

**ELECTRIC UTILITY RESTRUCTURING
AND THE LOW-INCOME CONSUMER**

October 1997

Prepared for:
Iowa Community Action Association
Des Moines, Iowa

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

Facts on File: Contents

Fisher, Sheehan & Colton, Public Finance and General Economics

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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.

Roger Colton is an attorney and economist in Belmont, Massachusetts. Colton has been hired to analyze electric restructuring issues by clients ranging from the U.S. Department of Energy (DOE), to the National Association of Regulatory Utility Commissioners (NARUC), to the Edison Electric Institute, the national electric utility industry association. Colton has also worked for numerous state agencies and local community-based organizations on restructuring issues.

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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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The Components of Electric Service

When people talk about competition in the electric industry today, it is necessary for them to understand the different parts of their electric service. The local electric company today provides more than kilowatt hours (kWh) of electricity. The electric service can be divided into four different components:

- o Generation
- o Transmission
- o Distribution
- o Customer service

The "competition" which is being talked about for electric utilities will occur in the generation part of the industry.

Generation

The generation part of the local utility bill involves the actual production of electricity at a power plant. The costs of producing electricity through power plants can be thought of in much the same way as the costs of buying a new car.

First, there is the purchase price of the car itself. While some cars cost \$10,000 to buy, others cost \$50,000. Second, even aside from the purchase price, there are the operating costs of the car. The costs of gasoline, oil changes, tires, maintenance, insurance, and the like vary on a car-by-car basis.

Similarly, the generation part of a bill includes two primary components. On the one hand, there is the capital component. This involves the actual cost of building the power plant, including financing costs. On the other hand, there are the production costs. The major components

included here are power plant fuel expenses (coal, fuel oil, natural gas) as well as maintenance expense.

Transmission

When electricity is generated at a power plant, it is generated at very high voltage levels. A volt is a measurement of the power of electricity going through a wire. The electric transmission system takes that high voltage electricity and carries it, often over long distances, so that it can be used by individual consumers.

The transmission lines run to electric substations where the voltage is reduced. The electricity then goes to further and further substations where, in each instance, the voltage is reduced further.

Distribution

Ultimately, the electricity is delivered to individual consumers over the "distribution system" consisting of wires and poles running to each individual building. The goal is to carry the power at high voltage to get it as close as possible to the actual user of the power before it is "stepped down."

Power begins its journey on the transmission system at anywhere from 27,000 to 765,000 volts. It is delivered to individual consumer homes at either 115 or 230 volts.

In short, the generation, transmission and distribution facilities make up the network that produce and deliver electricity to consumers.

Customer Service

It would be easy to conclude that the "service" provided by an electric utility is solely the "service" of providing this power through the

wires to the consumer. A more accurate approach, however, is to consider an electric utility as a distributor of a "manufactured" product and adopt the manufacturing concepts of "product" and "service." In the manufacturing world, a company's "offering" to its market is composed of both a physical "product" and a "bundle" of related or supporting "services."

A simple example would be the appliance manufacturer who offers free delivery, free installation and a 90-day warranty with the purchase of any appliance. The delivery, installation and warranty comprise the "service" components of this offering.

Applying these concepts to an electric utility leads one to define the actual electricity provided to consumers as the "product" component of the company's market offering. All other components of electric power or supporting the provision of electric power would be the "service" component.

For the average consumer, the customer service component would thus consist of things such as meter reading, sending monthly bills, receiving and booking payments, and the like.

Services to Payment Troubled Customers

In addition to these services to the "average" consumer, some customers use expanded services as well. Services to payment troubled customers may include things such as negotiating deferred payment arrangements when bills cannot be paid on time, or obtaining information about public and private sources of bill payment assistance. Other consumers may have occasion to make inquiries about meters that appear to be running too slow or too fast, to dispute a bill as inaccurate, or to challenge bills that are based on "estimates." Each of these costs will be in addition to the generation, transmission and distribution charges.

What Goes into a Utility Bill?

The generation part of a residential consumer's utility bill represents about one-third of the

monthly cost of electricity. If a consumer's monthly bill is \$70, therefore, the generation part of the bill would be roughly \$21.

In this case, if a person could obtain a 15% discount on his or her generation bill, the discount would be roughly \$3 a month. When the transmission, distribution and customer service components of the bill are added, the 15% discount means the customer would be paying a monthly bill of \$67 rather than \$70.

Summary

The electric industry is made up of several different components. The component that will become competitive involves the generation of electricity. This component represents roughly one-third of a consumer's total electric bill. As a result, when consumers hear that they will experience electric bill savings of 10% or more, they must realize that the reference is to 10% of the 33% which makes up the generation part of the bill.

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Different Types of Competition: What is Being Proposed?

When policymakers speak of bringing "competition" to the electric industry, their reference may be to wildly different notions of how the electric industry should operate. These different concepts of a "competitive electric utility" have significant implications for consumer protections, particularly for small users.

Two Types of "Competition"

Two different types of "competition" are being discussed for the electric utility industry, including:

- o Retail competition; and
- o Wholesale competition.

The differences between these different approaches are discussed below and the implications for consumers will be noted.

Retail Competition

Most proposals for restructuring the electric industry today involve proposals to allow for retail competition. While these proposals come under many names --direct choice, direct access, retail wheeling-- they all mean basically the same thing: that consumers would no longer be obliged to purchase their power from the local electric utility company. Instead, just as in the telecommunications industry, consumers could shop from amongst all of the various companies offering electricity for sale and decide to buy from whomever they choose.

Under retail competition, however, there still would be a role for the local electric company. Even under retail competition, the job of actually delivering electricity to each consumer would

remain with the local utility. This utility, called the "distribution company," would simply deliver electricity that was produced by any of the various competitors in the electric market. Under this form of competition, the exclusive service territory previously enjoyed by the local electric company would no longer exist.

Under a retail competition framework, the local utility might decide to keep its own power plants and compete for the sales of its existing customers. In contrast, it might decide to sell all of its generating plants to someone else and get out of the business of producing power altogether, preferring simply to stay in the business of delivering power.

Wholesale Competition

In contrast to retail competition is competition at the wholesale level. Wholesale competition would maintain the exclusive service territories of local electric utilities, but would force those utilities to compete for power on the open market. Rather than owning their own generating plants, the local electric companies would spin-off --the technical term is "divest"-- their power plants into separate companies. The utility would then be free to purchase power from any company that was offering wholesale power on the market.

In the wholesale competition framework, competitors would not sell electricity directly to retail customers (such as individual businesses or individual homes) but would instead sell electricity to local utilities. The cost savings that the local utility would find through such competition at the wholesale level would then be passed on to consumers in reduced rates.

The Reason for Wholesale Competition

The thinking behind proposals to move electric utilities to wholesale competition involves two related ideas.

First, the part of the business in the existing electric industry that has been most subject to high costs in the past has been the generation part. These high costs have come from utilities who have engaged in the construction of expensive nuclear plants as well as those utilities who have significantly overbuilt capacity. As a result, the part of the industry where consumers are most likely to find cost-savings resulting from competition involves the part of the industry involving generation.

Second, the place where advanced combined cycle combustion technology has created opportunities for new companies to enter the electric industry has been the generation part. These new types of power plants have not allowed companies to deliver energy more efficiently or less expensively. Nor have they allowed electric utilities to significantly reduce costs related to billing, collecting or other forms of customer service.

Given that the historic problems with high electric prices have involved generation, and that new technological advances have allowed new companies to reduce the cost of power generation, proponents of wholesale competition urge that it would make sense to allow for competition at the wholesale level while leaving the rest of the utility industry structure intact.

The Push for Retail Competition

Some people reason that wholesale power competition cannot work over the long-term. The push for retail competition, they say, is not strictly an economic, but rather a political, phenomenon. Large user customers that have the political and market power to obtain a better deal through reduced prices will push for those reduced prices. If prices below the local electric utility's rates are available at the competitive wholesale level, therefore, it could be expected that renewed pressure will arise to permit large

user direct access to that power. And, given the political and economic power of the customers who would seek such direct access, it could be expected that the industry will move in that direction.

