

**UNDERSTANDING ELECTRICITY  
DEREGULATION IN PITTSBURGH**

*by*

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## EXECUTIVE SUMMARY

Deregulation of the nation's electric utilities is underway and will be gaining momentum in the coming year. The potential benefits from deregulation and introducing competition into the electric industry are extremely large in terms of lower prices and higher quality of service for consumers.

Regulation as currently practiced is no longer appropriate for the U.S. economy. Indeed, many of our economic competitors in Europe have begun deregulation of their electric industries. Regulation encourages too much capital spending, provides no inducement to cut costs and results in huge and wasteful expenditures on litigation of prices and other regulated activities.

Introducing competition will be a complex endeavor and many obstacles must be overcome. Nonetheless, steps that have already been taken at the national level and important technological developments have created an inevitable trend toward a competitive market at the wholesale and retail levels. For example, federal agencies have mandated that transmission grids of all companies will be open to all qualified generators. This introduction of competition at the wholesale level will be followed fairly quickly by retail deregulation. California and other states have already issued orders to initiate a process that will lead to retail competition within a few years.

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In the new competitive system, all customers will be able to choose among a number of suppliers and have a choice of service levels and price schedules. In all likelihood, any new system will be predicated on an unbundling of electric services, that is, generation, transmission and distribution, metering and billing will be provided by separate companies. That could necessitate the formation of new marketing firms who will either generate or buy power and resell it to customers. Transmission and distribution companies will be separately owned and probably will continue to be regulated. Meanwhile, generators and retail marketers will be free to operate in a profit maximizing manner.

In Allegheny County, the introduction of competition will bring electric rates down substantially for consumers. Conservatively estimated, a typical local residential customer will save 30 percent, or \$350 per year on electric bills.

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## INTRODUCTION

One of the most important issues facing Pennsylvania and other states is the deregulation of the electric utility industry. The enormous increase in public benefits deriving from the deregulation of the telephonic communications industry, the airline industry and the trucking industry has created a compelling case for introducing competitive forces into the electric industry. In response, Public Utility Commissions across the country are working very hard to develop plans that will break up the monopoly control of electric power and bring true competition to the electric power market.

Obviously, there are many questions that must be resolved as to how best to accomplish the desired goal and there is substantial resistance to deregulation by a variety of powerful interests who benefit from the present system. Nonetheless, momentum appears to be gathering as evidenced by the fact that the California PUC has already published an Order to introduce competition at the retail level. Other states will undoubtedly follow suit in the next year or so.

This primer on deregulation is intended to provide a brief overview of the forces motivating the deregulation trend and the key questions that must be addressed in a successful conversion to a competitive market system for electric power. Note that "stranded costs", one of the critical issues in the deregulation process, are discussed only briefly in this report. Because of the complexity of the issue and the length of the discussion required for a complete treatment, a separate report is being prepared to examine stranded cost arguments and to recommend policies to deal them.

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## BACKGROUND

The movement toward deregulation of utility monopolies has been underway for more than a decade. In this context, deregulation primarily refers to the replacement of a monopoly supply of services by a competitive market and the determination of prices, quality and types of services by the forces of supply and demand. Secondly, deregulation also includes the removal of many of the limitations and mandates that have been imposed on service providers and granting more freedom for producers to respond to market incentives.

Utility deregulation is a continuation of the movement which focused on the airline and trucking industries in the late 1970s. Deregulation and the introduction of competition in the telephonic communications industry has been carried out with considerable success. More competitive pricing, and a better variety of products provide the customer with a higher level of service and benefits.

Three powerful arguments for deregulation are offered by W. Steinmeier [Public Utilities Fortnightly, January 1996] a former chairman of the Missouri PUC.

- Regulation does not provide incentives for suppliers to cut costs or increase efficiency and productivity.
- Regulation places too much emphasis on capital investment rather than on services such as demand management.
- Regulation is highly litigious, which adds substantial costs, financial and other, to the industry. Enormous amounts of time are consumed in the processes of regulation, often resulting in decisions that are outdated by the time they are rendered.

Therefore, it is almost axiomatic that deregulation and introduction of competition into the electric industry is the next logical step, and one which should be carried out as soon as possible.

### Steps Toward Deregulation

In fact, steps have already been taken toward deregulation. The Public Utility Regulatory Policies Act of 1978 introduced competition into the electric utilities industry by creating a new class of power producers known as qualifying facilities (QFs). Electric utilities were required to purchase electricity from QFs. In 1992, the Energy Policy Act created an additional class of independent power producers (IPPs) and the exempt wholesale generator (EWG). These two pieces of legislation have caused an enormous rise in the non-utility production of electricity. IPPs now build over half of all the new generating capacity in the United States [Baumol and Sidek, p12].

