Chapter Eight

PROGRESSIVE CHOICE: THE CUSTOMER AS REGULATOR

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"Freedom’s just another word for nothin’ left to lose."  
Janis Joplin, 1971

"Freedom’s just another word for somethin’ more to choose."

Terry & Phil, 1993

The late, lamented blues singer from Port Arthur, Texas had it a bit wrong, as the recently liberated populations of Eastern Europe might attest. Freedom, the ability to exercise choice, personal, economic and political, may not be easy, but it is better than not having any choices at all. If any unifying theme characterizes human development in the past several centuries, it has been the struggle between the individual’s drive for greater freedom and choice and the desire of some to deprive individuals of their freedom and choice on behalf of some vague notion of collective good. This basic struggle now envelops the utility industry.

In its day, the vertically integrated “natural” monopoly utility—telephone, gas and electric—delivered new and wonderful choices to people. Consumers had new options available to replace the telegraph and the mails, coal and oil for furnaces, and town gas for

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lighting (which, in its turn, had offered an alternative to candles and whale oil lamps). The regulated utility monopoly endured over the years precisely because it offered choices and options in keeping with the drive toward greater freedom and the enhanced quality of life that freedom of choice brings.

The past two decades of developing competition in the telephone, natural gas and electric industries have been elaborately discussed elsewhere and require no further attention here. Suffice it to say with respect to all three industries, the process is well underway for the disestablishment of the vertically integrated utility as the sole legitimate model for the delivery of these services. AT&T’s divestiture of the Bell Telephone Companies; the passage of the Natural Gas Policy Act of 1978; the Federal Energy Regulatory Commission’s Orders 436, 500 and 636; and enactment of the Energy Policy Act of 1992 all represent official recognition and confirmation of that basic process.

The argument within industry and regulatory circles is no longer whether there will be increased competition but how that increase should be managed, what role regulators should play and how transition costs can be smoothly and fairly apportioned. For regulators, the ultimate challenge will be to replace profit regulation with customer choice as the central theme of utility oversight and the measure by which regulatory action is judged.

### Premises For Change—Progressive Choice (PC)

The underlying premises of the Progressive Choice (PC) model are simple. Evaluating any particular feature of a practical PC program is straightforward, assuming that faith is kept with the underlying theory. A key PC objective is to distill the essential elements from a regulatory system that has become mired in minutiae. Regulatory initiatives or utility proposals to accommodate change have been entangled in much of the same sort of hair-splitting and juridical sophistry that has come to characterize much of the nation’s court system.

- **The current regulatory framework is out of sync with competitive realities in the electric market.**

  > Competition in the wholesale generation sector has brought about the demise of the vertical monopoly as the sole legitimate model for the utility. Other elements of the “natural” monopoly, such as transmission and distribution, may also prove vulnerable in light of technological change and global

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This report presents an outstanding history and analysis of developments in the electric industry the last two decades. The report also served as the centerpiece for a series of en banc seminars held by the California Commission to consider the range of possibilities for the reformulation of regulation and restructuring of the electric industry. Our chapter here is based on two separate papers presented at the invitation of the Commission as the keynote presentations for the first two seminars. On April 22, 1993, Mr. Barnich presented a paper entitled “Challenges and Opportunities: California’s Electric Services Industry” and on May 25, 1993, Dr. O’Connor offered his paper, “Progressive Choice: A Model for Consumer Choice in the Electric Power Industry.”

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3 Progressive Choice (PC) attempts, among other things, not merely to usurp the use of the PC initials but to merge the values of the Personal Computer and Political Correctness. Progressive Choice is fundamentally information-based, relying on individual customer decisions, driven by access to timely, accurate information (through relatives and descendants of the Personal Computer) to achieve Politically Correct results of lower prices, more environmentally conscious energy production and usage, and the exaltation of individual choice.

4 A report by Bechtel Power Corporation, *Outlook for U.S. Power Markets*, (San Francisco, CA, July 1993), indicates that an increasing percentage of base load/cycling generation plants is already currently being built by nonutility generators (NUGs). Furthermore, Bechtel forecasts that NUGs will meet half the nation’s generation capacity demands in the next ten years. This prognostication is not out of line with other forecasts in the industry.
competitive economic forces which give customers increasing choices to leverage utility services.