Summary

In sum, two different types of competition are being discussed for the electric utility industry. The first type involves retail competition, where each individual consumer --including everyone from the biggest businesses to individual persons-- shops for electricity in the same way they shop for telephone service, or for automobiles, or for insurance.

In contrast, under the competitive wholesale industry structure, the local utility would shop for electricity. Rather than producing its own power as is done today, the local electric company would decide which power company offers the best deal and then buy power from that company. The savings generated from being able to purchase in a competitive market would then be passed along to consumers.

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What's a "Stranded Cost"?

The electric utility industry is one of the most capital intensive industries in the world. Throughout the years, electric utilities have spent literally tens of billions of dollars to build power plants to provide consumers power. Today's debate over "stranded costs" involves the question of who pays for those costs that are rendered uneconomic by a competitive market.

Current Cost Recovery

Under many state laws, the local electric utility is entitled to recover its expenditures on power plants unless the company has been shown to have been "imprudent" in making the expenditures. In other states, the local utility has to show that the power plant is both in operation and providing benefits to consumers in order to include the costs in rates.

In all states, the level of utility profit is tied to the level of capital investment the local electric company has made. Since the amount of profit increases as the amount of invested capital increases, utilities have an incentive to maximize their capital investment, so long as they can show that it was "prudent" and providing benefits to consumers.

Given this regulatory framework, not all utility expenditures have been wise investments. Some utilities invested heavily in nuclear power, at a cost of billions of dollars per generating plant. Other utilities built too many power plants (or built plants that were too big). These utilities ended up with plants that produced electricity far beyond the amounts that consumers actually consumed, a result known as "excess capacity." Under existing regulatory structures, most of these utilities were still charging the costs of these bad investments to consumers.

The Impact of Competition

Under a restructured electric industry, this would all change. If consumers were given the option of buying power from a less expensive electric company, the companies that did not have nuclear power plants (or that did not have substantial "excess capacity") would be able to offer consumers prices much cheaper than could the companies with the excess costs.

In order to compete, the local utility would need to lower its prices to the same level as the cheaper companies. These lower prices, however, would not allow the utility to recover its entire investment in plant. Some of the costs of the power plants would be "stranded."

What stranded costs are, therefore, are those existing power plant expenses which a utility would pass on to consumers under regulated rates so long as the utility was a monopoly, but which it could not recover in a competitive electric industry. Thus, if a utility built a \$4 billion nuclear power plant, but could only collect \$3 billion if it had to lower prices to compete under a restructured electric industry, it would have a "stranded cost" of \$1 billion.

Who Pays for "Stranded Costs"?

One of the major issues facing public policymakers is to what extent utilities should be allowed to recover their stranded costs despite the move to a competitive electric industry. If stranded cost recovery is allowed, customer bills will include a "surcharge" to pay for the utility's uneconomic investments. The surcharge will be the difference between the actual cost of the power plants and what the utility could charge for those plants under competitive conditions.

The Argument Against Stranded Costs

People who argue against allowing the recovery of stranded costs say that it makes no sense to make the electric industry subject to competition and then to force consumers to pay the high prices that could not be supported in a competitive industry. Such a policy is simply a multi-billion dollar bailout of the utility industry, forcing consumers to bear the brunt of bad business decisions made by utility managers. No other competitive industry has the ability to force consumers to pay for bad investments.

In addition, these people urge, allowing the recovery of stranded costs defeats the entire purpose of restructuring the electric industry. The purpose of restructuring is to allow consumers to choose lower priced electric suppliers. If consumers have to pay for the past bad investments of utilities, consumers have no chance to obtain those lower prices.

Finally, stranded cost opponents say that just as the food store, or the auto dealer, or the shoe store must bear the consequences of making bad business decisions, so, too, should the electric utility industry. That is the nature of our economic system.

The Argument for Stranded Cost Recovery

In contrast, electric industry proponents argue that consumers should pay for all power plants that were built to provide electricity. Any power plant that was built, these analysts say, was approved by regulators at some point in time before construction. Part of that approval process was a requirement that the utility prove the "need" for the plant.

In addition, these proponents say, the power plants at issue were built, at least in part, because the utilities had an "obligation to serve." Utilities have a legally enforceable obligation to provide sufficient power upon demand. When a customer flips a light switch on, there must be enough electricity to run all of the lights.

It would be unfair, these proponents conclude, to

require utilities to shoulder this obligation to serve without imposing an "obligation to pay" at the same time. Under this argument, consumers should have an obligation to pay for all expenses that the utility incurred in responding to the responsibilities imposed upon it by law for the consumers' benefit.

Summary

Electric utilities facing competition will not be able to charge prices sufficiently high to allow the recovery of all costs for existing power plants. In light of this reality, the debate over stranded costs poses the following question: is this inability to recover costs simply a natural result of the functioning of a competitive market toward businesses that made bad investments, or, is it instead an unfair imposition on an industry that was operating under a legal obligation to serve?

The answer to that question has multi-billion dollar implications both to consumers and to utility investors.

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What's at Risk: Will Competitors Seek out the Poor?

Advocates of a restructured electric industry put much stock in the process of competition delivering benefits to consumers. A competitive market, these advocates say, will result in lower prices, high quality service, and an explosion in innovation that would never occur under regulation. In addition, they say, any potential consumer abuses should be controlled through a competitive market.

The theory is simple. If a competitive supplier of electricity offers poor quality service, offers service at high rates, or engages in consumer abuses, consumers will simply switch to another company. As a result, abusive suppliers of high cost poor quality service will not survive in the competitive marketplace.

If, however, competition does not exist, the whole theory falls apart and consumers will be left unprotected. That is precisely the case for low-income consumers. Utility consumers such as low-income households are not well-positioned to take advantage of competition in the electric industry. The impacts on low-income consumers are thus less likely to be positive, and more likely to be negative.

The Problem of Size

Positive impacts are less likely to arise because low-income customers are simply not big enough for competitors in the electric industry to aggressively solicit.

In Michigan, for example, one of the states which has experimented with electric competition, in 1995, Consumers Power Company raised electricity rates for its 1.4 million residential users by 8.2 percent (\$42 on a typical annual bill) while lowering rates for the state's 9,000 industrial users by an average of 4.2 percent.

The largest and most powerful Michigan industrial consumers such as General Motors and Dow Corning saw rate cuts of up to 20 percent.

Why does this happen? Contrast the situations of a large industrial customer and the typical residential customer in Massachusetts, a state which is aggressively pursuing electric restructuring.

In response to threats by Raytheon (a major defense contractor) to leave Massachusetts, the local electric company offered rate discounts of 20 percent and more for five years, with lower discounts being offered in subsequent years. Even then, Raytheon refused the discount in 1995, arguing that the deeper discount should last longer. Ultimately, a discount was agreed to and approved in January 1996. Raytheon would say only that its deal with Mass Electric would yield "significant savings" on its \$20-million-plus annual electric bill.

In contrast to the bargaining power of a Raytheon, alternative producers of less expensive power do not seek out small users as customers. When compared to large industrial consumers, the potential for profit is lower, the administrative costs of billing and collection are higher, and the marketing costs are higher.

With typical residential bills for Mass Electric Company at just over \$700 a year, for example, it would take nearly 30,000 customers having 30,000 meters read each month resulting in 30,000 monthly bills and the accompanying credit and collection activity to generate the same revenue as Raytheon's estimated pre-discount bill of \$20+ million.

Those Dinnertime Phone Calls

The telecommunications industry is often cited as an example of why this analysis is wrong. Consumers are noted for their annoyance with repeated dinnertime telemarketing calls for long distance telecommunications carriers. The telecommunications industry proves that fears of competitors abandoning the small user market are unfounded, say advocates of competition.

In fact, however, the long-distance industry is indeed beginning to abandon the low use market.

