
Deregulating U.S. electric utilities: the 'kill factor'

Federal and state proposals to deregulate the electric utility industry could make power unreliable and more expensive, further crippling the economy. Marsha Freeman reports.

Last July, over 580 people died in the city of Chicago due to a record-setting heat wave. Investigators from the city and the national Centers for Disease Control concluded that the only thing that could have saved these people's lives was air conditioning. But nearly all of these heat-death victims were too poor to afford air conditioning, and those who had the equipment, had not turned it on for fear of not being able to pay the resulting electric bill. It is possible that in the future, not only will electricity be priced out of the range of even economically secure senior citizens, but it may not even be available when they, or you, most need it. There will be a "kill factor" that, along with cost and environmental factors, must be taken into account when any changes are proposed.

Since the 1930s, investor-owned electric utilities have been regulated by law. In what is described as a "regulatory compact," they have been given a monopoly to provide local services, and a guaranteed fair rate of return on investment by state utility commissions, in exchange for their mandate to provide universally available, economical electric power. If the industry were completely deregulated, utilities would have no legal mandate to serve. Their local service areas would not be protected—anyone could produce power and sell it to anyone else, anywhere. Supplying reliable, affordable power would not be the organizing principle of the industry, but rather, making a profit.

A comprehensive study released in July by the staff of the Public Service Commission of Wisconsin concludes that total deregulation of the electric utility industry could leave low-income customers in that state without electricity in the winter, and that those who could "see their bill for electricity dramatically increase . . . include the elderly, the sick, and hospitals."¹

The claim by proponents of deregulation, that competi-

tion will increase efficiency and lower prices, takes no account of present economic realities. Over the past 20 years, increases in electricity rates have been the result, not of electrical industry "mismanagement" (as proponents of dereg would have you believe), but of huge costs foisted upon electric utilities by the environmentalist anti-growth movement, and "small-is-beautiful" privateers, who now complain that electricity rates are too high.

Capital-intensive nuclear generating capacity will become "uneconomical" in a deregulated industry, where such facilities must compete for customers with lower-cost hydroelectric and baseload coal facilities. Such "noncompetitive" utilities could be pushed into bankruptcy, leaving the industry in physical and financial chaos.

Deregulating the electric utilities—the most capital-intensive industry in the economy—will hand this \$200 billion per year plum to a financial system which, after looting the savings and loans, and making a killing destroying productive companies through leveraged buyouts and derivatives, is now, like Dracula, looking for its next victim. Electricity will become the latest commodity to be used as an object of financial speculation.

Proponents of electric utility deregulation point to the deregulation of the airline and telephone industries as successful precedents. Leaving aside for the moment the bankruptcies and fierce wage cuts in the airline industry that made surviving companies "competitive," these industries cannot be compared to electricity. Without reliable, affordable electric power, there is no possibility of a modern standard of living, standard of health, productive employment, or improved life expectancy. The quickest way to turn the United States into a Third World country, would be to destroy the highly reliable and affordable electricity provided by the pub-



The Tennessee Valley Authority's Sequoyah nuclear power plant. Utility deregulation could lead to the shutdown of up to ten nuclear plants, which are deemed not to be "cost effective" by the budget-cutters.

lic and private, regulated utility industry. That has been the actual, unhidden agenda of some of the groups pushing "competition."

Those who regulated this industry — and also established the federal power marketing administrations, the rural electrification system, and the Tennessee Valley Authority (TVA)—recognized that water development and electricity were two necessary ingredients for economic growth. As with bridges, tunnels, canals, water systems, and highways, the federal government, through legislation, ensured that such infrastructure would be provided, for the general good.

If it had not been for this federal intervention, there would not have been the rural electrification of this nation. Before regulation, utilities interested in making a profit refused to provide electric power to low-population-density rural areas. Without initiatives such as the TVA, particularly the southern states would have remained forever a backwater, without industrial or agricultural development.

That system, which has provided this nation with universally available, reliable, affordable electric power since the last Depression, is now at risk, as its customers will be, if the industry is deregulated.

Who promotes deregulation?

The deregulation of the electric utility industry has not been promoted for the purpose of lowering the cost of delivered electric power for the average consumer. That is just the

public propaganda used to sell it to the mickeys.

The first push for deregulation, in the mid-1970s, had nothing to do with lowering prices; actually, it did just the opposite. The Public Utility Regulatory Policies Act (PURPA), signed into law by President Jimmy Carter, mandated that the utilities carry out the administration's agenda to force the introduction of small-scale "renewable" energy sources, such as solar, wind, and biomass, to "compete" with fossil-fuel- and nuclear-based electric utility generation. This was sold to the public as a necessary response to the purported "energy crisis," resulting from the 1973-74 Middle East "oil" war.

Zero-growth ideologues, such as Amory Lovins, readily admitted, however, that the major reason for forcing electricity production by uneconomical, small, decentralized, "renewable" producers was not to introduce competition to lower the cost, but to *force up* the price of electric power, to get people to conserve, as the way to reduce the nation's dependence on imported oil. Actually, in order to "compete" with utility-produced power, these alternative energy schemes had to be heavily subsidized by the government!