- Conventional regulation has distorted the relationship between underlying costs and ultimate customer prices. The regulatory process, often with the acquiescence or connivance of utilities, has inflicted significant rigidities on pricing that conflict with the notion of flexibility in a competitive market. Distorted price signals flowing between consumers and utilities obstruct optimal efficiency in operation, investment and consumption decisions.

- Inconsistent regulatory attitudes about the role of competition produce a hit and miss approach to the rules of entry and exit by electric market competitors. Barriers to both entry and exit inhibit the normal playing out of competitive pressures in the market.  

- Equity holders and investors of utilities, as well as those of new electric industry competitors, can increasingly find regulation a risk factor rather than a risk mitigator. Market forces, the utility commission’s role in planning, the fragility of deferred revenue recovery items and mandates for particular resource acquisitions converge to produce a volatile mix of regulatory and market risk.

- The mismatch between the rules of the regulatory game and the realities of the market encourage many customers and existing utilities to develop regulatory exit strategies. Like people going over the Berlin Wall, customers and utilities seek the freedoms they have heard exist on the other side. Regulators should not accept employment as border guards. Instead, their job should be to make the system attractive enough that customers will not seek to escape.

- Global forces are reshaping the electric business just as they have other industries, regulated and unregulated.

The list of developments driving basic changes in the world economy is long and varied. Running through any such list, however, is the theme of choice and the customization of services through the use of amazing advances in the creation, communication and manipulation of information—all at the fingertips of hundreds of millions of ordinary people and businesses. The collapse of the destructive communist experiment has spread both the “American” culture and the market ideal far and wide. Now, as it become the world’s “fuel of choice,” electricity will be seen in the same terms as other services—one that must be provided competitively and tailored to meet individual customer needs. The globalization of finance and the relatively uninhibited flow of money


8 As the electric industry has matured and competition has intensified, margins have narrowed and authorized and actual returns on equity (ROEs) have declined. Domestic energy companies have responded by seeking to diversify in order to seek out profitable un-regulated ventures abroad. Rigiditys in pricing and other terms of service, all controlled by regulators through elaborate proceedings encourage both buyers and sellers to seek contexts in which greater freedom and flexibility can be exercised. As larger customers seek to escape the imposition of cross subsidy responsibilities, their ability to relocate, shift production or to self-generate all present competitive pressures on local utilities to offer concessions of various types.


around the planet means that electric industry financing needs and opportunities must be on a worldwide competitive footing.\textsuperscript{11}

\textbf{The utility regulatory system requires a fundamental overhaul because mere reform cannot lead to the full blossoming of competition.}

Only genuine competition, rather than simulations of competition, can actually deliver the fullest measure of consumer benefits. Utility and regulator forecasting techniques cannot possibly predict the combination of efficiencies and innovations that will emerge from a competitive environment. Government regulators, especially, lack complete information about the markets they are regulating. Regulatory and utility planning models tend to be linear and relatively undynamic, unable to accommodate the entrepreneurial response to the complex of risks and rewards which are characteristic of more fully competitive industries. Regulatory proceedings seeking proof of the precise consequences of a movement toward competition are a futile exercise, asking questions that can be answered only by time and experience.\textsuperscript{12} The posing of such questions will often be less a sincere effort at inquiry than an effort to constrain competition within narrow bounds. Use of the impossible-to-answer questions is the regulatory ploy of those seeking to limit action to incremental reform around the edges rather than carrying out fundamental (and sometimes radical) change. The fundamental change we envision, which forsakes the central role of profit regulation and relies instead on competition, is justified by the same faith in competition on which we operate elsewhere in the economy.


\textbf{A plan for fundamental change should take into account the nearly immutable patterns of change in regulated industries as they move toward competition.\textsuperscript{13}}

\textbf{Incremental change —} Fundamental change in the electric industry need not be one of blood and iron. Change in regulated industries has proven to be incremental. The system does not change overnight, but bit by bit. However, market forces cause them to do so at ever accelerating speeds, leading to a new model, which then itself achieves a certain stability. Regulatory bodies are un-equipped with gear shifts and are unable (or unwilling) to accommodate their pace to the market driven change and thus, all too often, end up acting as a drag on the procession.

\textbf{Entropic change —} Entropy begins to characterize the system with the entry of brand new players who take slices of the market, eschewing the costly and impossible effort to replicate the entire range of services provided by the existing utility. Ironically, among the most important new players are the few existing utilities who decide quickly that change is coming and alter their business strategies in order to meet the competitive challenge. These incumbents also create the case for overturning the objections of more recalcitrant incumbents.