The move of telecommunications giants such as MCI to "dial around" services represents a specific decision to abandon the consumer-by-consumer marketing. An April, 1997 *Wall Street Journal* article reported that "the dial-around approach offers MCI a much cheaper way to sign up the lowest-spending customers in the industry, those who pay \$25 or less a month for long distance and still cling to AT&T. MCI used to spend a fortune marketing to these folks, calling several times in a single night, sending discount pitches through the mail and using other sales gimmicks. MCI now regards this low end of the market as a commodity service almost unworthy of the MCI brand it has spent billions of dollars to promote." In the meantime, according to the *Wall Street Journal*, MCI is focusing its attention on marketing a "premium package of services, including long distance, local, cell phone, paging and Internet access."

Similarly, AT&T plans to substantially scale back its marketing. Noting that the cost of acquiring customers is much higher than the cost of retaining them, AT&T has said it will scale back significantly the practice of sending checks to long-distance customers and will replace that with a less-expensive loyalty program in which customers are rewarded with free long-distance service for staying with AT&T on their premium services.

What's Happened Before?

Experience in other deregulated competitive industries, as well, shows that the small user and hard-to-serve are disadvantaged by business actions taken to help meet competition.

In 1982, for example, Congress largely deregulated the inter-city bus industry. Within ten years, the number of rural locations receiving regular route inter-city bus service had shrunk by more than 50 percent. A 1992 study by the U.S. General Accounting Office concluded that "the riders who have been losing service are those least able to afford and least likely to have access to alternative modes of transportation."

Summary

A move to a restructured electric industry is likely to end up delivering fewer benefits, and greater harms, to low-income and other small user consumers. Arguments over whether competition, generally, will "work" or not largely miss the point. Low-income consumers and other small users simply do not carry the market power to attract sufficient competitive attention to bring the benefits of competition to them.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's at Risk: What's a "Stranded Benefit"?

One major low-income concern about a move to a competitive electric industry involves the creation of "stranded benefits." Stranded benefits involve electric utility programs and actions that will be at risk of elimination (or significant reduction) in a competitive industry.

These utility initiatives frequently involve actions that are currently done because the utilities have been *directed* to do them by state regulators rather than because the utility has chosen to do them. The programs are often based in notions of "equity" rather than in notions of economics.

The Reason for Stranding

There will be two types of electric service providers involved in a competitive electric industry. On the one hand, there will be the existing utility who currently supplies electricity under state regulation, the "incumbent." On the other hand, there will be the new competitors. These new competitors might be out-of-state companies. Some may own their own power plants. Some may simply be marketers, who buy electricity from companies who produce it and then resell it for a profit.

The problem arises because these new competitors will not be under the same regulatory obligations to provide equity-based programs as the incumbent utility. As a result, the incumbents will argue (with some justification) that they are being forced to bear costs that their competitors do not, thus making the incumbent less competitive.

To remain competitive, the reasoning will go, the programs provided subject to regulatory direction must be eliminated or curtailed.

One set of benefits at risk are the regulatory protections that have been established to limit the use of utility shutoffs as a collection tool. These limitations have been imposed because they are "fair," not necessarily because they are justified on any economic grounds.

The granddaddy of utility shutoff protections put at risk is the winter shutoff moratorium, called the "cold weather rule" in many states. Under this rule, a utility is barred from disconnecting service during severe weather. Some states have temperature-based limitations, barring shutoffs only when temperatures fall below a certain level irrespective of the date. Other states have date-based limitations, barring shutoffs completely during certain time periods (such as December through March).

Utilities have always claimed that winter shutoff restrictions impede their ability to collect bills during the winter months. As a result, they claim that significant increases occur in both uncollectible dollars and unpaid bills, both of which increase costs. Whether or not these claims are true --there is certainly evidence that they are not-- based on the utilities' beliefs, it can be expected that since new competitive electric service providers will not be subject to the jurisdiction of state regulators, and thus will not face the same winter restrictions, utilities will ask for the elimination of these protections.

Winter restrictions are not the only shutoff restrictions at risk. Shutoff restrictions during medical emergencies, on days when utility offices are closed, and similar regulations will be placed at risk as well.

"Affordable Rate Programs" at Risk

Shutoff Restrictions at Risk

Affordable rate programs are a second type of "stranded benefit." Affordable rate programs can involve discount rates for low-income consumers. They can involve arrearage forgiveness programs. They can involve discounts for senior citizens or for persons with disabilities.

The thing about rate discounts and arrearage forgiveness programs is that few utilities may seem to have them. It might seem at first glance, therefore, that placing affordable rate programs at risk does not place many states in jeopardy.

Affordable rate programs, however, do not refer simply to rate discount programs. They would include, also, for example, long-term deferred payment plans. Deferred payment plans cost utilities money in two ways. First, the negotiation of a payment plan is expensive, in that it requires personal contact (albeit perhaps by telephone). In addition, the utility loses the working capital associated with carrying the arrears over the life of the plan.

It can be expected that utilities, while not asking to eliminate deferred payment plans altogether, will seek substantial restrictions on such plans. They will likely ask that plans be much shorter than in the past, thus requiring higher monthly payments toward arrears. They will likely ask that consumers seeking deferred payment plans prove their inability to pay. They will likely ask for restrictions on the offer of multiple plans, for example, denying the availability of such a plan if you had entered into a deferred payment plan during the previous year. They will likely ask for larger downpayments, for example, requiring a customer to pay half of the arrears and making the other half subject to a deferred payment plan.

Energy Efficiency Programs at Risk

A third set of "stranded benefits" will involve existing energy efficiency programs. Low-income energy efficiency programs can consist of two primary efforts. First, many utilities engage in weatherization programs for heating customers. These efforts involve traditional weatherization efforts such as installation of insulation, set-back thermostats and similar

space-heating measures. Some programs are "stand-alone" programs, where the utility engages in the weatherization efforts itself. Other existing utility efforts involve supplements to federal Weatherization Assistance Program (WAP).

A second electric utility program involves non-space-heating energy efficiency. These typically involve the installation of efficient lighting and often involve the replacement of old and inefficient refrigerators.

Summary

"Stranded benefits" include those programs and efforts that incumbent utilities provide because they have been directed to do so by state regulators. These efforts are placed at risk by electric restructuring to the extent that incumbent utilities successfully argue that making utility companies provide such programs places them at a competitive disadvantage with new electric service providers who are not also required to offer the same or similar programs.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's at Risk: The Anticipated Impact on Rates

One impact of a restructured electric industry is the likely impact that low-income customers will pay increased bills for electricity.

Cost-of-service vs. Value-of-Service Rates

Understanding two concepts will help explain this probable rate impact. The first concept is called cost-of-service ratemaking. Under cost-of-service ratemaking, which has historically been the norm under state regulation, state regulators seek to match the rates charged to consumers with the costs incurred in providing those consumers with electricity. There is, in other words, some element of causation. If a customer class causes the utility to incur certain costs, that class pays those costs.

The second concept is called value-of-service ratemaking. Under this approach, prices are set equal to what the market will bear rather than being based on cost causation. Value of service ratemaking takes into explicit consideration the alternatives available to customers. If fewer alternatives are available, the customers will be "willing" to spend more to retain service and prices are thus set higher. Given the lack of alternatives for most low-income consumers, the "value" of electric service is higher and prices are set accordingly.

The reasons that low-income consumers have the fewest alternatives will be familiar to low-income energy service providers. Low-income households tend to be tenants. As a result, they do not have the authority to make energy saving home improvements. In addition, since energy savings go to tenants, landlords do not have the incentive to do so. Low-income consumers do not have the money to invest in energy savings devices. It makes no difference to a poor person that spending \$100 will save \$130 if he or she

does not have the \$100 with which to begin. Low-income consumers do not generally have substantial discretionary energy use. They don't have things to "turn off" in order to save energy.