Moreover, the 1992 Energy Policy Act granted the Federal Energy Regulatory Commission (FERC) expanded authority to order "wheeling", the transmission of power over the electric system of a utility that did not generate the power. The advent of

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"wheeling" was facilitated by the interconnected transmission network which has evolved over a number of years. These networks which link utilities over wide geographic areas enable neighboring utilities to assist each other in times of emergency, thereby reducing the need for excessive standby capacity. The Energy Policy Act of 1992 allows any generator to petition the FERC for mandatory access to a utility's transmission grid, even if enlargement of capacity is required to provide the access.

The federal government's involvement comes about because transmission grids cross state boundaries. Thus, the FERC authority to require utilities to allow access is limited to "wholesale" transmission. Regulation at the "retail" level, i.e., sales to ultimate consumers, is controlled at the state level and therefore it falls to individual utility commissions to introduce competition into retail sales.

Many legal issues remain with respect to whether or not states will have the authority to order utilities to allow firms access to transmission and distribution networks for purposes of sales to end users, otherwise known as "retail wheeling". Several states are considering the introduction of competitive marketing to retail customers, including California, which has put in place a plan to effect full consumer choice in seven years.

#### Driving Forces Behind Deregulation

The impetus to introduce competition into the electric industry stems from several forces. First, there is a general public policy interest in breaking up monopolies where feasible; and second, technological advances in electric generation and telecommunications are making deregulation and competition possible and virtually inevitable.

There is also an understandable desire to remedy the substantial variances in rates paid by customers of different utilities in neighboring markets. For example, Duquesne Light, the supplier to most of Allegheny and Beaver Counties, charges their typical residential customer 12.3 cents per kilowatt hour (based on 1995 prices) with a discount for homes having electric water heaters. By way of comparison, West Penn Power, which supplies power to several surrounding counties, charges 6.9 cents per kilowatt hour. Indeed, with the exception of PECO all Pennsylvania utilities have electric rates below Duquesne, most substantially lower.

Assuming that the introduction of competition will bring the rates in the Duquesne Light service area to an estimated current national average of around 8.4 cents, *the monthly bill for an average Duquesne Light customer using 750 kilowatt hours will fall from \$92.29 to \$63.02, a decline of 32 percent. Annually, this amounts to a savings of \$351 for a typical residential customer.*

This estimate of potential savings is very conservative in that the national average price is expected to drop as much as 16 percent (Standard and Poor's, *Direct Access Threatens Utility Revenue*, 1996) following deregulation. If, as a result, the rate in the Duquesne Light service area falls below 8.4 cents, customers will save even more than 32 percent.

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Finally, the ongoing excess capacity in the industry and the presence of many cost inefficient facilities argue for the introduction of market forces to rationalize the industry in terms of prices and investment levels.

Consider for example the combined-cycle gas turbines (CCGTs) that have dramatically reduced the cost of producing electricity [Studness, p39] and have shrunk the scale of plant required for cost efficient operation. Until recently, the minimum plant size necessary to take advantage of economies of scale was 700 to 1,000 megawatts and cost \$1 to \$1.5 billion.

By comparison, the new technology can be installed in efficient plants with as little as 100 megawatts of capacity for a \$50 to \$60 million investment and still produce electricity for a total cost of 3 cents per kilowatt hour, about half the current U.S. industry average. The implications for the structure of the electric industry are enormous.

Low-cost producers are now able to enter the electricity generating business with comparative ease and will eventually undermine the monopoly position of utilities. Because of the mandates set forth in the 1978 and 1992 legislation that require utilities to grant access to transmission networks and to purchase electricity from qualified facilities, the higher cost integrated utilities will inevitably be forced to reduce prices and become more competitive in terms of generating costs. These smaller plants can be strategically placed to provide low cost power to relatively small markets. Thus, advances in power generating technology are adding to the pressure to speed up the process toward full deregulation.

At the same time, technical advances in metering and telecommunications will permit unbundling and product customization at the individual customer level. Each customer can be electronically linked to the vendor so that usage by time of day can be monitored continuously. Such capability will allow end users to have a real choice in their purchase and consumption of electricity in terms of price schedules to cover such things as peak, off-peak and voluntary service reductions in times of generating or distribution problems. In other words, the customer will be able to work with the supplier to get an optimal package of service.

All in all, the climate seems to be ripe for a major effort to break up the monopoly power of integrated utilities and allow consumers to reap the full benefits of a competitive market for electricity.

### ISSUES IN DEREGULATION

While making the electric industry more competitive represents a massive conceptual change, the actual initial impacts of deregulation in terms of total consumption and system loads in most areas are not likely to be large. This is an important consideration in light of concerns that some users could be crowded out by large industrial consumers.