\textbf{Moving prices to cost —} The new players force prices to move toward cost. The system of cross subsidies, which characterize regulated monopoly, becomes unsustainable. Importantly, the subsidies themselves help unravel the closed market because once the new entrants' products and services become available, the customers paying the subsidies actively look for alternatives whose prices do not include subsidies.

Resistance to change — Finally, many utilities and regulators resist change in an ultimately failing cause. In the process, the regulators tend to reinforce the subsidy system which increasingly disadvantages the regulated firms by providing advantages to their new competitors, who are more free to meet customer needs. Resistance does not merely delay customer choice, it is costly for the incumbent utility and inhibits its ability to offer choice even when the regime of choice achieves hegemony. For the regulator, resistance to change ends up disrupting the realization of the very social or political goals for which the subsidies were originally created as the incumbent utility is increasingly unable to respond flexibly, if at all.

The Principles Of Progressive Choice

Just as there are four premises for offering Progressive Choice as the mechanism for basic change, there are four principles on which a regulatory format of PC in the electric business is based. All four focus on regulator-led enhancement of choices to provide “protection” for consumers or investors, not regulator-based denial of choices.14

■ Percolate The Benefits Of Competition

Recognizing that competitive forces are not equally distributed throughout the electric market, a Progressive Choice program should focus on percolating or flowing through competitive forces from competitive market segments to segments in which competition is limited. This principle recognizes that many customers, especially larger ones, have the ability to extract concessions from the local utility—from a variety of options, ranging from demand side management (DSM) and process changes to relocation and the installation of self-generation. This is not a reason to forestall competitive inroads, but rather, it is a reason to encourage their reach to an increasingly wider customer base.

■ Auto-Pilot The Change

Regulatory micro-management should give way over time to competition. The process of change itself should be designed to operate nearly automatically, with minimal regulator involvement in the “progress” of the movement toward competition once the process has started.

■ Facilitate The Movement To A Competitive Market.

In order to mitigate utility resistance, as well as to address equity issues in the transition to PC, regulators need to focus attention on important transitional issues that may have significant financial implications for existing utilities, such as depreciation rates for sunk investment.15

■ Rely Upon New Information Technologies

Communication and information technologies, rapid advances in which have been expansively cultivated by several utilities, lie at the heart of the ability of customers and electric service providers to exercise choice and to tailor services for specialized needs. PC assumes that reasonably priced information technology will be available to permit most customers to receive and act on real time pricing information.

15 With the advent of the technologically driven competitive environment in the telecommunications industry, the regulated companies were, in part because of uneconomic depreciation policies, carrying on their books assets that were grossly overvalued. Beginning in 1980 the FCC responded by altering depreciation methods for the regulated companies to more accurately reflect realistic and timely capital recovery. This included accelerated depreciation for “inside wiring,” allowing companies to “expense” all “inside wiring” in the year it was incurred. Uniform System of Accounts, 85 F.C.C. at 818.
The Grand Caveat

Progressive Choice has a "non-principle": that it does not depend upon retail wheeling as an essential feature.

First, there is every reason to implement the choice standard without the delay inherent in a bitter and insufferably consuming debate over retail wheeling and the way in which it would be regulated (or "refereed").

Second, dispensing with retail wheeling for purposes of the PC discussion does not mean the issue goes away. Some will continue to believe retail wheeling is just over the horizon, while others believe it is some considerable distance away. No doubt the debate will proceed. That debate will either accelerate or become quieter as average costs and long run marginal costs begin to converge in more places around the country.

Third, recognizing that the retail wheeling debate will proceed, there is a certain discipline to be imposed on the rest of the discussion of choice by undertaking it without it being held hostage by the retail wheeling issue.

Finally, disconnecting the retail wheeling debate from the broader question may make it easier to consider a wider array of multiple structural models for the industry.  

The Operating Features Of Progressive Choice

PC does not seek to replace one rigid system with another, similarly rigid one. Rather, PC is intended to be malleable and subject to change. As time goes on, regulators can refine the basic design to assure continued and improved access to choices, given that there is likely to be a continued mix of monopoly and competition. However, PC would, at the outset, embody eight overarching principles.