If the move to value-of-service ratemaking means that captive customers will pay more, which it does, then low-income consumers are likely in line for a series of price increases.

Fixed vs. Variable Costs

A more subtle form of passing higher costs on to captive users (including low-income consumers) is through a reallocation of fixed and variable costs. The "fixed" costs of a utility system are those costs that do not vary based on the amount of electricity sold. They include headquarters buildings, power plants, executive salaries, and the like. In contrast, the "variable" costs of a utility are those that increase or decrease directly with the amount of energy sold. Thus, for example, fuel costs are variable costs; if you sell more electricity, the utility must burn more coal to produce the power.

Under principles of cost causation, variable costs are charged to the consumers who cause the utility to incur the costs. In contrast, however, there are no accepted means of allocating fixed costs. Accordingly, as the utility industry becomes more competitive, it is likely that the utilities will charge their larger customers close to their variable costs as a means to keep prices down and retain those customers as customers. The result, however, is to allocate the fixed costs of the system to captive customers. As a result, customers with fewer alternatives (such as low-income customers) will bear the largest share of fixed costs while those classes with more alternatives will be assigned a smaller share. They can thus expect to see increases in price

even when the total costs of the utility remain stable or decrease.

Unbundling Rates and Services

Aside from increases in their base rates, one additional way in which low-income consumers will likely face increased prices is through the "unbundling" of rates and services. Debundled service fees can represent a significant increase in "rates" to customers even if base rates remain the same or decrease. Customers who are facing payment troubles, for example, can nonetheless still face significant increases in the monies which they owe to a utility if either the utility debundles existing elements of service and institutes new fees for those individual elements, or, if the utility institutes increases in existing fees for certain elements of service other than those paid for through base rates.

Look What's Happened with Banks

Unbundling is not new to consumers. Banks are the masters of "unbundled" fees. Most consumers have experienced fees for ATM machines that were not previously imposed. Fees are charged to use credit cards. With some banks, fees are charged to have a consumer's checks returned to them in their statement each month (rather than photocopies of the checks). In a competitive industry, these fees need not be cost-based. Since bank deregulation in the 1980s, fees charged by banks have been skyrocketing. Recent newspaper headlines proclaim: "Banks Begin to See Gold in Bounced Checks." Reports state that non-sufficient funds (NSF) fees have risen from an average of \$15.11 in 1990 to an average fee of \$19.35 per check by 1993. The large banks are charging fees averaging 971% more than the processing costs. Researchers have estimated that banks earned in excess of \$1 billion in 1994 from NSF fees alone. Of course, banks charge other fees as well.

The Utility Counterpart

The utility industry is already beginning to adopt these banking practices. One Vermont utility has proposed to charge consumers a fee every time

they are sent a shutoff notice. A Pennsylvania utility proposed charging a fee for "field collection calls," where a company representative personally visits your home and collects money while there.

Other fees that can be expected include fees to pay for the negotiation of a deferred payment plan, fees to cash third party checks at company offices, and fees to have a utility check your bill if you dispute the amount that you have been billed.

Summary

Predictions that competition in the electric industry will result in price savings to all consumers fail to take into account the impact of competition on low-income customers. Whether it is through increases in base rates, or increases in fees for unbundled services, it is likely that a competitive electric industry will impose higher prices on low-income consumers.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's at Risk: The Anticipated Impact on Services

One impact of a restructured electric industry will be the likely effect it has on the services offered to low-income and payment-troubled customers. Low-income customers are likely to receive fewer and less quality service than they have received in the past.

"Services" Used by Low-Income Consumers

The "service" provided by an electric utility is more than simply the service of providing kilowatt hours (kWh). It instead includes both the physical product and the bundle of related or supporting services as well. To the extent that this bundle is reduced, the level of services provided by a utility to those customers who use (and rely upon) that bundle is reduced as well.

There are a host of service components that low-income consumers use that are above and beyond the mere receipt of kWh. The services provided involving the treatment of payment-troubles are most likely to be used by low-income consumers. The services provided involving the need to make personal contact with a utility, whether to deal with payment-troubles or to make monthly payments, distinguish low-income customers from the residential class generally. The services involving the provision of information about public bill-paying assistance distinguish low-income consumers from residential customers generally.

Where Will Service Reductions Occur?

It is reasonable to expect that the level of service provided by competitive electric utilities will be reduced in the following areas:

- o The reduction of staff devoted to responding to "telephone customer contacts," including situations where a

customer initiates a telephone call to the company involving bill inquiries (including inquiries relating to deposits); requests for deferred payment plans; and responses to shutoff notices.

- o The reduction of staff devoted to responding to "walk-in customer contacts," including situations where a customer personally visits a company office regarding bill inquiries; requests for deferred payment plans; and responses to shutoff notices.
- o The reduction of staff devoted to handling company-initiated collection contacts, which involve, in addition, the negotiation of payment plans, the provision of information regarding federal fuel assistance, the provision of information regarding other sources of bill payment assistance, and the like.
- o The reduction of immediate telephonic access to customer service personnel, without need for call-backs or without obtaining busy signals;
- o A lengthening of the time taken to answer telephone calls and to respond to customer inquiries.

One Illustration

Several impacts will be of particular concern to low-income consumers. Especially with unknowns surrounding the question of reliability, adequate levels of customer service are of particular importance. In an effort to cut costs and thus "become more competitive," Public Service Company of Colorado (PSCO) centralized its customer service operations and

closed its regional customer service centers.

The belief of local low-income advocates in Colorado is that this reduction in the number of customer service centers has made it more difficult for low-income customers to make in-person contact with the company. If one assumes that low-income households make a disproportionate number of contacts with the company --an assumption that has an empirical basis-- this reduction will have a disproportionately adverse impact on low-income customers.

These personal contacts may be to ask for short-term bill payment extensions, to seek deferred payment arrangements, to discuss medical certificates underlying service termination postponements, to make bill inquiries, to seek information on fuel assistance, or a host of other reasons. It can be empirically established that low-income households have less access to transportation and a greater inability to travel longer distances to make personal contact with the company.

Even if entire customer service centers are not closed, a reduction in the number of customer service representatives makes it more difficult for low-income customers to contact the company by telephone. The lack of telephone service is directly related to the level of household income. Low-income households who do have a telephone in the home, therefore, must use alternatives such as pay phones, or phones at friends and relatives homes.

A reduction of service for these no-telephone households would involve not simply the inability to contact a company representative by telephone, but an inability to contact a representative within a reasonable holding time. "Call back" procedures, also, frequently do not assist these no-phone customers.

Lessons from Telecommunications

Evidence shows that customer service in other industries suffers under deregulation. For example, U.S. West cut its work force by a total

of 60,000 employees. From 1989 to 1994, the number of customer service centers decreased from 560 to 26, slowing repairs and raising other customer concerns.

In addition, the wait for new service orders has increased, customer service calls have an average wait of up to 22 minutes and customer complaints over the same period increased from 54 per month to 752 per month.

Summary

The impact of competition on low-income households cannot be determined based on the "average" consumer. In that situation, rates decline and services decline as long as overall customer satisfaction is at acceptable levels for the average customer. The fallacy in this approach, however, is two-fold: (1) not all consumers are "average"; and (2) service reductions tend to disproportionately adversely affect low-income consumers.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's at Risk: The Anticipated Impact on Consumer Protections

Restructuring the electric utility industry will have substantial impacts on the offer of consumer protections. Not only will restructuring fundamentally change the way in which consumer protections are offered --often being enforced through the competitive market rather than by regulation-- but will change the nature of the issues to be addressed as well.

The discussion below considers the impact of restructuring on consumer protection issues old and new as well as on the regulatory framework that has been crafted for the benefit of consumers.

The Reliance on Service Disconnections

Consumer protection issues are made more acute as competitive electric companies rely more heavily on the disconnection of service as a collection device.