Such anti-energy programs were bolstered by studies published by the Club of Rome and other Malthusian think-tanks that "proved" that the world was quickly running out of fossil fuels. A January 1995 report by the U.S. Department of Energy, assessing the impact of current deregulation proposals, states plainly that the 1978 law "in part was

intended to decrease the intensity of energy use in the United States.”²

As expected, through these energy conservation and other post-industrial-society economic and social policies, the energy-intensity of the U.S. economy has declined. By the 1980s, growth in overall energy use had been decoupled from what is put forward as economic growth, in the form of the Gross National Product (GNP). But the electricity-intensity of the economy continued to increase, as heavy industry was replaced by commercial service industries and, increasingly, electronics-based cottage industries. Over the past 20 years, for example, as GNP grew by 51%, electricity demand increased by 54%, while overall energy use remained stagnant.

Ironically, the information highway and all of its attendant electronic equipment will be least able to sustain even the slightest disruption in the electricity system. According to an article in the November 1993 issue of *Scientific American*, the loss of power for a single cycle of alternating current (one-sixtieth of a second) can disrupt the functioning of a computer.

PURPA stated that the electric utilities must purchase power from new, non-regulated plants, called “qualifying facilities,” which used renewable energy, whether they needed the electricity or not. The price the utilities would have to pay for this power was calculated by projecting the so-called “avoided cost” of the utility. The non-utility producers could force the utility to buy the electricity over a long-term contract, for what it was projected that the utility’s power would cost a decade later—costs that would supposedly be “avoided” if the utility bought this power, instead of producing it.

What was this “avoided cost?” At the time PURPA was passed, there were projections from James Schlesinger’s Department of Energy that oil would skyrocket to \$100 per barrel over the decade of the 1980s, so the cost of new utility baseload capacity was expected to be very high. When the 1990s rolled around, however, and oil was one-fifth the price of what had been projected, utilities found themselves bound to long-term contracts forcing them to buy electric power *that they did not need* at double or triple the cost of what it would cost them to generate it themselves. This was very effective in driving up electric rates.

Realizing that their legal mandate to provide electrical power at the most economical rate was being thrown out the window, the electric utilities tried to fight PURPA. But in the mid-1980s, the law was upheld by the U.S. Supreme Court.

In April of this year, Sen. Don Nickles (R-Okla.) introduced S. 708, the Electric Utility Ratepayer Act, to repeal the section of the 1978 Public Utility Regulatory Policies Act that requires utilities to buy non-utility power, and which sets the price of this electricity at the inflated “avoided cost” used by regulators. But more than that needs to be repealed.

In the early 1990s, under “environmental President” George Bush, the renewed push for deregulation, combined with more stringent 1990 amendments to the Clean Air Act, placed added stress on the electric utility industry.

The National Energy Policy Act of 1992 (NEPA) continued subsidizing already-discredited “alternative energy” sources, by providing a 10% investment tax credit for solar and geothermal power systems. A 1.5¢ per kilowatt-hour incentive for wind turbines was included (recently found to kill all kinds of birds, including endangered species), and for biomass and solar energy.

The 1992 NEPA, to further undermine the financial health of the U.S. industry, made it easier for unregulated utilities, which include subsidiaries of regulated private utilities, to invest abroad. Perhaps hopeful that other nations’ electrical industries would be more stable for long-term investment than their own, U.S. companies were involved in 453 international projects, as of 1993. The *Washington Post* at that time reported industry estimates that more than \$1 trillion will be spent by U.S. companies in developing countries in the next 20 years to build, and, in some cases, to own and operate, about 290 gigawatts of electric generating capacity. For example, the Southern Company of Atlanta has acquired interests in utilities in Chile, Argentina, Trinidad and Tobago, and the Bahamas, and is planning to buy South Western Electric PLC of England.

Domestically, the 1992 Act created yet another class of nonregulated electricity producers, known as exempt wholesale generators, and broadened the authority of the Federal Energy Regulatory Commission (FERC) to order the utilities to provide transmission services. This meant that virtually any business could generate electricity and sell it wholesale, with guaranteed access to the highly complex transmission grid. While regulated investor-owned utility companies, which have a legal mandate to serve, were increasingly being encroached upon by independent power producers who have no such mandate, industries being driven out of business by the industrial collapse put the squeeze on the utilities.

Recently, one of the biggest promoters of increased deregulation, has been the declining aerospace/defense sector, trying anything and everything to cut costs. One example is the Raytheon company, which employs over 18,000 people in Massachusetts. This major defense contractor is in the midst of a massive effort to cut \$600 million a year in expenses: 55% through plant closings and business restructuring, 35% from wage concessions, and it is looking for 10% reductions from the state in the form of tax and utility rate relief. The Sept. 18 issue of *Aviation Week* magazine reports that Raytheon has negotiated a three-year wage freeze and other concessions with 4,800 unionized workers as part of an effort to “slash expenses and compete with Hughes Aircraft’s low-cost missile production operations in Arizona.”

Raytheon has been threatening the state that if it does not lower electricity prices, it will move its manufacturing plants to Tennessee, where the rates are lower. As a result, in March, Boston Edison got regulatory approval to cut rates up to 20% for big industrial users that can show (that is, threaten) that they would move out of the state. Twenty states now allow lower rates to large industrial customers that might otherwise seek to generate power for themselves, even while admitting that this would raise prices for residential customers.

