

# **Electric Utility Restructuring: Issues for Small Business**

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## Executive Summary

Competitive restructuring of the electric power industry could sharply reduce the power bills of many small businesses. Whether this happens or not is not a question of the economic potential for savings, which plainly exists. The question is one of regulatory policy: will regulators adopt policies that allow small businesses to use the same competitive alternatives as large industrial customers to reduce their power costs--or will they deny equal competitive alternatives for small business because of inertia or an excessive responsiveness to utility company interests?

The customer cost savings that followed the introduction of competition into the airline, telephone, and natural gas industries have demonstrated that regulated monopolies can not provide services as efficiently as competitive firms. The same is clearly true in the electric power industry, where non-utility generators have shown that they can provide wholesale power at a 30-50 percent (or more) lower cost than many utilities. So far, only certain large industrial firms have been able to escape the utilities' high cost power, through self-generated power or special discounted rate contracts with utilities, but electric industry restructuring proposals now under consideration could bring genuine competitive alternatives to all utility customers, including small business customers as well as large industrials.

Competitive restructuring of power companies means "unbundling" their service into generation, transmission, and distribution components. On the generation level, utilities would no longer have a monopoly, so small businesses would be free to contract for power from the cheapest source, with the utility relegated to delivering, or "wheeling," the power over its wires for a cost of service based fee. Ideally, this fee should be the same as the cost of delivering the utility's own power, but without the power production cost. Federal regulators have already allowed municipal utilities who buy wholesale power to wheel power from the cheapest source, and the wholesale cost savings have often been substantial. State regulators are now debating whether and how to allow small business and other retail customers the same competitive alternatives at the retail level.

One of the most crucial decisions state regulators face in deciding how to proceed with restructuring is whether to allow all customers direct access rights to power alternatives, or to restrict such access to only large industrial firms. Although restricting direct access would help utilities cling to their monopolies, at least temporarily, and enable them to cross-subsidize competitive industrial markets with high rates for small business and residential service, there is no technical or economic reason to withhold direct access to competitive generation alternatives from small businesses or any other customer. Even the smallest customers can be aggregated into large enough loads by non-utility generators to be served effectively through direct access.

A second and equally vital issue for small businesses is whether they will be asked to pay billions of dollars in uneconomic utility company costs through "stranded cost" surcharges. "Stranded costs" are the costs of uneconomic commitments utilities have made under traditional monopoly regulation, such as investments in inefficient power plants, that are unlikely to be recovered through electric rates set in competitive markets. According to some utility industry estimates, these costs could amount to \$130 billion or more on a national basis. Although utility companies are demanding full recovery of their past uneconomic investments that can not be recovered in a competitive market, there are compelling reasons to deny full recovery. Stranded cost surcharges will delay or deny much of the potential benefits of competition to small business merely to bail out utility companies from the consequences of their past business mistakes--the type of risks that small businesses face every day.

Regulators in the past have often given less consideration to the interests of

small businesses than to the interests of other groups, such as industrial companies, that have played a more active role in the regulatory process. The best regulatory outcome for the small business community will likely be achieved if small business representatives actively participate in the regulatory process now underway in the many states that are already weighing electric utility restructuring options. The objectives of small business in this process should include achieving near-term direct access to competitive power alternatives, without paying excessive "stranded cost" surcharges, and without bearing the burden of any other cost shift imposed by regulators. A description of some of the restructuring policies already adopted or being considered by policymakers is included in Appendix B.

The largest potential obstacle to achieving these objectives may be lack of adequate small business participation in regulatory policymaking. Since it is not economically feasible for a single small business, or even a group of a few small businesses, to retain the legal counsel and technical support necessary to intervene effectively in the policymaking process, the most plausible remedy for small business under-representation is establishment of a small business advocate who will represent the interests of small businesses as a class.

## I. Introduction

America's century-old system of regulated electric power monopolies is steadily giving way to a more market based system in which competition will supplant much of the role of regulation in setting the price of electric power. This emerging competitive system has the potential to significantly reduce power costs of small business. Under a competitive system, traditional power monopolies would be dismantled and electric utilities would become distributors of power generated by their own generation affiliates and others, with customers choosing the generator from which they purchase their power.

The origins of electric utility restructuring can be traced to the general policy shift toward deregulation that began in the 1970's. The deregulation of the airline industry, and other forms of transportation, which sharply reduced fares for most travelers and shippers, was soon followed by deregulation of natural gas wellhead prices, which ended the gas shortages and price increases of the mid-1970's. These experiences led policymakers and consumers to become aware of the inefficiencies that had built up in many regulated industries.

Also in the mid-1970's, municipal and cooperative electric utility distributors began to exert mounting pressure to gain access to electric utilities' transmission systems in order to secure more economic power supplies. These distribution utilities were acutely aware of the high-cost generation of their utility suppliers and recognized the economic benefits of seeking alternative power sources. The demands for transmission access by these municipal utilities became increasingly successful in opening up wholesale electric power markets to competition. Today utilities have wide options as to where and from whom they obtain their wholesale power supplies but retail customers are still the captive monopoly customers of a single utility.

Beginning in the late 1970's, as the result of incentives established by the Public Utility Regulatory Reform Act (PURPA), a number of large industrial utility customers began to generate their own power and others began to use the threat of self generation to force utilities to lower tariffed rates or else lose some of their largest customers. As more and more large industrial customers began getting special rate discounts, more and more utility costs began to be shifted to the remaining customers--small business, residential, and industrial customers lacking self-generation capability--who thus wound up paying for the discounts given to industrial power buyers. This phenomenon, which has accelerated in recent years, has created a perception that, under traditional regulation, recovery of utility costs has become disproportionately the responsibility of "captive" customers (such as small business) who lack the bargaining clout to demand and get special discounts.

In the mid-1980's, the deregulatory trend gained further momentum by the partial deregulation of the telecommunications industry, in which restructuring permitted customers to choose their long-distance telephone company based on price and service, which sharply reduced long-distance telephone rates. Also in the 1980's, the natural gas pipeline industry was restructured, converting pipelines into common carriers of gas purchased by customers directly from producers in competitive markets. Again, many customers realized sizable cost savings from the expansion of competition that is still underway in natural gas markets.

The demonstrated ability of large industrial customers and other non-utility generators to produce power at a cost far below that of utility monopolies has also put a spotlight on the excessive costs and inefficiency of many electric utilities. As the sudden burst of cost cutting visible in the industry in recent years attests, many electric monopolies are overstaffed, pay too much for fuel and purchased power, and are burdened with excessive power plant costs, particularly for "white elephant" nuclear power plants that cost billions of dollars more than anticipated and have often not performed as well as expected.

An additional stimulus for electric power industry restructuring has been changing technology, particularly in the design of electric power plants. The "combined cycle" gas turbine plants that are now the lowest cost new generation source in most instances are far more efficient, and can be installed more quickly in a wider range of sizes, than the large coal or nuclear generating units traditionally relied on by utility monopolies. Advances in computer, communications, and metering technology also make alternative industry structures feasible. These developments have broken down the traditional assumption that electric power is best provided by a large power company, with monopoly control over the generation, transmission and distribution of power.

With advancing technology, engineers and economists began to recognize that, with open access to a utility's transmission system, competitors could enter the monopolized market for power generation. Policymakers now recognize that with appropriately defined transmission-access rules, power can be efficiently provided by independent suppliers at substantial savings to consumers in many instances.

All of these developments have led regulators, customers, and policymakers to a general reconsideration of the traditional regulatory model in the electric power industry. Building on policy initiatives already taken by the Federal Energy Regulatory Commission (FERC), a major step toward a more competitive generation sector was taken by the Congress in the passage of the 1992 Energy Policy Act. The main feature of the Act required transmission-owning utilities to permit access to their transmission systems for bulk-power transactions (i.e., sales for resale). This opened up the possibility of low-cost bulk-power supplies to local distribution utilities like municipal and cooperative utilities that depend on others to supply generation. Today, more policy makers are aware of the potential to provide even greater benefits if the integrated utilities (who provide most of the power at retail) allow alternative power producers to gain direct access to retail customers.

However, the FERC does not regulate access to local distribution systems. The FERC regulates only "wholesale" electric power transactions, i.e., power that is sold by a utility to another utility for resale to "retail", or end-use, customers. State regulatory commissions have exclusive regulatory jurisdiction over electric power service to retail customers. Thus, it will be state regulators who decide if and how small business will gain competitive generation options at the retail level. The impending reality of wholesale restructuring has already stimulated widespread consideration among state-level policy makers and utility executives of whether, and how, to push competition down to the retail level. The principal policy decision at the state level will be whether and how to mandate "retail wheeling" or "direct access" so that retail customers can contract for power from any available supplier, much as they now choose their long-distance telephone carrier. From the small business community's perspective, no issue will be greater in this regard than who gets to exercise competitive choice. Many utilities will want to restrict choice only to large industrials. That would place smaller customers in the captive role of subsidizing larger customers. The imperative is clearly competitive access for all customers. A secondary, but also vitally important, state policy issue will be determining who pays for the transition cost of moving to a competitive system--the so-called "stranded costs" of the monopoly utilities that cannot be recovered under competitive market pricing. If competition is available to only a few large buyers, it is likely that the stranded cost burden will be left with captive customers. If competition is open to all, regulators will have to decide which portion of stranded costs should be paid for by the utilities. Small business interests will need to address these issues on a state-by-state basis.

## II. What Restructuring Can Mean for Small Business

### A. Potential Cost Savings

Restructuring holds potentially large economic benefits for many small businesses, especially those located in regions with very high electric utility rates. If small business customers achieve direct access to their choice of electric power supplier, much as they now have direct access to the long distance telephone company of their choice, small businesses could seek out the lowest cost supplier and could avoid being burdened by utility costs no longer recovered from wholesale customers that the FERC now allows to seek competitive alternatives or from large industrial firms that negotiate favored rate treatment.