To be sure, as new, lower price levels have an opportunity to alter usage and new services are made available, system performance requirements will begin to change. But that will happen gradually enough to allow appropriate responses and no major dislocations in terms of reliability of service or product quality would be encountered.

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Still, even though the desirability of competition and deregulation is undisputed and the opportunity for a major breakthrough has never been greater, a number of serious difficulties must be resolved before meaningful retail consumer choice is a reality. Some are technical, while some are economic.

### WHAT WILL THE NEW COMPETITIVE SYSTEM LOOK LIKE?

Ideally, at some point, all electricity customers should be able to choose among a number of suppliers and have a choice of a variety of service levels and price schedules. For that to occur, the market area will need to be expansive enough to allow consumers a number of vendors to choose from. Having only two or three options might be inadequate to guarantee a "contestable market", especially if one seller is a dominant firm, i.e. has a 50 percent or greater market share. It will also be necessary to unbundle utility services into generation, transmission and distribution, metering, billing and other services so that cross subsidy within integrated firms can be eliminated to allow markets to drive pricing.

A key step toward meaningful enhancement of competition will be the formation of retail marketing firms which will either produce or buy power to sell to final consumers. Existing utilities would be permitted to become marketers and might well elect to spin off marketing subsidiaries.

Transmission and distribution (T & D) will in all likelihood remain a regulated portion of the industry since with today's delivery technology it is not desirable (for safety and aesthetic reasons) to create multiple and duplicative distribution facilities in neighborhoods or across the countryside. Thus, the T & D owners will become in effect common carriers who will be required to make their equipment available to all marketers at regulated rates. T & D networks would not be allowed to give preferential treatment to any marketer or generator and therefore could not be owned in part or in whole by integrated utilities. And while T & D will continue to be regulated, it is important that incentives be in place that will allow these networks to respond to market changes by adding or deleting capacity as required.

There is a practical problem of how to ensure reliable, efficient transmission. The English model creates an Independent System Operator, sometimes called the PoolCo. This entity exists separately from the generators and marketers and has no financial interest in any of the players. In this system, generating utilities essentially bid to supply power that can be used to satisfy the needs in a region or state rather than just their traditional service area: the lowest bids are accepted until enough power has been purchased to supply the market's demand. Power is sold to consumers at the best price the PoolCo can create through the auction process. The PoolCo manages the system balance to make sure adequate power is being generated and routed in a such a way to avoid overloads anywhere in the network. However, in this system, the customer is still buying from a monopoly (PoolCo) and true retail competition is not achieved.

The California PUC has adopted the system operator concept in its recent Order which sets in motion the implementation of a competitive market. California's version allows the utilities to retain ownership of transmission and distribution facilities.