This concern is based on the reality-based observation that utilities will increasingly refuse to seek work-outs with customers who are facing payment troubles. The observation is "reality-based" if for no other reason than the fact that Southern California Edison has already cited competition as the primary reason to change its collection practices. In that case, Southern California Edison chose to treble its service disconnections (up to one-half million customers in 1995 alone), citing competition as the main reason it was calling in debt.

Consumer Shutoff Protections

One concern of low-income customers involves the explicit consideration of equity issues in electric industry decisionmaking concerning service disconnections and other collection efforts. Equity concerns exist at two levels.

First, equity involves ensuring *procedural* customer service protections. Providing adequate notice prior to the denial of service, ensuring an opportunity to contest a denial of service as unjustified, and requiring a rational connection between the reason for denial and the service itself, are all examples of equitable procedures.

Second, equity involves *substantive* customer service protections. The offer of deferred payment plans through which arrears may be retired over time, as well as protections from the disconnection of energy service during extreme summer or winter weather, are examples of substantive protections.

These procedural and substantive protections find their support in notions of "fundamental fairness" rather than in economics. As a result, ensuring that the actions of utility companies comply with fundamentally fair procedures and principles is certainly not guaranteed by a competitive market.

Billing Disputes and Inquiries

Electric restructuring will offer a bewildering array of places and people to approach if a consumer has a question or a dispute with a particular bill. One likely impact of this array of contacts is the potential for confusion over to whom a consumer must turn to receive answers regarding bill inquiries.

Under the existing system, the location of the billing is at the distribution company. There is a single point of contact for the customer. Under the new framework, it is expected that consumers will buy their "distribution" services from one company and their "generation" service from another. If the consumer purchases energy efficiency services, that may come from yet a

third company.

Consider, also, that under most restructuring proposals, the "meter" will continue to be owned by the local distribution company. The local distribution company will also provide the meter readers. Meter readings will be provided to the actual provider of electric service for purposes of developing a bill.

The potential for confusion is substantial. Consider two common consumer problems. First, what happens when a consumer believes a meter is running "fast," (*i.e.*, is reporting more electricity being used than is actually the case). Is the complaint to be filed with the generation company (to whom the consumer owes money based on the meter reading) or with the local distribution company (who actually owns the meter)?

Second, assume that a consumer in a multiple unit building finds that his or her meter has been "cross-wired" (the meter to Apartment A is, in fact, attached to Apartment B and *vice versa*). Is the complaint to be filed with the generation company (to whom the consumer owes money) or with the local distribution company (who owns the meter)? What if Apartment A and Apartment B buy their power from different electric service providers?

The entire issue of consumer inquiries and disputes presents consumer protection problems.

Unfair Marketing

One aspect of a competitive electric industry that must work appropriately for consumers to benefit is the process of *marketing* by electric service providers. In this sense, "marketing" involves making contact with consumers, making claims as to the products and services that will be provided, and making representations as to the agreements that will govern the relationship between the consumer and the provider.

One aspect of unfair marketing involves switching a consumer from one service provider to another without their knowledge or permission.

In the telecommunications industry, this practice is called "slamming." A related problem involves service providers who offer information to persons who request it while not clearly stating that the consumer's action will also be considered a "request" to change providers.

Truth in advertising presents separate issues. In one telecommunications case in Illinois, a long distance telephone company promised prospective customers that for one year after signing up, they would pay nothing for a year of long distance phone calls anywhere in the world on Fridays, so long as certain minimum billings amounts were maintained for which customers did pay. After a time, however, the phone company changed its mind and began charging for its Friday calls, albeit at a 25% discount. The court, which ultimately approved the company's action, said that the phone company made the representation as to free Fridays "knowing the representation was false."

According to the court, federal jurisdiction over the long-distance carriers prevailed over any state consumer protection statute. The phone company in this case had filed papers with the Federal Communications Commission (FCC) saying that it was going to change its agreement. Thus, the court said, "whatever the salesman says and whatever is advertised, the consumer can learn the truth from the FCC." As a result, the court held that the phone company's agreement to provide free Friday service could not be enforced. Neither could the consumer obtain damages from the phone company for misrepresentation or fraud.

Payment Disputes

The authority of the distribution company to disconnect service to one retail marketer for nonpayment of a bill to a different retail marketer is another example.

In some states, for example, billing for all telecommunication services is provided through the local telephone company. While that may seem convenient, it also creates the potential for abuse. A local telephone carrier, for example,

may agree to disconnect service to *all* long distance carriers for nonpayment of a bill to any *one* carrier. In these cases, the local phone company simply enters into an agreement with MCI not to provide MCI service if a consumer has failed to pay AT&T. In other cases, the local phone company has agreed to disconnect local service if the long distance bill is not paid. Since the local service is still a monopoly, the threat of local disconnection is extremely coercive.

The allocation of customer payments is another issue that will arise if electric restructuring is permitted. If a consumer's total energy bill is \$100, and the consumer pays only \$80, a basic question arises: whose bill has been paid? The allocation of the partial payment amongst service providers has implications not only from the consumer's perspective (does he or she lose service, and from whom), but from the service provider's perspective as well (who must bear the expense of an unpaid bill).

Regulatory Jurisdiction

All of these consumer protection issues are made greater by the jurisdictional questions that arise in a restructured electric world. If a Houston-based energy company is providing electric service to persons in Pennsylvania, does the state utility commission have the power to regulate that company? What happens if the service provider is only a Denver-based marketer or broker (a company that owns no facilities but only buys and then resells the electricity)? If the electric service provider is an out-of-state firm, is there state jurisdiction or are those issues subject only to federal regulation.

The issue is not hypothetical. One low-income elderly couple in West Virginia had a dispute with AT&T over their long distance telephone bill. The local phone company threatened to disconnect their entire phone service if the AT&T bill was not paid. The state utility commission said that it had no jurisdiction over the inter-state dispute and that the couple would have to file a complaint with the federal agency. The federal agency, however, had no jurisdiction over local service disconnections.

The couple paid their disputed bill.

Summary

Restructuring the electric industry is going to create significant consumer protection issues, particularly for those who have difficulty in paying their bills. The consumer protection issues will involve the likely cutback in procedural protections, such as shutoff notices. They will involve reductions in substantive protections such as required payment plans and bans on winter disconnections. They will involve jurisdiction disputes, such as that faced by the West Virginia couple who had no place to go to contest the disconnect based on a disputed bill, or the Illinois consumer who relied on a fraudulent misrepresentation about "free Friday" telephone calling.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's at Risk: The Potential for "Redlining"

The issue of redlining in a competitive electric industry has been raised by consumer advocates who fear an industry disinterest in residential customers generally, and in hard-to-serve or payment-troubled residential customers in particular. Indeed, in many of the sets of "principles" being promoted around the country to govern restructuring the electric industry, an anti-redlining provision has merited explicit consideration.

What's "Redlining"?

The primary emphasis of redlining concerns involves the definition of geographic areas based primarily on racial/ethnic and/or socio-economic factors. A group of advisory committees to the United States Committee on Civil Rights has defined *insurance* redlining as "canceling, refusing to insure or to renew, or varying the terms under which insurance is available to individuals because of the geographic location of a risk."

Similarly, redlining within the home mortgage industry has been defined as "the process of drawing or outlining a geographic area within which lending will be denied due to the composition or characteristics of the area."

Irrational vs. Unlawful

Redlining is objectionable whether or not it is economically irrational. A decision to redline may well be an economically rational decision. One example may involve the decisions of the automobile insurance industry to engage in the practice of "territorial rating." Under such a system, auto insurers set policy premiums based in large part on the geographic location of the insured. Locations in large urban areas and inner cities are deemed to be more risky, and therefore

more expensive to serve, than suburban areas. Accordingly, the rates charged to the predominantly low-income and minority auto owners in these areas are consistently higher than non-urban, non-poor, non-minority locations. The thing is, the conclusion that urban customers are more risky, and thus more expensive to serve than non-urban customers, may be true. Thus, while the geographic-based decisionmaking may be "redlining," it is nonetheless economically rational.