The reason many utilities have excessive rates now is that they are burdened by the excess costs of inefficient power generating facilities. Most electric utilities perform three basic functions: they generate power, they transmit the power over high-voltage lines to substations located near customers, and they distribute power over lower-voltage lines to homes and businesses. Efficiently managed generating plants using current technology frequently produce power at far lower cost than plants owned by utilities. This cost differential largely results from the lower investment per kilowatt and higher operating efficiency of new combined cycle gas fired units compared to the installed cost of many existing utility generating units, such as nuclear and coal fired plants. Although the cost efficiency of utilities varies widely, for some high cost utilities, the gap between their generation cost and that of currently constructed generating units can be as high 2 to 3 cents per kilowatt hour or more. A well-functioning competitive system for electric power could prevent these excessive costs from being charged to small businesses, reducing their power costs by as much as 20-30 percent or more.

#### B. Unbundled Services

Achieving these cost savings requires "unbundling" of electric service into its generation, transmission, and distribution components. Unbundling simply means that generation, transmission, and distribution are offered as distinct services in the provision of electric power. If the local distribution company is required to provide unbundled access to its transmission and distribution wires, that will permit competition among numerous suppliers at the generation level even while regulation prevails at the transmission and distribution levels. Unbundling is the key to effective competition in electricity markets, and it is an essential component of all restructuring proposals.

For small business customers, the practical effect of unbundling will be that electric power charges will be divided into two parts, a generation service and a utility distribution service, with the generation service selected by the customer from among competing suppliers. This ability to contract with the electric power supplier of the customers' choice is termed "direct access". Direct access will cause electric service to become more nearly like telephone service, where separate charges are made for local utility service and for long-distance service which the customer purchases from the carrier of his choice.

#### C. Generation Service Supplied by Aggregators

Some utilities and other parties opposed to direct access have claimed that small business customers are too numerous and too small to be directly served and that direct access should therefore be limited only to large industrial customers. According to that argument, direct access for small customers would not be economically feasible because of the complexity, risks, and transaction costs associated with small businesses having to negotiate contracts with potentially numerous off-system suppliers of power and ancillary services. These arguments are misguided. Under direct access, "aggregators" will offer a "one stop" generation service to small businesses. Aggregators will overcome the alleged contractual complexity problem by acting as small business customers' agents, locating and assembling the required generation and ancillary services to serve the



aggregated loads of many small customers. Such customer aggregation is already a reality in long-distance telephone service, where MCI, Sprint and other competitive carriers market service directly to small businesses and then contract with numerous owners of long-distance telephone facilities for sufficient capacity to carry the combined traffic of those customers. A number of large, well financed energy marketing firms, such as Enron, are poised to offer similar services to small business electric power consumers once direct access is authorized.

#### D. "Poolco" as a Substitute for Direct Access

The alleged complexity and administrative costs of direct access are the basis for proposals to deny direct access altogether in favor of a compulsory power pooling arrangement, or "Poolco", that supposedly will produce most of the benefits of competitive generation without the alleged costs of direct access. A Poolco would be a newly created independent company that would create a market structure for electric power based on competitive bids submitted by generation firms. The Poolco would be the sole purchaser of power from generators, and the sole seller of the power to the local distribution company. Poolco proposals are being strongly pushed by some high-cost utilities in the California proceedings on electric industry restructuring. If these proposals are adopted, the effect would be to prevent small business from contracting directly with lower cost suppliers. The Poolco proposal has been strongly criticized by supporters of direct access for denying customer choice of generation supplier and for establishing a rigid, compulsory market structure that could allow continued monopoly abuses by the generation affiliates of the utilities. Resolution of the Poolco versus Direct Access debate could determine the extent to which small businesses are actually allowed to free themselves from excessive generation costs. Appendix A to this Report contains a more detailed technical discussion of the Poolco versus Direct Access debate.

#### E. Stranded Cost Surcharges

Whether small business reaps the full potential cost savings from competition also hinges on the regulatory treatment of the excess costs of the utility monopolies. The issue of who pays for these "stranded costs" remains an enormous point of contention among utilities, customers, and policy makers. The largest source of these costs is investments in large generation facilities, especially nuclear, that cost far more than current generation sources such as combined cycle natural gas fired units. Another major contributor to excess costs is long term contracts to purchase power from PURPA Qualifying Facilities at regulator-mandated prices in excess of current market prices.

From the perspective of the utility industry and some regulators, utilities are entitled to full stranded cost recovery because the costs of inefficient plants were approved by FERC and state regulators in the past under the traditional policies used to regulate utility monopolies. Under traditional regulation, utility management made the decisions to build plants subject to regulatory approval. Most regulators approved management's plant construction decisions unless they were shown to be "imprudent", i.e., unreasonable. A regulatory finding of "prudence" or "imprudence" was simply a judgment call by regulators, since there was no market test of the economic feasibility of plants under a monopoly industry structure. In practice, regulators were ill-equipped to exercise effectively independent judgment on plant construction decisions and nearly always deferred to the decisions already made by utility management. This lack of an economically effective regulatory check on utility plant construction decisions, combined with utility confidence that their monopoly power would allow recovery of whatever the plants cost, led to lax construction cost controls and excessive plant costs in many instances.

Utilities perceive that these excessive costs of plants built in the past, which are now being recovered through traditionally determined monopoly utility rates,

can not be recovered in the competitive power market now imminent. If utilities followed the standard practice of unregulated competitive firms that incur uneconomic plant costs, they would have to write-off billions of dollars of uneconomic assets in order to bring book values in line with market values. Of course, utilities don't want to do this, and, instead, they and their advocates claim an entitlement to recover these costs from utility customers through non-avoidable stranded cost surcharges that will extend many years into the future under the new competitive framework of the industry. From the industry perspective, utilities that made large capital expenditures in high-cost generation should not now be forced to write-off these uneconomic costs simply because they failed to foresee that their high costs would stimulate competitive market forces.

However, from a consumer perspective, stockholders of utility companies should not escape responsibility for the excess costs of their companies. Allowing stranded costs to be recovered from utility customers would deny or at least delay the very cost savings that competitive restructuring is supposed to achieve. Small businesses can not recover the cost of bad investments from customers and it would be inequitable to allow utilities to use their monopoly power to achieve a better result for themselves.

The magnitude of the electric utility industry's uneconomic costs has been recently estimated to be as high as \$130 billion or more. Many billions of these dollars will be assigned to small business utility customers if the utilities achieve their goal of avoiding any assignment of these costs to utility stockholders.

### III. Agenda for Small Business in the Restructuring Process

It is clear that the advent of competition in the electric utility industry can provide substantial benefits to all electric consumers, including small businesses. Although the restructuring process has many uncertainties regarding its ultimate cost impact, the status quo is even worse from the small customer perspective. At the present time, the only customers that have viable competitive alternatives to the utility monopoly are large (mainly industrial) customers who are able to take advantage of self-generation capability. Their departure as purchasers of tariffed utility service, or threat of departure used as a lever to get special rate reductions, can put electric utilities into a half competitive-half monopoly limbo--with small business customers still under the utility's monopoly power and subject to stranded cost exposure under traditional regulation. Continuing the status quo will therefore make small customers the dumping ground for the excess costs that can no longer be recovered from customers who are have competitive options. This has already begun to happen (where regulators allow it) in many jurisdictions across the country where industrial rate discounts are recovered in whole or in part from "core" utility customers.

However, the growth of competition in the electric power industry will be less advantageous for small businesses than for other customer classes if regulators permit utilities to shift cost recovery to commercial customers in their effort to mitigate uncompetitive industrial rates without sacrificing utility profits or imposing politically risky residential rate increases. It would not be unprecedented for small commercial customers to be assigned disproportionate responsibility for utility costs. In 1980, J.W. Wilson & Associates performed a statistical study showing that utilities earned substantially higher profits on sales to commercial customers than to either residential or industrial customers. Given the trend in recent years toward industrial rate discounts, "economic development" rates, cogeneration deferral rates, and similar below-cost rates offered exclusively to industrial customers, it is likely that the disproportionate profit margins on sales to commercial customers have actually increased since 1980, at least when compared to sales to industrial customers.

The relatively high rates charged to small commercial customers are perhaps not surprising in view of the typically low profile maintained by small business interests in the regulatory process. Nearly every electric utility rate proceeding includes formal intervention by industrial interests, often supported by expert witnesses, who vigorously advocate cost allocation theories that would shift costs from industrial customers to other customer classes. And residential interests always have representation by public agencies such as state attorneys general, consumer advocates, or utility commission staff.

Small business interests should therefore consider active support for competitive restructuring with appropriate safeguards for the interests of consumers in general, and small commercial customers in particular. The most immediate and directly cost effective means of doing this will be to make clear to regulatory commissions, attorneys general, and public sector consumer advocacy agencies that small businesses are very concerned about the impact of restructuring and that the small business community should be allowed to participate fully in the economic benefits of restructuring without being asked to shoulder unreasonable cost burdens. Since these agencies are likely to be charged statutorily only with protecting residential ratepayer interests, or are residential-oriented by policy, it may be necessary in many instances for small business-oriented organizations to consider formal intervention in regulatory proceedings where restructuring issues are to be resolved. Although regulatory intervention entails the cost of legal and consulting fees, the substantial economic stake of small business in getting a fair hearing for its interests could make such intervention highly cost-effective.

The following restructuring objectives should be pursued by advocates of small business interests, to help insure that restructuring fulfills its promise to provide reliable service with lower rates to all customers.

- \* Insist on a Fair Apportionment of "Stranded Costs" Between Utility Stockholders and Customers. The appropriate regulatory policy toward stranded cost claims by utilities will recognize that the nature and origin of the stranded cost should determine the extent to which it should be recovered from ratepayers. Regulators should therefore analyze the balance of such costs for each utility into at least two categories: costs incurred because of regulatory requirements, and costs incurred at the discretion of utility management. Some power generation costs, such the excessive cost of power purchased from Qualifying Facilities under PURPA-mandated "avoided cost" pricing in some jurisdictions, were actively required by regulators under Federal law. Other regulator-imposed costs would include costs of programs aimed at achieving social or environmental goals, such as assistance to low-income ratepayers, demand-side management, and pollution control. A proper policy would therefore recognize that such costs incurred at the direction of regulators cannot fairly be ascribed to management error or inefficiency and that they are subject to a legitimate equitable claim for recovery from ratepayers.