Another way of lowering bulk power prices, is to allow such large purchasers to choose their generation company (and price) from any utility system. In a major move, the Federal Energy Regulatory Commission released a Notice of Proposed Rulemaking on March 29, which would mandate open access by any producer to the transmission network. This essentially allows the wholesale wheeling of electric power, or transfer through multiple utility transmission systems, by non-utility generators. Every user would simply pay an agreed-upon transmission charge. Not only could a non-utility producer sell its power to the local utility, it could also find a customer half-way across the country, and use the utilities' transmission system to transfer it along the power lines.

Cutthroat competition would be the result, with power producers "cherry picking" the biggest customers, leaving local utilities that used to serve them with falling sales, and no way to recover their costs.

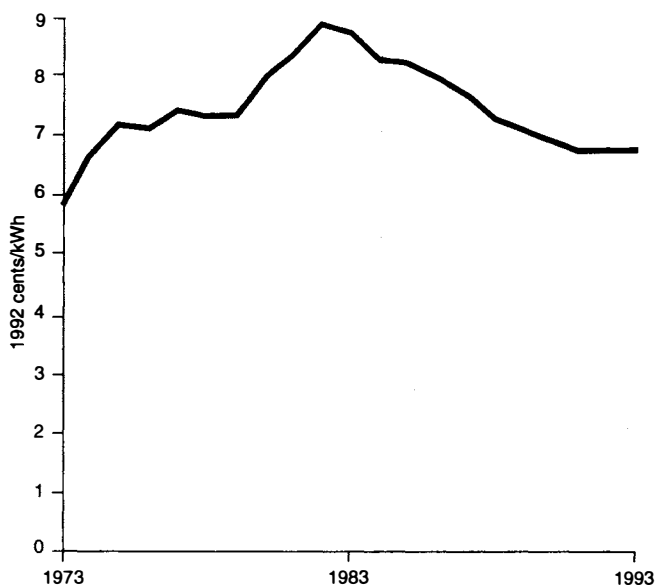
There is agreement among many economic analysts that the result of lowering electricity prices to industrial purchasers, by allowing utilities to compete for their business, will be to increase rates for residential customers. The only alternative, if all rates were to be lowered, would be to allow a period of "shake-out" in the industry, where dozens of utilities that are not "competitive" could go bankrupt, while electricity becomes increasingly unreliable and expensive.

The real 'externalities'

From the propaganda put out by those promoting deregulation, including large corporations, one might assume that charges for electricity typically constitute a huge share of the company's cost. Actually, less than 8% is typical, except for very energy-intensive industries, such as paper or aluminum. Only in a situation of severe economic decline could shaving a few percentage points off an operating cost that makes up only a small percent of a company's total cost, make any difference.

Another popular myth is that due to mismanagement in the electric utility industry, and the lack of competition, electricity prices continuously rise. Actually, according to a 1994 report by the Department of Energy,³ the real price of electricity in 1992 was 23% less than in 1982, largely because fossil fuel prices declined by 60% during the past decade. According to an analysis by Mills McCarthy and Associates,

FIGURE 1
Historic cost of U.S. electricity



Source: Mills McCarthy and Associates.

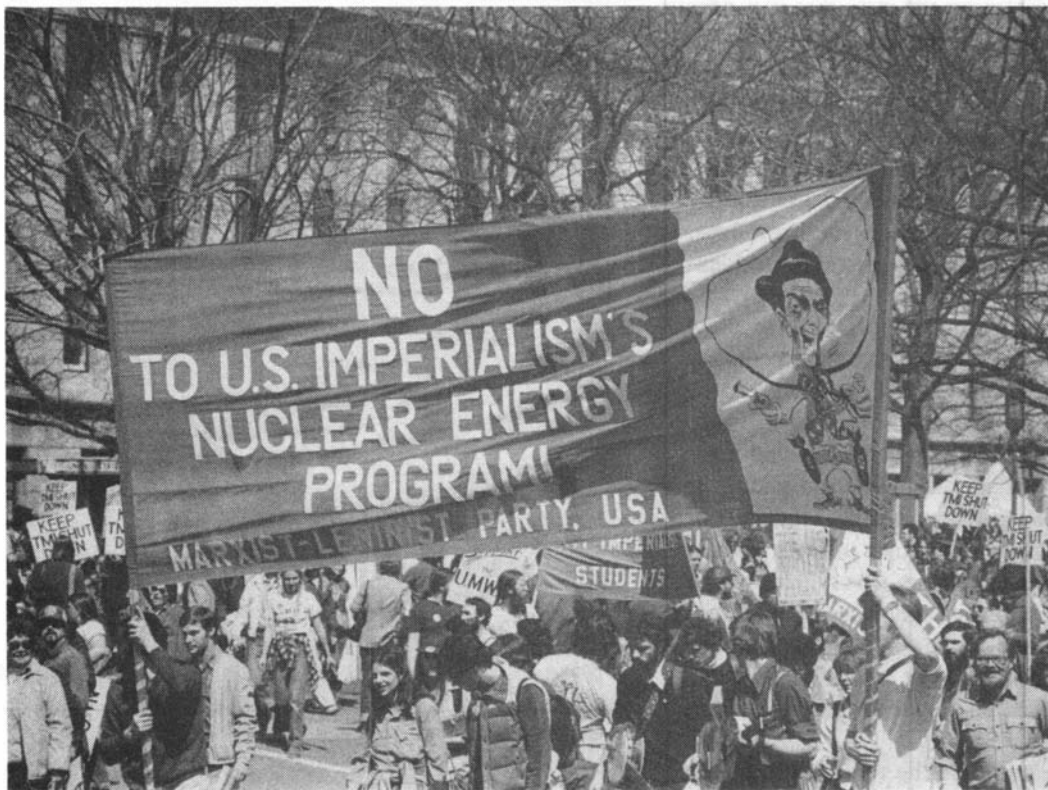
Inc.,⁴ the inflation-adjusted price of electricity today is about what it was 20 years ago, as seen in **Figure 1**.