An "Osmotic" Core/Non-Core Market Segmentation

PC would cure the most significant flaw in efforts to establish a bright line between "core" and "non-core" markets. It has not been clear whether the distinction between customer groupings has been based on "protecting" those customers who have limited choices, or limiting the share of the customer base that actually has access to choices. Certainly, many so-called "core" natural gas and telecommunications customers could have found better prices and services in the market than they currently receive under the protection of regulation, if allowed to do so. Their right to exercise choices would probably attract more competitors into the market to serve them and cause their utility to seek the flexibility necessary to satisfy these customers.

Under PC, those who start out in the core category are able, of their own volition, to move to the non-core category without having to seek regulator or utility approval. This process might be thought of as an "osmotic" flow of customers from the core to the non-core market through a "permeable membrane", a membrane purely economic in nature rather than regulatory. The ability to move through the membrane to non-core status would be a function of an individual customer's own belief in his ability to function in the non-core, more fully competitive arena. Available technology and a customer's evaluation of the economics of moving would govern these decisions.

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16 See, for instance, Ashley C. Brown, and Terrence L. Barnich. "Transmission and Ratebase: A Match Not Made in Heaven," Public Utilities Fortnightly, (1 June 1991), for a discussion of the potential for open access of transmission which would result from the "de-ratebasing" of transmission assets. One obstacle to retail and wholesale wheeling may be that transmission pricing has not yet matured to accommodate a competitive environment, perhaps due to the inclusion of transmission assets as an undifferentiated item in retail utility rate bases.

17 "Progressive choicers" can take a lesson from Karl Marx here. His notion of "praxis" provides for activist theory rooted in the principle that theory must be constantly revised by experience and practice. To the extent that the theory seems a bit "off" from reality then the theory may need amendment to address new found facts.
choices, as well as the willingness to forego the traditional set of protections of “core” status.

This “permeable membrane” could include some regulatory barriers to moving back to core status such as re-entry fees. But core customers would no longer be hostages, prohibited by law or rule from changing their status. ¹⁸

The PC core/non-core distinction would not be uni-dimensional, centering solely on the characteristics of the consumer (such as residential versus industrial). Rather, as in the classification of some telecommunications services, the PC core/non-core (competitive/non-competitive) distinction would be at least a two-dimensional matrix of customers and services. ¹⁹


¹⁹ Innovations in classifying services as competitive (and thus, non-core) irrespective of the class of the customer using the service, have been employed for some time in the telecommunications field. Most conspicuous has been cellular telephone, which many jurisdictions simply have deregulated. PBX and Centrex services for small business customers are largely deregulated and integrated Services Digital Network (ISDN), to the extent it is deployable, will follow suit. In mid 1993, Indiana Bell Telephone filed an alternative regulation plan called “Opportunity Indiana,” which allocates services to various categories; competitive, discretionary and basic. In addition, rates for basic services for residential customers would be guaranteed to rise at a rate somewhat lower than general inflation.

The movement toward full competition within the local telephone exchange is well underway. The first articulation of a state regulatory strategy to accommodate this movement appears in Terrence L. Barrich, Craig M. Clausen, and Calvin S. Monson. “Telecommunications Free Trade Zones: Crafting a Model for Local Exchange Competition,” (Springfield, IL: Illinois Commerce Commission, January, 1992). On August 3, 1993, the Federal Communications Commission moved another step closer to completely opening the access portion of the local market through its switches access interconnection order (FCC Order 91-141).

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Unbundled Services at Negotiated Prices

With some customers having the increasing ability to extract concessions from the local utility, the relationship between the non-core customer and the utility should become characterized by flexibility and negotiation. Non-core customers and all energy service providers (including the utility) should be permitted to negotiate the prices and terms for all services. This negotiating process will lead to the unbundling of current services and the offering of new ones. Services which start out as bundled and core can be unbundled and offered competitively to some customers while continuing to be offered as bundled core services to others.