Similarly, just because bank lending patterns are racially discriminatory does not *ipso facto* mean that they are economically irrational. It may well be that households in certain geographic areas of the city, as a class, do not have the financial resources to support home mortgages. Even more possible, households in certain geographic areas of a city may not, without further inquiry, satisfy the indices of "creditworthiness" which historically have supported a decision to grant a mortgage. No question exists but that if a bank or other financial institution would pursue a further inquiry, it may ultimately discover the creditworthiness of the individual households in this area. Nonetheless, to pursue such an inquiry may be expensive and considered unmerited by the profit potential from that area.

In the alternative, a bank may simply decide that it can generate the same number of loans for an equal dollar value in a different geographic area of the city *without* engaging in the additional inquiry. In the absence of the additional expense of the further inquiry, the profit margin per loan may be higher and a profit-maximizing enterprise may rationally be drawn to the second geographic area. In sum, ultimately, while the creditworthiness of the households in both areas of town may be equal, the transaction costs in making the creditworthiness decision may be

vastly different, thus affecting the profit margin and the decision to serve. In this instance, even if unlawful, the decision of the financial institutional to redline is not economically irrational.

Potential Redlining Decisions

Potential redlining decisions that could be expected from a competitive electric industry include:

Refusal to serve: Electric service providers could decide not to serve particular geographic areas. These might include inner cities, where heavy concentrations of poverty might threaten the easy collection of revenue. They might include various areas where lower incomes are viewed as associated with lower use and thus lower profit potentials. This refusal to serve could be evidenced not simply by a refusal to serve (as in the home mortgage industry), but by the cherry-picking found in telecommunications. A decision to serve *only* high income suburban areas, in other words, excluding every other place, would be a type of redlining.

Territorial pricing: Electric service providers could decide to vary the price for service based on geographic location. Like insurance companies who increased prices based on "territorial ratings," electric companies could allege that the cost of serving particular geographic areas (such as low-income and minority neighborhoods) is higher and thus merits correspondingly higher prices.

Lack of infrastructure development: Electric service providers could decide to refuse to provide newer technology that permits either a diversification of service or a higher quality service. The infrastructure needed to permit the time-of-day pricing, or real time pricing, underlying retail wheeling sales could be denied to markets that industry participants simply do not wish to serve.

Lack of facility development: Akin to the absence of branch banks, electric service

providers could refuse to serve certain geographic areas simply by deciding not to develop a presence in those areas. It is reasonable to expect service to follow facilities.

Level and type of service: Electric service providers could refuse to provide the same quality of service based on geographic considerations. A decision to offer certain neighborhoods or communities service based only on prepayment meters or service limiter adapters would be a type of redlining.

Summary

Just as redlining has been an issue in banking, insurance, and the telecommunications industry, it should be expected in a competitive electric industry as well. The fact that redlining decisions have been made does not necessarily mean the industry is acting irrationally. Indeed, the redlining may be motivated by economic considerations. If universal electric service is to be maintained, vigilance against redlining (economically rational or not) must be maintained as well.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's at Risk: Environmental Issues Affecting the Poor

One concern of low-income customers is that environmental impacts are often public costs that cannot reasonably be expected to be accounted for in the decisionmaking of a competitive firm. To the extent that the clean-up or mitigation of environmental degradation is mandated by statute or regulation, the environmental costs are internalized. To the extent, however, that the environmental costs are *not* subject to clean-up or mitigation, they may not be considered at all in a competitive environment.

Environmental impacts can be imposed on low-income customers in any one of a number of ways. They may involve the physical taking of property for facility location; the splitting of neighborhoods by transmission lines; the creation of noise, air and water pollution associated with generating plants; or the exposure to electromagnetic fields. In addition, aesthetic impacts are often found to have little or no economic value.

Facility Construction

Electric competition can be expected to present substantial environmental problems to low-income households. The fact is that most electric infrastructure most seriously adversely affects low-income households and people of color and the most environmentally damaging infrastructure is at the generation and transmission level. Competitive markets not only will fail to redress these environmental problems, but can actually be expected to exacerbate them. An electric industry competitive at the generation level will have financial incentives to impose the greatest environmental harms on low-income and minority classes.

In making facility siting decisions, there will be an economic incentive to take the least-cost

property. Since property values for low-income households are likely to be lower, when the electric industry seeks to minimize costs to be competitive, the push will be to take these properties.

In addition, when facility siting decisions are made, significant delay can substantially increase costs. Accordingly, the industry will have an incentive to minimize such delay. The political power of low-income customers is likely to be less than industries. Substantial research shows that political involvement, efficacy, and a sense of "public self" decreases dramatically for those lower in the spectrum of socio-economic status. Lower socio-economic groups are the least likely group not only to get involved politically, but to speak out --even on their own behalf-- or to be involved in a utility regulatory process. When an industry seeks to minimize costs by minimizing delay, therefore, the incentive will be to deal with these less powerful forces.

Resurrecting Old Power Plants

A competitive power industry will create the opportunity for owners of existing generation to resurrect fully depreciated generating units that have been previously shutdown in urban areas. These units can be operated to produce off-system sales based strictly on variable costs. Given the availability of air pollution control offsets to the utility industry, the environmental impacts of these old, inefficient and dirty fossil-fuel units will not be locally mitigated. As a result, the low-income and minority households and businesses that reside in proximity to these units will suffer disproportionate harm.

A report for the National Association of Regulatory Utility Commissioners (NARUC) agrees. That report concludes that "industry

restructuring will likely result in competitive pressures to increase the operation of currently underutilized coal facilities with relatively high emissions, and to extend the operation lives of these facilities."

If nothing else, the initial base for increased sales by competitive electric companies will likely be old, highly polluting coal-fired power plants. As a result, the public, especially urban dwellers, will experience costly increases in harmful air emissions as a result of utility sales in off-system markets.

A report by Minnesotans for an Energy Efficient Economy (ME3) agrees, finding that Minnesota's largest utility has four coal plants in the Minneapolis/St. Paul metro area that have significant potential to increase generation. According to that report: "the plants have several common characteristics, the most important being that they are all aging, coal-burning generators operating in densely-populated areas." In addition, ME3 concludes, because old plants do not need to meet the pollution control standards of new plants, emissions from the metropolitan plants "are extraordinarily high compared to current standards governing new power plants."

Increasing the operation of old coal-fired power plants will directly lead to increased deaths. According to the ME3 report, "simply put, the more often a plant runs, the more pollution it will emit." ME3 then cites estimates that 64,000 people may die prematurely from heart and lung disease each year due to particulates.

Public Input into Decisions

Finally, a competitive electric industry will create substantial opportunities for a decrease in public input into decisionmaking. The ability to participate by low-income customers tends to be localized. Hence, as a competitive electric industry increasingly seeks a federalization of decisionmaking, these customers will be excluded. These federalized decisions are likely to involve decisions regarding facilities, including both generating plant and transmission lines.

Even today, for example, there is a push to federalize transmission line decisions that have traditionally been local. One utility industry proponent has already stated that legislatures and state utility regulators "routinely capitulate" to "local residents" who protest transmission siting. He continued: "Unless some institution addresses this problem effectively. . .the present allocation of jurisdictional power to authorize transmission projects will impair the efficacy of the electricity transition and will distort the performance of the post-transition electricity market."

Summary

A competitive electric industry can be expected to impose disproportionate adverse environmental impacts on low-income consumers. Low-income neighborhoods will not only be dirtier, but will be more subject to disruption by facility construction. At the same time, the process through which decisions might be affected will be increasingly removed from the ability of poor people to participate.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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Lessons from Other Industries

When low-income advocates talk about electric restructuring, their concern is not that competition will fail, but rather that it will work, thus imposing higher costs and lesser service on those customers least able to protect themselves.