But electric rates did substantially rise during the 1970s, interrupting the decline in costs and prices since the turn of the century, which had been largely due to economies of scale and improvements in technology. *But none of the causes of the increase in electricity cost had anything to do with the electric power industry.*

The quadrupling of fossil energy fuel prices after the Middle East war in 1973-74 started the upward climb of electric rates. Utilities that had been petroleum-dependent, especially in New York and California, scrambled to replace oil capacity with less expensive capacity, including nuclear power plants. Then, over the Columbus Day weekend in 1979, Federal Reserve Chairman Paul Volcker tripled interest rates. The prime rate went from a low of 5.25% in 1972 to 18.87% in 1981. Interest payments on debt in the most capital-intensive industry in the country doubled.

Although the industry had accumulated substantial debt over the 1970s, while it embarked on nuclear power plant construction programs to replace expensive oil capacity and to meet growing demand, it was well placed to continue to bring down the cost of delivered electric power, as long as demand, and, therefore, sales, kept increasing.

But in the early 1980s, partly as a result of Volcker's measures at the Federal Reserve, industrial production collapsed. For the first (and only) time in 100 years, the demand for electric power actually *fell* in 1982. The average annual rate of growth of near 7% in the 1960s fell to less than 3%



A demonstration in Harrisburg, Pennsylvania in 1981, against the Three Mile Island nuclear plant. Now, the anti-nuclear activists have made their way into the electric utility industry itself, and the commissions that regulate it.

per year in the succeeding decades. At the same time that costs were climbing, the rate of growth in income was declining.

By the late 1970s, the industry's large nuclear construction program was being hit with a new one-two punch, in the courtrooms and in the streets. Environmentalists with law degrees, such as those in the Environmental Defense Fund, took utility companies to court to force years of delays, as laymen challenged the utilities on largely bogus safety and environmental grounds. At the same time, nuclear energy was being described as "totalitarian" by the anti-nukes, who were shown on television demonstrating in front of nuclear plants, screeching that power plants were really sleeping nuclear bombs. In Germany, irregular warfare was waged at nuclear plants, with Green party terrorists leading three days of bloody riots during May 1986 at the Wackersdorf nuclear reprocessing site.

The result is seen in **Table 1**. Utilities that had projected their nuclear power plants would come into service within 10 years, found themselves still fighting in court 20 years later. And the costs escalated. Projections that demand would continue to decline led many utilities to go along with slowing down construction.

While the industry was being hit from the outside by anti-nuclear "intervenor" and terrorists, anti-nuclear activists and zero-growth ideologues were making their way into the electric utility industry itself, and onto the state Public Utility

Commissions that regulate the industry.

One of the most striking examples of a fox guarding the hen house, was the insertion of S. David Freeman into the leadership of the Tennessee Valley Authority. The TVA — which had brought flood control, electric power, libraries, literacy, health care, malaria control, and industry to a seven-state region that had had the standard of living of a Third World country — had undertaken the largest nuclear power plant construction program in the nation in the 1970s, entailing 18 new plants.

President Carter appointed Freeman (no relation to the author) to the TVA board, to bring the new religion of "energy conservation" to the nation's largest producer of electric power. Freeman had had good training for this job at the Ford Foundation, and as one of the principal drafters of President Carter's anti-nuclear "energy" policy. He was brought in to the TVA to stop the Clinch River Breeder Reactor, along with the TVA's conventional nuclear plants, promoting, instead, the use of wood stoves.

Freeman went from his wrecking operation at the TVA to head the Sacramento Municipal Utility District in 1990, to help them replace the power from the closed Rancho Seco nuclear plant with energy conservation, and then spent a year at the New York Power Authority.

Another striking example is Maurice Strong, who now heads the mammoth Canadian utility Ontario Hydro, and has been a major player in international environmentalist,

TABLE 1

Projected and actual cost of nuclear power units

(billions \$)

Unit	Megawatts	Initial cost estimate	Actual cost
Millstone III (Massachusetts and Connecticut)	1,150	.400	3.82
Limerick I (Pennsylvania)	1,055	.344	3.8
Wolf Creek (Kansas)	1,055	1.03	2.93
Susquehanna I (Pennsylvania)	1,050	.665	2.05
Susquehanna II (Pennsylvania)	1,050	.720	2.05

Source: Public utility commissions in the respective states

population-reduction schemes for world government. Strong was vice president of the World Wildlife Fund (now World Wide Fund for Nature) until 1975, was first executive director of the U.N. Environment Program until that same year, and ran the U.N.-sponsored Earth Summit held in Rio de Janeiro, Brazil in June 1992. (See *EIR*, Oct. 28, 1994, "The Coming Fall of the House of Windsor.")

