utility assets located in widely separated states. One of the charges against the holding companies was that rivalries among them prevented the formation of geographically contiguous systems of efficient size. In addition, they were charged with inflating the values of operating companies' assets and relying excessively on debt to acquire operating companies. The targets were parent companies that neither directly engaged in supplying a utility service nor promoted physical connections among their subsidiaries.

The evidence suggests, however, that the holding

company development process was one of competition to effect what seemed a badly needed rationalization of the then-prevailing structure. In particular, the promoters were seeking to reshape the industry more to resemble the large companies that emerged around such big cities as Chicago and New York. The complaints were about the "disorderly" aspects of the process: the participants failed to coordinate to plan and create the optimal structure. Each simply grabbed some pieces.

The development of holding companies should be considered the first stage of an effort to produce rationalization by market processes. The work was hindered by regulatory controls already prevailing. PUHCA was not the rescue it was portrayed to be, but rather a government decision to impede further reorganizations that otherwise would have emerged. The SEC botched the reorganization process and became yet another barrier to subsequent reform.

Before PUHCA was enacted, a substantial part of the electric power industry came under the control of different holding company groups. At least seventy present day companies (of a total around 120) and sixty of the top seventy-five were parts of holding companies. But those companies differed considerably in their size, geographic extent, and industry participation.

Under what is termed the death clause, PUHCA requires the SEC to eliminate all holding companies that do not consist only of physically connected subsidiaries in a single industry. Under PUHCA any

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company that owns subsidiaries is a holding company. Such companies, however, are divided between registered companies that are nonoperating parents participating in interstate commerce and exempt companies. The latter include both operating companies with subsidiaries and holding companies with operations in one state.

The record suggests that restructuring was guided

more by prevailing legal arrangements than by any vision of what would be efficient. Inadequate attention was given to widespread beliefs that larger companies were needed. Where giants existed, they were preserved. Where much smaller companies were physically close, in the same holding company, and separately operated, they stayed apart.

At the end of the SEC restructuring, ten electric companies survived as nonoperating holding companies for operating companies. Two were exempt from registration because their activities were in a single state, and in one case the operating companies were eventually merged. One new interstate holding company was authorized in the 1960s.

Each of the ten holding companies was built from previously extant and linked components of the old parents. But few efforts were made even to create new, larger entities from related parts of a single empire. Mergers seemed limited to companies already closely connected.

In one case a company from one unit of the largest empire, the Electric Bond and Share Company (EBASCO), was placed in a holding company—the present Texas Utilities—that was otherwise in another EBASCO company. Another EBASCO unit, Houston Lighting and Power, was kept out of Texas Utilities. In hindsight, that may have prevented the creation of an oversized company; nothing in the record suggests that the SEC should be credited with such prescience.

Several companies that were logical candidates for integration were kept separate. EBASCO also controlled a group of companies in the Northwest

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and Southwest that were small and could have been combined into one or more stronger companies.

The EBASCO companies in the Northwest were Pacific Power and Light, Utah Power and Light (since 1987 merged with Pacific Power and Light, which was then renamed PacifiCorp), Idaho Power, Nevada Power, Montana Power, and Washington Water Power. PacifiCorp's latest acquisition target, Arizona Public Service, was also an EBASCO company. A

merged PacifiCorp-Arizona Public Service would be far less physically connected than had others such as Idaho and Montana Power combined with Pacific Power and Light.

Another example comes from the breakup of Samuel Insull's empire, whose failure was a major source of the attack on holding companies. Although they were components of a subholding company, Insull's New England holdings were transformed into three separate companies. Two units in Maine merged. A multicompany group in Vermont was merged into a firm that remains one of the country's smallest private companies. The New Hampshire component was the still independent, financially stressed Public Service Company of New Hampshire, which is now seeking acquisition. Similarly, Rochester Gas and Electric was kept separate from New York State Electric and Gas, although they were in the same holding company.