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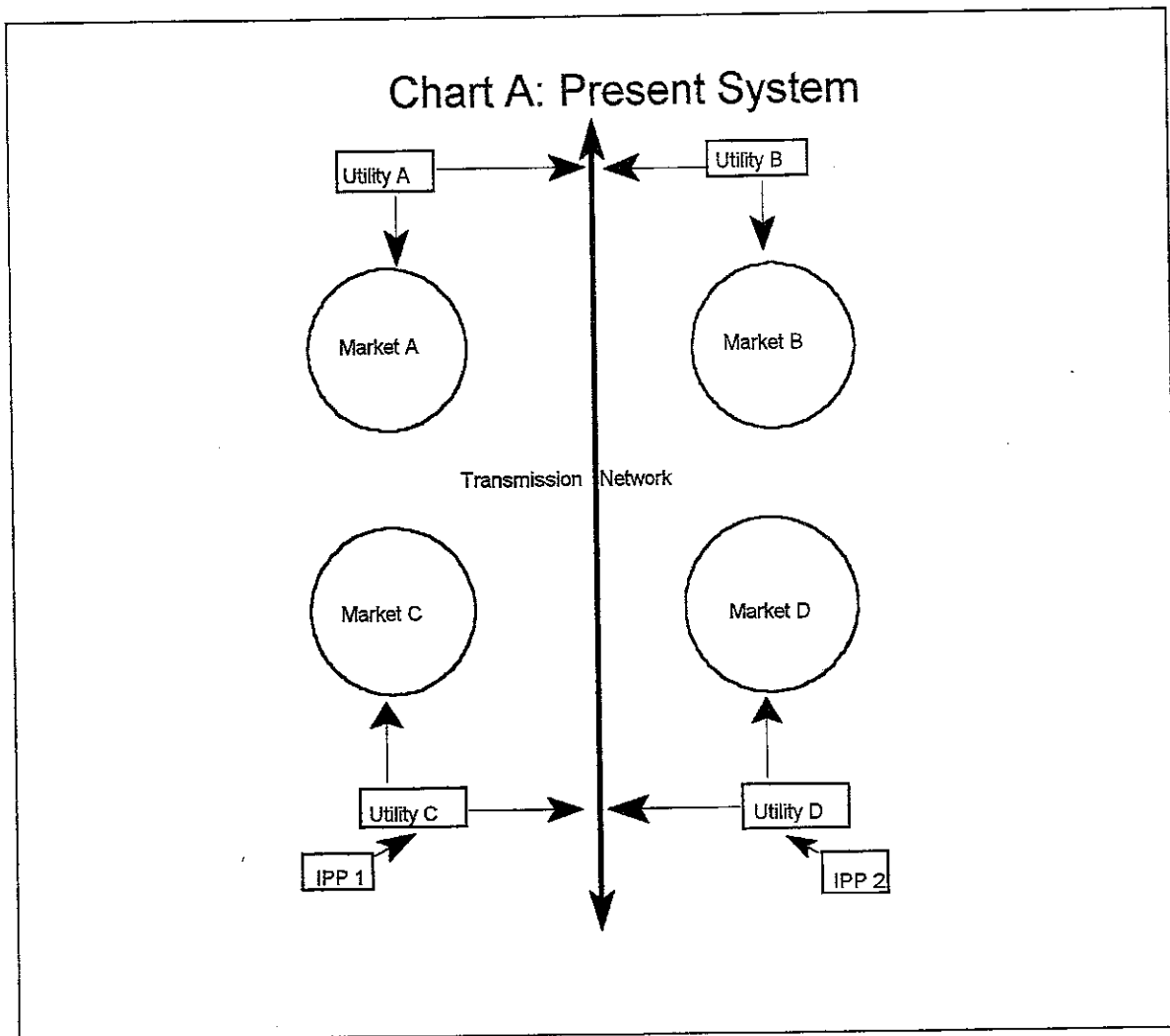
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An alternative would allow newly formed retail marketers to have direct access to the T & D networks, which would be independently owned. Marketers would be responsible for arranging adequate access to T & D networks and making wholesale power purchases to meet its customers needs. Likewise, retail marketers would make the necessary arrangements for metering and billing. Owners of T & D networks would guarantee service levels on a schedule of fees and control access to avoid overloading the system. This function would be carefully monitored by the PUC, or its designee, to ensure that marketers are granted sufficient access to meet local demand for their service.

In either case, some preparation and oversight during the transition period will be required to ensure that the utilities do not use the new system to hang on to their monopoly position. The transition to true competition should be carried out as quickly as possible to minimize the opportunities for non-competitive forces to entrench themselves. For example, mergers among utilities could be used to concentrate power thereby reducing post deregulation competition.

Schematic Diagrams of Present and Deregulated Systems



### *The Present System*

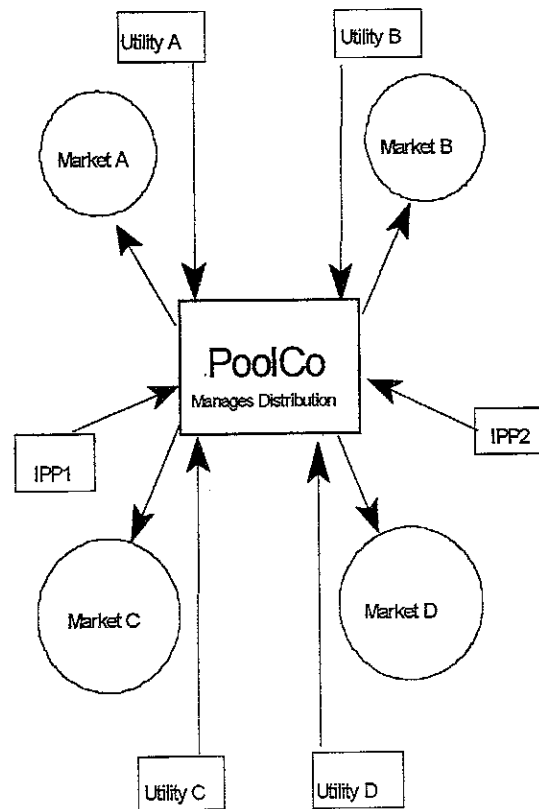
Pictorial representations are provided to clarify the differences in the present system, a PoolCo system, and a marketing firm system. In Chart A, a stylized version of the present regulated, monopoly system is depicted. This stylized illustrative system contains four separate retail markets and four integrated utility monopolies that serve each market exclusively. Four is an arbitrary choice for the number of markets and is not meant to describe any particular geographic area.

In the present system, Market A (most likely, but not necessarily a geographically contiguous area) is served exclusively by Utility A, and Utility A serves only market A. The same holds for the other markets as shown in Chart A. There are real world examples of utilities which serve more than one market, but in each case the utility acts as a monopoly provider.