In a competitive market, the idea of unfairly discriminatory prices should be considered only in the narrowest of terms. Mere differences in price among similarly situated customers, even large differences, should not form the basis for intervention. Only where differences are based on invidious and genuinely unacceptable reasons (such as those addressed in civil rights laws) should government intervene. ²⁰


Alfred Kahn once commented that “[o]ne of the most damning condemnations of motor carrier regulation was the demonstration that of all the motor carrier pricing decisions made by the ICC during one year, 95% involved complaints that the prices were set too low and only 5% the setting of ceilings.” Thus Kahn shows empirically that traditional “protect the consumer” regulation sets the whole public policy basis of competition on its head.
Under PC, the initial group of non-core customers would be identified by their ability to negotiate with the utility. Size, demand characteristics or traditional class grouping would not necessarily be the defining elements. More important would be the characteristics which would indicate that choice already was or soon could be an important part of the relationship between the utility and the customer. Customers who can easily self-generate, switch fuels, shift production to other locations or potential customers who can decline to come into the market area all have bargaining power. There would be a premium on creating an initial group of customers which would begin to define a different relationship between the utility and its customers. This initial process of classification could be made complicated if regulators, utilities and intervenors choose to make it so by requiring enormous amounts of analysis to determine the membership of the first non-core group. The criteria should be simple and straightforward. In addition, the first couple of years of membership in the non-core group could be on a trial basis as a way of encouraging customers to volunteer for non-core status at the beginning of PC.

### Real-Time Pricing

Currently, most customers have little sense that electricity costs more or less to make depending on when it is produced. Regulated prices obscure this fact. Even larger industrial customers on time-of-use tariffs tend to see only gross price/cost relationships in their billings. Average cost pricing just does not move pricing signals back and forth between customers and the utility quickly or accurately enough for the needs of a modern, competitive and information-oriented market place. This lack of information is a key cause of the poor load factors which characterize many utility systems. Poor pricing undercutts the implementation of cost-effective, sustainable DSM. One effective way to begin breaking through this barrier to customer choice is to make real-time pricing available across all customer groupings—at the election of the customer.

Micro-electronics and inexpensive methods of communication can enable customers to control their usage and to shift load, automatically or with little direct action, in reaction to different price levels. It is by no means essential that customers have absolutely precise production cost information as long as they know the price they will be charged at any specific time. A pyramided price scheme with seven differentiated levels for each day, would be a dramatic improvement over the single price now applied to most customers or the two or three prices larger customers now might see in the course of a 24-hour period.²¹ If electric utilities are reluctant to make the information infrastructure available for real-time pricing, local telephone and cable TV companies as well as Radio Shack will probably be interested in doing so.²²

Real-time pricing can also be used to move core customers into the use of non-core services and eventual passage into complete non-core status. Core customers, whose prices may be otherwise under a tandem pricing plan (described below) could opt for real-time pricing as a non-core service.

Real-time pricing could have major environmental benefits, under the sorts of smog precursor (emissions) trading schemes that have been developed in southern California by the South Coast Air Quality Management District (SCAQMD) and in the Chicago area by the Illinois Environmental Protection Agency (IEPA). The

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²¹ Already, important real-time pricing experiments have been conducted or are ongoing around the country, including ones at Niagara Mohawk Power Corporation, Georgia Power Company, Consolidated Edison Company, Entergy Corporation, American Electric Power Company (AEP), Pacific Gas & Electric Company and at Southern California Edison Company. All of these real time pricing programs have been strictly experimental, limited in scope, directed at a variety of customer groupings (including residential in the case of Entergy and AEP) and have produced mixed results. Taken together, however, they are harbingers of things to come. Technology is rapidly moving to allow customers to inexpensively acquire current pricing information, alter consumption and to have that change measured in real time.

²² Even now projects such as the venture with First Pacific Network and Entergy are under way to bring fiber optic electronics to the home using the electric utility rights of way to provide “smart” energy management for Entergy’s residential customers.
internalization of environmental costs through specific trading mechanisms might well be reflected in real-time pricing of electric power since smog related emissions' effects on the local environment are so time specific. Movement to an aggressive real-time pricing program can be accompanied by aggressive marketing of associated electronics and DSM services carried out under a PC regime of competitive, unregulated prices.

Tandem Pricing

Price cap regulation is intended as a way of weaning traditional regulation from its obsession with profit and returning regulation to its roots, eliciting fair prices for desired service.

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23 Tandem pricing is partially inspired by the concept of "leveraged pricing" first developed by Dr. J. Cale Case of Palmer Bellevue Corporation. Leveraged pricing was first advocated for application to pricing of core telephone services for residential customers, linking the pricing of individual residential services to unbundled service offering prices in the competitive, non-core market, where the services have similar underlying costs. Tandem pricing, while perfectly capable of linking prices on a service-to-service basis, is more centered on accommodating the linking of baskets of services with one another, accepting some greater disparity in the underlying cost relationships. See, J. Cale Case, "Leveraged Pricing: A Better Alternative For Telecommunication Regulation," Proceedings of the Sixth NARUC Biennial Regulatory Information Conference, Volume III: Telecommunications, Water and Transportation Papers, ed. David W. Wirick, (Columbus, OH: The National Regulatory Research Institute, 1988).