The remaining balance of excess costs was incurred at the discretion of management--for example the management decisions to initiate nuclear power plant construction and continue such construction even after costs began soaring above original estimates. Since it was utility management that selected, planned, designed, and constructed the generating plants whose costs are in excess of what is recoverable in competitive markets, such costs must be considered the responsibility of utility management even though regulators did not actively intervene to negate the decisions by deeming them "imprudent". While utilities sometimes suggest that management is not responsible for the consequences of decisions that seemed reasonable when they were made, no matter how disastrously the consequences of the decisions turned out to be, that argument should not suffice to rationalize zero stockholder responsibility for uneconomic decisions made by stockholder-elected management. It would therefore be proper

to assign all or at least a substantial share of such costs to stockholders. This is consistent with the traditional public policy of requiring entrepreneurs and investors, including those in regulated industries, to suffer the consequences associated with bad and unlucky endeavors or economic change. It is important to recall that utilities have always been allowed rates of return reflecting, among other things, the competitive risks that they faced. Indeed, during the past decade electric utility profit rates have frequently exceeded profit rates in the unregulated sectors of our economy.

Nor have regulated utilities in past restructurings been exempt from stranded cost risks. For example, AT&T took a \$5 billion stranded cost write-off at the time of the RBOC divestiture when the telephone industry plunged headlong into the modern competitive era.

While the decisions of the FERC and a few other regulators have not assigned any stranded cost responsibility to stockholders, other regulatory decisions point in a different direction. The New Hampshire commission, for example, has indicated that a 50 percent stockholder responsibility for stranded costs would be appropriate. A Standard & Poor's survey of 90 state regulatory commissioners reportedly indicates that 52 percent of those responding oppose full stranded cost recovery or are undecided. Regulators in a number of jurisdictions, such as Illinois, Indiana, Ohio, and Michigan have also required stockholders to absorb all or at least a substantial share of the revenues lost as the result of discounting uncompetitive industrial rates to retain customers.

The issue of who pays for stranded costs is very much an open question for many regulators at this time, and it is an issue which merits the highest emphasis in the regulatory process by small business and other consumer interests. A more detailed economic policy analysis of the stranded cost issue is contained in Appendix C.

- \* Small business should support the "Direct Access" model of restructuring. Proposals to set up mandatory Poolcos should be opposed if they are offered as substitutes for direct customer access to generation. Monopoly buyers of power (or "monopsonies") can be every bit as inefficient or anticompetitive as monopoly sellers. The Direct Access model is the preferable alternative since it can be implemented quickly, thus relieving utility customers from the continuing burden of paying for uneconomic assets that are the result of inefficient utility management.

Moreover, the alleged risks of market confusion and inefficiency in the initial stages of direct access are entirely conjectural. However, evidence of anticompetitive abuses in some power pools is an established fact. When these considerations are combined with the greater potential for customer choice under direct access, the Direct Access model is a more promising platform for restructuring than Poolco proposals. The deficiencies of the Poolco model are analyzed in further detail in Appendix A.

- \* Small business should oppose any arbitrary "phase-in" of direct access, with small customers at the end of the line, or any policy that restricts direct access options only to large customers. There is absolutely no basis to reserve direct access to competing generation resources for large industrial customers only as is proposed in California and other states. Such restrictions serve only the objective of some utilities to cling to monopoly power as long as possible. Proposals of this nature have no economic basis and, if implemented, will delay or deny competitive access benefits to small business customers. Although it may take longer for market structures, such as aggregators, to evolve for direct access for small customers than for large industrial customers, any such outcome should be the product of market forces, not an arbitrary regulatory decision to phase in or limit direct access, with small customers at the end of the line. Our experience with

telecommunications deregulation is instructive in this regard. Non-traditional long distance carriers, such as MCI and Sprint, by aggregating large numbers of small business and residential customers, were quickly able to justify making the large fixed cost plant investments necessary to serve such customers at a lower cost than traditional monopoly utility rates.

- \* Oppose unduly generous price-cap schemes. The sudden specter of competition has prompted a burst of cost cutting among electric utilities, even those, such as Duke Power Company, that have been considered especially efficient. In Britain, the formerly state owned distribution companies have cut costs substantially under a price cap regime and are reaping extraordinarily high rates of return. At a minimum, any price cap plan, as is being considered in California and other states, should incorporate a substantial productivity goal to reflect the likelihood that even the distribution segment of today's utilities have built up a good deal of cost bloat under the lenient rate of return regulation prevalent in many jurisdictions. Such a productivity goal would be reflected as a substantial reduction in the inflation index rate used to escalate the capped price, or as a reduction in the initial capped price below current cost of service levels for distribution and transmission service.
- \* Oppose anticompetitive utility mergers. Many electric utilities are now scrambling to merge with their neighbors for no plausible reason other than to snuff out potential rivals before competition even begins. Regulators and antitrust officials should be urged to reconsider their current rubber-stamp attitude toward most of these combinations. Until distribution unbundling and open access for all retail customers becomes a reality, electric utility distributors will continue to be the exclusive producers or aggregators of wholesale electricity for retail customers on their networks. Even when independent transmission operators have no incentive to favor affiliated generation, distribution utilities with their own generation will have significant incentives and opportunities as monopsonistic wholesale aggregators to impose anticompetitive conditions on independent power suppliers. As mergers increase the size and reduce the numbers of distributors, it will become increasingly possible for the merged distributors to structure power acquisition policies to favor only large generators, including their own affiliates. This may practically destroy competition by excluding independent generators who do not have the resources required to meet 1,000 megawatt solicitations with complicated delivery requirements.
- \* Require mitigation of stranded costs. Any stranded costs considered for recovery should first be mitigated by all cost-effective means at the utility's disposal. For example, utilities should aggressively explore options for renegotiating or buying out high cost QF power supply deals. Another example: nuclear units with high operating costs or poor reliability should be considered for early shutdown. The burden of proof should be on the utility to demonstrate that all stranded costs proposed for recovery have been mitigated to the maximum extent.
- \* Support reform of utility taxes that artificially encourage self-generation. States with high utility gross receipts taxes that do not apply to self-generators should consider whether such taxes are artificially driving industrial customers off the utility system and are therefore driving up stranded costs. If such tax-induced distortions exist, repeal, reduction, or broadening of the tax base should be considered.
- \* Support nondiscriminatory cost-based pricing of ancillary services provided to self-generators. Another hidden subsidy for self-generation can exist when ancillary services such as backup are underpriced. Utilities should recover the full cost imposed on them by self generators who continue to rely on the utility for ancillary services.

Regulators should be equally vigilant, however, that terms and rates for ancillary services should not be manipulated by transmission affiliates of integrated utilities to discriminate against non-affiliated generators who require access to the transmission grid to serve direct access customers.

- \* Support assigning stranded costs to self-generators. Self-generators who have left utility service are at least as responsible for stranded costs as small customers lacking self-generation capability. Therefore they should be assigned their fair share of stranded costs.
- \* Support conditioning any stranded cost recovery on continuation of the utility's obligation to provide an optional reliable bundled service option at market based price. Utilities claim the right to recover stranded costs--a privilege not afforded to unregulated firms who must swallow the cost of any mistake or government imposition. With rights go obligations. Utilities should not be allowed to shed the obligation to provide reasonably priced traditional utility service, especially if they claim entitlement to stranded cost recovery. Continuation of a bundled service option will provide assurance that small business customers will have a traditional utility service alternative if, as some suggest, it will take some time for a truly efficient direct access service market to develop for small customers.
- \* Costs should not be shifted among customer classes. There is no basis for stranded cost recovery or other restructuring steps to cause shifting of cost responsibility from one class to another.
- \* Support Requirements for Divestiture of Generation Assets. Where Commissions consider whether to require divestiture of generation assets by the distribution utility, divestiture should be strongly supported. Leverage to encourage divestiture could be applied by linking it to stranded cost recovery, if such recovery is found to be otherwise appropriate. Divestiture is ultimately the most certain means of preventing the potential for tacit or overt self dealing between generation and distribution affiliates, and will substantially reduce the unrealistic reliance on perpetually sustained regulator vigilance as the only means of detecting and thwarting such anticompetitive conduct.
- \* Form alliances with other interested parties. There is every reason to expect that other interested parties, except the utilities themselves, can rally around a restructuring proposal that satisfies each party's particular objectives. The industrial customers are willing and ready to introduce direct retail access and would most likely agree to a proposal that provides access to all customers. They would also agree with not paying unreasonably incurred stranded costs. Alliances could also be formed with groups that favor continued use of the utilities' monopoly pricing power to subsidize attainment of a number of social objectives. Utility rates now reflect the costs of programs designed to promote environmental preservation, energy conservation, and assistance to low-income consumers. In a restructured industry with reduced monopoly pricing power, the ability to continue these subsidies may be undermined. A utility, under intense competition to cut costs, may be encouraged to eliminate programs that hamper its ability to deliver low-cost power. Although advocates for these programs have often opposed retail wheeling on the grounds that it would undermine financing of their objectives, there is really no reason for competitive generation options to preclude continued subsidies for programs that merit continued support. Since distribution service will remain a regulated monopoly, rates for distribution charges can be structured to recover the costs of programs that regulators find are in the public interest. A widely proposed method for continuing support for these programs is for regulators to permit financing of the programs through universal charges on all electric consumers. In this

way, support for such programs as low-income assistance, and demand-side management, and the use of renewable fuels can continue. In both the Poolco model and the Direct Access models, an access charge on the distribution system could raise revenue to support such programs. Advocates for low income utility consumers and environmental protection could be convinced to support proposals that are favorable to small business interests if continued support for their social programs is also provided.