The surviving holding companies differ greatly in size. The largest survivor, the Southern Company, is also the largest electric company in the United States. Seven others, including American Electric Power, Texas Utilities, Entergy, and Central and Southwest, rank among the largest twenty-five companies. The smaller ones are all in New England. The smallest of them ranks about seventy-fifth in size.

Similarly, whether combination electric and gas utility companies survived was solely a function of organization. The two largest such surviving companies were organized as unified companies and were not wholly owned by any holding companies.

Any efforts to amalgamate units from different holding companies was left to the companies. The SEC, however, was not hospitable to allowing mergers under its control. As noted, one new holding company, again in New England, was allowed. A later effort to join four companies—two operating only in Ohio, one only in Pennsylvania, and a fourth in both states—was prevented. Later a new holding company that was exempt because it was not interstate was created to own the two all-Ohio companies.

Those inconsistencies necessarily either allowed inefficiently large or inefficiently small companies. Examination of the electric power industry's structure indicates that the top twenty-five to forty companies are strikingly larger than the rest. They include both the largest holding companies and companies that grew to comparable size without organizing as a holding company.

If such companies are overly large, the SEC encouraged preservation when separation was an option. If they are optimally sized, the SEC failed to seize available opportunities to create larger

companies in the initial reorganization and unwisely resisted creating new companies of comparable size. The reorganizations, moreover, left companies with service areas that were not completely contiguous. A few electric holding companies ended up with small gas holdings.

The SEC's record suggests that letting market forces work would have been far preferable to the PUHCA meat-ax. Over the long period of SEC effort, private companies would have imitated past practice in the electric utility and many other industries. Further reorganizations would have been undertaken to adopt the structures that proved most profitable. If other regulatory barriers had prevented such changes, that would only confirm that PUHCA is just another example of bad regulation inspiring worse.

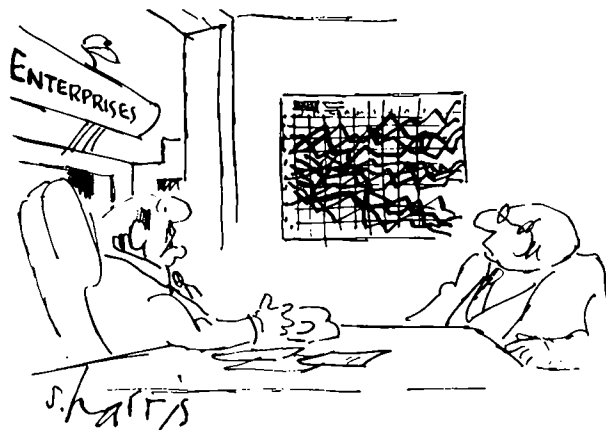
The old geographically scattered holding companies might have had advantages. At least three are apparent—possible superiority in integrating design and construction of power plants with their operation, greater ability to evaluate and undertake reorganizations, and assistance in risk pooling.

Additional Regulation of the Electric Power Industry

Up to the great depression, the dominant pattern in the electric power industry was the expansion and consolidation of private firms under the supervision of state regulatory commissions. In the 1930s the federal government greatly increased its involvement and profoundly altered the nature of the industry. In addition to PUHCA, the federal government supplemented state public utility regulation of electricity with oversight of wholesale trade by the Federal Power Commission (FPC) in 1935, which was replaced by the Federal Energy Regulatory Commission (FERC) in 1977. The federal government also entered into power production by creating the Tennessee Valley Authority (TVA) and established a program of subsidized loans and favored access to federal power for cooperatives under the Rural Electrification Administration (REA).

Federal wholesale regulation introduced a game of choosing regulators. Wholesaling is defined as dealing among utilities. The FPC/FERC approach treats separately incorporated units as distinct utilities. By that definition, sales among units of the same corporation, such as a holding company, are wholesale.