24 Thomas K. McCraw in his book, Prophets of Regulation, (Cambridge, MA: The Belknap Press of Harvard University Press, 1984) shows that utility regulation did not have its roots in complicated profit regulation. It was intended to focus on assuring the maintenance of prices which were fair in relationship to the service being provided. The departure from this standard and the gradual adoption of rate-of-return regulation predicated on the regulation of profit on investment in property grew up in response to court decisions around the turn of the century. Utility regulation has often been the effort to reconcile financial and economic theory and practice with notions generated in the courthouse.

Price caps, based on initial just and reasonable rate levels are set and then indexed to an inflation measure, less a defined productivity factor, thus creating incentives for cost control.

While price caps represent a significant advance over rate of return regulation, it still represents an effort to simulate market forces rather than injecting a significant dose of direct market medicine.25 A more direct way would be tandem pricing, in which price caps would be based upon an index measuring prices in the non-core market. Therefore, price change developments in the competitive market would move prices in the core markets as well. Rather than requiring regulators to choose an appropriate productivity factor as a discount to the inflation index, tandem pricing lets the competitive market select the productivity factor. Tandem pricing can assure that core customers get many of the benefits of competition, with little utility or regulatory dilution.

In the simplest model of tandem pricing, prices would be initially set for core services provided to core customers, on a just and reasonable basis. At the same time, a benchmark price level would be ascertained for the non-core market. Therefore, core and non-core prices would move in correlation with one another. Prices need not to move up or down on a one-for-one basis. Prices in the core market could move at a one-half or three-fourths rate compared to changes in the overall basket of non-core prices, since the full measure of competition is not likely to exist at each level of the market. In addition, not providing full flow-through of non-core market price changes to core customers will encourage those customers on the cusp between core and non-core markets to choose to move into the non-core market. Tandem pricing should act as a nearly auto-pilot pricing mechanism for the transition from regulated to competitive pricing as technology and the market require.

The Devolution of Rate Base Assets to Competitive Status and the Role of Affiliate Transactions

To the extent that utilities and customers are given the freedom to exercise the choice to convert their relationships to market-based rather than regulated ones, it is also reasonable to allow a utility sufficient freedom to organize its assets (including the capital structure associated with those assets) so as to better conform to competitive market behavior. Form should follow function.

The Energy Policy Act of 1992 wisely left to the states the authority to determine whether a currently rate based generation asset could be devolved to exempt wholesale generator (EWG) status. With prior approval, a utility can transfer ownership of a generation unit (presumably for consideration under state commission oversight) to an affiliate EWG company. While the use of tandem and real-time pricing might diminish the interest of a utility in devolving generation, the option should be clearly articulated and the regulator's open mindedness expressed in the development of a PC program. Core customers are not disadvantaged by devolution under PC since the utility would be obligated to move core prices in tandem with non-core prices.

The corollary to permitting devolution of rate based assets and to the general principle of encouraging flexible response by utilities is an open mindedness to affiliate EWG transactions between utilities and their affiliate EWG companies. One important aspect of such affiliate transactions may well prove to be more comprehensive than customary energy service deals between utilities and their industrial and commercial customers. For instance, under PC, regulators ought to be open to deals in which industrials serve as hosts and partners for cogeneration or other power plant developments by utilities.

Competitive Selection of Supply and Demand-Side Resources

One area of conflict that is bound to become sharper if there is a movement toward PC is the role of regulators in integrated resource planning (IRP) and mandated resource acquisition and demand side programs. If government mandates particular investments and expenditures, the costs of many such mandates are likely to exceed those that would have resulted from competitively driven choices.

PC's underlying philosophy is that market forces result in better decisions than government intervention. But there may well be important goals that can better be achieved by a combination of government goal setting and/or prescription of method. PC allows for such intervention and prescription, but with the caveat that there is no free lunch and that the price distortions should be kept to a minimum and social responsibilities be spread as widely across the market as possible.