## Appendix A:

### Restructuring Models: "Poolco" Versus "Direct Access"

Although advocates of restructuring the electric utility industry have developed a number of proposals, most of them are variations or combinations of two basic models. The first is the Poolco model, so named because its central feature is the establishment of an independently-owned wholesale power-pool. The power pool, which is served by the transmission systems of today's integrated utilities, becomes a centralized clearinghouse for trading electricity, dispatching generating units, and providing transmission services. The Poolco model is intended to create a competitive market for generation, by requiring distribution utilities to purchase all of their power from the independent Poolco instead of from generation controlled by the utility. Generation now owned by utilities would have to sell their output at the Poolco determined market price, in competition with other sellers, instead of at a price based on the utility's cost. The lower power costs made possible by the newly competitive generation market would then be passed on to the customer by the distribution utility. Most Poolco proposals would not permit direct power sales from generators to retail customers, at least initially.

The second type of model is the "Direct Access" model. In this model, customers are free to contract directly with power generators, with the utility's role confined to transmitting and distributing the power over its wires, under appropriately designed access and pricing policies. Under the Direct Access model, a single, centrally-dispatched regional power pool is not mandatory as under the Poolco model.

#### A. Poolco

A restructuring plan based on a Poolco model would require generators to participate in an independently owned regional power pool which would also integrate the operational control of separately-owned transmission companies. The claimed objective of the Poolco model is to remove power acquisition from the control of the generation owner--at present, mostly the integrated utilities--so that power will be purchased in arm's length competitive transactions that do not favor the utility's own high-cost generation. Independent ownership of Poolco would supposedly achieve this objective, as would a requirement that the integrated utilities divest ownership of generation assets, a feature of some but not all Poolco proposals.

The independent Poolco would remain a regulated company which centrally dispatches all generating units within the service jurisdiction of the pool, but which does not own any generation or transmission assets itself. Poolco would control maintenance of the transmission grid, and would assess non-discriminatory fees to generators and distributors to cover the pool's operating expenses. The fees would be structured to encourage efficient Poolco operations.

#### 1. Operation of a Poolco

The Poolco would operate the regional power market on a least cost strategy. It would do this by estimating the hourly demands of the distribution utility and obtaining the prices at which generators are willing to sell during those hours. Based on this information, Poolco would assemble the required generation from the lowest bidders, who would be paid a spot price equal to the highest bid of the selected bidders. In theory, Poolco would thus create an efficient energy market: a single price would prevail and that price would be determined by competitive bids from numerous suppliers. Efficient, low cost generators would be rewarded because the spot price might exceed their actual running costs, encouraging them to expand and take increased market share, while high cost generators would not be able to sell their output at cost and could be forced to exit



the market. Competitive market dynamics would thus in theory force the spot price to a competitive market level equal to the marginal cost of the most efficient firms.

## 2. Long-Run Wholesale Market Under Poolco

Since the spot price set by Poolco could fluctuate over a wide range and be difficult to forecast over long periods, it would likely be advantageous to establish mechanisms to stabilize power costs to customers and revenues to generators. This could be done through long-run price hedging contracts between generators and the distribution utility or retail customers. Under such contracts, any difference between the spot price and the contract price would be offset by cash payments between the generator and the customer. By means of these "contracts for differences", customers would get insurance against unexpected spot price increases and generators could obtain greater revenue stability. Of course, "contracts for differences" would be entirely optional. Customers and generators could simply accept the spot price if they wish.

## 3. Claimed Benefits of the Poolco Model

Advocates of the Poolco model claim it is capable of increasing competition in the generation sector and can potentially minimize energy acquisition costs because of enhanced efficiency of the wholesale power market. These benefits will be obtained by removing the ability of distribution companies to self-deal through favoring the purchase of utility-owned power for "captive" customers. In theory, the Poolco will enhance economic dispatch by creating a single competitive market of regional scope with clear publicly available price signals sent to purchasers and generators alike (i.e., "transparent pricing"). The utilities who advocate the Poolco model claim that this unitary but competitive market will simplify restructuring by avoiding potentially chaotic market conditions and imperfect pricing information that allegedly could occur if individual customers are allowed to contract with generators individually without a single centrally determined spot market price as a reference point. Proponents of the Poolco model claim that the mandatory pool will realize most if not all of the benefits of a competitive power market and there is no need to go further and allow direct access through Direct Access between generators and end-use customers.

## 4. Limitations of the Poolco Model

A limitation of the Poolco model stems from the extensive divestiture that could be required to assure arm's-length dealing, or the extensive regulatory oversight to achieve the same result for an integrated utility. Another potential problem with the Poolco proposal, especially if the integrated utility is by far the largest market participant with few effective competitors, is that pooling can facilitate collusion or barriers to entry in restraint of trade. A good example of this is a recent attempt by the New England Power Pool to amend their by-laws in order to restrict the future availability of grid-wide transmission rates. The restriction, which would have reduced the ability of smaller utilities to compete in wholesale trades, was withdrawn only after the anticompetitive effects were exposed by affected parties. Even more disquieting is evidence that market manipulation contributed to a 46 percent increase in the price of power in England's power pool, which is dominated by a few big suppliers.

It is also unclear how capacity costs would be recovered by generators. The spot energy price paid by the Poolco would apparently cover energy (i.e., fuel) costs, but generation suppliers will not enter the market if their cost of plant capacity can not be recovered. The Poolco could thus leave generation in the hands of the traditional utility, which potentially could recover its capacity costs as a part of distribution charges.

An additional limitation of the Poolco approach is that the Poolco, although

independent of the distribution utility, will still be a monopoly. Without competition, the Poolco will not face market pressure to create innovative "power products" to meet specialized customer requirements. For example, customers may well vary in how they trade-off reliability of service versus price. And, although the Poolco model is theoretically plausible as a means to minimize generation energy costs, even that is dependent on the efficacy of performance incentives incorporated into the Poolco's fee structure and how effectively it is regulated. But if regulation were highly effective in spurring optimal performance by regulated monopolies, we would not likely be considering restructuring and deregulation in the first place.

All of these potential problems of the Poolco model could delay or thwart the implementation of genuine competitive markets, which would be especially detrimental to small business customers since they are generally unable to avoid the ongoing uneconomic costs of existing generation by relocating or exploiting self-generation options.

## B. Direct Access Model

Unlike the Poolco model, the Direct Access model would allow direct power supply contracts between small business customers and generators, and there is no mandatory pooling arrangement. The Direct Access model relies on access and pricing rules to facilitate direct sales of power over the utility's transmission and distribution systems. Thus, instead of gaining access to the transmission grid by way of a pool, wholesale suppliers pay transmission charges to the transmission-owning utility. To gain access to the local distribution grid, the wholesaler pays similar charges to the distribution owner. These charges, of course, should be designed in a non-discriminatory fashion in order to reduce the potential for any wholesale supplier, including the transmission-owning utility, from using the rules to gain a competitive advantage.

These direct suppliers could be the generation portion of the former integrated utility or other independent generating companies. Retail customers and wholesale aggregators would contract directly with competing generators for their power supply. For example, an aggregated small business load may contract for 5 MW of capacity from an independent generating company for a fixed price per MW plus a variable amount on a per kwh basis. The local distribution company delivers the power over the distribution grid for a non-discriminatory access charge. As with the Poolco model, the distribution company, at least as far as providing distribution services is concerned, will remain regulated.

In the distribution sector, as noted above, the distribution company may act as a power aggregator for a large number of retail customers. The distribution company, like direct generation purchasers, would contract for long-term capacity. If, as under some proposals, regulators restrict any retail customers from seeking direct access, distribution company wholesale power procurement should remain a regulated activity.

### 1. Operation of the Direct Access Model

The Direct Access model operates through contracts between retail customers and a generating company or other supplier to purchase electric power. A retail customer enters into a contract with a generating company or other supplier to purchase electric power. The supplier can obtain demand and energy information using real-time metering. This metering provides the supplier with instantaneous demand profiles of each of its customers. With this information, suppliers can schedule output in order to meet demand. The scheduling must be coordinated with the transmission and distribution companies using pricing rules designed to assure that all generating resources gain access to the transmission and distribution grid on a non-discriminatory basis. This means that all transmission charges would be established on a comparable basis for all customers.

## 2. Obligation to Serve

Under the Direct Access model, regulators would have to decide whether and to what extent distribution company's retain an obligation to serve. The Direct Access model envisioned by some would not require this obligation. Without such an obligation, however, market risks (i.e., the risk of securing viable alternative retail supplies) are shifted to the retail customer. In addition, insofar as system reliability is concerned for these smaller customers, some reliance on the control area operator for basic resource dispatch in conformance with system loads is likely to be required. Moreover, by requiring the distribution company to retain this obligation, its cost of equity capital will reflect the usual risks of maintaining system reliability, and that cost can be compensated through broadly assessed distribution network charges.

If the traditional obligation to serve is maintained, the distribution company would be required to procure power supplies on behalf of those customers opting not to contract for direct access. Regulation of the distribution company would continue with the added requirement that power supplies be procured on behalf of its retail customers at reasonable costs. As a check on this, regulators would not permit recovery of excess capacity arising from departing customers. This would place pressure on the distribution company to purchase bulk-power at market-based rates so that customers do not depart the system. As in the Poolco model, the local distribution company could be required to serve any customer that requires electric service, whether they are new customers or customers that have discontinued a direct access contract.

## 3. Transmission and Distribution Access and Pricing Under the Direct Access Model

A requirement of Direct Access proposals is that utilities must provide non-discriminatory access to the facilities that remain under regulated monopoly control. One way to provide non-discriminatory access to the transmission and distribution grid is to utilize cost based pricing so that the transmission and distribution grid operator can recover its actual costs, including its prudently and efficiently incurred investments in its plant facilities. This pricing mechanism works well when there are no transmission constraints but when constraints arise, other access and pricing principles must be applied. One way to allocate transmission and distribution facilities during periods of constraint is to establish value-based pricing.

Using "load flow" models (employed ubiquitously by utilities in dispatching their own units), transmission (and distribution) constraints can be predicted in advance by considering the schedules of the various generating units interconnected with the transmission system. These models can also determine the power flows of each generating unit and, consequently, in advance of any transmission or distribution constraint, the transfer capability of the transmission or distribution facility can be determined along with the contribution that each generating unit makes to the power flow over the constrained facility.

