

ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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A Historical Look at the Electric Industry

This series is designed to explain restructuring of the electric industry in plain English to the non-technical reader. While the series is written from a low-income perspective, the issues which it discusses will largely be applicable to consumers in general as well.

In brief, "restructuring" allows electric utilities to compete with each other and with other power generators and largely frees these competitors from government regulation. As a result, restructuring commits to "the market" certain protections that regulation has historically provided. Ensuring reliability, providing consumer protections, and guaranteeing fair prices are but illustrations of such protections that would no longer be overseen by a regulatory agency. Instead, competition would be relied upon to achieve these goals.

This first segment of the series explains the history of the electric utility industry.

Why Should We Care?

It is important for low-income households to understand the forces affecting the electric power industry. Not surprisingly, the use of electricity pervades the life of every individual. Each time a person walks into a heated room, eats food that has been either refrigerated or cooked, or uses a light, that person is likely relying on electricity.

Moreover, the cost of electricity is the major part of a low-income energy budget. Electric *non*-heating consumption represents roughly 45 percent of residential usage and nearly 70 percent of residential bills. What happens to the price of electricity is thus important to residential consumers. Any public policy focused on home heating to the exclusion of electricity would

address less than half of the energy dollars consumed by low-income consumers.

Electric Utilities as "Natural Monopolies"

Historically, electric utilities have been what economists call regulated monopolies. Monopolies exist where a single company supplies all consumers with a good or service. One of the best examples of a monopoly is AT&T. Until that company's break-up in the mid-1980s, AT&T was the only long-distance telephone company available to consumers.

Government allowed electric utilities to become monopolies because they were called, again by economists, a "natural monopoly." A natural monopoly exists when a single company can least expensively serve all consumers. To introduce competition into a natural monopoly industry would increase prices to consumers.

Electric utilities were considered natural monopolies for two primary reasons. First, it made no sense to have duplicate transmission and distribution systems as a result of competition. To build two (or three or four) sets of wires and poles down every street and highway so that competing electric companies could serve customers would be very expensive as well as environmentally damaging.

Power Production and "Economies of Scale"

Second, until well into the 1980s, existing technology produced cheaper electricity if power plants could be made increasingly bigger. If a monopoly utility could build a 1200 mW power plant --electric generation is measured in terms of megawatts (mW)-- the resulting electricity would be cheaper than if three competing companies

each had to build a 400 mW plant. Technology delivered "economies of scale." Economies of scale means that as size goes up, costs go down. Operating costs of a 900 mW power plant were less than that of a 600 mW plant and those of a 1200 mW plant were less than those of a 900 mW plant. To support the construction of these huge plants, it was necessary to allow all the load in a geographic area be served by one utility.

To ensure that electric load was not split into these smaller increments, electric utilities were given exclusive service territories. This service territory encompassed a geographic area which competitors were prohibited from entering. In these exclusive service territories, if consumers wanted to buy electricity, they had to buy it from the local electric company.

Duty to Serve

As a result of the exclusive (monopoly) arrangement, however, the utilities who were protected from competition were required to shoulder a "obligation to serve." This duty consists of several parts:

- o Electric utilities were required to provide reasonably adequate service to everyone who applied for service.
- o Electricity was to be supplied on reasonable terms and at reasonable prices.
- o Electricity was to be supplied on non-discriminatory terms.

In short, the "deal" that was made was that if a customer was obliged to buy electricity from the local utility, the local utility was obligated to provide such power, upon demand, to all who wanted it without discrimination.

In addition to this obligation to serve, utilities were also subjected to state government rate regulation in exchange for their monopoly status. Rate regulation was designed to ensure that rates were "just and reasonable" as well as "non-discriminatory."

Books have been written about what the actual operational meaning of these requirements are. The definition of terms such as "just and reasonable," "reasonably adequate" and "non-discriminatory" is beyond the scope of this series.

Summary

In sum, as the electric utility industry entered the second half of the 1990s, it was comprised of regulated monopoly companies providing electricity in exclusive service territories with state regulation overseeing the industry to ensure that service was "reasonably adequate" and that prices were "just and reasonable" as well as "non-discriminatory."

It is this picture which "electric restructuring" is about to so radically change.

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