To come under FERC regulation, a company can establish a generating subsidiary to supply the units engaged in sales to final utilities. The three oldest



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holding companies operating under the rarely friendly regulators of Massachusetts long have conducted almost all their generating in separate FERC-regulated divisions. As state regulation elsewhere became more onerous, several companies established new separate generation companies—often owning only one plant.

A device, unique to Texas, exists to prevent FERC involvement by carefully avoiding any semblance of interstate commerce. The two leading Texas

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companies insisted on that arrangement. To preserve it they avoided interconnection with interstate companies, including at least four operating in Texas. One of the interstate companies, Central and Southwest, long violated PUHCA to meet the demands of the separatists. It kept its two all-Texas divisions unconnected with its interstate divisions. Subsequently, limited interties were established.

Given the existence of such devices, critics of repeal are incorrect in claiming that PUHCA is needed to prevent companies from structuring to get more favorable regulation. Moreover, the objec-

tion to such efforts to shift regulators is itself of dubious merit. Given the defects of regulation, other options may be desirable.

The electric utility industry also faced increasingly stringent state regulation, the rise of nuclear regulation, a maze of programs that promote and restrict nuclear power and other energy sources, and initiatives under various federal energy laws of the 1970s. For example, states have increased their efforts to limit profits and have added new controls to the traditional supervision of rates and other activities,

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including in most cases mergers. Ongoing and after-the-fact review of both capacity expansion and fuel procurement is widespread. In addition, despite doing a poor job of promoting nuclear safety, the Nuclear Regulatory Commission (NRC) was charged with tasks far outside its realm of competence; it must act as yet another reviewer of the adequacy of competition. Finally, the energy legislation of the 1970s included the Public Utility Regulatory Policies Act of 1978 (PURPA). That act encouraged the states to adopt many aspects of the agenda for managed energy such as encouraging "alternative" energy—small hydroelectric dams, solar, wind, and generation by users—and its purchase by utilities. Implementation, particularly in California and Texas, is widely criticized for providing overly generous incentives to purchase power from such alternative suppliers.

Implications for the PUHCA Debate

With the history of the regulation of electric utilities in mind, we can look at PUHCA reform proposals and consider why they have produced division in the industry. A growing tendency has arisen for utilities to arrange for independent firms to provide new generating capacity. Forecasts made in 1990 by the electric power industry indicate that from 1990 to 1993, 40 to 49 percent of annual capacity additions will come from nonutility sources.

Given those pressures, a number of firms have lobbied for exemptions from PUHCA that would permit broader participation in independent supply. That independent supplier could be a utility from elsewhere—and with enough ingenuity, even a subsidiary of the local utility or its parent company. Utilities with the ability to supply or the desire to buy have joined with other potential suppliers including construction companies such as Bechtel and Fluor in supporting revision.

PUHCA is a barrier to participating in independent supply because the formation of such independent suppliers technically often constitutes creating a holding company. Proposed amendments would only eliminate treating independents as holding companies. The clear deficiency in the proposals is that the change is excessively limited. It inappropriately favors one structure over others.

The electric utility industry is divided. Both sides are overly timid. Some correctly see PUHCA reform as giving them attractive new options as buyers and suppliers, but they lack courage to ask for fuller freedom. Others, led by Houston Industries (the parent of Houston Lighting and Power), worry that the alterations will be harmful. They fear that the exemption for independent producers and the associated provisions will accentuate pressures to make inefficient choices.

Houston Industries feels that under PURPA it was forced to make uneconomic choices of nonutility sources and that the revision of PUHCA would produce similar effects: the company might be forced to accept an inefficiently high amount of independent power. In contrast, another prime victim of PURPA, Pacific Gas and Electric, is one of the leaders in the drive for PUHCA revision because the company has extensive in-house capability in architect-engineering.

