

ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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The Electric Industry: Changes Underlying Restructuring

It would be easy to say that bringing competition to the electric utility industry is simply the next logical step in freeing industry in the United States from the shackles of government regulation.

It would be easy, but wrong.

It is true that "deregulation" has swept through the American economy in recent years. Competition has most notably been brought to telecommunications by the break-up and "divestiture" of AT&T. Who has not received one of those annoying dinner time tele-marketing calls? Airlines, buses, interstate freight, and railroads have all been "restructured." It is not the purpose here to argue whether such efforts have been "good" or "bad," "successful" or "unsuccessful."

It is also true that a certain "free market" ideology is, in part, driving the move to electric restructuring. There are some who believe, quite simply, that if a choice exists between competition on the one hand and government regulation on the other, competition is by definition "better."

Behind all of this, however, are real economic and technological changes that move restructuring the electric industry off of the classroom blackboards in university economics classes and into real world discussions amongst legislators, regulators and other public policymakers.

Technological Changes

One primary driving force behind electric restructuring is the advent of the combined cycle combustion turbine. It is important to realize

that to understand the impact of this new technology, it is not so much necessary to understand the nature of the technology as it is necessary to understand how the new technology changed the economics of power generation.

Electric utilities incur two costs from power plants. First, there is the cost of building a plant. In addition, there are the costs of operating the plant. The operating costs are just like a consumer's car. There is fuel, maintenance, and other related expenses.

The combined cycle combustion turbine changed the economics of power generation from both perspectives, thus severely (if not completely) undermining the historical determination that electric utilities were "natural monopolies." First, combined cycle combustion turbines allowed electricity to be generated economically through small plants. As a result, there was no longer a need to maintain exclusive service territories to preserve consumer loads for one company. Unlike the past, a small power plant today can produce power at prices that are competitive with power from much larger plants.

Second, though still in the hundreds of millions of dollars, the cost to build these new small plants is relatively cheap compared to existing plants. Using the new technology, it is possible for someone --a competitor-- to come into a utility's exclusive service territory and build a brand new plant at a price that is less than the utility's existing plants.

Industry Economics

Not all of the electric industry's competition was brought about simply by this change in technology, however. Much of the challenge to

the electric industry was self-induced by two conditions within the industry.

On the one hand, many electric utilities had become heavily involved with the construction of mammoth nuclear generating plants. While originally touted as being able to produce power "too cheap to meter," in fact, nuclear plants projected to cost in the hundreds of millions of dollars ended up costing billions instead.

In addition, the electric industry has been plagued with "excess capacity." Electric utilities were hesitant in responding to the slow down in the growth in electric usage in the 1970s. They had no incentive to do so. After all, the profits of a utility are based on the investment they've made in plant. More power plant construction meant more profits. In addition, however, utilities were under an obligation to serve. If someone requested power, the utility had a legal duty to supply it.

The result was that electric utilities built far too many power plants. Power plants were constructed which consumers did not need or use. Nonetheless, the costs of these plants were generally included in the rates charged to consumers. Consumers were being charged not only for the power plants they *were* using, but for the plants they were *not* using as well. As a result, electric rates saw sharp increases during the 1970s and 1980s.

The Political Context

For most residential ratepayers, when electric rates increase 30% in a year, we grumble somewhat, but still manage to find the extra \$300/year (\$25/month) to pay. (We'll set aside for the moment the impact on low-income consumers who do not have an "extra" \$25/month.) After all, we have no choice. The electric utility is a monopoly and there is no place else to go. For some customers, however, such as a Raytheon in Massachusetts, a 30% increase in its \$21 million annual electric bill adds an extra \$7+ million to its operating expenses.

The stage was thus set. First, there were large

industries for whom electric bills represented millions of dollars in annual expenses. Second, there were existing utilities who were charging high electric rates in large part to help pay off the costs of excess capacity and expensive nuclear power plants. Third, there were new companies who could build small power plants that were both cheaper to build and cheaper to operate than existing power plants. These big business consumers began to ask "why," "why are we forced to buy from a monopoly utility rather than being able to go into a competitive market to get the lowest price available?" Hence was borne "electric restructuring."

Summary

In sum, proposals to restructure the electric industry are really the product of three influences that converged at the same time. First, due to mis-steps by the electric industry, the price for electricity became sharply, and in the view of many, unreasonably higher than it had been in the past. Second, at about that same time, a new technology was invented that allowed for the creation of alternatives to the traditional electric company that did not exist in the past. Finally, this all happened in a political climate where a move away from regulation and toward competition was in vogue in any event.

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