For example, suppose that at 3 PM it is determined that a constraint will arise at 4 PM on a particular transmission or distribution corridor that, at that hour, will have a transfer capability of 50MW. It can also be determined that generator A has scheduled 100MW of power, 25MW of which will flow over the constrained corridor, generator B will contribute a flow of 20MW over the corridor, and generator C will contribute 10MW. Thus, enough information is available to establish a rationing scheme among the three generators. A value-based mechanism would force the competing generators to escalate the transmission prices in order to determine which power flows are entitled to the use of the scarce facility. Losing bidders would have to seek other sources of power to supply their loads, such as increasing output of alternative generators or purchasing the

required power from other generators.

This "value-of the transaction" transmission and distribution pricing has the virtue of mimicking optimal dispatch during times of constraint. This is because prices reflect the opportunity cost of foregone power flows. It is also possible to show that the rationing device is not only non-discriminatory (because the rules are applied to all generators) but it also enhances economic efficiency, provides for optimal location of generation, and generates revenues that can be used to eliminate constraints (and collects those revenues from those who would benefit from relieving the constraint).

The essence of the Direct Access model is that a wholesale generator contracts with retail customers to supply capacity and energy over the integrated utility's transmission and distribution grid. The generator is given access to the transmission and distribution grid in the same way an integrated utility would add a generating resource. The only difference is financial, in that the interconnection of the new resource requires an agreement that the generator be subject to value-of-the-transaction transmission and distribution pricing if its output contributes to a constraint on a transmission or distribution facility or corridor.

#### 4. Benefits of the Direct Access Model

The Direct Access model of restructuring is capable of attaining maximum flexibility and competitive market benefits for small business customers. One advantage, compared to the Poolco model, is that it would not require divestiture of the integrated utility, or equivalent restructuring within the vertical framework, and, consequently, it can be implemented rather quickly. Furthermore, the distribution company will be under both regulatory and market pressure to provide competitively-priced power to any customers who do not elect to contract directly with generators.

A major benefit of the Direct Access model is that all consumers can have the option to enter into power supply contracts without reliance on a mandatory centralized pool. This could stimulate more varied power supply options, such as a spectrum of reliability-price tradeoffs, than would be available under the Poolco model.

Nor would these varied options be inconsistent with the development of power pooling arrangements which, indeed, have already developed under the limited competitive power markets for short term "economy" energy and long-term power supply that have evolved to serve the traditional monopoly utility industry. Traditional power pools would continue under a Direct Access model and would likely evolve toward even greater scope and efficiency if full-scale competition through customer choice is introduced. With respect to pooling, the Direct Access model differs from the Poolco model only in that the power pool would not be a regulator-mandated institution under Direct Access, but would be left to evolve through voluntary market forces.

#### 5. Utility Criticisms of the Direct Access Model

The major objection to the Direct Access model is that it would prove too abrupt a departure from the traditional monopoly utility structure. Critics claim that the multiplicity of contractual arrangements between generators and potentially millions of directly served customers would create burdensome administrative and transaction costs that would be avoided under the allegedly simpler Poolco arrangement. This multiplicity of transactions, it is claimed, would also enable generators to "cherry pick" the most desirable customers, i.e., large ones, leaving smaller customers with few options other than the traditional utility with its excessive costs. Poolco advocates further claim that smaller customers would be further disadvantaged in obtaining competitively priced power under Direct Access because the lack of a mandatory pool would not assure creation of a "transparently

priced" spot market available to all customers.

### C. The Poolco and Direct Access Models Compared

The Poolco and Direct Access models have some common features. Both models in theory provide the opportunity to introduce competition at the generation retail level and provide economic benefits to all customers. Both models would attempt to divorce distribution from generation, with the latter purchased in an open, competitive market. Although the "direct access" between generators and customers under the Direct Access model is the most straight-forward means of eliminating generation monopoly power, some Poolco advocates claim that a similar result is obtainable, at least with respect to price, from the Poolco approach when it is augmented with "contracts for differences". Although all customers under a Poolco model would pay the Poolco-determined spot price for energy, "contracts for differences" with generators or power brokers would permit customers to pay or receive any difference between the spot price and a negotiated price based on the cost structure of a particular generation resource. This supposedly would put the customer under the Poolco model in the same financial position as he would be in if he had bilaterally contracted for the output of that resource.

Despite this claimed convergence of outcome, the Direct Access model remains the more market-oriented, and less regulation-dependent, option. Even allowing for a performance based fee structure, a Poolco monopoly would work only as well as a regulated monopoly can be expected to work. If a Poolco in practice operates ineptly or abusively to favor the utility's affiliated generators, or otherwise fails to minimize costs, small business customers will have no competitive alternative to paying those excessive costs. And, with respect to non-price terms, the Direct Access model inherently offers small business customers more choice than a centralized Poolco.

Finally, and perhaps most importantly, advocates of the Poolco model have not convincingly described how the Poolco model would create a viable competitive market for capacity, which is at least as important an element of utility costs as energy. The Poolco price would tend to recover energy costs, but the ability to recover capacity costs is more problematic except under conditions of capacity shortage, which would threaten reliability. If the Poolco does not effectively allow alternative generators to enter the market, real competition will not exist and small businesses will not realize the benefits of competitive restructuring.

## Appendix B. Restructuring Policies

A review of restructuring policies followed by major regulatory jurisdictions shows that, although the outlines of Federal open access wheeling policies are reasonably clear, policies are still very much in the formative stages at the retail or state jurisdictional level. Even the California Public Utilities Commission (CPUC), which has considered the issue more intensively than any other major state commission, has to date only laid out alternative policies that it intends to consider, without committing to any specific program as yet. Other states, with some exceptions, have rejected or deferred retail wheeling for the present, or are at even earlier stages of policymaking than California. Some European countries have already undergone competitive restructuring, and it is worthwhile to briefly describe the United Kingdom's restructuring policy, which has significantly influenced American proposals.

### A. The United Kingdom Policy

Britain for many years maintained an entirely government-owned and

operated electric utility industry. Pursuant to the privatization policies of the Thatcher and Major governments, the regional electric utilities of Britain were restructured and ownership shares in them were sold to the public, converting the government-owned utilities into investor-owned utilities. The restructuring consisted of vertically "deintegrating" the regional utilities into independent generation companies, transmission companies, and distribution companies. The transmission and distribution utilities were subjected to continuing "price cap" regulation to restrain their monopoly pricing power. The generation sector was deregulated. In addition, a new type of power company was formed, called "Poolcos", whose function is to determine the power requirements of the distribution utilities and assemble the least-cost combination of purchases from generating companies that would satisfy that requirement.

The British restructuring has been widely studied by policymakers in this country because it is one of the few examples of a comprehensive restructuring plan that has actually been implemented. Many features of the British plan are indeed relevant to the U.S. situation. For example, the desirability of vertical "deintegration", Poolcos, and price caps are widely debated issues in this country which must eventually be resolved if restructuring is to occur.

In other respects, the U.S. situation is not comparable to Britain's and will in fact prove more complex and challenging to policymakers. Britain had only a few entirely government owned utilities covering compact geographic areas. Since private property was not an issue, the British government was free to impose the desired structure on its own property and then sell it into private hands. In this country, we are faced with the challenges of fragmented governmental jurisdictions, preexisting contractual arrangements, a large number of firms, geographically diverse utility service territories, and a variety of ownership structures, including municipal, cooperative, and investor-owned firms. The private character of most utility property in this country presents a especially difficult challenge in assigning the cost of facilities that will not be economically viable in a competitive environment--the so-called "stranded cost" problem. In Britain, the government simply absorbed most stranded costs by accepting a lower sales price for shares in the privatized utilities than otherwise could have been obtained. In this country, as will be explored in greater depth below, assigning responsibility for the stranded costs of privately owned property is one of the most contentious and difficult issues to be resolved in the restructuring process.

#### B. Wholesale Wheeling: Federal Energy Regulatory Commission

In the Notice of Proposed Rulemaking (NOPR) issued March 29, 1995, the FERC comprehensively set forth its policy on transmission service to wholesale customers, i.e., utilities that purchase power for resale to retail customers. The NOPR in effect mandates "direct access" for wholesale customers by requiring all electric utilities selling wholesale power to establish tariffs for open access transmission service available to all wholesale customers on nondiscriminatory terms. FERC-regulated utilities must now offer "unbundled" transmission service to any wholesale customer that wishes to purchase power from sources other than its traditional utility supplier, in contrast to the traditional utility wholesale service that offered only "bundled" generation and transmission service. Thus, utilities will no longer be able to use their monopoly over transmission to create a captive wholesale market for their generation service, which in many cases is not competitive with power offered by alternative generators.

Although the NOPR does not require utilities to divest ownership of their transmission or generation assets to prevent abusing control of transmission to favor utility-owned generation service, it attempts to achieve a similar result by requiring that utilities offer a transmission service that is "comparable" to the utility's own use of its system. "Comparability" requires that wholesale customers should have the option to purchase transmission and ancillary services to permit flexibility to schedule deliveries and receipts of power similar to the utility's own

usage, and that pricing of transmission service should be consistent with traditional utility cost of service principles, which forbid monopoly pricing to yield profits in excess of the utility's cost of capital.

The NOPR also provided a standard for recovery of costs "stranded" by competition at the wholesale level. The FERC's policy will allow utilities to recover all "legitimate and verifiable" costs stranded by customers discontinuing wholesale generation service. Such costs will be recovered through "exit fees" assessed against departing customers. The intent of the exit fee approach is to protect remaining customers from being saddled with costs that were being recovered from the departing customer. However laudable that intention may be, the unavoidable side effect of exit fees is to discourage wholesale customers from actually using the newly available transmission service. Many such customers may perceive that there is no advantage to contracting for power at market rates from alternative suppliers if doing so means continuing to pay for the utility's above market costs through the exit fee.