Part of the fear is recognition that revision is part of a more comprehensive energy bill. Given prior experience, some unattractive additional changes will be required. In particular, Congress may decide how best to settle the controversies about the optimum way to operate transmission lines. It is widely argued that control of transmission facilities by established utilities limits the ability of independents to compete. Calls for PUHCA amendment are coupled with proposals for a government-imposed solution to those alleged limits to transmission access. Full, uncomplicated PUHCA repeal would be preferable but could leave many other impediments to efficiency. The basic tendencies to thwart electric utility decisions will remain.

Towards Full Reform

Every element of government intervention in the electric utility industry, including nuclear regulation, is sufficiently dubious to warrant reappraisal. Reductions in control up to complete government withdrawal merit consideration. A reform package should include eliminating public and cooperative power, defective environmental controls, dubious research programs, subsidies, and tax favors.

The deregulation agenda thus involves following total repeal of PUHCA with removal of controls by FERC and its state counterparts, repeal of PURPA and the National Energy Conservation Policy Act of 1978 (NECPA), eliminating independent state energy plans (largely a California phenomenon), eliminating the Nuclear Regulatory Commission, privatizing all public power, and ending REA subsidies.

The argument in every case is that those institutions seem inferior to the unregulated alternative. The case is particularly clear with PUHCA, PURPA, NECPA, and NRC. The first three are only efforts to counteract regulatory failures. The fourth stems from what seem ill-analyzed fears. The results of those institutions have been imperfect at best. It is time to abolish them.

Possible Alternative Structures

The present structure of the electric power industry undoubtedly is far from optimal. What would constitute an efficient electric power industry is unknown. As noted, a complex, inextricably connected network of utilities and government controls prevails. The goal is to change the network to attain efficiency.

Many suggestions have been made about how each stage of electricity production should be organized and how much integration should prevail. Both the best way to conduct the three phases of the industry—generation (producing the power), transmission (long-distance movement), and local distribution (transfer to final users)—and the extent to which those phases should be coordinated by joint ownership (vertical integration) are debated. The experts have definite, but different views about what is best.

The goals include first building the most efficient set of generating stations, transmission lines, and local distribution systems. Those facilities must be efficiently operated. The most efficient set of prices must be charged. The most appropriate organization of the operating companies in the industry and the most appropriate government role for attaining those aspects of efficiency must be determined.

Historically, the electric power industry considered the desirability of vertical integration indisputable. At each stage, bigger was better. That vision is implicit in the actions of electric utilities and explicit in much of the literature. Efficiency lay in building the largest generating units that could operate satisfactorily, constructing large capacity transmission lines, and maintaining large unified distribution networks. It was further admitted that such companies could have significant monopoly power, but government supervision could prevent abuse of that power.

Defenders of the prevailing system stress the special characteristics of electric power and the rules governing its supply. Generation, transmission, and distribution must run to keep that network operating reliably. At least under prevailing regulatory practices, the goal is to make disruption rare. The usual lack of concern about the efficiency of the reliability goals persists, however.

System reliability requires that all those responsible for generating, moving, and taking power act in accord with the technical requirements of the system. The problem is determining what these needs really are. The implication is that the differences are such that the decentralization that works for wheat cannot be applied to electricity. Such assumptions should not be accepted blindly. The claim of uniqueness has been refuted in so many other cases that greater skepticism ought to prevail about electricity.

Reform of electric utility regulation should include eliminating public and cooperative power, defective environmental controls, dubious research programs, subsidies, and tax favors.

The vertically integrated companies that built, own, and operate the transmission lines prefer to control them. The optimality of such an arrangement is less clear. Experience suggests that while electricity moves at the speed of light, its operators do not need to respond with whatever the human equivalent might be. Plants cannot spring into action instantaneously. Thus, spinning—plants idling to be placed into service when needed—is standard practice. The amount of such activity is varied with expectations about loads.

Observers have proposed several different approaches to restructuring the electric power industry. Many industry executives and veteran academic public-utility economists still cling to the belief that patching up the existing system is best. What is unclear are the weights given in the judgment to desirability and to perceptions of political feasibility. Others have explored whether the extent of the market has reached a point at which new structures are desirable. A few others have considered starting with removal of regulation.