PC ought to offer a better future for DSM than the current mode of regulation. Regulatory pricing would no longer shield customers from the actual costs of particular patterns of demand and consumption—including the real time costs of environmental impacts. Conventional rate-of-return pricing has the perverse effect of pricing power too low when there is not enough and pricing it too high when there is too much. Various states have gone so far as to ban the inclusion of construction work in progress (CWIP) from rate base, thus exacerbating the situation. More accurate pricing through competitive and market forces would move DSM investment into the portions of the load curve which is in need of capac-

26 The use of the word "devolution" for the movement of utility rate based generation assets (first appearing in Philip R. O'Connor, Competition on the Electric Utility Industry: Sunset Series Monograph #15, (Springfield, IL: Illinois Commerce Commission, 1985) is intended to provide a looser concept than that implied by use of the word divestiture under which the generation assets would move out of the corporate family of the utility into independent ownership. The 1992 Energy Policy Act amendments to PUHCA explicitly provide for devolution, regrettably without use of the word, by which utility rate based generation can be spun off to exempt wholesale generator (EWG) status, as long as state regulators agree.
The genius of the founding giants of the American utility business is not to be found solely in their scale-up of power plants and their financial creativity (such as the open-ended mortgage bond). It was also the recognition that a variety of power plant types could be brought together and coordinated to serve ever-changing customer needs that would, over time, become fairly predictable in their aggregate pattern of demand. One of the critical complications today in moving toward a competitive market in electricity is that our conventional model of the vertically integrated local monopoly electric utility compensated the electric company for its integrative (blending) role through the grant of monopoly status and subsumed the financial benefit into the return on the hard dollar investment rather than a service fee that reflected a profit. Just as profit centers have moved from hardware to software and service in many other industries, so too should that transition be made in the electric business.

PRISM contracts are an outgrowth of a simpler idea in which utilities could be expected to engage in “accountant’s wheeling”, re-

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27 Depending on how this particular idea develops it seems possible that other meanings for the PRISM acronym might be developed which convey slightly different notions, such as Portfolio Reflective Incentive Sales Marketing contracts.

28 The Energy Policy Act of 1992 amendments to PUHCA, which created the category of exempt wholesale generators (EWGs), prohibits an EWG from engaging in retail sales. Therefore, this entire class of power producers would not be directly available to customers but would have to have their supplies mediated through a utility, either the one that served the area in which an industrial customer was located or one that somehow arranged for retail wheeling through a local utility to a specific customer. The PRISM contract, because it relies on the value-added blending role of the utility, avoids transgressing the Act’s prohibitions on sham EWG retail transactions.

29 Sam Insull, the unfairly maligned genius who, as much as anyone, built the modern electric utility, created new financial mechanisms that allowed the rapidly developing technology and its associated efficiencies to be reconciled with the need to raise large sums of capital for the development and deployment of a vast network of electric power infrastructure. See, Forrest McDonald, Insull, (University of Chicago Press, Chicago IL. 1962).

30 Participating in the May 25, 1993 panel discussion at the California Public Utilities Commission in San Fransisco, Jeanine Hull, Vice President and Counsel of LG&E Power Systems, Inc. of LG&E Energy Corp., the independent power affiliate of Louisville Gas & Electric Company, opined that the idea of a profit margin or mark-up for the local utility on purchased power represented an unnecessary tax on EWGs. While perhaps true in a basic sense, the labeling of that mark-up as a tax does not solve the problem inherent in the loss of profit potential for local utilities in the provision of commodity electricity to distribution customers. That loss deters some utilities from seeking out purchased supplies in lieu of owned generation. However, providing a profit opportunity by specifically pricing the “blending” task is one way of reconciling customer and utility interests.
reflecting “mirrored” contracts with third party suppliers and with individual large customers. Mirrored contracts would be simple in the sense that a mirror is, just reflecting an image. PRISM contracts would contain far more complex elements, including commodity electricity and a variety of other services.

The major difference between PRISM contracts and the old fashioned utility role of meeting many differing needs with bulk resources will be twofold. First, the PRISM contract will not rely on franchise rights to underwrite the purchase, but will rely instead on customer contracts and merchant relationships which underpin the purchase commitment. Second, PRISM resources would be acquired with much lighter oversight, if any, by state regulators. Post hoc used and useful prudence reviews would be unnecessary since the resource acquisition would be undertaken pursuant to corollary customer contracts. The newer integrated resource planning (IRP) processes in the states could be revised to accommodate PRISMs by merely taking the implications of PRISMs into account when resources for the non-PRISM customer base are considered.