Sort of like bringing in Ralph "Unsafe-At-Any-Speed" Nader as president of General Motors.

The same process was taking place on regulatory bodies. For example, Peter Bradford was sworn in as a member of the Nuclear Regulatory Commission in 1977, after having been nominated for a five-year term by President Carter. In 1968, Bradford had participated in a Ralph Nader-sponsored study of oil refineries, and from 1971-74 was a member and then chairman of the Maine Public Utilities Commission, when it undertook initiatives in consumer and environmental protection. In 1987, he became head of the New York Public Service Commission, and in that position, lobbied for the permanent dismantling of the Shoreham nuclear power plant, which drove the Long Island Lighting Company to the point of bankruptcy. Bradford stated at a public meeting in 1990 that government officials "must respect the public's concerns."

No wonder that the utilities have not waged an aggressive fight against deregulation.

Making matters worse

Over the past year, newspapers around the country have printed articles showing the disparity in electricity prices around the United States, to make the case that forcing utilities to compete for customers will force high-priced utilities to lower their costs. Indeed, the average rate for customers of Consolidated Edison in New York is more than 15¢ per kilowatt-hour, and for customers of Pacific Gas and Electric Co. and Southern California Edison, the cost is over 12¢ per kilowatt hour. This is more than double the rate charged to

customers in most of the rest of the country. Why?

As noted above, New York and California, with large populations and growing demand, were the coastal regions most dependent upon imported oil when the price of petroleum quadrupled. For environmental reasons, the burning of coal was either prohibited in urban areas or very restricted. So for very good reasons, many utilities in these regions opted for nuclear power. Consolidated Edison, in New York, put the first commercial nuclear power plant on line at Indian Point, in 1962.

While anti-nuclear intervenors disrupted the construction and licensing of nuclear plants, doubling and tripling their cost, promoters of environmental hoaxes like global warming were adding billions of dollars to the cost of coal-burning power plants by requiring the use of various remediations. After the implementation of the first set of amendments to the 1970 Clean Air Act took effect in 1977, utilities "invested" about \$10 billion per year to bring plants into compliance.

The American Council for an Energy Efficient Economy projects that between now and the year 2005, utilities will spend more than \$20 billion to meet just the sulfur dioxide standards of the 1990 amendments. The TVA alone will spend \$1 billion between now and the year 2000. Add that on to your electric bill, too.

While electricity costs were rising on the east and west coasts due to federally mandated environmental costs and free-wheeling anti-nuclear disrupters, two more outrageous fiscal demands were put on the utility industry. One was a result of the above-cited 1978 act, which, under the guise of increasing competition in high-priced places such as New York and California, forced the utilities to buy power generated by nonutility, independent power producers, using "renewable" fuels which raised the cost of electricity further.

In 1993, independent power producers generated only 7% of the total electricity used in the United States. But the price utilities had to pay for it was truly fantastic. A study by the Resource Data Institute in Boulder, Colorado last spring revealed that the hundreds of independents can be considered a \$37 billion tax on the utilities and their customers, because that is what they will receive from utilities, by law, above the market price by the year 2000. For specifics, Southern California Edison is paying 15¢ per kilowatt-hour for solar-generated electricity, or five times wholesale market price (what it could buy the power for), costing the utility and its customers an extra \$800 million per year.

In New York State, utilities signed hundreds of long-term contracts with independent producers, at mandated rates, but now could also buy power more cheaply from other utilities, or produce it themselves. There are estimates that in 1997, seven of the state's utilities will be overpaying \$1 billion for electricity from independent producers, from plants that were built as a hedge against \$40 per barrel oil prices. Three years ago, Con Edison in New York City bought out some of the contracts for \$170 million, so that six more independent

plants would *not* be built. They had estimated that it would have cost the utility, and its customers, \$150 million per year for 20 years to buy the unneeded, high-priced power.

There was also a more long-term financial impact of these contracts with independent power producers. Bond-rating agencies consider them a liability and treat them as debt. They are seen as increasing a utility's risk, not only because the price is higher, but because utilities are required to buy the power, whether it is needed or not. Lower ratings raise the cost of capital for the utility.

Recognizing at least a small part of the dishonesty involved in requiring utilities to increase their costs to perform what is peddled as a "social good," such as using solar energy, and then complaining that their rates are too high, last February, the Federal Energy Regulatory Commission allowed two California utilities to walk away from high-priced, long-term contracts with independent producers.

The second "tax" put on the electric utilities that was somehow supposed to be in the public interest, was to turn logic on its head, and require that they spend money to convince customers *not* to buy their product. Amory Lovins hatched the idea of "negawatts" in the 1970s, in an effort to convince people that "less is more" (or, at least, better), much the way various diseases are supposedly the result of eating meat, and other healthy foods.