Two overlapping debates have arisen about organizing generation. One relates to the optimum mix of plants in terms of such key factors as size, fuel use, location, and technologies used. Another concerns whether whatever the optimum mix, it is such that creating a competitive, unregulated generation sector is efficient.

The desirability of separating generation does not necessarily depend on the nature of the optimum capacity mix. First, barriers to attaining that optimum must exist as they do because of regulation. Second, it must be true that the inefficient mix adopted reduces the number of units below the level required for competition. The advocates of unintegrating, in fact, envisioned its application to the then-prevailing industry with large units.

The idea that bigger is better in generation has been particularly challenged by environmentalists, who argue that much smaller units are actually

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preferable. Modified acceptance of that argument has arisen in the industry. The independent suppliers typically provide units far smaller than those that integrated producers traditionally chose.

In the early 1980s some economists believed that the need for vertical integration had ceased. They suggested that the growth in the number of operating generating plants and the improved economics of long-distance transmission made possible a separate, unregulated generation sector. They argued that the industry could accommodate so many optimally

sized plants and that the benefits of integration were so small that generation could be spun off and operated as an unregulated, competitive industry.

The key criticism of that argument concerns whether a truly independent, competitive generation sector could emerge even if no regulatory barriers persisted. Industry critics of separate generation, echoed by Paul Joskow and Richard Schmalensee of MIT, claim that true separation is infeasible. Allegedly, the builders of power plants would proceed only with the assurance of long-term contracts so tight that the effect would be reintegration. That argument confuses the influence of regulation with the basic economics. Were regulatory pressures removed, speculative investment in power plants would be no rarer than those in chemical plants, oil refineries, oil fields, mines, and many other large-scale projects.

Another group at MIT contended that electronic technology had advanced sufficiently that even the need of the electric power industry for rapid response could be served by a computer-driven spot market. In the decade since that debate began, we have seen several "special" industries—oil, copper, and aluminum—shift to spot-market selling. That occurred despite claims as vehement as those being made about electric power that integration was the natural way. Thus, the beliefs about integration in the electric power industry should be challenged more vigorously.

Similar daring has not been evident about restructuring distribution. Only one observer, Walter Primeaux, has argued that what is lost in economies of scale is gained in increased competition if rivalry is created in local distribution. He, in turn, is criticized because the cases on which he draws are so few and so often affected by government ownership of at least one of the competing firms.

Transmission is a less widely discussed field, and appraisals are rather tentative. The vision most often encountered is that transmission is a central and particularly problematic issue. The first half of the argument is indisputable. However generation is conducted and organized, transmission must be available to allow connection with customers. The difficulties arise in determining the critical economic characteristics and how best to respond to them.

As indicated, a key to the case for the present integrated structure is the belief that the transmission network cannot work unless its operators also closely control generation and distribution. But transmission lines might not be much more special than telephone lines, and an alternative method of

ownership or access probably is possible and desirable. We need an open, competitive transmission system. We should not, however, entrust the restructuring to a Congress that keeps designing inefficient pricing rules.

Repeal: A Regulatory Free Lunch

The analysis suggests that unequivocal, unconditional PUHCA repeal has no serious drawbacks. But repeal constitutes a secondary change in the system. All the other impediments to rational choice remain.

The most realistic complaint about repeal in any form is that it removes one barrier to other regulations that are perceived as unwise. PUHCA is taken as the only thing between the utilities and continued tendencies of regulators to force inefficient choices of new capacity. Such arguments underrate the ability of regulators either to find ways to evade PUHCA or to force worse alternatives.

PUHCA repeal both removes one barrier and is largely irrelevant to whether the other problems are solved. Under those circumstances, suggestions

about PUHCA can be independent of what happens next. Repeal will allow us to move on to all the remaining battles.

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