It is a reality that competition does not bring lower prices and better service to poor households. This result is true across-the-board. Competitive unregulated grocery stores in low-income urban neighborhoods tend to charge prices up to 20% higher than in suburban areas because of claimed higher costs. Appliance and furniture prices in inner-city neighborhoods run 50% higher. Institutions financing mortgages for mobile homes charge far more in interest than for loans on more conventional housing, based on claimed higher default rates. A variety of other industries are further considered below.

Banks and Poor People

Competitive banks provide fewer services to poor people. One study in Los Angeles, for example, found nineteen branch banks in South Central Los Angeles, a predominantly poor black community having a population of 587,000 people. In contrast, the study found 21 branch banks in nearby Gardena, a middle class white community of only 49,800 persons. A separate study in Washington D.C. found that residents in predominantly white neighborhoods have three times as many branches available, per person, as do residents of predominantly African American neighborhoods.

Auto Insurance and Poor People

Competitive pricing, too, is not kind to the poor. The auto insurance industry has long been criticized for its process of "territorial rating." Territorial rating bases the prices paid for

insurance policies on the residence of the policyholder. The impact is dramatic. One analysis of territorial rating in California reports:

Territorial rating imposes a substantial economic burden on drivers who choose to, or must, live in low income, predominantly minority, communities. The system has led to an inherently unfair economic result: those residents of urban areas of California with the lowest median income levels are charged the highest rates in the state for automobile insurance.

The disparities in insurance pricing place hundreds of dollars of increased automobile insurance burdens on low-income and minority insurance customers. In 1986, for example, the California Department of Insurance published a comprehensive study of the financial consequences of territorial rating. That study revealed that in almost every instance, residents of areas of the Los Angeles Basin and San Francisco Bay Area that are identifiably African-American, Latino, Asian, and/or poor pay the highest rates for automobile insurance in California.

Telecommunications and Poor People

The most commonly used measure of the success in reaching universal telephone service in the United States is "telephone penetration" --the percentage of all U.S. households that have a telephone on-premises. Using this standard, most people would believe that universal telephone service is the standard in the United States. Yet large portions of the low income population cannot afford telephone service in their homes. In 1991, while fewer than one out of 100 upper income families did not have a telephone, roughly

25 out of 100 low income families did not.

Amongst low-income households, telephone penetration rates are dramatically low:

- o Of households on public assistance, 35 percent lack telephones;
- o Of households receiving food stamps, 31 percent lack telephones;
- o Of households receiving energy assistance, 21 percent lack telephones.

Indeed, of those households completely dependent on public assistance, the penetration rate of telephone service is only 43.5 percent (leaving more than 56 percent *without* service).

Health Insurance and Poor People

Health insurance falls short of achieving universal service. At any given time during the last year, approximately 37 to 40 million people were without health insurance. This lack of health insurance is significantly related to low-income and minority racial/ethnic status. The uninsured population is disproportionately poor or near-poor, African-American or Hispanic, young, and unemployed.

In 1991, some 36% of the uninsured population were African-American (17%) or Hispanic (greater than 18%), representing approximately 30% of the African-American population, and over 40% of the Hispanic population. In addition, 38% of the uninsured population were unemployed, and 55% had family incomes below \$10,000.

Health Care and Poor People

The failure to achieve universal service in health care has been documented through measuring the use of health services, the quality of those services, and health outcomes. The disparities in access to care are particularly sharp and enduring for persons with low socioeconomic status (the poor or near poor, the uninsured, and those in public programs such as Medicaid) and

persons in minority racial and ethnic groups.

Health disparities between poor people and those with higher incomes are almost universal for all dimensions of health. For virtually all of the chronic diseases that are the leading causes of mortality, low income is a special risk factor. Thus, the incidence of heart disease and most all forms of cancer (lung, esophageal, oral, stomach, cervical, prostate) are significantly higher for persons in poverty than for the rest of the population. The poor also suffer disproportionately from infectious diseases such as HIV and respiratory diseases such as tuberculosis. Similar vulnerability is found among the poor for traumatic injuries and death. Finally, the rate of developmental and other disabilities, especially among children, is associated with poverty. The association between economic disadvantage and ill-health is manifested most strongly in strikingly poor pregnancy outcomes (*e.g.*, prematurity, low birth weight, birth defects) and higher infant mortality; the limitations in life activities due to ill health; and elevated mortality rates. Low-income people have death rates that are twice the rates for people with incomes above the poverty level.

Not all poor health outcomes can be attributed to inadequate access to health care. Instead, much can be attributed to environment, housing, behavior, and nutrition. Nonetheless, the Institute of Medicine estimates that one-third to one-half of the gaps in mortality rates between poor and non-poor persons are attributable to difficulties in obtaining access to health care.

Hospital "Dumping"

The same process of "dumping" that happens in the insurance industry has increasingly happened in the health care industry as well as hospitals have become more "businesslike." In addition, nonprofit hospitals have engaged in dumping, transferring record numbers of indigent patients to public hospitals.

In the health care industry, "dumping" involves the process of transferring poor or uninsured patients to public hospitals, admitting only those

persons who are well insured or are affluent enough to pay the high cost of hospital care. In a recent study of 407 consecutive adult transfers to Cook County Hospital in Chicago, Illinois, researchers concluded that 87 percent were transferred because of the lack of insurance.

Property Insurance and Poor People

Competition has served to hinder, rather than to facilitate, reaching universal service goals in the various insurance industries. The property insurance industry is one such example. In the mid-1960s, the property insurance industry reacted to the extensive urban rioting by denying insurance to inner city property owners. The reason for the denial was simple: the insurance companies feared the payouts that would be necessary from the violence and property destruction that arose as a result. Congress reacted to this abandonment of the inner city market by enacting the FAIR laws in 1968.

The new federal statute, however, did not accomplish what it was intended to accomplish. Rather than encouraging the insurance industry to become involved with the urban communities, instead, the competitive insurance companies sought to insure the "best" risks while dumping the remaining risks into the public market. Because the FAIR plans offered less insurance coverage at higher rates and with less supportive service, the markets were subject to *de facto* abandonment notwithstanding FAIR.

It was widely believed the FAIR plans would make insurance available to all "insurable risks." Regrettably, this did not come to pass. The single most devastating factor upon the effectiveness of FAIR was the higher rate it offered as compared to the voluntary market. Denied coverage in the voluntary market for whatever reasons, rejected applicants found themselves paying appreciably higher premiums for less coverage. Some of the plan's rates were over three times those of the voluntary market with the result that risks often were "written-out" by the voluntary market and then "rated-out" by FAIR plans. This combination of inadequate service and even higher prices was devastating for communities.

Summary

Persons who seek universal electric service cannot rely upon a competitive market to deliver such results. By its nature, a competitive market will not only exclude those most in need, but will increase prices to those least able to pay. The essential characteristic of the marketplace is that it allocates goods and services on the basis of the ability to pay rather than on the basis of the need for the service. The market, therefore, excludes those who are unable to afford the service being sold.

This is the consistent lesson to the electric industry from the experience from other sectors of the economy.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's a "System Benefits Charge"?

One condition that many states are placing on "restructuring" the electric industry today involves the imposition of a "system benefits charge" or a "distribution fee." Different fees have been proposed under different names. While they may seem quite similar, in fact, they serve quite different purposes and are based upon different policy justifications.

Distinguishing Types of Fees

On the one hand, there are charges called "system benefits charges." A system benefits charge is not designed necessarily to provide low-income assistance. Instead, such a charge is designed to fund certain "public benefits" that are placed at risk in a more competitive industry. These benefits include, but are not limited to, assistance for low-income consumers. Other programs which a system benefits charge helps to fund include renewable energy, research and development, energy efficiency, and the like.

On the other hand, there are broader "distribution fees." These fees recognize a need for low-income assistance beyond that currently offered by the electric industry. They are predicated upon the observation that a move from a regulated monopoly industry to a competitive, market-driven industry fundamentally changes the risks to which low-income consumers are subjected; whether or not the industry has previously provided "benefits" that may be "stranded" is not the issue.