All the utilities (A,B,C and D) are connected to a transmission network which permits power sharing when one or the other of the utilities suffers generating problems or is unable to satisfy load requirements. Bear in mind that the transmission networks cover a wide geographic region and could have dozens of utilities connected. The transmission network is represented by the line running through the middle of the chart. The network not only connects the four utilities together in this hypothetical system but to other parts of the nation as well.

Besides the integrated utilities, Chart A depicts Independent Power Producers (IPPs). IPPs have access to the network, specifically to the facilities of individual utilities who are required by law to purchase power from the IPPs. Generally, IPPs do not sell directly to retail customers.

Chart B: PoolCo



### The PoolCo

The PoolCo system is represented in Chart B. In the PoolCo model, all power generators auction electricity to a PUC created Independent System Operator (ISO) who in turn regulates the power flow through the T & D network to final users.

Therefore, depending on the auction results, electricity from Utility D might be routed to Market A over Utility A's equipment or vice versa. Basically, the objective is to get the total market demand for electricity produced at the lowest marginal and presumably the lowest total cost with the savings, if any, passed along to users.

Stylized Chart B shows all power being routed through the PoolCo and back out to the various Markets. In actuality, there is no single physical juncture of power lines or distribution equipment, all the control would be done by means of a monitoring center electronically connected to the various utilities and grids.

### Marketing Firms

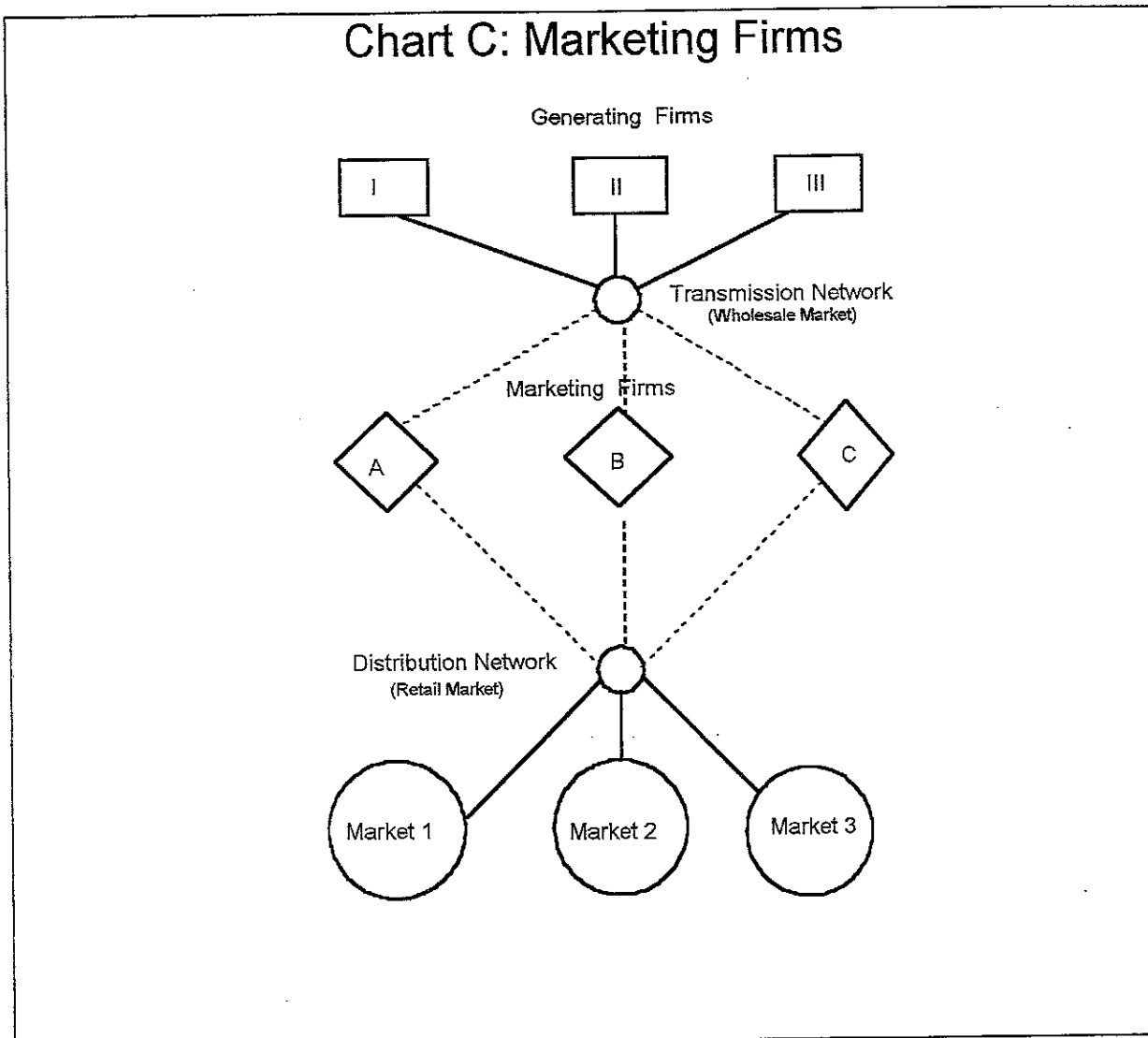
A marketing firm model is illustrated in Chart C. This model represents a high degree of unbundling of services. First of all, new marketing firms are shown in the chart as diamond shaped figures labeled Firm A, etc. Marketing companies will contract with