The idea is that since it is so expensive to build new generating capacity, consumption should be reduced so the utility does not have to build any more power plants. And who better to convince the American people to cut back on their use of energy, than the electric utilities themselves!

So the electric utilities began spending millions of dollars to peddle more energy-efficient light bulbs, to give loans to homeowners to weatherize their houses, and to "educate" people about the need to conserve. The cost was passed on to the customer, since the utility could not absorb it, whether or not the customer took advantage of the cut-rate price for energy-efficient light bulbs. Of course, it is the poorer customer who cannot afford to weatherize his house, who, therefore, uses more energy per capita than the homeowner who can afford to increase his energy efficiency. Therefore, the poor consumer pays more for these conservation programs by using more electricity than the person who benefits from the utility's program and could better afford to pay the resulting higher electric price.

But just trying to convince people to use less electric power never produced significant results, so both carrots and sticks were tried in various states, all of which, again, raised the price of electricity.

As a carrot, customers were offered slightly lower electricity rates if they would allow the utility to interrupt or turn off their electricity (usually industrial customers), or just interrupt or turn off specific appliances, such as air conditioners or water heaters, at times of peak use. This "demand-side

management" was designed to bring down the growth in peak power (utilities can peak in the summer or the winter, depending upon geography), so new peaking capacity would not have to be built.

In this scheme, utilities lose money, for which they have to be reimbursed through rate increases, in two ways: first, for the amount they spend on equipment such as sensors in your home, and the paperwork involved; and second, for the lost power sales revenue as a result of such "conservation."

The Edison Electric Institute reported last year that utilities spend over \$1.3 billion per year on demand-side management programs. There are estimates that by 1997, utilities plan to spend more than \$4 billion on such programs, as there is less excess capacity, and a more immediate need to either cut demand, or build new power plants.

Is cutting demand really cheaper than building new power plants? The Bonneville Power Authority reports that its demand-side management programs cost the utility between 7¢ and 14¢ for each kilowatt-hour of electricity "saved." It estimates it could buy additional power at a cost of 4¢ per kilowatt-hour.

Then, there is the stick: an increased price charged by the utility for electricity usage during periods of peak demand. There have been experiments in a number of states with such differential rates, with the time-of-use rate going as high as 24¢ per kilowatt hour, from a baseline of 4¢. Of course, since the peak time is under conditions of extreme cold or heat, that is, when electricity is most needed, most customers have simply paid the higher price, and not shut off their air conditioners or heaters when they most needed them, again driving up consumer costs.

Under deregulation, many programs which cost the utilities money, such as demand-side management, will most likely be ditched when they must lower prices to sell power. Unfortunately, the projections the industry has made for how much capacity will be needed to come on line over the next 10-20 years to meet demand, has included expected reductions in demand from these programs, which will no longer exist. The environmentalists are now opposing deregulation, complaining that many of their "social" programs to promote renewables and cut consumption will be cast out by an industry that is no longer mandated to carry them out by law. They term these, "stranded benefits."

Social justice would require that a fair and equitable solution be found. These organizations, which have driven up the cost of electricity for decades, through their intervention in nuclear power plant proceedings, promotion of demand-side management schemes and other conservation measures, and environmental regulations, should take the responsibility, and start to pay for them. Their multibillion-dollar per year incomes could be modestly taxed to relieve the burden upon both utilities and ratepayers, of supporting anti-industrial "social" programs.

Electricity under deregulation

The most comprehensive study of the likely impact of fully deregulating the investor-owned electric utilities, including their generation, transmission, and distribution systems, has been done by the Public Service Commission of Wisconsin. While their conclusions are disturbing, they are a vast *understatement* of what would likely happen in the country as a whole. This is because Wisconsin has the third-lowest electric bills in the country, so utilities there will not have to engage in cutthroat cost-cutting to compete with other utilities around the nation for customers. In addition, Wisconsin's utilities have no significant investments that are non-income-providing, such as half-built nuclear plants.

Yet, even in this favorable circumstance, the report projects that prices for large industrial customers may fall in the state, in the short term, but that they will rise for residential and other small consumers who will have to make up the shortfall in sales income. Price variations, they conclude, will provide lower prices off-peak, such as during weekends and at night, but will be higher on hot and cold days. Therefore, those who cannot switch their use to off-peak periods are going to be paying higher bills. These users will include hospitals, schools, and others who need electricity during the day. The report describes prices as becoming "more variable and unpredictable."

The commission projects that utility rates will rise due to an increase in the cost of investment capital, because of increased risk to the investor. In the past, regulatory commissions have generally allowed utilities to adjust their rates to recover most of the cost of new investment, to ensure they have the capacity to provide reliable power. Under deregulation, there is no guarantee the company will ever recover the cost of its investment. Utility stock, always considered low-risk, will become like any other piece of paper in the stock market. And not only there.

As the Wisconsin report points out, generating capacity that is not spoken for through long-term contracts, will be available through a spot market. Under some scenarios, the market price for electricity will be calculated on an hourly basis. A central, or "pool" dispatch organization would have to match customers to available capacity. In between, there would be brokers, merchants, and other middlemen, who would try to drum up business for utilities, and find available capacity for consumers, for a fee. Analysts expect to see price hedging, futures markets, and a place for electricity on the Mercantile Exchange.