Competitively Neutral and Non-Bypassable

Low-income programs supporting universal service should be funded in part through a "distribution fee." A distribution fee should be "competitively neutral" and "non-bypassable."

The term "competitively neutral" means that the imposition of the distribution fee does not change the competitive position of fuels that would otherwise exist in the absence of such a charge. This competitive neutrality is enforced by imposing the distribution fee on a per Btu basis. As a result, there is no greater or lesser incentive to purchase one fuel rather than another because of the distribution fee. Nor is there any incentive to purchase from one supplier rather than another (within the same type) as a result of the distribution fee.

The term "non-bypassable" mean that full responsibility for a distribution fee should not be subject to bypass, in whole or in part, by a customer switching fuels. For this reason, the distribution fee should not be imposed on a flat percentage of revenue (or a flat per unit of energy charge) basis. Imposing the distribution fee on a per Btu basis creates the situation where a customer switching from one fuel to another does not change the proportionate responsibility he or she bears as a user of that fuel.

Structure of a Distribution Fee

A proposed structure for a distribution fee to fund low-income programs should address at least the following five issues:

What benefits should the distribution fee pay for: A low-income distribution fee should generate funds for three purposes: (1) the provision of cash fuel assistance; (2) the provision of crisis intervention assistance; and (3) the provision of energy efficiency improvements.

Who should bear the cost of the distribution fee: The distribution fee imposed to support universal service for low-income customers

should be imposed on all customer classes. A distribution fee in support of universal service is not a utility "program" that is designed simply to advance the social goal of universal service for poor persons. Rather, a distribution fee is public compensation for the use by public utilities of public facilities and institutions in support of their business. These facilities and institutions include the use of the power of eminent domain as well as the use of city streets and other "public ways."

What should the value of the distribution fee be: Ideally, the amount of money needed to provide basic cash fuel assistance grants, crisis intervention, and energy efficiency assistance, should depend upon factors such as the definition of the "energy bill" to be covered (total home energy, not simply home heating); the definition of "low-income" (200% of income, since 150% "misses" many working poor and elderly); an assumption about the participation level (participation akin to LEAP); and a definition of the home energy burden which would be deemed "affordable" (a total home energy burden not in excess of 10%).

How can the distribution fee be made immune to bypass: A distribution fee should be imposed on a per Btu basis on all fuels. This recommendation means that a distribution fee would be imposed "at the meter." Full responsibility for a distribution fee, therefore, could not be subject to bypass, in whole or in part, by a customer switching fuels. For this reason, the distribution fee should not be imposed on a flat percentage of revenue (or a flat per unit of energy charge) basis. Imposing the distribution fee on a per Btu basis on all fuels is not only "equitable" in that it assigns cost responsibility based on the proportion of fuel consumed, it creates the situation where a customer switching from one fuel to another does not change the proportionate responsibility he or she bears as a user of that fuel.

Who should collect and distribute the distribution fee: A distribution fee should be collected through, and distributed by, a statewide

private non-profit agency. Such an institution should have an independent Board of Directors, with that Board subject to the additional oversight of a publicly accountable commission. This structure is the structure used in Colorado for energy assistance provided through the Colorado Energy Assistance Foundation (CEAF).

Implementation of a Distribution Fee

Legislative action is likely to be needed to implement a distribution fee. A distribution fee is most appropriately included in legislation that facilitates, authorizes or mandates "restructuring" in either the electric or the natural gas industry. Ideally, the distribution fee would be imposed on the providers of all fuel types, including not only natural gas and electricity, but bulk fuels (such as propane, fuel oil, and the like) as well. Practical and political considerations, however, may necessitate that the distribution fee be imposed only on natural gas and electric utility services.

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ELECTRIC UTILITY RESTRUCTURING AND THE LOW-INCOME CONSUMER

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What's a "Consumerco"?

Many of the concerns that low-income consumers express about electric industry restructuring arise from their inability to exercise any market power that might affect either the price or the service offered by competitive electric providers. In addition to being perceived as "hard-to-serve," low-income consumers are small users, which makes them less attractive from the perspective of a competitive electric company.

Proposals have been advanced, however, to organize low-income consumers, and others, into larger buying groups so that they can collectively seek quality electric service at reasonable rates. This process of organizing into larger buying groups is called "aggregation." One of the most promising aggregation proposals is Consumerco, an all fuels consumer cooperative.

The Purpose of Consumerco

Consumerco is a Vermont-based not-for-profit buyers' cooperative offering comprehensive energy services at competitive prices to all consumers regardless of income.

The Services Consumerco Provides

Consumerco will provide several services directly addressing low-income concerns, including:

- o The aggregation of such consumers into larger groups for purposes of negotiating prices for all types of fuel;
- o The delivery of energy efficiency to reduce bills; and
- o The maintenance and improvement of customer service and protections by providing billing and collection services constrained by no less stringent customer

service protections than existing regulations promulgated by the state utility regulatory commission.

The Basic Consumerco Approach

Consumerco offers home energy services through a full energy service enterprise. Through this full energy service approach, the enterprise will assess the most cost-effective fuel type available to fulfill the consumers end-user needs. Assistance will be provided to install that fuel type which is most economical from the consumer's perspective. Since the enterprise provides all fuels, there is no incentive to continue the provision of an uneconomic mix.

Through the combination of delivering the most effective fuel plus energy efficiency to lower consumption of whatever fuel is selected, Consumerco hopes to compete on the basis of *bill* minimization rather than *price* minimization.

The Co-op Nature of Consumerco

One essential attribute of Consumerco is its cooperative nature. Consumerco is a not-for-profit, local membership organization. As in any cooperative, Consumerco customers have legal power to participate in strategic direction and to push for responsive service.

Previous Co-op Initiatives

The potential viability of an energy services cooperative is based on the successful pursuit of cooperatives in other sectors of the economy. Health purchasing alliances and employee-based credit unions provide models.

Health purchasing alliances: One model for making health insurance available to hard-to-

serve consumers is the health purchasing alliance. The Health Insurance Plan of California (HIPC) illustrates this approach. Through HIPC, the state of California allows small business employers to band together with employees covered by the California Employee Retirement System (CALPERS) to purchase health insurance. In California, HIPC extended coverage to all small business employers with 3 to 50 employees.

The experience with HIPC has been positive. The premiums available to HIPC members were roughly six percent below average premiums otherwise available. Just as importantly, in its second year of operation, HIPC premiums *fell* by six percent, while average premiums for other plans *increased* by the same amount.

In contrast to the state health purchasing cooperative model used in California are private buying co-ops. The Council of Smaller Employers (COSE, pronounced "cozy"), for example, has operated in Cleveland for two decades under the sponsorship of a local business association. COSE covers almost 150,000 people and has succeeded in limiting premium increases over a five-year period to about one-third of those for other small businesses in the area.

Credit Unions as Co-ops: Credit unions represent employer-based financial institutions and represent one of the largest set of cooperative enterprises in the country. Credit unions are often organized under the Federal Credit Union Act (FCUA). Congress passed the FCUA in response to the failed banks, high interest rates, and diminished credit opportunities that were a hallmark of the Great Depression. The purpose of the FCUA was to "establish a Federal Credit Unions System, to establish a further market for securities of the United States, and to make more available to people of small means credit for provident purposes through a national system of cooperative credit, thereby helping to stabilize the credit structure of the United States."

When they were begun, credit unions were often described as "cooperative association[s]

organized. . .for the purpose of provid[ing] credit at reasonable rates to millions of individuals who--because they lack security or, as recent studies show, reside in low income areas or in communities primarily inhabited by racial minorities--would otherwise be unable to acquire it."

Summary

Through aggregation, low-income consumers seek to combine their individual buying power into a larger group capable of negotiating quality service at reasonable rates through the competitive market. The Consumerco model appears to be one of the better ways through which aggregation can occur. Through Consumerco, low-income consumers will receive service to minimize their total home energy bills while at the same time obtaining a voice in the operation and management of the energy service provider.

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