generating firms to buy electricity. They will be able to purchase power from a wide array of power producers over a large geographic area. In this chart, there are three generating firms but the number could easily be six or more depending on the specific region. They need not all be in-state, indeed, many may not be. Likewise there are three marketing firms, but again there might be many more depending on the specific area in question

End users will be able to choose from a number of firms and contract with a firm for a package of services and a schedule of prices. The end users are shown as Market 1 etc. Thus, multiple buyers and sellers of power at the wholesale and retail level will produce a close approximation of competitive markets.

In Chart C, the wholesale market is represented by the small circle where all the generators and marketers come together to negotiate rates and quantities. Any marketer can buy from any power producer connected to the grid. Power is transmitted over the separately owned and operated transmission network. Remember that transmission will be unbundled and operated as a regulated entity, at least until a feasible method of introducing competition is discovered. Add-on delivery charges would be equal for all marketers (or generators) using a given transmission network.

The retail market is represented by the small circle where the end users from various markets can choose their supplier. The end user markets are defined as the geographic areas served by specific distribution networks which are in turn determined by the PUC. To the greatest extent possible all similarly situated end users would be treated equally in terms of add-on fees by distribution firms.



## THE TRANSITION

How do we get from the present electrical system to a new less regulated, competitive system? In the particular case of electric deregulation there are few examples to guide us and in the U.S. there will be opportunities for 50 states to experiment. Given the variety of circumstances in the states, a single formula for deregulation will probably not work for all of them. Indeed, some smaller market states might have to coordinate with one another to secure the maximum benefits from competition. One thing is clear: unless all customers, including residential, are allowed to participate in the benefits of deregulation, it will not be politically sellable and will have serious public policy deficiencies.

In our view, the Pennsylvania PUC should immediately begin working with utilities to set up the T & D networks and to create the separate companies which will own and manage the networks. This could include municipality ownership where appropriate.

Concurrently with defining and establishing the networks, the PUC should be encouraging the formation of marketing firms. Most will probably be spun out of existing integrated utilities but non-utility companies should be allowed to enter the market as well if they can demonstrate the capacity to perform the role. A sufficient number of firms should be established to guarantee a real choice for all classes of customers.

While a PoolCo option is available to regulators and there is precedent in California and England, it is probably not the final answer because it does not allow a true choice to consumers and it leaves the T & D networks in the control of existing utilities. Moreover, the auction process could be manipulated to the benefit of existing utilities especially where there are only a small number of firms in the Pool, one of which is a dominant supplier.

It may turn out that reliable, efficient management of the network for a state or region grid performance will require the equivalent of an Independent System Operator. However, that would still be consistent with having marketing firms who would work with the ISO to manage loads and reliability. This modified marketing model could represent the best chance for a quick deregulation of electric utilities.

### **KEY PLAYERS AND THEIR LIKELY POSITIONS IN THE DEREGULATION PROCESS**

**D) Utility companies:** Many of these companies will resist the deregulation of the industry since they stand to lose a privileged monopoly status. Many will argue that under full competition they will be unable to compete because of what are being termed as "stranded" costs. Stranded costs include past expenditures for plant and equipment, long-term contracts for fuel, and outlays required by regulators for a number of purposes including the environment, renewable resources and subsidies to low-income users. Because utilities must cover all their costs to be profitable, those utilities with high operating cost equipment, such as nuclear facilities, will be at a disadvantage compared to firms that don't have the same cost burden.

The obvious question is to what degree should the PUC allow a utility to recover those costs through various mechanisms. One proposal is to allow the utility to charge a "disconnect" fee for customers who go to other suppliers. A survey of PUC members around the country shows they are willing to allow a recovery of about 50 percent. Clearly, to the extent that utilities have been ordered to spend money to achieve social goals that an unregulated private sector firm would not be obligated to spend, it could be argued that fairness to shareholders of the firm requires that there be some recapture of those expenditures during the deregulation process.