Management of Transition Costs—Accelerated Depreciation

Conventional rate making and the related accounting techniques may be increasingly unsuited to current industry conditions. Assumptions about monopoly have led to overestimates of useful economic life and excessive optimism about the ability of a utility to recover deferred revenues. The willingness of regulators to address the more arcane areas of rate making accounting may have important implications for the ease or difficulty with which we cope with the order of the new world.

Some of the most important transitional problems in regulated industries involve accounting practices or conventions unsuited to competitive markets. These artifacts of regulation trap assets into vintage valuations which have little or nothing to do with their economic value. Regulated enterprises, during periods of transition are often expected to continue the commitment of “un-

dervalued” assets to customers at vintage prices while being free to price only their most expensive assets at market rates.

By identifying particular parts of the asset base for which some sunk costs could be recovered on an accelerated basis, regulators could significantly reduce resistance by existing utilities to important competitive changes—perhaps even retail wheeling. The precedents are there and demonstrate that the process can work. For instance, at the federal level and in several states, telephone inside wiring was depreciated off the books within just a few years, eliminating a whole category of utility investment from regulatory attention and treatment.

Southern California Edison Company’s (SCE) suggestion that its interest in the San Onofre and Palo Verde Nuclear Generating Stations receive accelerated depreciation treatment was directed toward this problem. The plants have come to be viewed as assets whose useful economic lives may be shorter than the accounting life for rate making purposes. Whether the reasons involve the contemplation of large investments to keep the plant in good operating order or excessive increases in operating costs due to federal nuclear regulatory mandates, the company has a different view today of the likely future for the plant than that which it and regulators once had. SCE, like other electric utilities, is seeking the financial flexibility to meet a more competitive environment which almost everyone sees coming.

31 In early 1993, Southern California Edison Company petitioned the California Public Utilities Commission to permit an “additional capital recovery” of about $75 million annually for SCE’s interests in the San Onofre and Palo Verde nuclear stations. Central to the rationale for the accelerated recovery is that new generation technologies will soon be coming on line at $500-$800 per installed kilowatt while these nuclear stations have embedded capital costs of $1,350 and $1,900 per kilowatt, respectively.
Progressive Choice And The Pace Of Change

Many may subscribe to the notion that the utility industries are subject primarily to long, slow change rather than abrupt change. While change is indeed incremental, it can nevertheless come quickly in relation to the industry's expectations. The past decade alone demonstrates how dramatic change can be in utility industries. The telecommunications business is fundamentally different today than just ten years ago, prior to the divestiture of the Bell Telephone companies. Numerous competitors are entering the local exchange market, as they have the long distance business. There is a real question as to where the action actually will be in telecommunications. Will customers soon control the network through sophisticated end-use equipment and software, dipping into a global network of networks to extract the desired information and signals?\(^\text{32}\) Or will the network be the manipulator of information in addition to delivering information to right place?

Ten years ago, virtually every molecule of natural gas that moved in the interstate market was owned by the interstate pipeline transporting the gas and sold at prices regulated by FERC. Today, pipelines do not own gas at all, although their marketing affiliates may, and no gas now sold in interstate commerce is subject to federal economic regulation. Other important aspects of the gas market have changed dramatically as well, including the use of storage, the role of end-use customers and marketers arranging gas supplies in competition with local gas distribution companies.

In the electric industry ten years ago, there was a huge backlog of utility built and owned generating capacity which was driving rates up far faster than the overall rate of inflation. Independent power was available in small increments and accounted for just a small percentage of the capacity under development. Today, more than half of all new generating capacity is independent, and the law has been changed to allow independent developers and utilities to compete on a level playing field in the generation development market. The generation industry is now largely wide open to competition.

If all of this is not enough change in just ten years for someone, then perhaps only such years as 1492 and 1945 would satisfy such aficionados of paradigm shifts.

Implementing PC does not necessarily require a single dramatic regulatory decision. Pieces of PC can be undertaken on an individual basis over the space of as little as two years if the process begins now. In that space of time, customer choice could largely replace regulatory and monopoly dictates as the fulcrum for electric industry structure, prices, products and customer service.

\(^{32}\) George Gilder has suggested that the future of telecommunications will be characterized by huge capacity "dark fiber optic" pipes into which vast amounts of information will flow to its intended recipients pursuant to the commands originating within the end users own computer-like equipment. See, George Gilder, "Into the Fibersphere," Forbes ASAP, January 1993.