Although, aside from the anticompetitive effect of exit fees, the FERC's transmission policies should expand competitive options for wholesale customers, the continuing vertical integration of utility firms will require close and effective regulatory supervision of transmission service tariffs and utility behavior to ensure that service is truly rendered in a non-discriminatory manner. And since FERC's jurisdiction does not extend to retail tariffs, only the minority of small businesses that buy power at retail from municipal distribution utilities and other wholesale power purchasers will see any potentially reduced cost because of the FERC's policies. For the great majority of small businesses, it will be state regulation of integrated utilities' retail service that determines the impact of restructuring.

#### C. Retail Wheeling: California

A powerful political impetus to reduce California's high electric rates has stimulated the state's Public Utility Commission to issue a sweeping review of retail wheeling options. In the so-called "Blue Book" opinion issued in April 1994, the CPUC set forth a "vision" of electric industry restructuring that would phase in direct access by retail customers to generators other than the utility. Retail customers would be separated into two groups, a direct service sector and a utility service sector. Customers in the direct service sector would be those that have contracted directly with wholesale suppliers for their retail loads. These loads would be carried over the local distribution network by the local distribution company for a non-discriminatory access charge. Utility service customers would continue to be served by the local distribution company. In general, only those customers with sufficiently high demands would be permitted to seek direct access. The remaining customers and those eligible but not opting for direct service would receive utility service from the distribution company.

The Blue Book also departed dramatically from the traditional regulatory model in its endorsement of "performance based" regulation presumably based on some form of inflation-indexed price caps instead of cost-based rate of return regulation. Price cap regulation is intended to enhance utility management incentives to pursue efficiency by capping utility rates, rather than rates of return, so that utility stockholders would absorb cost increases above the cap, or reap the rewards of cost decreases below the cap. Advocates of price cap regulation claim that this combination of "downside risk" to stockholders for inefficient costs, and "upside potential" for high profits if management reduces costs, produces utility cost performance that is superior to traditional rate of return regulation, which largely passes through cost increases or decreases to customers. In recent years, price cap regulation has been used extensively in telephone regulation, but to a much lesser extent in electric regulation.

Other key features of the Blue Book include:

- \* Transmission level (large industrial) customers would get direct access in 1996, followed by primary distribution customers in 1997, secondary distribution customers in 1998, all remaining commercial customers (including most small businesses) in 1999, and, finally, residential customers in 2002;
- \* Comments were solicited on the desirability of establishing Poolcos similar to those adopted in Britain as a means of promoting efficient and competitive generation services;
- \* "Net stranded costs" would be recovered through "competitive transition charges" levied on customers electing direct access. Net stranded costs would be computed by comparing the book value of each generation asset to the market value recoverable through market based power prices, and netting the surplus of market value over book value for assets whose market value exceeds book value against the "stranded costs" of assets for which book value exceed market value;
- \* All customers would retain the option to purchase traditional bundled service from the utility.

Many interested parties objected to the Blue Book "vision" of direct access. These included environmental activists and spokesmen for low-income customers who were concerned that direct access would jeopardize continued support for demand-side management programs and discounted rates for poor customers. Even more formidable objections came from high-cost utilities, led by Southern California Edison, which promoted a Poolco model over the Direct Access thrust of the Blue Book.

In a subsequent opinion issued in May of 1995, after considering these objections and evidence submitted in a year of hearings following issuance of the Blue Book, the CPUC backed away somewhat from its direct access "vision". In the May 1995 majority report, the CPUC declined to permit direct access, at least in the near future, in favor of setting up British-style Poolcos, but without vertical deintegration as in the British model. Direct access would be considered only after two years of Poolco operation.

In a separate minority opinion, Commissioner Jesse Knight strongly argued for allowing direct access first, with generation market pooling arrangements left to develop in response to market forces without a CPUC-mandated Poolco. Even under Commissioner Knight's proposal, however, direct access would have to await development of detailed policies on unbundling, metering, and stranded cost recovery.

Further discussion and negotiations between the various interests have led to a compromise proposal, supported by Edison, that would allow direct access, but with an even slower phase-in schedule than proposed in the Blue Book. Under the Edison-supported compromise, direct access would be phased-in over the 1998-2003 period, and utilities would get favorable treatment of stranded costs. The CPUC is expected to render its decision on these alternatives in December, 1995.

#### D. Retail Wheeling Initiatives in Other States

Although no other state has analyzed competitive restructuring with the same depth and focus as California, many other states, such as Ohio, have issued preliminary orders or have legislative or regulatory proceedings in process dealing with restructuring issues. A few state commissions or their staffs have decided against retail wheeling, at least for the present. These include Wisconsin and



North Carolina. However, although few state commissions have as yet adopted a definite policy embracing retail wheeling, the momentum is decidedly in that direction.

Some of the major state initiatives include:

- \* In January 1995, New York issued guidelines for competitive restructuring which, although not specific as to retail wheeling, endorsed utility divestiture of generation and recovery of stranded investment costs.
- \* In June 1995, Connecticut issued an order endorsing deregulation of generation and retail access once restructuring of the industry is completed.
- \* On August 16, 1995, Massachusetts issued an order requiring each of its electric utilities to file plans in 1996 for unbundling rates, providing customer choice of generation, and recovering stranded costs.
- \* Illinois and Michigan have mandated "experimental" wheeling services on a limited basis to large users.
- \* New Hampshire has endorsed retail wheeling with a 50 percent disallowance of stranded costs.

#### Appendix C

#### "Stranded Cost" Recovery-- The Wrong Road to A Competitive Future in the Electric Utility Industry

In assessing the consequences of the move to a more competitive electric utility industry, it has become widely accepted among industry observers that many electric utility companies would not be able to recover their fully allocated costs of production at rates that would prevail under competitive circumstances. This fact has fueled one of the most contentious policy debates surrounding the future of the electric utility industry. In its "stranded cost" rulemaking (NOPR) , The Federal Energy Regulatory Commission has endorsed "exit fees" on wholesale customers who discontinue utility generation service, and some state commissions, notably California, have indicated an inclination to allow substantially full stranded cost recovery.

A valid analysis of the historical regulatory obligations of public utilities will establish a presumption that the so-called stranded costs of uneconomic generation are the financial responsibility of the generation-owning utilities (and not their customers). Where there are "stranded costs" (i.e., costs that cannot be recovered in a competitive market), they exist generally because utility management has fallen short in its obligations to manage their enterprises efficiently. This conclusion stems from fundamental and well-accepted regulatory principles dating back to the dawn of modern ratemaking. In contrast, the newly minted "theory" of stranded cost merely attempts to rationalize recovery of the costs of utility investments gone awry.

Stranded cost recovery achieved through "exit fees", such as those proposed by FERC, would be especially inimical to the development of an effectively competitive electric utility industry. This adverse result would occur because exit fees would encourage power purchasers to remain with high-cost suppliers despite lower-cost alternatives. The effect would be to mute the very mechanism that defines competition, i.e., the ability of customers to choose among alternative suppliers. At the very least, the means chosen to effect the recovery of uneconomic investments should not distort competition.

- I. Recovery of Stranded Costs Ignores the Historical Responsibilities of the Management of Regulated Public Utilities.

While the inexorable move toward competition in the electric utility industry is potentially good news for consumers, many high-cost utilities are saddled with billions of dollars invested in generating plants that produce power at twice the cost (or more) that can be achieved in competitive markets. These high cost utilities, and their advocates, argue strenuously in favor of customer compensation for their excess costs. If competition is to be allowed, they argue, utilities should be permitted to recover these high costs from customers because they were incurred under the old (pre-competitive) regime in accord with the cost recovery expectations of utility monopolists. These now "uneconomic" costs in excess of competitive market costs, the argument continues, should not become "stranded" and unrecoverable (i.e., they should not be written off as a cost to utility stockholders) as competition enters the industry. Moreover, some utility oriented analysts contend that principles of "cost causation" dictate that stranded uneconomic costs should be charged directly to those customers who would "cause" them by shifting to lower-cost competitors, rather than being spread more broadly to all electricity consumers.

#### A. Stranded Cost Recovery and the "Regulatory Compact"

The argument for stranded cost recovery goes something like this: The move toward competition changes all the market rules. Utilities that made large capital expenditures in high-cost generation should not now be forced to write-off these uneconomic costs simply because they failed to foresee that their high costs would stimulate competitive market forces. Rather, in accordance with a "regulatory compact", high-cost utilities should be afforded full cost recovery as would reasonably be expected by a utility monopolist.

But, is this really the "regulatory compact" that has existed in the electric utility industry, or is it simply revisionist economic history? A review of regulatory development reveals that it was never intended that regulated monopolists would be shielded from either the discipline of competition or market incentives to achieve competitive-like end results. Regulation, as originally conceived, was at least as much a supplement as a substitute for competition. The Federal Power Act, like the Sherman Act, was aimed at protecting consumers against the aggressions of private interests -- not at shielding those interests from competitive market forces. Rather than exempting utilities from the antitrust laws, Congress insisted on direct regulation of individual utilities where Adam Smith's "invisible hand" was not adequate, and on competition between them. Today's regulatees would revise the historical "regulatory compact" by transforming it from consumer-oriented to monopoly-oriented protectionism even as the competitive progeny from two decades of excess rates line up to provide service at half their cost.

The regulation of public utilities has traditionally been structured to prevent undesirable economic outcomes that arise when an industry is not constrained by competition. The characteristic evil of monopoly, if left unregulated, is the charging of prices in excess of those necessary to maintain the long-run viability of an efficient firm. These high prices and the resulting reduction in output result in welfare losses that regulatory policy makers have correctly sought to eliminate by emulating the results of competitive markets, in which competition prevents recovery of inefficiently-incurred costs. Although a regulated utility's cost of service, including a reasonable profit, is the starting point for setting "just and reasonable" rates, regulators may set rates at less than the cost of service if costs have been inefficiently incurred. The traditional goal of regulators, thus, is to simulate the efficiency constraints of competitive markets, while providing for an efficient regulated firm's long-run financial viability (recovery of reasonably incurred costs and attraction of needed capital) and ability to provide optimal service output of reasonable quality. Although cost of service ratemaking, with disallowance of costs shown to be "imprudently" incurred, has not perfectly approximated the result of truly competitive markets in which prices are set at the

marginal costs of efficient firms, regulation's economic rationale has always been to simulate the outcome that would prevail under competitive conditions.