Still, the debate is ongoing and there are many arguments against any blanket recognition of stranded costs as a legitimate concept. For instance, there can be no obligation from either equity or efficiency considerations for the Public Utility Commission to structure fees or delay implementation in order to allow utilities to recover "stranded costs" that result from poor management decisions. After all, ratepayers have no role in management decisions and they should not be forced to bear the burden of poor decisions; they do not share in the profits when the firm makes good decisions.

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In general, PUCs considering company claims for these costs must be very skeptical and keep the public's interest foremost. In short, the stranded cost arguments should be viewed with a jaundiced eye by the regulators and not be allowed to postpone or derail the move toward deregulation and the introduction of meaningful consumer choice.

**II) Environmental groups:** Several organizations are opposing deregulation on the grounds that in an unrestrained competitive environment, producers and distributors will opt for the lowest cost means of production and that will inevitably lead to more pollution and less safety than the present structure. In other words, the expensive but environmentally friendly generation methods such as solar, wind, and geothermal will be abandoned in favor of fossil fuels. This is the typical one-sided approach of environmentalists. They focus only on the benefits of clean air, which can never be pure enough for them, and ignore the costs to society in producing the clean air or the loss of benefits to consumers who must pay unwarranted prices. There is little or no willingness to weigh the trade-offs society as whole faces in the generation and consumption of electricity .

In any event, existing clean air standards are not likely to be relaxed just because the electric industry is being deregulated. The environment's protectors will have ample opportunity to fight the battles in that arena. Electric deregulation is too important to be sidetracked by this obvious attempt to hold the process hostage to a no growth agenda.

**III) Senior citizens and low-income groups** are concerned that deregulation will; (a) result in unfair treatment for those who are unable to make informed decisions and (b) allow large commercial and industrial users to grab all the cheapest electricity leaving only expensive energy for residential consumers. First of all, residential customers already pay higher rates than industrial users because monopoly utilities can discriminate in their pricing to different classes of customers. Secondly, there will be opportunities for residential wholesale organizations such as cooperatives, to develop who will compete effectively with large industrial users for bulk purchases and low prices. Thus, the concerns that only large industrial users will benefit from deregulation are misguided and display a lack of faith in the ability of entrepreneurs to respond to market opportunities. Finally, it is unlikely that industrial users will grab a significantly larger share of total electricity production than they do now, leaving plenty of power for other classes of users.

The more extreme opposition argues that unless all classes of consumers and all individuals benefit equally or proportionately from deregulation, the process is inherently unfair and should not go forward until or unless those conditions can be met. This objection is patently erroneous and should not be given serious consideration. If the standard of every public policy decision was that all individuals must benefit equally or suffer equally from the policy, then no decisions would ever be made. A more appropriate criteria is the rule that as long as most individuals can be made better off without inflicting uncompensated costs on other individuals, the policy is still justifiable.

**IV) Utility workers** who are at risk of losing their jobs have understandable concerns. However, in every formerly monopolistic industry that has gone through deregulation,

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there have been downsizings and layoffs. This is unfortunate for the workers who have lost their jobs, especially in view of the above average salaries and benefits they receive from monopolistic industries. At the same time, it must be recognized that where

monopolies and monopoly power have long dominated markets, there is a strong likelihood that too many resources are being used in production compared to what a competitively driven market would use. Thus, significant underutilized capital and labor will become apparent once competition is in place.

The costs to those who will lose their jobs, as with utility shareholders who could see a decline in wealth, must be weighed against the benefits that all users of electricity will receive. Eliminating the distortions in electricity rates brought about by decades of regulation as opposed to market-driven decisions will enable the economy as a whole to perform better, create more jobs and income, and eventually redound to the benefit of those who are temporarily injured by the deregulation. For those workers who are late in their careers and for whom retraining and finding new work will be difficult, there can and probably will be some special provisions such as early retirement packages or help with health insurance, etc.

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At the same time, those folks must recognize that they have enjoyed above-market determined wages and benefits for many years and may have to reenter the job market with reduced expectations about their near term prospects. It has happened to many people in other industries that have undergone massive structural change. It is not pleasant for those affected but it must be remembered that the free market can only offer opportunities, it does not and cannot guarantee individual success.

**V) Consumer Groups** will advocate any number of approaches that result in lower cost electricity. Some will support deregulation and competition, others will insist on stricter control of prices in a regulated environment. The latter group could actually hurt deregulation chances since they will basically take an anti-business approach that fails to recognize the need of investors to make an adequate return. Punishing the utilities in the current structure is misguided in the long run and is no substitute for true reform.

## WHAT STATES ARE DOING

**Pennsylvania:** Members of the General Assembly have introduced House Bill 2537 which calls for introducing consumer choice of suppliers of electricity. Hearings are being held by the Committee on Consumer Affairs. The Bill calls for the PUC to adopt a plan on or before April 1, 1997. The legislation specifically calls for the separation of the generation and transmission and distribution assets and operations.