But it was to stop this kind of financial manipulation that the industry was regulated to begin with. At the time the 1935 Public Utilities Holding Company Act (PUCA) was signed into law, there were 16 interstate holding companies that controlled 76% of all power generation. Three accounted for nearly half. As described in the Wisconsin study, "During the 1920s, the electric utility industry was plagued by the

[sic] questionable financial manipulations, trusts, stock fraud and pyramiding schemes, and inflated estimates of the value of utility plant or 'padded rate base.' " Why bring back the bad old days?

More bankruptcies

When surveyed last year by Fitch Investors Service, Inc., 38% of the nation's state public utility commissioners believed that competition will lead to bankruptcies in their state. In the 60 years since the industry was regulated, there have been only *two* bankruptcies. One was due to the 17-year battle to obtain an operating license for the Seabrook nuclear plant, and the other from bad savings and loan and real estate investments made by the El Paso Electric company.

It will be a different story if utilities have to compete to sell power. In August, Moody's Investors Service released a report titled, "Stranded Costs Will Threaten Credit Quality of U.S. Electrics." Stranded costs are those that are or become "uneconomical" and that the utility company will not be able to recoup by selling the power it produces. In many cases, debt incurred to build nuclear power plants that were never completed would have been "stranded investments" for a number of years, but rather than throw utilities into bankruptcy, state regulatory commissions have allowed them to pass on most of the cost of paying off the debt incurred to build the plants, to their customers.

These incomplete plants (or some that were completed but produce power at a high cost because the cost of completing them doubled or tripled) were considered prudent investments by regulatory agencies when they were begun and while they were under construction. There was *no one* who could predict when they were started, that electricity demand would diminish by half before the plants were completed. Even though these nuclear power plant investments were approved by regulators, these costs are always portrayed as the utility's "fault." Investor-owned utilities are accused of "overbuilding" new capacity, to the detriment of the consumer.

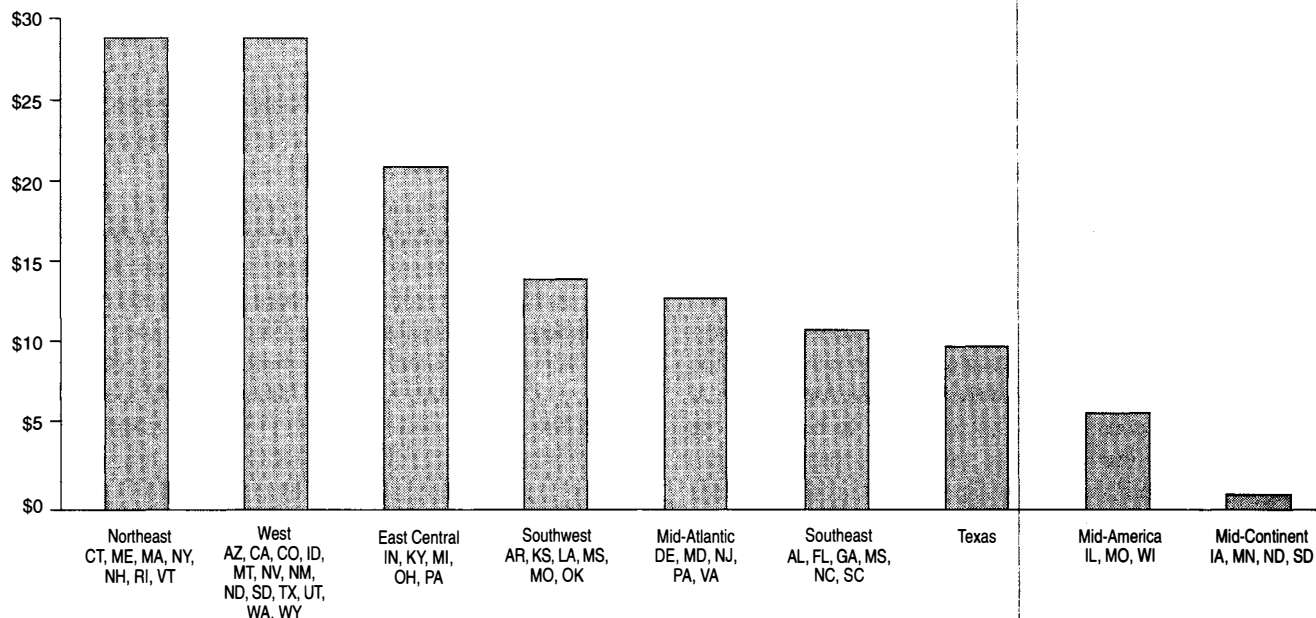
The actual case of Commonwealth Edison in Chicago, is typical. When the utility was completing the last in its series of ten nuclear power plants, the Citizen Utility Board stated that the utility had "overbuilt," and that it would not need 19,000 megawatts of capacity until the year 2020. Commonwealth Edison needed that 19,000 MW during the heat wave this past July.

Moody's estimates that \$50-300 billion of utility investments could become "stranded," or unrecoverable, if the industry were deregulated. Their "most likely" estimate is \$135 billion. To put this figure in perspective, this industry has current equity of about \$165 billion, and total assets of \$570 billion.