The concept that regulation was established to act as a proxy for competitive market discipline finds ample support from the most eminent economic commentators who influenced the development of traditional regulatory policies. As Professor James C. Bonbright put it:

Regulation, it is said, is a substitute for competition. Hence, its objective should be to compel a regulated enterprise, despite its possession of partial or complete monopoly, to charge rates approximating those which it would charge if free from regulation but subject to the market forces of competition. In short, regulation should not only be a substitute for competition, but a closely imitative substitute.

Likewise, according to Professor Clair Wilcox:

Regulation was ... a substitute for competition. Where competition was impossible, its purpose was to bring the benefits that competition would have brought.

In his earlier seminal text on public utility regulation, Professor Barnes stated:

In seeking to establish reasonable rates, regulation requires a standard or norm, and the most satisfactory standard is said to be that provided by the competitive price system. Thus, the purpose of regulation should be to establish those charges that would prevail if free competition were practicable for the regulated industry.

Similarly, Professor Eli Clemens observed that:

the objective of public utility rate regulation is to achieve through regulation the same result that would be achieved by competition.

More recently, Professor Charles Phillips observed that:

regulation is a substitute for competition and should attempt to put the utility sector under the same restraints that competition places on the industrial sector.

And, according to Alfred Kahn's 1970 text:

Competition will weed out the inefficient and concentrate production in the efficient; it will determine, by the objective test of market survival, who should be permitted to produce; it will force producers to be progressive and to offer customers the services they want and for which they are willing to pay; it will assure the allocation of labor and other inputs into lines of production in which they will make the maximum contribution to total output.

What institutional incentives, compulsions, and arrangements will play the same role where `the invisible hand` of competition is for one reason or another infeasible? `The invisible hand of regulation is not a sufficient answer. ...[Regulation's] most important task is to develop institutional arrangements that will provide correspondingly powerful incentives and pressures on regulated monopolists.

The basic concept that regulation should bring the benefits of competition to electric utility markets should inform debate about the appropriate means of dealing

with the costs of uneconomic utility investments (i.e., stranded costs). Regulation places electric utilities under the legal obligation to submit to regulatory restraint in the course of managing their enterprises. The purpose and intent of electric utility regulation has always been to obligate these firms to manage their enterprises as efficiently as the prevailing practice in the competitive sector of the economy. This entails the obligation to plan and manage efficiently -- no more efficiently or no less efficiently than would prevail if free competition were practicable.

While it is widely recognized that regulation is imperfect -- that is, regulation sometimes fails to achieve the result that would be forced upon regulated firms in competitive markets -- that is no excuse for institutionalizing regulatory failure by erecting rules that create a right to recover costs above a level that is known to be attainable under competition. In other words, just because regulators may not have accurately known the true competitive benchmark, and inefficient utilities may for a time have gotten away with excessive rates, does not create an entitlement to the continuation of such excess charges once competition appears and the market pricing limit is known. While regulators have the right and responsibility of general oversight, managerial shortcomings that have gone unobserved or, indeed, are unobservable by regulators should not be deemed "efficient management" and their costs the responsibility of monopoly customers. The oversight exercised by regulators over utility managements' plant investment decisions has never been construed as an assumption of management responsibility by regulators or customers. Regulators are not institutionally equipped to manage utility companies, and, in the absence of clear imprudence, have nearly always deferred to the superior experience and first hand knowledge of utility managers. Thus, the assumption that regulatory nonintervention creates an absolute right of utilities to recover all the costs they have decided to incur misrepresents the role of traditional regulation and, if adopted, will slow or defeat the efficiency benefits of competition. While regulators have at times intervened to halt inefficient or imprudent utility activities, that does not relieve utility management from their responsibility for managing their enterprises efficiently.

Although sound regulation has acted as a workable substitute for competitive forces, it is not as good as actual competition in identifying and eliminating inefficiencies. Recent developments in the electric utility industry are beginning to bring market pressures to bear and are exposing the excessive costs of inefficient utility management. In particular, the emergence of alternative bulk-power suppliers provides the opportunity to compare the efficiency of regulated utilities to that of competitive suppliers. Where these competitors are able to offer power for sale at lower competitive prices there must be a presumption that utility management has not achieved the intended level of efficiency. Indeed, it is precisely because more efficient competitors can supply wholesale customers at lower total costs that the notion of "stranded cost" recovery was conjured up at all. If utility management had planned and operated with optimal efficiency, the differences between the costs at which traditional integrated utilities are able to provide electric power and the actual costs of providing it would not exist and the enormous "stranded costs" that are anticipated would not materialize. The inescapable logical conclusion must be that utilities, not their wholesale or retail customers, should pay for the costs of competition-induced uneconomic stranded costs.

B. Economic Policy Requires that Industries that Fail to Compete Must Accept the Consequences of their Failure

It is not only the history of public utility regulation that points to management responsibility for stranded costs. The general economic policy in this country is one that favors competition in the market place, supplemented by government intervention when and where it is needed -- for example, in antitrust enforcement and the regulation of utility monopolies. It is important to recall that public utility regulation has never been a complete substitute for competition; utilities have never been relieved of their obligation to compete fairly and they have

always been allowed rates of return reflecting, among other things, the competitive risks that they faced. Indeed, during the past decade electric utility profit rates have frequently exceeded profit rates in the unregulated sectors of our economy. Along with this, though, public policy has also required entrepreneurs and investors, including those in regulated industries, to suffer the consequences associated with bad and unlucky endeavors or economic change. U.S. economic history has numerous examples of firms facing losses due to changes in technology, the emergence of new government policies, and/or unfortunate business decisions. Two prominent examples are of recent vintage. The steel and auto industries incurred tremendous losses due to changes in technology, environmental rules, labor policies, international law and, some say, mismanagement. These industries reformed and recovered. Some others are in long-term decline. That is precisely what the forces of competition are supposed to do. And regulated utilities are no exception. Telephone utilities have written off billions of dollars of stranded costs in response to the introduction of competition into their industry.

C. So-Called Cost-Based Rationales for Stranded Cost Recovery are Wrong.

The FERC's Notice of Proposed Rulemaking on wholesale power market restructuring provides an "exit fee" payable by wholesale customers that cease buying power from their traditional utility suppliers in favor of less expensive alternatives. The fee is intended to permit full recovery of "stranded costs". The FERC's basis for the exit fee is a reliance on what it describes as "cost causation principles" (NOPR at 178), i.e., the concept that departing customers "cause" stranded costs. While it is generally correct to allocate costs in accordance with cost causation, it is completely unfitting to dub those who choose competitive alternatives the "causers" of costs in excess of the competitive market level. Competition does not "cause" uneconomic costs; it merely reveals them. Utilities that have constructed uneconomic power plants will have excessive costs whether customers shift to competitors or not. The only issue is who will absorb the excess costs.

Cost causation is an important principle in the allocation process underlying public utility pricing. It means that those responsible for the incurrence of particular costs should pay for them. Customers who demand and take utility service in high-cost peak periods, should pay peak rates because they are the "causers" of peak costs. Customers who demand and take firm noninterruptible service should pay for the back up or reserve margins that make firm service possible because they are the "cost causers." The fundamentally sound concept that rates charged to each customer or group of customers should reflect the cost causality attributable to those customers, is now cited as the rational basis for charging departing customers for the stranded generation costs of vertically integrated transmission owners. Utility companies will claim that their capital investments were made and costs incurred to meet their public service obligations based on the reasonable expectation that, through the provision of such service, these costs would be recovered. Each customer is, thus, viewed as the cost causer for that portion of the utility's expenditure that was made to provide him with service. When a customer leaves the system, the argument goes, he should pay any stranded costs for which he was the cost causer and which the utility reasonably expected to recover from him. Customer cost causation and the utility's reasonable cost recovery expectations are thus linked in this reasoning.

Utilities typically have thousands or millions of customers, most of them small businesses and residential customers. Such customers have always arrived on and departed from utility systems every day without anyone suggesting the departing customers should pay stranded cost surcharges. This is not seen as a problem because utilities must realistically expect ongoing customer turnover. They plan for it as a normal part of their business, and investments in generation capacity that served departing customers can be largely redeployed within a short

period of time to serve new ones. This is a normal aspect of most businesses. Theater and restaurant seats are used to serve different customers on different nights, and the assembly line that builds your automobile or refrigerator today will be used to build someone else's tomorrow. Business capital investments are seldom made with a particular customer in mind, and just because a customer may elect to buy a different make of automobile next year doesn't mean that the customer "caused" stranded investment for Ford.

But the theory underpinning stranded cost recovery asserts (wrongly) that electric utilities are different. Unlike Ford, they argue, utility companies had reasonable expectations that their customers (who did not move or die) would continue to buy their electricity -- they were a monopoly; their customers had no competitive choice. And, while Ford can try to sell cars to someone else if a customer changed brands, that is not as easy for a utility that loses a large industrial or retail load that may be equal to many months of normal sales growth. All this is further compounded by the long lead times for new generation plant construction and it is especially difficult if the lost sales involved very high-priced electricity that is much more costly than emerging competitive alternatives.

Do these cost causation and reasonable expectation arguments make sense? True, electric utilities were monopolies and many of them expected to maintain that status longer than now appears likely. But didn't these high cost providers hasten their own demise by encouraging competitive entry with their own cost inefficiency? More fundamentally, don't reasonable expectations of future sales have to depend on cost? Since even unregulated monopolists with excessive costs will lose sales to substitutes and abstinence, aren't there cost limits that come into play when a utility monopolist claims a reasonable expectation of future sales?