Current utilities will be able to retain a distribution monopoly (LDU) and shall distribute electricity, provide meter reading billing and other customer services. At the same time, transmission facilities will be operated by independent system operators (ISO). Although transmission facilities may be owned by utilities or LDUs, they must operate as directed by the ISO. All generators and LDUs will have non-discriminatory access to transmission services.



Retail customers will have a choice of three options to purchase electricity: buy from a power pool, negotiate directly with a generator, or buy from a market aggregator- a firm that is authorized to generate, buy and sell power. Recovery of "qualified " stranded transition costs will be permitted. One hundred percent of approved regulatory assets as of the effective date of the act shall be deemed qualified.

**Massachusetts:** The Department of Public Utilities issued an order in August 1995 requiring the largest utilities to begin to break up their generation monopolies and set up charges to recover stranded investments. The companies are ordered to produce individual plans to unbundle charges for generation, transmission and distribution and other related services. Transmission and distribution are expected to remain monopolies.

The DPU expects the future to have seven characteristics :

- provide the broadest possible consumer choice
- provide all customers with an opportunity to share benefits
- ensure fair and full competition in the generation markets
- have functionally separate services
- provide universal service
- support goals of environmental regulation
- rely on incentive regulation where full competition cannot exist

Boston Edison has filed a plan suggesting that a restructuring process begin as early as late 1996.

**Illinois:** A state utility (Illinois Power in Decatur) has filed a retail wheeling petition with the Illinois Commerce Commission. The company expects approval in the spring of 1996.

**New Hampshire:** In 1995, the NH legislature passed a bill that instructs the Public Utilities Commission to create a pilot retail competition program. This program will test the impact of allowing electric customers to choose their own electric supplier. It will also be the first one in the nation. Roughly 17,000 customers will participate. The test will run for two years.

Generation will be separated from transmission and distribution. Generation will be subject to competition.

## GLOSSARY

**Deregulation:** The process of reducing government control of an industry, in terms of pricing, production, geographic limitations, etc.

**FERC:** Federal Energy Regulatory Commission, the federal agency with national authority to regulate the interstate aspects of power production and transmission.

**Integrated utility:** A company that generates, transmits and distributes power.

**Independent power producers:** Entities which produce electricity for sale to utilities who must purchase the power.

**PoolCo:** The name given to entities otherwise known as independent system operators. These entities are created by regulators to serve as go-betweens for utilities and their customers to manage reliable power production sufficient to meet demand in the cheapest manner and distribution to end users. The PoolCo uses an auction to acquire power from generators who bid quantities of power at their best prices.

**PUC:** Public Utility Commission, the state agency with the authority to regulate intrastate production, sales, and pricing of electricity. PUCs also regulate natural gas and telephonic communications.

**Retail wheeling:** The distribution of power from a generator to end users over the facilities of another generator.

**Stranded costs:** Those costs that a utility are currently permitted to recover through their rates but whose recovery may be impeded or prevented by competition in the electric industry. Such costs could include high cost generating equipment, unfavorable long term fuel purchase contracts and expenditures mandated by regulators to achieve social goals.

**Transmission and distribution:** The movement of power over distance from generating plants to wholesalers and to end users.

**Unbundling:** The separation of electric service into its component parts; Generation, transmission and distribution, marketing, metering and billing.

**Wholesale wheeling:** The distribution of power from a generator to wholesale buyers (e.g., a municipal power company) over the transmission facilities of another generator.

## REFERENCES

- 1) Barr, Vilma, "Making Retail Wheeling Work", *Electrical World*, May 1995, pp67-70.
- 2) Baumol, William J. and Sidek, J.Gregory, *Transmission Pricing and Stranded Costs in the Electric Power Industry*, American Enterprise Institute, 1995.
- 3) Henney, Alex, " The Power Exchange: California Goes Competitive", *Public Utilities Fortnightly*, March 1, 1996, pp22-25.
- 4) Pittsburgh Business Times, "In Search of Utility Players" p8, March 4-10, 1996.
- 5) Sparks, Debra, "Blocked Energy", *Financial World*, July 18, 1995,pp 24-27.
- 6) Steinmeier, William D. " Price-Based Regulation: The Elegance of Simplicity" *Public Utilities Fortnightly*, January 15, 1996, pp35-37.
- 7) Studness, Charles: "Electric Restructuring: An Urgent Proposal", *Public Utilities Fortnightly*, November 1, 1995, pp39-42.
- 8) "A White Paper: Electricity Supply Options", Prepared for the City of Pittsburgh, Pennsylvania by SPEC Consultants, Inc., November 15, 1994.
- 9) Zimmer, Michael J., "Facing The Free Market", *Independent Energy*, February 1995, v25n2, pp36-40.