Although there has been a show of good intention historically on the part of FERC and other regulators, Moody's

FIGURE 2
Estimated 'stranded costs' in the United States

(billions \$)



Source: Moody's

states, "since it will be extremely difficult to reconcile full recovery of such costs with meaningful reductions of electric rates, we are skeptical that regulators will allow utilities to recover all of their stranded costs. Furthermore, even if regulators are accommodating, economic and competitive realities will probably preclude full recovery."

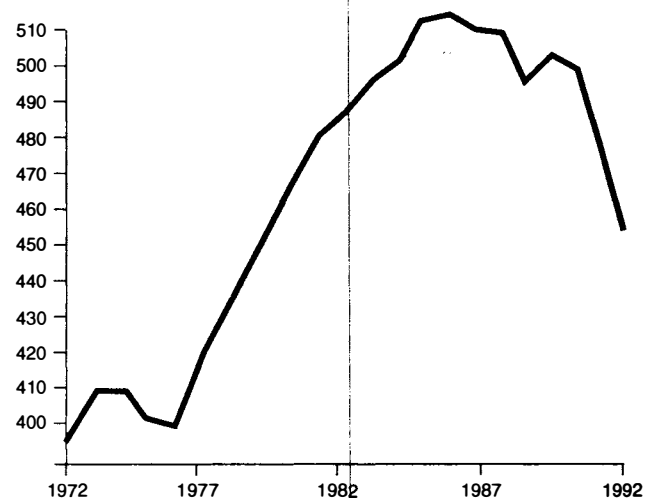
The bottom line? Moody's believes that there are at least 10 nuclear plants that might be closed in the event of deregulation, due to high non-fuel operating and maintenance costs. Hit hardest, predictably, will be the Northeast and West Coast (Figure 2). Bankruptcies will be unavoidable.

Some have said that it is the investors who should take the risk in the free market, and bite the bullet for tens of billions of dollars of stranded costs, not the ratepayers. One would think that Michael Milken made his first million in electric utility stocks! In reality, the holders of most of the nation's utility debt are senior citizens who were willing to accept a lower rate of return for the security of the investment. What may be cavalierly thrown away, is peoples' life savings.

Generating, transmitting, and distributing electricity are, by far, some of the most complex and fragile economic activities that this economy performs. The risks to the physical capacity of utilities to deliver power, including the more than 700 gigawatts of capacity and 600,000 miles of high-voltage transmission lines, have not even been considered here. But one potential threat to the system has been recently raised.

FIGURE 3
Employment in the U.S. electric utility industry

(thousands)



Source: U.S. Department of Energy

The utilities have already started to prepare for what they have come to see as inevitable. Figure 3 makes clear where the major "savings" have taken place. Tens of thousands of jobs in the industry have been eliminated, as companies

scramble to cut costs. The TVA alone had eliminated 2,600 jobs by the beginning of this year, to get ready for "competition." Pacific Gas and Electric is cutting its workforce by 3,000 to "save" \$200 million per year. And so on.

One year ago, the *New York Times* reported on a discussion which then-chairman of the Nuclear Regulatory Commission Ivan Selin had with reporters. He expressed concern that deregulation would put pressures on utilities, providing an "incentive to cut corners." "Even financially sound utilities," he said, "are under great pressure to reduce their rates, to be competitive." Originally, he explained, nuclear plants were exempt from utility cost-cutting plans, but there are now plans to cut the budget at the Indian Point Plant 3 nuclear power plant by 15%.

Utilities will throw quite a bit overboard, to become "competitive." The Wisconsin report describes a program the government implemented after a 72-year-old man was found frozen to death in 1974, after his gas service had been shut off due to nonpayment. Today all Wisconsin utilities are required to locate all disconnects and renegotiate them in the fall, with mandatory reconnection by Nov. 1 every year, so no one is without gas or electricity in the winter. There is a moratorium upon any disconnects during the winter. As the report states: "Loss of electric service in the winter in Wisconsin is life-threatening."

The report concludes that such utility programs will most

likely not be continued when there is no legal mandate to serve, and there is competition to lower costs.

Electricity is something that is taken for granted, and is only a topic of general conversation when an act of nature, such as a heat wave or ice storm, create problems in its delivery.

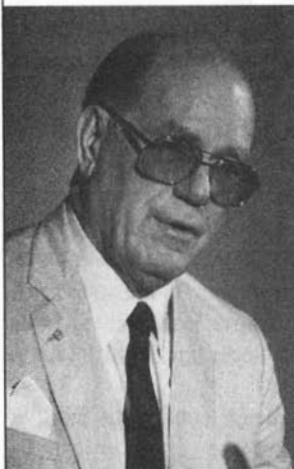
In 1991, the Electric Reliability Coalition, made up of 40 investor-owned utilities, ran an ad in the *Washington Post* attacking the proposals to deregulate the industry. "If It Ain't Broken, Don't Break it," the ad advised.

Since then, the utility opposition to deregulation has virtually disappeared. Now, it is up to the people who use and depend upon reliable, affordable electric power to voice their opposition, because otherwise, in the future, electricity they can afford may not be there when they need it.

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