Rational determinations about cost causation and reasonable expectations must be made within the context of what is a reasonable cost. While it can be argued that the public's utility service demands, coupled with the utility monopolist's public obligation to provide service, caused costs, it is more than a logical stretch to conclude that the would be buyer caused the utility to incur costs at twice the attainable level. When stranded costs are admittedly uneconomic and excessive, when they become stranded only because they are so unreasonably high and out of line with market alternatives that wholesale buyers are economically forced to depart the system, there is no rational justification even for branding the departing customer as the "cost causer" or for concluding that the transmission owning generator had a reasonable right to expect the continued recovery of his uneconomic costs. Consequently, the Commission's claim that cost-causation compels recovery of stranded cost from departing customers cannot be supported. And, in sum, the history of both the electric utility industry specifically and this country's economic history in general that support the conclusion that utility companies, and not their customers, are responsible for their stranded costs.

## II. Allowing Recovery of Stranded Costs Interferes with Competition, Prompts Bizarre Outcomes, and, If Implemented at all, Must be Designed to Minimize These Distortions.

### A. Stranded Cost Recovery Interferes with Competition by Distorting Economic Decisions and Incentives.

One of the most obvious economic implications of the stranded cost recovery is that allowing recovery of "stranded costs" by directly charging departing customers distorts marginal decision making, generally obstructs the competitive process, and is at odds with the goal of promoting efficient and effective competition in generation markets. A fundamental axiom of competition is that customers have unfettered choice among alternative suppliers. This choice results in high-cost firms losing customers to low-cost ones, thereby enhancing the welfare of the purchaser while rewarding the efficient supplier and penalizing the inefficient one. This places downward pressure on inefficiently-incurred costs

which ultimately minimizes the total resources required to meet market demand. However, allowing stranded cost recovery from departing customers can make a high-cost host utility more appealing than a lower-cost rival. Hence, the purchaser's choice is distorted and the low-cost supplier is likely to lose to a high-cost one.

In addition to favoring high cost suppliers, stranded cost recovery diminishes the transmission-owning utility's incentive to mitigate lost sales or reduce uneconomic costs. This follows from the fact that the utility will continue to recover revenue associated with its "stranded" investment whether or not the customer continues to be served by the utility's affiliated generation. Therefore, the utility need not mitigate lost sales, reduce its costs or improve its service in order to retain the customer.

B. Stranded Cost Recovery Promotes Competition the Least Where it is Needed the Most and Most Insulates those Firms that Deserve it the Least.

The effect that the stranded cost surcharge has on economic decisions is made worse by the fact that the magnitude of the price distortion is directly related to the level of the transmission-owning utility's uneconomic stranded costs. This has bizarre and unfortunate policy implications. Because the surcharge increases according to the level of the utility's stranded costs, it is greatest where stranded costs are the greatest. Thus, stranded cost recovery will force customers who are subject to the most uneconomic rates (i.e., those customers whose rates are most out of line with competitive price levels) to pay the highest penalty in order to reach alternative competitively-priced power supplies. On the other hand, customers served by efficient utilities with few or no stranded costs will face little or no cost penalty to reach competitive supplies. Of course, customers interconnected to systems owned by high-cost utilities are those most in need of competitive alternatives while those interconnected with systems owned by low-cost utilities have the least need for alternative suppliers. The effect of stranded cost recovery is to erect the greatest barriers to competitive options for those most in need of them and to make competitive options most readily available to those least in need.

This injustice is aggravated when it is understood that uneconomic stranded costs are the result of utility inefficiency. Allowing recovery of such costs has the effect of protecting from competition (and from the most fundamental and traditional regulatory discipline) those utilities that have been managed the least efficiently, while subjecting the most efficiently managed utilities to the most competition.

C. Any Stranded Cost Recovery Mechanism Should at least Minimize the Potential to Distort Economic Decisions

The least harmful methods of assessing these costs to customers would be in inverse proportion to their price elasticity of demand for electric power (the static or "allocative" efficiency rule) or to distribute them as broadly as possible among the "tax base" in order to subsidize uneconomic utility generators without undermining competition (the dynamic efficiency rule). A broad-based recovery mechanism that distributes uneconomic stranded costs to all power users would minimize the competition-inhibiting aspects of the surcharge.

Such a mechanism could be designed by incorporating the same subsidy burden into the cost of all power deliveries. Ideally, it should apply to all power consumption in a transmission control area so as to avoid uneconomic incentives for self-generation. By spreading the burden broadly and uniformly to all power consumption, regulators would minimize distortions in economic decisions since customers would then face the same uneconomic cost subsidy burden whether

they remain with the utility or chose competitive generation.

### III. Conclusions

A valid policy on stranded cost recovery should reflect two basic principles. First, consistent with the long standing rule that regulation should strive to emulate the results of a competitive market, any uneconomic stranded generation costs incurred by a utility as a result of competition should be presumed to be the responsibility of the utility and not its customers. The utility may rebut this presumption by demonstrating that the stranded costs in question are the result of causes other than its own inefficient management.

Second, to insure that any allowed stranded cost recovery is effected in the manner least likely to distort efficient economic decision-making, any stranded costs that are determined not to be the result of a utility's own inefficiency should be collected universally among all customers, thus minimizing harm to competition and the distorting effect on marginal decision-making.

FERC does have the power to require distribution access as a condition for approving mergers of electric utilities.

Wall Street Journal, November 28, 1995

Who Pays for Sunk Costs?, National Regulatory Research Institute, 1988., pp. 27-31; In the Matter of The Detroit Edison Company for Approval of Special Electric Supply Contracts, Michigan Public Service Commission, 160 PUR 4th 132, March 23, 1995.

The Poolco model described here closely resembles the Poolco model which the California PUC has decided to implement. The CPUC modeled their Poolco closely to that adopted in the UK. See Blumstein, C. and J. Bushnell, "A Guide to the Bluebook: Issues in California's Electric Industry Restructuring and Reform," The Electricity Journal (September 1994) p. 18-29.

Wall Street Journal, November 28, 1995.

The retail wheeling "experiment" in Michigan is a Direct Access model.

An aggregator purchases wholesale power on behalf of retail customers. For example, in the Poolco model, the local distribution company is an aggregator for the utility service sector.

The independent generating company could be the generation portion of the divested utility company. After divestiture, the company could have written-down their assets to competitive market levels, thus making itself competitive with market alternatives.

Poolco proposals usually call for alternate performance-based regulation (PBR) for the distribution company. The question of whether PBR is superior to traditional rate-of-return regulation would need to be determined.

Access to real-time consumption information would be the most desirable way for the supplier to schedule its generating units, although it is not necessary. A reasonable estimate of load characteristics would be sufficient, along with agreements among all energy suppliers to accommodate over- and under-production.

For a detailed proposal involving such a rationing scheme, see Sinclair, R., J. Wilson, and D. Greer, "Incremental Transmission Pricing, the Comparability Standard, and an Alternative to the FERC's 'Higher of' Rule," The Electricity Journal



(December 1994) p. 16-27.

Id.

One caveat in this regard is the FERC's jurisdiction over transmission pricing. Because the proposal requires non-discriminatory pricing, the pricing plan would have to be approved at FERC, which requires a filing by the transmitting utility. Perhaps state regulators will be able to entice the transmission owners to adopt such a policy, perhaps not. Nonetheless, FERC has indicated in its recent Notice of Proposed Rulemaking (Docket No. RM95-08-000) that all transmitting utilities must file open-access tariffs. Therefore, it can be expected that some open-access tariff will be forthcoming.

These two attributes, universal direct access and the regulatory constraints on the distribution company are elements of a model advocated by the Connecticut Office of Consumer Counsel.

The CPCU is expected to issue a definitive restructuring order in December 1995.

FERC Docket No. RM95-7-001

Bonbright, James C., *Principles of Public Utility Rates*, New York: Columbia University Press, 1961, p.93. Bonbright also cites a brief for the New York Telephone Company in *New York Telephone Company v. Public Service Commission*, 142 N.Y. Supp. 569 (1956): "The purpose of regulatory policy, in the protection which it is designed to afford the consumer, is to simulate and substitute the effects of competition...."

Wilcox, Clair, *Public Policies Toward Business*, Homewood, Illinois: Richard D. Irwin, Inc., 3d. ed. 1966, p.96.

Barnes, Irston R., *The Economics of Public Utility Regulation*, New York: F.S. Crofts & Co., 1942, p.581.

Clemens, Eli W., *Economics and Public Utilities*, New York: Appleton-Century-Crofts, Inc., 1950, p.153.

Phillips, Charles F., *The Regulation of Public Utilities Theory and Practice*, Arlington, Virginia: Public Utilities Reports, Inc., 1984, p.154.

Kahn, Alfred E., *The Economics of Regulation: Principles and Institutions*, Volume 1, New York, N.Y., John Wiley & Sons, Inc., 1970, p.18.

The main argument in favor of stranded cost recovery relies on the mistaken assertion that utilities have not been compensated through their rates of return for the risk of stranded investment (See, e.g., Pfiefenberger, P. and W. Tye, Letter to the Editor, *The Electricity Journal* November 1994). However, rates of return for utility companies generally have been about the same or higher than for competitive industries whose investors absorb the entire risk of "stranded investment."

This, of course, is not entirely true as potential electricity buyers have always been able to substitute gas or oil or conservation expenditures for some electricity uses, and many industrial firms have been able to shift manufacturing locations or even generate some of their own power when faced with excessive electric utility costs. That stranded costs, under most proposals, would apparently be charged to customers who shift to alternative fuels by changing electricity suppliers but apparently not to those who shift to the direct use of alternative fuels or are large enough for self generation will further distort efficient resource

utilization.

The Third Circuit Court of Appeals recognized this property of the stranded cost surcharge, *Cajun Electric Cooperative Association v. F.E.R.C.* 28 F. 3d 173 (D.C. Cir. 1994):

[T]here really is no such thing as stranded investment, only a failure to compete. Of course, the point of introducing competition is to reap the benefits associated with just such market forces. In this sense, a stranded investment provision is the antithesis of competition (Slip Op. at 11).

The impact of the Cajun decision on the Commission's stranded cost rules has been thoroughly and competently discussed in Comments offered by the American Public Power Association, Comments in Part of the American Public Power Association on FERC's Proposed Open Transmission Access "Comparability" NOPR , Docket Nos. RM95-8-000 and RM94-7-001, Appendix 1, filed July 21, 1995.